

**Proceedings in  
Human and Social Sciences at the Common Conference**

*The 2<sup>nd</sup> Human And Social Sciences at the Common Conference*

**HASSACC 2014**

17. - 21. November 2014

Slovak Republic

**Published by:** EDIS - Publishing Institution of the University of Zilina



Univerzitna 1  
01026 Zilina  
Slovak Republic

**Editors:** Ing. Michal Mokrys; Ing. Stefan Badura, Ph.D.

**ISBN:** 978-80-554-0949-8

**ISSN:** 1339-522X

**Pages:** 289

**Printed in:** 150 copies

**Publication year:** 2014

- All published papers undergone single blind peer review.
- All published papers are in English language only. Each paper had assigned 2 reviewers and each paper went through two-tier approval process.

Open Access Online archive is available at: <http://www.hassacc.com/archive>  
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## Sections discussed at the Conference

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Business Management, Consulting, Sales  
Information Society  
Financing and Accounting  
Economy and Business Economics, Banking, Financial  
Public service, Law  
Psychology, Sociology and Pedagogy  
Social Science, Families, Work, Activism, Lifestyle Choices  
News, Media, Internet  
Education, Science Education, Home Schooling, Math Education, Environmental Education, Distance Education  
Medicine, Health, Alternative, Beauty, Fitness, Neurology, Pharmacy  
Art, Religion, History, Culturology, Philosophy, Architecture, Photography, Design, Literature  
Linguistics  
Ecology, Forestry, Earth Science  
Tourism  
Others suitable for HASSACC 2014

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## Editor's Preface

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We are very pleased to introduce the proceedings of the **2<sup>nd</sup> Human and Social Sciences at the Common Conference** (HASSACC 2014). As the previous conference, also this year edition attracts many scientists. The conference participants came from different countries from all around the world, and therefore the conference can be considered as truly international. Authors presented a broad range of knowledge and experiences during conference dates (from November 17<sup>th</sup> until November 21, 2014).

HASSACC 2014 collected a total of **72 submissions**. From these submissions, the **Scientific Committee accepted** together **52 papers**, which are included in this book. Each submitted article was strictly referred by the **Scientific Committee and Technical Committee**. In this year edition, during the conference dates, the Section Chairman Committee oversees the discussion.

The Scientific and Chairman Committees made a great voluntary contribution to the conference, and therefore our thanks belong to all members of these committees. The thanks belong to the Technical Committee also, which makes pressure to maintain the highest publication standards.

  
**Stefan Badura**

*Member of Editorial Board*  
*THOMSON Ltd.*

November, 2014

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# Smart city governance for sustainability

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**Abstract**— Many studies have been developed on both smart city concept and features but literature is still less focused on urban governance model and sustainability, the latter considered in all its three dimensions (economic, social and environmental). After the analysis of researches and studies on these themes and in particular, on the linkages between governance and sustainability, we have selected six cases, considering the top performing smart cities in the European Union. The principal aims of the analysis concerning the response to two questions on the main elements that affecting the choice of governance model and the relationship between the latter and the three dimensions of sustainability. The findings have shown both the role of starting points and sustainability aims in *smartization* processes, and the importance of public-private partnership (PPP) as a governance model.

**Keywords**-smart city; governance model; sustainability; PPP

## I. INTRODUCTION

According to Caragliu et al. [1], a city is smart «when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic growth and a high quality of life, with a wise management of quality resources, through participatory governments».

The evolution of the smart city definition has started at the beginning of the 2000s from the concept of *digital city*, becoming a *socially inclusive city* in mid-2000s and during the last decade, it finally reached the concept of *city with a higher quality of life* [2]. To sum up, a smart city aims to resolve various urban problems (public service unavailability or shortages, traffic, over-development, pressure on land, environmental or sanitation shortcomings and other forms of inequality) through ICT-based technology connected up as an urban infrastructure [3]. In other terms, a smart city consists in an urban environment more efficient, sustainable, equitable and livable [4].

To reach these goals it is necessary that cities develop governance models bringing together multiple stakeholders in driving growth and adaptability and fostering the broad take-up of smart services [3]. The elements of governance must be considered as part of a more comprehensive strategic plan in which sustainability aims are clear and well defined. Without a formalized strategy the cities may not be able to run smart developments effectively.

## II. THEORETICAL FRAMEWORK

### 1. The smart city governance

The success of a smart city or, more in general, of a smart project is strictly linked to choices on its governance. In the last twenty years, there was an evolution from the concept of “government”, occurs when those with legally and formally derived authority and policing power execute and implement activities, to a focus on “governance”, that refers to the creation, execution, and implementation of activities backed by the shared goals of citizens and organizations, who may or may not have formal authority and policing power [5]. In other words, the governance can be defined as an activity that seeks to share power in decision making, encourage citizen autonomy and independence, and provide a process for developing the common good through civic engagement [6], thanks to a different perspective on power and democracy which actually can change from a top down approach to a bottom up one, and vice versa.

In the smart context the concept of governance refer to, in particular, “a set of principles to be adopted by urban governments expressing how to control and guide city growth and what principles should apply in internal and external stakeholder relations” [7]. The focus is therefore on collaboration of citizens and all stakeholders in urban life [8], is on participation-based organizational arrangements and democratic institutions [9].

To reach these objectives is a fundamental the contribution of new technologies, indeed, it can be utilized to develop horizontal networks between different stakeholder groups and city governments [7]. Well-known examples are city web portals, initiatives of e-government, open data [10, 11]. Nevertheless, usually the smart interventions has not been included in a governance model wider that link the different types of interactions in smart cities between citizens, government institutions and local government [12] and allow their sustainability over time.

### 2. Sustainability and smart city

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. With this WCED definition of 1987, the sustainability concept become more extensive and pervasive than before, when it was considered only related to the environment safeguard.

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This work has been supported by the project OR.C.HE.S.T.R.A. (ORganizational of Cultural HEritage for Smart Tourism and Real-time Accessibility) in the Italian National Operative Program 2007-13.

According to this broader and shared meaning the sustainability concept highlights that the economic and social dynamics of modern economies are compatible with the improvement of living conditions and with the ability of natural resources to reproduce themselves. For this reason sustainability is now considered from three different point of view: economic, social and environmental [13].

The three dimensions should not be considered as independent of each other (fig. 2), rather they should be analyzed according to a systemic vision, such as elements that contribute to the achievement of a common goal.

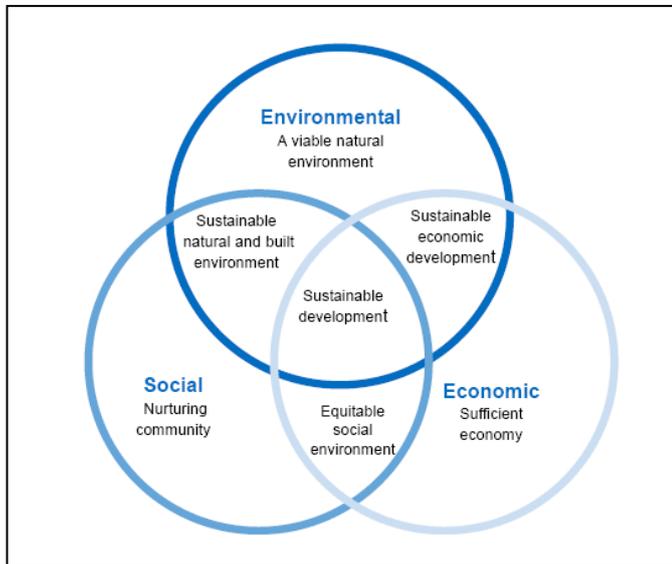


Figure 2. The three dimensions of sustainability [14]

As it emerges from both academic studies and the empirical evidence, sustainability can be framed as one of the main objectives to be pursued through the creation of a Smart City, which is an “urban model that can guarantee a high quality of life, personal growth and social development optimizing resources and spaces for Sustainability” [2].

To be smart, a city must be sustainable and this is a challenge for the society, especially compared to some topics [15], such as the natural resources scarcity, the use of water resources and environmental pollution, that motivate the actors of different ecosystems to the achievement of sustainable transitions [16].

According to this vision the creation of a smart city is considered as a tool thanks to it is possible to define sustainable models of economic growth.

### 3. A governance for sustainability

The linkages between governance and sustainability represent a strong relationship, concerning both the early stages of strategic decision and implementation in smart city projects, and the wider process of smartization [2]. The efficiency of the governance model is measured through indicators of performance, and an incomplete or inappropriate way of carrying out this evaluation activity can hampered the entire path towards the smart city due to the loss of focus on the

achievement of the sustainability goals set in the planning phase [17]. So, in a perspective of sustainability, the governance model must include appropriate monitoring activities, in order both to identify and correct the ongoing interventions implemented with low efficiency or effectiveness, and to assess the impacts of the different initiatives on the overall development in the medium-long term.

This two-way relationship established between governance and sustainability has been explained in literature [18] through a complete analysis on sustainability indicators, concerning the three dimensions (economic, social, and environmental) and governance as a fourth variable to be taken into account. In detail, the vision of a governance for sustainability is highlighted through the identification of four specific indicators, namely the participation and involvement of citizens, the transparent and efficient governance, the activities of government, and the sustainable management of authorities and businesses.

Furthermore the searching for a suitable governance model to achieve sustainability has recently been analyzed by a new strand of literature, the so-called transition management [19], which focuses the attention on the transformation process currently under way in a world characterized by complex and dynamic social-ecological systems in need of sustainable development (fig. 3).

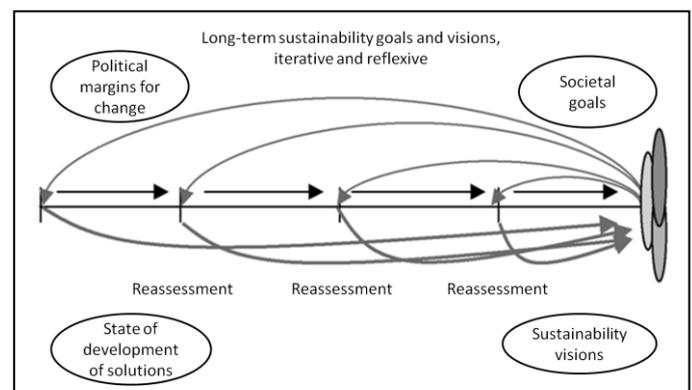


Figure 3. The governance for sustainability in transition management [20].

The challenge of this approach is “to use bottom-up initiatives and business ideas of alternative systems, offering sustainability benefits besides user benefits” [21]. This new desirable model of governance for sustainability needs structures and practices that can manage and organize positive work by the wide range of urban stakeholders on a huge complex of issues, through the adoption of a long-term perspective as a framework for short-term actions [20].

## III. RESEARCH AIM AND METHOD

### 1) Aim and research questions

The literature review has showed the lack of contributions on the theme of smart city governance and in particular on its ideal model for sustainability. Therefore, the principal aim of our research is to analyse the elements of governance and sustainability that characterize the main smart city projects in

order to actors involved and funding sources. The delineation of this goal allowed us to analyse some empirical evidences to answer at the following research question:

*RQ1: Which are the main elements affecting the choice of governance models?*

Then, we compared the information about the governance with those related to sustainability to point out the relationship between them. Summing up our second research question is:

*RQ2: How the governance models could concern the three dimensions of sustainability?*

## 2. Method and context of investigation

The method of investigation chose in order to answer research questions above cited is a multiple case study analysis [22]. The choice of a qualitative approach depends on lack of detailed information about smart city projects or because, more frequently, these projects have not defined a model of governance nor of sustainability.

In detail, we analysed six cases namely the six smart cities indicated in the study commissioned by European Parliament's Industry, Research and Energy Committee, "Mapping Smart Cities in the EU" [23], as a top performing smart cities:

1. Amsterdam
2. Barcelona
3. Copenhagen
4. Helsinki
5. Manchester
6. Vienna

This report has been chosen in order to collect the information provided on Smart Cities in the UE, and the existing mechanisms performed and the actors involved.

## IV. FINDINGS

### 1) Amsterdam Smart City

Since 2009 the capital city of the Netherlands launched a program called Amsterdam Smart City (ASC) in which the municipality was a founding partner in the execution together with the Amsterdam Economic Board, Liander, KPN, and Hogeschool van Amsterdam (<http://amsterdamsmartcity.com>).

This model of governance as public-private partnership (PPP) has been enriched through the selection of a wide range of partners for the development of the different projects launched during the ASC activities. Among the industry players it is possible to find ABB, Accenture, Cisco, IBM, Philips and Siemens and they all have been chosen by the governance of the city on the basis of their experience.

Until now the ASC platform has involved more than 100 partners with over 50 smart projects [24], which are all linked to the achievement of a sustainable urban life, as it has been established since 2011 with the Sustainability Programme 2011-2014 [25]. This plan has brought to the creation of the so-called Amsterdam Sustainability Index (ASIndex), made up of

ten indicators [26]: two general indicators related to CO<sub>2</sub> emissions and air quality, and eight indicators related to the most important projects related to the four pillars of the Sustainability Programme (climate and energy, mobility and air quality, sustainable innovative economy, and materials and consumers).

### 2. Forum Virium Helsinki

The capital of Finland is the home of the Forum Virium Helsinki (FVH), a subsidiary (limited company) owned by the City of Helsinki and an official part of the Helsinki City Group, born in 2006 for the development of new digital services and urban innovations in cooperation with companies, other public sector organizations, and residents (<https://www.forumvirium.fi/en>). All these different stakeholders involved in the projects, in particular Elisa and Nokia as the main ICT players, have been collected in a PPP model of governance.

By the end of 2009 FVH has developed 23 projects concerning five main areas [27]: traffic and location based services, healthcare and wellbeing, learning and education, media, and innovation communities. Among these initiatives, the most significant ones have been focused on the creation of innovative public services through the collection and use of open data, which represent also a source to apply the sustainability indicators developed as a part of the Local Agenda 21 of Helsinki [28].

The FVH activities have reached an economic long-term sustainability thanks to the increasing sources of funding from the Innovation Fund (City of Helsinki), membership fees, assignments from the cities, and project funding (i.e. Tekes - Finnish Funding Agency for Innovation, and the European Union programs) [29].

### 3. Barcelona Smart City

The city of Barcelona is one of the most important smart cities, a benchmark at international level. The approach that since 1990 has linked the city of Barcelona to the concept of smart city, is the choice of a governance based on the cooperation among politics and business, as well as among academic institutions and residents, all involved in smart cities project development. The governance choices' main aim is to use ICTs to achieve smart services and transform public administration business processes (both internally and externally) to make them more accessible and effective.

One of the most famous and quoted smart initiatives carried out in the Catalan city is the district 22@Barcelona [30]. It is an urban-renewal plan designed to transform the 200-acre former industrial area of Poblenou, fallen into disuse, in an innovative district. Thanks to a change in the Regulatory Plan relating to the list of buildable area it was possible to attract the big players operating in the real estate. The project has had considerable impact in terms of sustainable development. It has in fact allowed to realize about 3.2 mln m<sup>2</sup> of production activities, 800,000 m<sup>2</sup> for housing and 120,000 m<sup>2</sup> of green areas, which have enabled over 7,000 companies (4,500 since 2000, of which approximately half start-up) and 4,400 self-

employed workers to work in the district (the equivalent of 15% of total economic activity of Barcelona).

The area is also inhabited by 90,000 people. It has created jobs in a region where unemployment had reached high levels, it has created green spaces having a positive impact on both the environmental dimension in the social, it has created homes helping to decongest the centers always very crowded, allowing to the economy to restart despite the economic crisis.

#### 4. *Copenhagen Smart City*

The city of Copenhagen's quest to become a smart city has developed from the ambitious vision of becoming the world's first carbon-neutral capital by 2025. In order to reach this ambitious goal, the city is determined to implement new and innovative solutions within transport, waste, water, heating, and alternative energy sources.

To reach this aim Copenhagen has choose as governance decision a collaboration (co-creation) between public authorities and private companies that together would like to make Copenhagen as a sustainability benchmark.

To demonstrate that a smart city has a positive relationship with sustainable development, the Copenhagen Cleantech Cluster released a study that highlights, for each driver, that how smartization led to economic, social and environmental benefits for the entire community (about mobility solutions: 230 million € health expenses saved by cycling per year; healthier citizens reduce health care costs at an estimated rate of € 0.77 per km cycled; about alternative energy solutions: the Danish wind turbine industry has grown into a multibillion euro industry with over 350 companies producing turbine towers, blades, generators, gear boxes and control systems; Middelgrunden wind farm annually eliminates: 232 tonnes of sulphur dioxide emissions 208 tonnes of nitrogen oxide emissions 68,000 tonnes of carbon dioxide emissions and 4,400 tonnes of dust and clinker).

The carbon emissions reduction in Copenhagen is, therefore, the ultimate goal that at the same time determines the engagement of many stakeholders and a positive impact on all sustainability dimension (economic-social-environmental) because leads to an improvement of quality of life, innovation, job creation and investment [31].

#### 5. *Manchester Digital City*

The city of Manchester has started his smartization process with the implementation of "Manchester Digital Strategy" (<http://www.manchesterdda.com/>). The principal aim of this strategy is provide a framework within which practical proposals for developing "next generation" broadband across the city and the city-region as a whole can be developed.

Manchester is undertaking a number of initiatives to encourage its development as a "smart city" especially, through the use of Living Lab approach. The governance of many of these smart projects is assigned at Manchester Digital Development Agency that representing Manchester City Council and working with partners in the university, business and not-for-profit sectors to trial new products and services. It is a multi-stakeholder approach in which were born actors

created ad hoc, such as "Manchester Digital", the trade association for digital and new media, "FutureEverything", the pioneering Manchester festival innovation organisation, and MadLab, (the Manchester Digital Lab) a community hackerspace in the Northern Quarter.

For the future the city would reinforce its own green growth, by creating increased demand for its successful products and solutions. In detail, it has set a number of objectives related to: "economic performance", creating markets for new technology products and applications, providing opportunities for demonstration and market-testing and improving the efficiency of doing business; "quality of life", increasing access to health services in the home, reducing the cost of keeping homes comfortably heated and engaging people more in how their city is managed; "environmental impact and improved resilience", with a target to achieve a 40% reduction in carbon emissions by 2020.

#### 6. *Smart City Wien*

The big Smart City Wien Initiative was launched in 2011 (<https://smartcity.wien.at/site/en>). In 2013, the city has defined a framework strategy for its processing route in a smart city with the time horizon extended at 2050 [32]. This strategy is based on combination of three elements: resources (energy, mobility, infrastructure, buildings), quality of living (social inclusion, participation, healthcare, environment) and innovation (education, economy, research, technology). For each driver [33] were defined some objectives both qualitative and quantitative.

The governance of entire project is based on public-private partnership with the involvement of Municipal Departments, firms of project management, holding company, ICT players (such as Siemens), university and centre of research. Moreover, to ensure all stakeholders inside and outside the City Administration are involved in the process, the project structure is essentially made up of general and specific consultation teams on population development, environment, administration, economy, energy and mobility and the coordination for these relationships is assigned to Smart City Wien Agency (<http://www.tinavienna.at/>). For the implementation and sustainability of Smart City Wien strategy was established a coherent monitoring and reporting process with a set of core indicators assigned to each key objective.

## V. IMPLICATIONS

From the analysis of the six smart cities described above emerged that, despite of the lacking literature, is not possible to consider governance and sustainability as separated issues.

Related to RQ1 the case study analysis revealed that there are two main elements that affect the choice of a smart city governance model. The first one is represented by the starting points of the smartization process. They are the fundamental elements that city administrations identify in order to choose and select the strategic partners able to support them in realizing a smartization process.

It is possible to categorize these starting elements in two macro-categories: Energy and Environment; Innovation and

Technologies. In particular, the city administrations of Amsterdam, Copenhagen, and Wien decided to involve some partners (both public and private ones) to realize initiatives in the field of energy efficiency, pollution reduction, and waste and water management. The cities of Helsinki, Barcelona, and Manchester decided their governance model answering to their need of some partners with particular competencies in the innovation and technologies field in order to develop new services about healthcare, mobility [34] and education.

The second element that affects the choice of the governance model is the need, for a smart city, to reach sustainability aims. As stated in literature analysis, sustainability has three different dimensions and each of them has to be considered as a fundamental goal that has to be achieved. For this reason, all of the six smart cities we analysed decided to share their competencies and skills with many actors with different cultural background and peculiarities. Because of in literature there are not so many information about the relationship between governance and the three-sustainability dimensions we decided to deepen our analysis through the RQ2.

The focus on the six smart cities selected as best-in-practice cases [23] allowed us to go deeper in our research analysing the different smart projects developed in each urban context: we found out that most of them were characterised by a public-private partnership (PPP) governance model. So we selected the identified smart projects and we tried to answer our RQ2 considering the linkages between governance and the three dimensions of sustainability.

Smart projects with a PPP governance model emerged as the best way to reach sustainability, especially in order to the different activities undertaken by each actor involved. Thanks to the information available on projects from UE funding programmes websites (i.e. ICT PSP), we identified the different players involved, both public and private ones, and we recognised their contributions in relation to the different dimensions of sustainability.

We recognised different private actors carrying out their activities within smart projects in the fields of energy efficiency and natural resources management, so their contribution within the initiatives is strictly related to the environmental sustainability. At the same time, consulting firms which offer services concerning audit, financial advisory, and risk management, played the fundamental role of searching for the economic sustainability within smart projects, aiming at their long-term results. Finally the activities carried out by public actors, namely institutions, city administration, and universities are related to equity, human capital, livability, justice and place making, so they are linked to the social dimension of sustainability.

In particular, all the six smart cities analysed have chosen Fraunhofer-Gesellschaft, a private research organization developing application-oriented solutions especially in energy and environment, as a partner for the creation of reporting tools aiming at the measurement of carbon footprint. However the correlation between the economic sustainability and the selection of a partner in smart projects had a smaller importance: only the city of Manchester have chosen Deloitte

Consulting as a partner offering the analysis of the fittest economic and financial instruments for the development of a specific initiative.

## VI. RESEARCH LIMITATIONS AND FURTHER DEVELOPMENT

To answer above mentioned the research questions, we have used the official documents and websites of smart cities but as further research it could be interesting to integrate a multiple case analysis with other methods, such as content analysis or interviews, in order to go deeper and reach more accurate findings. Moreover, the context of research has been limited to only members of European Union, in detail, the six top performing smart cities, therefore in the future it can be developed a study regarding a great number of non-European cities to enhance the lack of contributes on smart city governance and sustainability.

Finally, it would be appropriate to deepen the analysis on findings using a more quantitative methodology in order to focus the attention on the public-private partnership governance model emerged as the most popular and the best way to reach sustainability in a smart context.

## REFERENCES

- [1] A. Caragliu, C. Del Bo, P. Nijkamp, "Smart cities in Europe", in Proceedings of the 3rd Central European Conference in Regional Science Košice, Slovak Republic, October 7-9, 2009.
- [2] ABB and The European House-Ambrosetti, Smart Cities in Italy: an opportunity in the spirit of the Renaissance for a new quality of life, 2012. Available at [http://www.ambrosetti.eu/en/download/studies-and-presentations/2012/smart-cities-in-italia/ricerca-completa/at\\_download/english](http://www.ambrosetti.eu/en/download/studies-and-presentations/2012/smart-cities-in-italia/ricerca-completa/at_download/english).
- [3] J.H. Lee, M.G. Hancock and M.C. Hu, "Towards an effective framework for building smart cities: Lessons from Seoul and San Francisco", Technol. Forecast. Soc. Change (2013), <http://dx.doi.org/10.1016/j.techfore.2013.08.033>.
- [4] S. Alawahdi et al., Building Understanding of Smart City Initiatives. In: Hans J. Scholl, Marijn Janssen, Maria A.Wimmer, Carl Erik Moe, Leif Skiftenes Flak (Eds.): EGOV 2012. Lecture Notes in Computer Science 7443, pp. 40–53.
- [5] J.N. Rosenau and E. Czempiel., Governance without Government: Order and Change in World Politics, Cambridge: Cambridge University Press, 1992.
- [6] J.S. Jun, New Governance in Civil Society Changing Responsibility of Public Administration. In Rethinking Administrative Theory: The Challenge of the New Century, edited by Jong S. Jun, 289–307. Westport, CT: Praeger, 2002.
- [7] A.V. Anttiroiko, P. Valkama and S.J. Bailey, Smart cities in the new service economy: building platforms for smart services, AI & Soc., Springer, 2013.
- [8] F. Bifulco, M. Tregua M. and C. C. Amitrano, Smart Cities and Innovation: a multi-stakeholder perspective, Journal of Management and Marketing), vol. 2(1), 2014, pp. 27-33.
- [9] E. Johnston, Governance infrastructures in 2020, Public Administration Review - Special issue, Vol. 70, 2010, pp. 122-128.
- [10] F. Bannister and R. Connolly, "Defining e-governance". E-Service Journal, vol. 8(2), 2010, pp. 3-25.
- [11] A. Coe, G. Paquet, J. Roy, E-governance and smart communities: a social learning challenge, Social Science Computer Review, vol. 19(1), 2001, pp. 80-93.
- [12] F.N. Makhdum and K.A. Mian, Smarter City – A system to systems, School of Computing, Blekinge Institute of Technology, Sweden, 2012.
- [13] J. Elkington, Cannibals with forks: The triple bottom line of the 21st Century Business, Capstone Publishing, Oxford, 1998.

- [14] World Commission On Environment and Development, *Our common future*, Oxford, 1987.
- [15] S. Erlinghagen and J. Markard (2012). Smart grids and the transformation of the electricity sector: ICT firms as potential catalysts for sectoral change. *Energy Policy* 5, 895–906.
- [16] J. Markard, Raven, R., and Truffer, B. (2012). Sustainability transitions: An emerging field of research and its prospects. *Research Policy* 41, 955–967.
- [17] PwC, *Making it happen: A roadmap for cities and local public services to achieve outcomes*, 2011. Available at [http://www.pwc.de/de\\_DE/de/offentliche-unternehmen/assets/making-it-happen.pdf](http://www.pwc.de/de_DE/de/offentliche-unternehmen/assets/making-it-happen.pdf).
- [18] L.-Y. Shen, J. J. Ochoa, M. N. Shah and X. Zhang, “The application of urban sustainability indicators – A comparison between various practices”, *Habitat International*, Vol. 35, 2011, pp. 17–29.
- [19] J. Rotmans, R. Kemp and M. van Asselt, “More evolution than revolution: transition management in public policy”, *Foresight*, Vol. 3(1), 2001, pp.15–31.
- [20] R. Kemp and D. Loorbach, *Governance for sustainability through transition management*, 2006. Available at <http://sedac.ciesin.columbia.edu/openmtg/docs/kemp.pdf>.
- [21] R. Kemp, S. Parto and R. B. Gibson, “Governance for sustainable development: moving from theory to practice”, *Int. J. Sustainable Development*, Vol. 8(1/2), 2005, pp.12–30.
- [22] R. K. Yin, *Case Study Research – Design and Methods*, 2nd ed., Thousand Oaks: Sage publications, 1994
- [23] EU, *Mapping Smart Cities in EU*, 2014. Available at <http://www.europarl.europa.eu/>.
- [24] ASC, *Together on the road to a Smart City*, 2014. Available at [http://issuu.com/amsterdamsmartcity/docs/drieluik\\_asc\\_engels](http://issuu.com/amsterdamsmartcity/docs/drieluik_asc_engels).
- [25] City of Amsterdam, *Amsterdam: definitely sustainable. Sustainability Program, 2011-2014*, 2011. Available at <http://www.amsterdam.nl/gemeente/organisatie-diensten/dienst-ruimtelijke/making-amsterdam/portfolio/sustainability-progr/>.
- [26] E. Jonkhoff and W. van Eijnatten, *Measuring sustainability: the Amsterdam Sustainability Index*, 2012. Available at <http://www.amsterdam.nl/publish/pages/511242/sc2012.pdf>.
- [27] FHV, *Forum Virium Helsinki - Annual Review 2009, 2010*. Available at <http://www.forumvirium.fi/sites/default/files/Annual%20review2009.pdf>
- [28] City of Helsinki, *The core indicators for sustainable development in Helsinki*, 2000. Available at [http://www.hel.fi/hel2/tietokeskus/julkaisut/pdf/02\\_02\\_15\\_kestava\\_kehitys.pdf](http://www.hel.fi/hel2/tietokeskus/julkaisut/pdf/02_02_15_kestava_kehitys.pdf).
- [29] V. Salminen, *Forum Virium: Brokering smarter cities*, 2014. Available at [https://innovationpolicyplatform.org/sites/default/files/rdf\\_imported\\_documents/Forum\\_Virium\\_2014.pdf](https://innovationpolicyplatform.org/sites/default/files/rdf_imported_documents/Forum_Virium_2014.pdf).
- [30] City of Barcelona, *Barcelona works towards sustainability*, 2009. Available at <http://www.sostenibilitatbcn.cat/>
- [31] Copenhagen Cleantech Cluster, 2013. Available at [http://publications.arup.com/Publications/C/Copenhagen\\_Solutions\\_for\\_Sustainable\\_Cities.aspx](http://publications.arup.com/Publications/C/Copenhagen_Solutions_for_Sustainable_Cities.aspx)
- [32] City of Wien, *Smart City Wien. Framework Strategy*, 2014. Available at [https://smartcity.wien.at/site/files/2014/09/SmartCityWien\\_FrameworkStrategy\\_english\\_doublepage.pdf](https://smartcity.wien.at/site/files/2014/09/SmartCityWien_FrameworkStrategy_english_doublepage.pdf)
- [33] A. Alfano, C. C. Amitrano and F. Bifulco, “Propelling role of drivers in smartization processes: relationships between the main features”, in *Proceedings of the 2nd Global Virtual Conference*, April 2014, pp. 590-595.
- [34] F. Bifulco, C. C. Amitrano and M. Tregua, *Driving smartization through intelligent transport*, *Chinese Business Review*, vol. 13(4), 2014, pp. 243-259.

# An analytical overview of the expatriate presence in Slovakia

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**Abstract**— The currently presented paper focuses on the issue of the operation of expatriates in Slovakia. The paper presents the results of a research, which aimed to discover the existence of a statistically significant relation between expatriation and selected characteristics of multinational companies and their subsidiaries. To achieve the aims of the research four statistical hypotheses were tested using the chi-square test and unpaired two-sample t-test. The results of the statistical tests have not confirmed statistical correlation between expatriation and selected variables such as the cultural distance between the home country of multinational company and Slovakia, the economic sector, the size of the subsidiary and the length of presence of the multinational company on the market.

**Keywords**—international human resource management, multinational company, expatriate

## I. INTRODUCTION

Relocating workers from their mother country to a country in which a company's subsidiary is located is currently a very common phenomenon. The transfer of the home country employee – the expatriate, is especially common in the initial phase of the implementation of international activities. There are several reasons why expatriation is so frequently used [1]:

- It may compensate for the lack of experts and managers in the host country.
- It ensures the transfer of management, product and knowledge know-how.
- It guarantees effective communication and information structure.
- It aids to achieve personnel and organizational development in the subsidiary.
- It ensures the spread of corporate culture across national borders.

The reasons for relocation, the preparation process as well as the length of expatriate's stay tends to vary a lot, that is why we can speak of several types of expatriates [2]:

1. The traditional expatriate – usually an experienced manager, who is relocated abroad mainly to ensure transfer of management skills. The length of the stay is usually 1-5 years.
2. The young expatriate – this type of an employee is relocated mainly in order to gain international

experience, the length of the stay may range from 6 months to 5 years.

3. The temporary expatriate – the length of the stay is relatively short, maximum 1 year. This is the most frequently used type of expatriation [3].
4. The virtual expatriate – a modern form of subsidiary management in which the employees of the parent company are responsible for the management of a subsidiary, but manage it only by using modern technology while they physically rests in their home country

The actual choice of the expatriate is a very difficult phase of the process as it largely determines the success of the international activities in the host country. Several criteria of both individual and situational nature need to be considered in the evaluation and selection of a suitable candidate, these include:

### 1) *Technical readiness*

Many studies show, that an extremely high amount of attention is devoted to the technical skills of the candidate [4]. The ORC Worldwide survey from 2002 confirmed that 72% of companies select the expatriate on the basis of their job performance.

### 2) *Intercultural suitability*

Besides the sufficient technical and managerial skills, an ability to adapt to different cultural environment is a also a prerequisite crucial for the success of an expatriation operation. This ability includes criteria such as empathy towards another culture, adaptability, diplomacy, language skills, positive attitude and emotional stability [5].

### 3) *Family circumstances*

Another factor of the expatriation process is the fact that the workers need to transfer their closest family members, which causes a fundamental change in their current way of life. Therefore, the willingness of the expatriate's family to relocate to a new environment is also an important determinant for the choice of the expatriate. Although several studies point to the importance of the role of expatriate's family for one's success, multinational companies have often ignored this fact and still do not pay it due attention [6].

### 4) *Political and legal requirements*

The legal system of the new country is an important determinant that affects the operation of the expatriate in the

country. In some cases, it is possible to obtain the authorization to reside in the country only for the expatriate, but not for the partner. In order to resolve this problem an organization called "Permits Foundation" has been founded by a group of more than 20 multinational organizations and its aim is to further improve the regulations of work permits for the partners of the expatriates [7].

#### 5) Requirements of multinational companies

The multinational company may have requirements regarding, for example, the share of employees from the home country, the host country and a third country. This requirement includes other situational factors, such as:

- The nature of the mission of the expatriate.
- The duration of the mission.
- The extent of knowledge to be transferred [4].

#### 6) Language skills

Lack of language skills constitutes a major barrier for effective intercultural communication. Nevertheless, this requirement is often underestimated in practice. The ORC Worldwide survey points to the fact that language skills are only on the 50th place in terms of the importance when selecting the expatriate. This requirement applies not only to the level of language skills themselves, but also to the common language of the organization itself presents the important role. Certain specific linguistic expressions are a common part of the corporate culture of many organizations [4].

## II. OPERATION OF THE EXPATRIATES IN SLOVAKIA

The first expatriates began to appear in Slovakia in the early 90's (e.g. Kooperativa, Tatra banka). There was a sharp rise in the expatriation of foreign managers which occurred with the increase of foreign investments at turn of the century, which was associated with the privatization of banks (e.g. Slovenská sporiteľňa, VUB), companies in the energy sector (e.g. Slovenské elektrárne, SPP) and with greenfield companies (e.g. KIA Motors Slovakia, Slovakia PCA) [8].

A study which focused on the issues of international human resource management in Slovakia within the years 2007 - 2009, among other things investigated the state of expatriation in Slovakia. The research results show that more than half of international organizations (52%) used expatriates at the beginning of its operation in Slovakia, the expatriates most often had the position of a general manager (40%), technical director (25%) and a financial director (25%). Interestingly, in the case of 20% of the companies, the number of expatriates at the time of the survey was higher than at the beginning of his tenure, while the main reason for the increase in the number of expatriates was international rotation [9].

As Rusnák professes in his paper, the expatriation in Slovak subsidiaries brings about many positive effects, the biggest being the enrichment of Slovak companies with new knowledge, innovations and practices from abroad and the transfer of know-how [8]. According to Karlubíková, another positive influence is also less susceptibility to corruption and improvement of organizational culture [10].

## III. MATERIALS AND METHODS

The aim of the paper is an analysis of selected aspects of the operation of expatriates in Slovakia. Given that there is a large number of subsidiaries of multinational companies which operate on the Slovak market, our attention was focused on whether sending expatriates to Slovakia as a host country is related to certain characteristics of multinational companies and subsidiaries. In order to meet the stated aim, practical research was conducted in March and April 2014 on a sample of 52 subsidiaries of multinational companies operating in Slovakia. The share of subsidiaries which do have expatriate presence versus subsidiaries without expatriates is shown in figure 1.

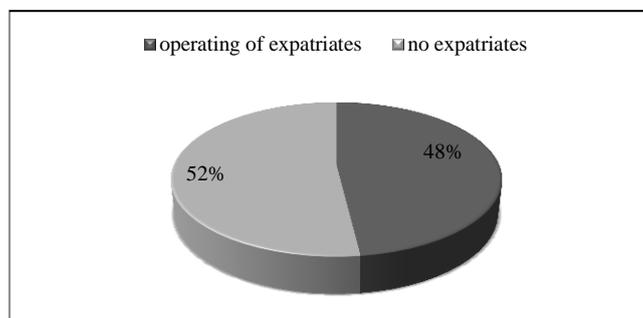


Figure 1. The rate of using of expatriates in subsidiaries in Slovakia

Data was collected with the use of a questionnaire which was distributed in person or electronically. The aim of the research was to determine the existence of a statistically significant relationship between the expatriation in subsidiaries located in Slovakia and selected characteristics of multinational companies and their subsidiaries. The object of the analysis was the following 4 selected characteristics of multinational companies and their subsidiaries, serving as independent variables:

1. Cultural distance between the MNC's country of origin and Slovakia as the host country.
2. The economic sector in which the multinational company operates.
3. The size of the subsidiary (expressed by the number of employees)
4. The duration of operation of multinational company.

Expatriation represents the dependent variable. Managers of subsidiaries were asked to state whether expatriates have ever operated in their subsidiaries.

Four hypotheses were tested in the study, using methods of inductive statistics (chi-square test, unpaired two-sample t-test). The level of significance rate (p-value) was set as 5%.

## IV. RESULTS

*H1: There exists a statistically significant relationship between the cultural distance (between the home country and Slovakia) and the use of expatriates in subsidiaries.*

The first variable, which was the subject of the research, is the cultural distance between the home country of the

multinational company and Slovakia as the host country. Cultural distance is expressed by the index of cultural distance, which is available at <http://geert-hofstede.com/cultural-survey.html>. It was assumed that in the case of the greater cultural distance between the home country and Slovakia, the rate of expatriation use will be higher. The hypothesis H1 was tested by using of the unpaired t-test. The results are shown in Table 1.

TABLE I. THE RELATION BETWEEN THE CULTURAL DISTANCE AND EXPATRIATE USE

Cultural distance	Using of expatriates	n	average	standard deviation	t	p-value
	no	27	30,48	7,61	-0,105	0,917
	yes	25	30,68	5,91		

As shown in Table 1, the  $p\text{-value} > 0,05$  therefore H1 is rejected. Expatriation use is not affected by the cultural distance between the home country and the host country.

*H2: There exists a statistically significant difference in the expatriation use between economic sectors.*

Another segmental aim was to determine whether the expatriate use is determined by the sector the multinational company operates in. Three sectors (primary, secondary and tertiary sector) were the subjects of the analysis. The largest share of the expatriates was recorded in subsidiaries operating in the primary sector, the smallest share in the tertiary sector, see Table 2.

TABLE II. THE COMPARISON OF ECONOMY SECTORS IN TERMS OF EXPATRIATE USE

Economy sector	Using of expatriates				total	
	no		yes			
	n	%	n	%	n	%
Primary	2	25	6	75	8	100
Secondary	12	50	12	50	24	100
Tertiary	13	65	7	35	20	100
Total	27	51,90	25	48,10	52	100

Hypothesis H2 was tested using the chi-square test, the results are shown in Table 3.

TABLE III. THE RELATION BETWEEN THE ECONOMY SECTOR AND EXPATRIATE USE

chi-square test	df	p-value
3,729	2	0,155

Also in this case the value  $p > 0.05$  was found, which means that the differences between the expatriate use in subsidiaries in different sectors are not statistically significant. Expatriation in the multinational companies operating in Slovakia is thus not affected by the sector in which they operate.

*H3: There exists a statistically significant relationship between the size of the subsidiary and the use of the expatriates in subsidiaries.*

Another hypothesis tests the assumption that the use of expatriates is more common in subsidiaries with a higher number of employees. The assumption was verified using the unpaired t-test. Results are shown in Table 4.

TABLE IV. THE RELATION BETWEEN THE SIZE OF SUBSIDIARY AND EXPATRIATE USE

The number of employees	Using of expatriates	n	average	standard deviation	t	p-value
	no	27	74,56	136,18	-1,26	0,215
	yes	25	158,04	315,16		

Given that the value of  $p > 0,05$  the hypothesis H3 was rejected. The size of subsidiary was not determined a factor influencing expatriation use in MNCs operating in Slovakia.

*H4: There exists a statistically significant relationship between the duration of the operation of the multinational company and the expatriate use.*

It was assumed that companies which operate in the market for a shorter period of time have a higher tendency to use expatriates in host countries in comparison to companies with more international experience. Expatriation is used most often in the initial phase of the international expansion. However, as shown in Table 5, companies using expatriation have been on the market for a longer time than the companies which do not use expatriates. The assumption that the use of expatriates is related to the duration of operation of the multinational company was tested by using of the unpaired t-test.

TABLE V. THE RELATION BETWEEN THE DURATION OF OPERATION AND EXPATRIATE USE

Time duration of operation	Using of expatriates	n	average	standard deviation	t	p-value
	no	26	30,81	34,51	-1,99	0,052
	yes	25	56,04	54,31		

As shown in Table 5,  $p\text{-value} > 0,05$  thus also in this case the hypothesis H4 cannot be accepted. Sending of expatriates to the host country is not affected by the duration of operation of the multinational company.

## V. SUMMARY

The relocation of expatriates is a usual practice when transferring the activities of a company to other countries. The decision itself is however affected by a large variety of factors. This paper was aimed at exploring a group of such factors, specifically those which are connected to the characteristics of the multinational companies and their subsidiaries.

The first factor, which it was assumed to have an effect on the decisions regarding expatriation is the cultural distance

between the home country and the host country. It was assumed that in the case of big cultural and institutional differences between the MNC's country of origin and Slovakia, multinational company has a greater tendency for expatriates to transfer knowledge from headquarters. However, this assumption was not confirmed in the survey sample.

The second factor which was analysed was the influence of the economic sector. It was discovered, that the expatriates are used more frequently in subsidiaries operating in the primary sector compared to the secondary and the tertiary sector. However, no statistical significance was discovered by using of the chi-square test, so hypothesis H2 was rejected.

The third variable presumed to have an effect on the expatriation was the size of the subsidiary. It was assumed that the mother company tends to use expatriates in subsidiaries which employ a large number of employees in the host country. Although the results suggested that subsidiaries in which expatriates have worked have more employees than subsidiaries with no operation of expatriates, the result of t-test did not confirm a statistically significant relationship. Thus the H3 was also rejected since we did not find that the size of the subsidiary would influence a tendency of multinational company to use expatriation.

The last variable, which was the subject of the analysis, is the length of the operation of the multinational company in the market. It was assumed that expatriates are used by companies that do not have much experience in international activities, however it has been not statistically confirmed.

The presented study has shown that the selected characteristics of the multinational companies and their subsidiaries do not affect the organization's decision on the deployment of the expatriates to the host country. However, it is important to point out that the research was largely limited

by the small sample of respondents. For the purpose of deeper analysis of the expatriation issue it would be appropriate to realize other further studies in the future, possibly on a larger research sample.

The paper has been elaborated within the project KEGA 042PU-4/2014 Human resource management in the period of globalization.

#### REFERENCES

- [1] Tung, R.L. and V. Worm, "Network Capitalism: The Role of Human Resources in Penetrating the China Market," in *International Journal of Human Resource Management*, vol. XII, no. 4, 2001, pp. 517-534.
- [2] P. Štrach, "Medzinárodné management," Praha: Grada Publishing, 2009, 167 p.
- [3] D. R. Briscoe, "International Human Resource Management," New Jersey: Prentice Hall, Englewood Cliffs, 1995, 214 p.
- [4] P. J. Dowling, M. Festing and A. D. Engle, "International Human Resource Management," 5<sup>th</sup> ed., Cengage Learning EME, 2005, 368 p.
- [5] P. Caliguiri, "The Big Five Personality Characteristics as Predictors of Expatriate's Desire to Terminate the Assignment and Supervisor-rated Performance," in *Personnel Psychology*, vol. 53, 2000, pp. 67-88.
- [6] H. de Cieri, P.J. Dowling and K. F. Taylor, "The Psychological Impact of Expatriate Relocation on Partners," in *International Journal of Human Resource Management*, vol. 2, no. 3, 1991, pp. 377-414.
- [7] Anonym (2014, 03, 15). *How partner employment makes a difference to career mobility*. Available at: <http://www.permitsfoundation.com/>.
- [8] J. Rusnák (2014, 02, 15). *Pozitívna a negatívna využívania manažérov expatriotov v slovenskom podnikateľskom prostredí*. Available at: [http://www.vsemvs.sk/Portals/0/files/MedzinarodneVztahy/IConference\\_2012\\_Rusnak.pdf](http://www.vsemvs.sk/Portals/0/files/MedzinarodneVztahy/IConference_2012_Rusnak.pdf).
- [9] P. Baláž et al., "Medzinárodné podnikanie. Na vlnu globalizujúcej sa svetovej ekonomiky," 5<sup>th</sup> ed., Bratislava: Sprint dva, 2010, 546 p.
- [10] J. Karľubíková (2014, 04, 02). *Nekonečný príbeh*. Available at: <http://www.etrend.sk/podnikanie/riadenie-a-kariera/nekonecny-pribeh/106240.html>.

# Stakeholders Perceptions about Social and Environmental Actions: a case study

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**Abstract**—With the growth of economic activities resulting from technological development, society has come to claim companies a greater attention to sustainable development which must be aligned with business performance, preservation of the environment and the welfare of society. With this new order, many companies began to use indicators of economic, social and environmental sustainability as a way of presenting its stakeholders the results of its environmental and social actions. The Global Reporting Initiative (GRI) has developed a set of indicators that enable an assessment of business performance considering the concept of sustainability. However, how is this procedure seen by the stakeholders? Is there an alignment between what is reported and what is perceived? The aim of this study is to evaluate the perceptions of stakeholders in relation to indicators of social and environmental sustainability of a furniture industry here called Delta Company. The data collection instrument was a questionnaire consisting of 22 questions, based on the proposal of the GRI and actions of social and environmental nature disclosed by Delta Company, associated to a 5-point Likert scale. The sample was composed of shareholders, suppliers, customers, residents in the vicinity of the company and people responsible for institutions supported by the company studied, totaling 254 valid questionnaires. Data were analyzed using Structural Equation Modeling - SEM. The results showed an alignment between what was disclosed in the company's reports and the perception of its stakeholders.

**Keywords**-Sustainability, Stakeholders, Global Reporting Initiative, Triple Bottom Line.

## I. INTRODUCTION

Due to the social and technological development acquired in recent decades, our planet can no longer be seen in parts but as a whole, where a fact or action may cause reflections in various locations. Thus, issues such as child labor, pollution of air and water, worker rights, political instability and global climate changes cause reactions in various points on Earth. Thus, human survival is no longer an isolated issue; however, it is the responsibility of everyone, at all levels.

During the 60s and 70s, many organizations had no perception of the impact of their productive actions on the environment [1]. But a growing number of leaders soon recognized the importance of formulating a strategy for social, economic and ecological responsibility associated with the organization's strategy but they noticed it was hard to bring this idea into action [2], because there were several barriers to overcome as the complexity and difficulties to change the

system, the emphasis on short-term profits and economic growth, divergent interests of stakeholders and the lack-of-knowledge [3]. With the creation of some measures for sustainability in business, many companies used this mechanism as a powerful lever for generating and creating competitive advantage [4], thus, investments in sustainability processes have become increasingly common in recent years so, when reporting their concern for sustainability, companies want to present themselves as "good citizens" and thus attract investors [5]. If companies must consider the economic, social or ecological impact of their activities, it is no longer a point to be discussed; these issues have become a central part in creating value for their shareholders when developing management strategies of global or local companies. The challenge has gone from "if" to "how" to integrate social, environmental and economic impacts - sustainability - with management decisions aimed at short-term profits [6].

The values related to sustainability and the respect for environmental policies have been institutionalized in many countries, with the support of the media, social and environmental movements and governments, "the adoption of these values by organizations, can bring social legitimacy and resources" [7]. As a result of this institutionalization, new organizational models emerged more adapted to the new reality. Thus, by committing to sustainable development, organizations must change the way they operate to, at least, reduce the adverse social and environmental impacts [8].

The economic effects, by having multiple indicators, are relatively easy to observe and / or predict, but the social and environmental outcomes by involving several variables, are more difficult to evaluate. Thus, there is the possibility that the adopted procedures aiming at sustainability remain only in theory, making the need for constant evaluation of sustainability strategies arise. Organizations need to know the results of their actions, so they can be properly managed and produce positive effects for all stakeholders. In this context, a question arises: What is the perception of the stakeholders regarding sustainability indicators? Thus, this study aims to evaluate the perceptions of stakeholders in relation to indicators of social and environmental sustainability of a furniture industry.

## II. SUSTAINABILITY

Increasing behavioral changes related to social and environmental issues raised by contemporary society point to a

greater awareness on the proper use of resources that influence the survival of future generations. To Nascimento (2008) [9] this warning comes from scientific data presented in recent decades with predictions about the future of humanity, despite the discrepancies and controversies, it has been raising awareness of the world's population in relation to issues as the population growth, depletion of natural resources, the exploitation of the wealth and the severity of problems as global warming, which generate an unstable and unpredictable environment for the future of the planet and generations to come.

The changing on mankind behavior is based on the concern of perpetuating, in a healthy way, life on the planet, therefore, it is necessary to adapt to this new context whose structure is mainly formed by sustainable development that encompasses business decisions geared to the environment, economy and also to a healthier society. According to Melo Neto (2004) [10] the concept of sustainable development emerged in the early 1970s under the name of eco-development amid a contentious relationship between economic growth and environment. The proposal introduced a new eco-development, combining technical progress and environmental limits, recognizing that economic growth, although necessary, is not sufficient to eliminate poverty and social disparities. The World Commission on Environment and Development [11] presented a breakdown in the terminology of sustainable development, as the one that meets the needs of present generations without compromising the ability of future generations to meet their own needs and [12] complements stating that the development, to be sustainable, must be not only cost effective, but also environmentally prudent and socially desirable.

This scenario sets up a challenge for society, both in government and in the business environment issues, requiring specific actions aiming to solve the problems faced. There is a long path to go and it requires a willingness of companies to act more precisely, considering the social, economic and environmental dimensions. To Altenfelder (2004) [13] the concern with sustainability in business has aroused a restlessness of a group involved which resulted in the creation of an organization targeted to corporate sustainability linked to the international movement of businessmen that focus on this problem. Steffen and Young (2006) [14] argue that, even in the face of elevated actions and movements of a significant number of companies that direct their efforts to the dimensions of sustainability, public action should not be replaced, but rather act together, complementing, [15] argue that the spread of, socially correct, environmentally sustainable and economically viable actions, has been increasingly propagated in organizations. However, achieving sustainability requires a process of social change and increase of the opportunities inside society, aligning, in time and space, growth and economic efficiency, environmental conservation, quality of life and social equity, having as base a clear commitment to the future and solidarity among generations [16].

The search for balance among economic, social and environmental dimensions, called triple bottom line [17] came to be incorporated by the companies under the term sustainability, considered one of the most frequently used terms, but least understood of our time, its multidimensional

nature leads to a lack of precision and there is no consensus on the requirements to achieve it, which hinders its operationalization, [7], [18], [19], [20]. The concept of sustainability, often used, is composed of three dimensions: social, environmental and economic [21]. The social dimension reflects concern about the impacts on communities, the environmental dimension concerns to the use of natural resources and the emission of pollutants; the economic dimension refers to economic efficiency, the institutionalization of this concept led companies to adopt sustainability concepts as a way to gain social legitimacy and resources [7].

Currently, sustainability issues appear on the websites of the largest organizations in the world, however, as the concept is not well defined, how could one prove that is sustainable? Thus, scholars have addressed the need of sustainability no longer to be considered a peripheral issue but a more integrated activity to all main functions and activities of the organizations. The new focus on the integration of sustainability implies that the debate has changed from "what" and "why" to "how" to make this happen [22].

Large companies are increasingly recognizing the importance of managing and controlling their social and environmental performance. The decision to adopt a strategy that integrates social, environmental and economic impacts can be motivated by internal factors such as management commitment to sustainability as a core value or recognition of managers that sustainability can create financial value for the company through higher revenues and lower costs. Often, however, the use of strategies of sustainability stems from external pressures such as government regulation, market demands, actions of competitors or pressure from NGOs [6].

Some theorists suggest that the answers to the concerns about a strategically sustainable future require action by companies and governments as a way to reverse the negative consequences caused by the economic growth model. To Demajorovic (2003) [23] companies can provide such solutions, meeting the new demands of society through ethical behavior, social responsibility and sustainable development actions that are assuming a different role in the strategies of organizations. In this perspective the private companies are being targeted not only to generate income but also to align their financial goals with environmental and social dimensions.

### III. SOCIAL AND ENVIRONMENTAL SUSTAINABILITY

A framework in the evolution of the concept of sustainability is the growing acceptance that it implies social equity, economic efficiency, cultural diversity and protection and conservation of the environment. This idea, still not accepted by all, shall be in the future, a strong influence on actions and social theory [20]. Aimed at sustainability, we must redefine the meaning of wealth and progress aiming a more integrated, systemic and social vision of life. To build a sustainable society, it is essential to understand that a healthy environment is a necessary condition for our well-being, the functioning of the economy and, ultimately, the survival of life on Earth. However, life - individual and social - can not be reduced only to biological and production-consumption functions [24].

In recent decades the concept of sustainable development has emerged as a new paradigm for development, combining social, economic, environmental and political aspects of development. Initially, the debate was only around environmental issues. Next, economic issues were included in the debates, only in the late 90s, social issues were considered part of the sustainability agenda, especially after the Agenda 21 [25], and the meeting of the European Council in Göteborg in 2001 [26]. As a result, the literature on social sustainability, as a systematic study is still very restricted [27].

Sustainability is currently a central theme in the reflections on the dimensions of development and the alternatives that can ensure equity. It is the social area which concentrates the greatest challenge to find ways to articulate the diverse interests of the players involved. Actually, the solution is to find new ways to balance the three dimensions of sustainability, but "innovating along the three dimensions of sustainability is still not the norm, because the inclusion of social and environmental dimensions requires new tools and management models that only recently begun to be developed more intensely" [7]. Sustainable development is not restricted to ecological adaptations of a social process, but rather a model that should take into account economic and ecological viability. Moreover, this development should aim to overcome the social deficits and the satisfaction of basic needs in addition to amending the existing consumption patterns, especially in developed countries, with the aim of preserving the available energy, minerals and agricultural resources and also quality of water and air [28].

The approaches to the concept of social sustainability were not grounded in theory, but on a practical understanding of plausibility and current political interests. Furthermore, a recent study notes that social sustainability is currently treated in connection with the social implications of environmental policy and not as an equally integral component of sustainable development [29]. Thus, independent, social sustainability as a dimension is not well defined, each author or responsible for the development of public policy has a definition [27]. However, from a sociological point of view, according to [30] social sustainability is a quality of societies. It signifies the nature-society relationships, mediated by work, as well as relationships within the society. Social sustainability stems from improvements in thematic areas of social domain of individuals and societies, ranging from training and development of skills to environmental and spatial inequalities [27].

#### IV. CORPORATE GOVERNANCE, STAKEHOLDERS AND SUSTAINABILITY

According to Chagas (2007) [32] the Corporate Governance (CG) expression means the system by which the shareholders take care of their business. Monteiro (20013, p.2) [33] defines the GC as a "set of practices in the management of a company that affect the relationship between shareholders (majority and minority), board and board of directors," [34] states that CG is the system by which companies are directed and monitored, involving relationships among shareholders, Board of Directors, Officers, Independent Auditors and Fiscal Council. Good corporate governance practices are designed to

increase the company's value, facilitate its access to capital and contribute to its longevity.

Authors who work with the concept of stakeholders are not yet in agreement on the extension of the term. To Clarkson (1995) [35] only individuals or groups who have power to interfere directly in the direction of the organization may be considered stakeholders and interfering means to affect or be affected by any action or decision of the organization. In his turn Freeman (1984) [36] defined stakeholders as individuals or groups who affect or are affected by business activities, directly or indirectly. Some authors classify stakeholders on voluntary and involuntary; or into primary and secondary [35].

The literature on the subject converges to clarify that the organization is made at the same time, of cooperation and competition among the various stakeholders or affected by it, the stakeholder theory is instrumental for establishing the management of stakeholders related to the company's success, measured by its performance, such as profitability, stability and growth [37].

Currently, it is understood that the relationship between organizations and its stakeholders should be broad and unrestricted in the sense that all are affected and affect the organizations. The world of commerce, once restricted only to those who made use of it, can now affect to all without distinction, because organizations in any way, interfere in the lives of those around them and / or use any product from the environment. Thus their actions are of interest to all who may suffer some damage from the misuse of natural resources, as this will affect everyone, without distinction [32]. Therefore, currently, it is required that organizations adopt the principles of sustainability and that, somehow, seek to preserve or cause the least possible harm to the environment, so that in future a model in which all organizations can profit will be established; respecting society and living in harmony with nature [39]. For that, organizations should adopt indicators that define and enable assessment and control of their actions in the dimensions of sustainability.

#### V. SUSTAINABILITY INDICATORS – THE GLOBAL REPORTING INITIATIVE (GRI)

Indicators are useful tools that allow obtaining identification of priority information about a given reality, serving as a subsidy to synthesize diverse information, abstracting only the real essential meaning of the analyzed aspects [40]. The Organization for Economic Co-Operation and Development [29] interprets the concept of indicator as a set of parameters capable of providing information on the state of a phenomenon, environment or area with an extended meaning. For the GRI (2008) [41] a system of indicators should provide qualitative and quantitative information suggesting precise changes in the results of the organization and ability to present clear comparison between the action and the reaction over time. According to Strobel et al (2006) [42] an indicator should provide features that serve the primary purpose and is referenced by transparency, relevance and accuracy, in addition, must be neutral, comparable and auditable. Mueller et al (1997) [43], complete affirming the existence of attributes that contribute to a better characterization of an indicator: 1 - Simplification: the indicator should clearly display the status of

the phenomenon in focus making link to reality; 2 - Quantification: must be quantifiable, driven by a form of measurement as a percentage, unit, number; 3 - Communication: The indicator should be based on effective communication of the state of the observed phenomenon; 4 - Relevance: must consider the specific need, as well as transmit easy to understand information, based on scientific data and appropriate methods.

There are a number of indicators created by institutions that aim to measure the performance of companies in relation to sustainability. However one of the models with international scope and presents a broad approach is the Global Reporting Initiative (GRI) model which considers the general context, the interests of the stakeholders involved and the actions of organizations. According to Strobel et al (2006) [42] the GRI framework, presents questions about the inputs and outputs of the production process, especially regarding to the types of materials used, water and effluent emissions and waste, aspects that are directly linked to this research.

The GRI was designed by the Dutch government and developed in partnership with the American NGO CERES - Coalition of Environmentally Responsible Economies in conjunction with the United Nations Environment Program (UNEP) in order to determine an international standard for sustainability reporting, enabling stakeholders involvement in discussions of economic, social and environmental interest, proposing a guidance on the establishment of indicators to determine the economic, environmental and social impacts (Triple Bottom Line) of the organizations [41].

The GRI is a network present in over 40 countries and is composed of various stakeholders who defend common interests and take part in all decisions that guide the GRI guidelines in conducting organizations reports considering sustainability. Its goal is to improve the description and the quality of information disseminated by organizations to report on the performance and the implementation of actions aimed at sustainability. The report presents a set of guidelines in order to disclose and report to the group of interest (internal and external stakeholders) regarding organizational performance and its contribution to sustainable development. The transparency in the disclosure of the report with the results of sustainability actions from the viewpoint of the Triple Bottom Line enables the organization to obtain recognition and approval worldwide [41].

According to Coral (2002) [44] the choice of an indicator with affordable and close to reality information allows greater transparency and quality on the results disclosed in the report. The indicators help to demonstrate that changes may be required for environmental, economic and social betterment of a society. In this context, for this study, an adapted model of the GRI (Global Reporting Initiative) was used because it matches better the environmental and social indicators of sustainability used by Delta Company here studied.

## VI. METHODOLOGY

By representing an empirical investigation of a contemporary phenomenon, contained in a specific context, this research is considered a case study [45] conducted in a

furniture industry, here called Delta Company, which currently is one of the largest producers of furniture in Brazil. Delta has its headquarters in Aracaju, the capital of Sergipe State, where develops partnerships with NGOs that promote the preparation of young people for entry into the labor market and supports social institutions in the inner cities of the state. The main objective of this work is to evaluate the perceptions of stakeholders in relation to indicators of social and environmental sustainability disclosed by Delta furniture industry, based on the indicators proposed by the GRI.

According to Cooper and Schindler (2000) [47] and [46] this work is exploratory and descriptive in nature and is also considered quantitative, since it is intended to present results, characteristics, relationships between variables using numbers and statistical techniques will be used [48, 49). In this work, the software Statistical Package for Social Sciences - SPSS - version 21 was used for calculating Cronbach's alpha for the verification of the research instrument used and the reliability of the scale used [50] and the software AMOS 21 for Structural Equation Modeling – SEM.

The data collection instrument was a questionnaire based on the GRI indicators consisting of 22 questions addressing the social and environmental dimensions; it was associated with a 5-point Likert scale, where 1 corresponded to strongly disagree and 5 to strongly agree, this scale is recommended when evaluating the intensity of a feeling or perception [51]. The sample, was composed of shareholders, suppliers, customers, residents in the vicinity of the company and responsible for projects supported by Delta Company. It was received 268 questionnaires and, in an initial assessment, it was noticed that 11 had Missing Values and 3 contained Outliers [50]; such questionnaires were excluded and 254 were considered valid; this is in accordance with [52] when he states that "the number of a typical sample for studies using SEM, should be around 200 cases" and [50] claim that the sample for "SEM models containing five or fewer constructs, each with more than three items (observed variables) and with high communalities (0.6 or more), can be adequately estimated with small samples of 100 to 150 elements" and he also states that "if some communalities are modest (0.45 – 0.55), or if the model contains three constructs with less than 3 observable items, then the size required for the sample should be around 200". Data collection was conducted during the months of May and August, 2014.

Data were analyzed using SEM in order to observe whether the model perceived by the stakeholders aligned with the actions reported by Delta Company. Thus, it is expected that when evaluating the SEM model built based on GRI (considering only its social and environmental dimensions) and using the data obtained from the stakeholders, the results indicate or not an alignment between what is disclosed on the Company's report and what is perceived by its stakeholders.

## VII. RESULTS AND DISCUSSION

Once the model used was composed by 2 constructs (Social and Environmental dimensions) therefore having less than 5 constructs and each one having more than 3 observed variables and also that a factor analysis, using the SPSS, indicated no variables with communalities below 0.6, the sample is adequate [50, 52].

### A. Cronbach's Alpha

According to Hair Junior et al (2009, p. 100) [50] the "Cronbach's Alpha is a measure of reliability that ranges from 0 to 1, with values from 0.60 to 0.70 considered the lower limit of acceptability". Cronbach's alpha found in this work, using the SPSS software, was 0.801. It indicates that the scale used is reliable and there that is internal consistency among data. This indicates that the research instrument and the model used are reliable and proper to be used in the research.

Several indices are used to evaluate the quality of fit of a model. It usually includes measures such as:  $\chi^2$ , absolute fit index (GFI, RMSEA, SRMR), incremental fit (CFI or TLI), goodness of fit (GFI, CFI, TLI, RMSEA, SRMR). Hair Junior et al (2009) [50] define practical rules that guide the analysis of a SEM model that will not be good if only one index is considered. Multiple fit indexes should be used to assess a model's goodness-of-fit and should include: The  $\chi^2$  value and the associated *df* (degree of freedom); One absolute fit index (e.g., GFI, RMSEA or SRMR); One incremental fit index (e.g., CFI or TLI); One goodness-of-fit index (e.g., GFI,CFI,TLI); One badness-of-fit index (e.g., RMSEA, SRMR). No single "magic" value for the fit indices separates good from poor models [50].

The collected data were evaluated using the software AMOS 21. The fitness of the model will be evaluated using the indices suggested by [50]. These indices are shown in Table I.

TABLE I. INDEXES OF THE MODEL.

CMIN	DF	CMIN/DF	CFI	TLI	RMSEA	NFI
310,968	164	1,896	0,938	0,894	0,052	0,783

Source: Survey data (2014).

The results obtained with the AMOS software indicated CMIN (Minimum Value of the Discrepancy) = 310,968; DF (Degrees of Freedom) = 164; with CMIN / DF = 1,896 indicating good fit, since "this index must be between 1.0 and 2.0" [53].

The CFI (Comparative Fit Index), TLI (Tucker-Lewis Index) indexes vary between 0 and 1, with higher values (>0.90) indicating better fit [50]. The values indicated by the AMOS software were CFI = 0,938 and TLI = 0,894 suggest good fit.

It should be highlighted that "an empirical study about several measures determined that RMSEA (Root Mean Square Error of Approximation) is the most appropriate measure to use in confirmatory models strategies" [50], which defines this index as an important one when an adjustment evaluation is being done. According to Byrne (2010) [54] the index RMSEA must be less than 0.05 to indicate excellent fit, but [50] assert that a RMSEA between 0 .05 and 0.08 with 95% confidence, indicates excellent fit, agreeing with [53] who states that "an excellent indicator of fit for the RMSEA would be around 0.05, and may be used to 0.08 and this index should not be used if it is greater than 0.1". Mulaik (2009, p. 339) [55] states that "a value equal to or less than 0.05 indicates good fit". The RMSEA= 0.052, found in this work indicates good fit.

### VIII. CLOSING REMARKS

The perception that an organization meets the expectations stated by the components of the social group where it is embedded results in trust, profit and business longevity. In this work, the indexes suggested that stakeholders identified in the actions reported by Delta Company the concepts addressed in the GRI, which indicates an alignment between what the company reports and the perception of its stakeholders. This suggests that Delta operates considering the social and environmental dimensions in its production process attending the requirements of the society in which it operates and that society realizes this fact. This results in higher reliability, profit and sustainability of the business.

By identifying the social and environmental engagement of a company, its stakeholders reinforce the ties that bind them to the company, creating a symbiosis that results in a process where everyone profits one way or another, which contributes to the social, environmental and economic evolution of the society. In this work, when assessing the actions carried out and disclosed by Delta Company and how stakeholders perceived them, it was identified a case that is a precise example of this kind of relationship.

For future research it is suggested to assess the perception of stakeholders considering a national or international scale organization, where stakeholders are from many cities, states or countries, involving other societies with different standards, requirements and behaviors.

### REFERENCES

- [1] S. L. Hart, Beyond Greening: strategies for a sustainable world. Harvard Business Review, 1997.
- [2] M. J. Epstein and M.J.Roy, Sustainability in action: identifying and measuring the key performance drivers, Long range Planning, Volume 34, Issue 5, Pages 585-604, 2001.
- [3] G.P.J. Dijkema; Ferrão, P. Ferrão; P.M.Herder; M. M. Heitor, Trends and opportunities framing innovation for sustainability in the learning society. Elsevier, 2006.
- [4] A. Markevich, The Evolution of Sustainability. Mit Sloan Management Review, vol. 51 N° 1, 2009.
- [5] O. Weber, T. Köllner D. , Habegger, H. Steffensen, P. Ohnemus, The relation between sustainability performance and financial performance of firms. GOE Report No. 5-2005, GOE, Zurich (www.goe.ch) and ASSET4 (www.asset4.com), 2005.
- [6] M. J. Epstein, Making sustainability work: Best Practices in Managing and Measuring Corporate Social, Environmental, and Economic Impacts. Berrett-Koehler Publishers, 2009.
- [7] J. C. Barbieri et al., Inovação e Sustentabilidade: Novos Modelos e Proposições. RAE, São Paulo, v. 50, n. 2, 2010.
- [8] J. C. Barbieri, Organizações inovadoras sustentáveis. In: J. C. Barbieri and M. Simantob, Organizações inovadoras sustentáveis: uma reflexão sobre o futuro das organizações. São Paulo: Atlas, 2007.
- [9] L. F. Nascimento, O insustentável sustentável. In: ENCONTRO DA ASSOCIAÇÃO NACIONAL DE PÓS-GRADUAÇÃO E PESQUISA EM ADMINISTRAÇÃO, 32, 2008, Rio de Janeiro. Anais do XXXII ENANPAD. Rio de Janeiro: ANPAD, 2008, 1 CD.
- [10] F. P. Melo Neto and J. M. Brenannand, Empresas socialmente sustentáveis: o novo desafio da gestão moderna. Rio de Janeiro: Qualitymark, 2004.
- [11] WCED (World Commission on Environmental and Development). Our Common Future. Oxford: Oxford University Press, 1987.
- [12] A. R. Romeiro, Meio ambiente e dinâmica de inovações na agricultura. São Paulo: Annablume. FAPESP. 1998.

- [13] R. Atenfelder, *Desenvolvimento Sustentável*. Gazeta Mercantil. 06 maio, 2004.
- [14] STEFFEN, P.G. Steffen and C.E.F. Young, *Instrumentos econômicos são uma mão na roda. Adiante: Inovação para Sustentabilidade*. São Paulo: FGV-CES, 2006.
- [15] L. Aligleri, L. A. Aligleri and I. Krugliankas, *Gestão Socioambiental: responsabilidade e sustentabilidade do negócio*. São Paulo: Atlas, 2009.
- [16] S. C. Buarque, *Metodologia de planejamento do desenvolvimento local e municipal sustentável*. 2.ed. Recife: IICA, 1999.
- [17] J. Elkington, *Sustentabilidade, Canibais com Garfo e Faca*. São Paulo: M. Books do Brasil, 2012.
- [18] S. chacon, *O sertanejo e o Caminho das Águas: políticas públicas, modernidade e sustentabilidade no semiárido*. Fortaleza: Banco do Nordeste do Brasil, 2007.
- [19] M. Keiner, *The Future of Sustainability*. Dordrecht, The Netherlands: Springer, 2006.
- [20] I. Sachs, *Desenvolvimento: incluyente, sustentável, sustentado*. Rio de Janeiro: Garamond, 2008.
- [21] F. Wolff; K. Schmidt and C. Hochfeld, *Competitiveness, innovation and sustainability clarifying the concepts and their interrelations*. Institute for Applied Ecology, Berlin, 2007.
- [22] C. Parisi, *The Impact of Organizational Alignment on the Effectiveness of Firms' Sustainability Strategic Performance Measurement Systems: an empirical Analysis*. University of Southern Denmark, Kolding, 2010.
- [23] J. Demajorovic, *Sociedade de Risco e Responsabilidade Socioambiental*. São Paulo: Editora SENAC, 2003.
- [24] H. Rattner, *Sustentabilidade - uma visão humanista*. *Ambient. soc.*, n.5, pp. 233-240, Campinas, 1999.
- [25] UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT (UNCED), *Agenda 21, Earth Summit, UN*, 3 - 14 June, Rio de Janeiro, 1992.
- [26] EC - EUROPEAN COUNCIL, (2001), *Presidency Conclusions - Göteborg European Council, 15 and 16 June 2, Goteborg*. 2001.
- [27] A. Colantonio, *Social Sustainability: An Exploratory Analysis of its Definition, Assessment Methods, Metrics and Tools*. Oxford Institute for Sustainable Development (OISD), Oxford, 2007.
- [28] P. Jacobi, *Poder local, políticas sociais e sustentabilidade*. *Saude sociedade*, vol.8, n.1, pp. 31-48, 1999.
- [29] OECD, *Analytic Report on Sustainable Development SG/SD(2001)1-14*, Paris, 2001.
- [30] B. Littig and E. Griesler, *Journal of Sustainable Development*, Vol. 8: 1/2, 65-79, 2005.
- [31] R. Chambers and G. R. Conway, *Sustainable Rural Livelihoods: practical concepts for the 21st century*. Institute of development studies: Discussion Paper n° 296, 1992.
- [32] J. F. Chagas, (2014, September, 03) *Governança corporativa: aplicabilidade do conceito, dos princípios e indicadores à gestão de pequenas e médias organizações*, 2007. Available at: <<http://eco.unne.edu.ar/contabilidad/costos/VIIIcongreso/085.doc>>.
- [33] P. V. Monteiro, *E a Governança Corporativa? Jornal Valor Econômico*. São Paulo, Caderno Eu & Meu Dinheiro, 25 março 2013.
- [34] IBGC. (2014, March, 24) *Instituto brasileiro de governança Corporativa*. Available at: <[http://www.acionista.com.br/ibgc/300109\\_melhores\\_praticas.htm](http://www.acionista.com.br/ibgc/300109_melhores_praticas.htm)>.
- [35] M. B. E. Clarkson, *A stakeholder framework for analyzing and evaluating corporate social performance*. *Academy of Management Review*, Mississippi, v. 20, n. 1, p. 92-117, 1995.
- [36] R. E. Freeman, *Strategic management: a stakeholder approach*. Marshfield, Massachusetts: Pitman Publishing, 1984.
- [37] L. Calixto, *Evidenciação Ambiental nos Relatórios Oficiais: Uma Análise Comparativa Brasil versus Estados Unidos*. Escola de Administração de Empresas de São Paulo: EAESP-FGV, 2008.
- [38] C. Coradini, M.C. Sabino, B.K. Costa, *Teoria dos Stakeholders - Estado da Arte produzido no Brasil*. São Paulo. Anais do XIII SEMEAD. Rio de Janeiro: FEA/USP, 2010, 1 CD.
- [39] J. Elkington, *Sustentabilidade, Canibais com Garfo e Faca*. M. Books do Brasil, São Paulo, 2012.
- [40] H. M. V. Bellen, *Indicadores de Sustentabilidade. Uma Análise Comparativa*. Rio de Janeiro: Editora FGV, 2005.
- [41] GRI. *Global Reporting Initiative (2008). Sustainability Reporting Guidelines*. Recuperado em 05 de maio de 2011, de <http://www.globalreporting.org>.
- [42] J.S. Strobel, E. Coral and P.M. Selig, *Indicadores de Sustentabilidade Corporativa: uma Análise Comparativa*. Bahia. Anais do XXI ENANPAD. Bahia: ANPAD, 2006, 1 CD.
- [43] MUELLER, C. C.; TORRES, M.; MORAIS, M. P. *Referencial básico para a construção de um sistema de indicadores urbanos*. Brasília: IPEA, 1997.
- [44] E. Coral, *Modelo de Planejamento Estratégico para a Sustentabilidade Empresarial (tese de Doutorado)*. Florianópolis: Universidade Federal de Santa Catarina, 2002.
- [45] R. K. Yin, *Estudo de caso: planejamento e métodos*. Porto Alegre: Bookman, 2005.
- [46] S. C. Vergara, *Projetos e relatórios de pesquisa em Administração*. São Paulo: Atlas, 2009.
- [47] COOPER, D. R. Cooper and P. S. Schindler, *Business Research Methods*. McGraw-Hill, 2000.
- [48] N. K. Malhotra, *Pesquisa em Marketing: uma orientação aplicada*. Porto Alegre: Bookman, 2006.
- [49] F.N. Mattar, *Pesquisa de marketing*. São Paulo: Atlas, 2008.
- [50] Hair Junior et al. *Análise Multivariada de Dados*. 6. ed. Porto Alegre: Bookman, 2009.
- [51] J.R. Churchill and A. Gilbert, *Marketing Research - methodological foundations*. Orlando: Dryden, 1999.
- [52] R. B. Kline, *Principles and Practice of Structural Equation Modeling* 3rd ed. New York: The Guilford Press, 2011.
- [53] L. Arbuckle, *AMOS 16.0 User's Guide*. Amos Development Corporation, 2007.
- [54] B. Byrne, *Structural Equation Modeling with AMOS: basic concepts, applications, and Programming*. New York: Routledge, 2010.
- [55] S. A. Mulaik, *Linear Causal Modeling with Structural Equations*. London, 2009.

# University spin-off development in “star” and “weak” contexts. An analysis of meso and macro factors

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**Abstract - The academic entrepreneurship phenomenon can differ significantly among areas, also in the same country. Several studies highlight that there are contexts which are more effective from this point of view while, on the other hand, there are contexts which are less efficient in fostering university spin-offs (USOs). The first contextual typology can be labelled “star”, the second “weak”. The paper aims to investigate, on a regional level, the USOs development– in terms of both performance and numerosity – in “star” and “weak” contexts over the Italian area using meso and macro factors. Following the RBW theory, the dynamic capabilities approach and the Knowledge Spillover Theory of Entrepreneurship, a sample of 405 USOs extracted from Netval database in 2013 has been analyzed and evaluated, as well as categorized, regarding 18 Italian administrative regions. The results show a greater USOs development in the “star” contexts, but at the same time the “star” contexts’ features are less related to the effectiveness of the spin-out processes than the “weak” contexts’. This is likely due to the effects of USOs’ micro determinants that make the “weak” contexts more dependent on meso and macro resources.**

**Keywords – University spin-offs; USOs; “star” context; “weak” context; meso/macro factors; RBW theory; dynamic capabilities approach; Knowledge Spillover Theory of Entrepreneurship.**

## I. INTRODUCTION AND THEORETICAL FRAMEWORK

The growing interest in university spin-offs (USOs) among scholars and policymakers, due to their distinctive capability to create wealth and stimulate scientific knowledge (Mustar et al., 2006, 2008; Lerner, 2010; Lockett, Wright, 2005; Kenney, Patton; 2011), call for more research to better understand how the situational determinants and support mechanisms at the local contextual level can facilitate the creation and development of university spin-offs (Fini et al., 2011; Baldini, 2011; Sternberg, 2014; Breznitz et al., 2008; Rasmussen et al., 2011; Markman et al., 2008). The diffusion and growth of the academic entrepreneurship may differ significantly in diverse contexts (Baldini, 2010; Lockett et. al., 2005; Autio et al., 2014). In fact, the organizational (Walter, Auer, Ritter, 2006) and institutional factors (Wright, 2014), together with the cultural ones (OECD, 1999) can create environments more conducive to the development of this innovative high-tech phenomenon, such as those generated in Silicon Valley and the greater Boston area in the U.S. (Lee et al., 2000; Kenney, 2000; Carayannis et. al., 1998; Degroof, Roberts, 2004); but even more specifically in Europe, particularly in some areas of the UK (Lockett, Wright, Franklin, 2003; Shane, 2004) and of Sweden (Stankiewicz, 1994). However, several studies show that academic spin-off ventures in regions outside established

high tech clusters tend to stay small (European Commission 1998, 2000; Degroof, Roberts, 2004). The underlying reasons of these localization differences can be usefully explained using the resource-based view theory (Penrose 1959, Fleisher, Bensoussan, 2003; Sirmon et al., 2007), focused on the resource combination of a company to gain a competitive advantage (Conner, 1991; Fleisher, Bensoussan, 2003); in conjunction with the dynamic capability perspective (Teece, Pisano, Suen, 1997; Eisenhardt, Martin, 2000; Teece, 2009) which argues that in a dynamic environment the key source of existence and development of a firm is its ability to build, integrate and adapt its tangible and intangible resources – together with its relations – in order to achieve a dynamic coherence with the external environment (Eisenhardt, Martin, 2000); especially regarding small high tech companies (Zahra et al., 2006). Several studies have effectively applied the resource-based view and the dynamic capabilities concepts to the creation and development of USOs (Pazos et. al, 2012; Lockett et al., 2003; Lockett, Wright, 2005; O’Shea et al., 2005; Vinig, Van Rijbergen, 2010). According to the theoretical framework used by these studies, the spin-offs may differ significantly on the basis of the resources and capabilities possessed, closely related to the context of university affiliation that can facilitate their development through various support mechanisms (Rasmussen, Borch, 2010; Lockett, Wright 2005; Rasmussen, Mosey, Wright, 2014) and the features, the composition and the interactions with the geographical area (Baldini, 2011; Fini, Grimaldi, Sobrero, 2009; Sternberg, 2014; Kolympiris, Kalaitzandonakes, Miller, 2014). The theoretical approach proposed here can be completed by the assumptions contained in the Knowledge Spillover Theory of Entrepreneurship applied to the regional context (Audretsch, Lehmann, 2005), which offers a focus on the creation of entrepreneurial chances arising from knowledge investments by incumbent firms and public research organizations that are not totally appropriated by those incumbent enterprises (Acs, Audretsch, Lehmann, 2013) and helps us to understand how the amount invested in knowledge by universities and regions is linked to the development of entrepreneurial activity arising from each university (Audretsch, Lehmann, 2005; Bode, 2004). It must be noted that literature has focused as much on the study of “star” contexts, in order to investigate the success issues that make them “boutiques” of the academic entrepreneurship (Blau, 2014; Etzkowitz, 2013); as on the study of “weak” contexts, with the aim to explain the factors and policies in the lack of USOs’ growth (Degroof, Roberts, 2004). Furthermore, several authors have conducted comparative studies among different countries to investigate

the different institutional and structural processes characterizing the development of USOs (Henrekson, Rosenberg, 2000; Sætre et al, 2009). However, there is still much to explore about the differences in the growth potential of the spin-off phenomenon within the same country, especially through the approach that contrasts the "star" context with the opposite "weak" context. This study could put greater emphasis on the difficulties of USOs development by, for example, checking for cultural and governmental factors (more homogeneous in the same national area), with a greater focus on the gap in the contextual aspects. This paper aims to follow such methodological approach by investigating a sample of 405 Italian USOs through a quantitative analysis, since Italy is characterized by a rapid development of the spin-out phenomenon (Fini et al., 2011; Lazzeri, Piccaluga, 2012). In addition, Italy is characterized by a moderate geographical heterogeneity in the intensity of the academic entrepreneurship diffusion (Netval, 2014). Thus, from the above the following research hypotheses have been formulated:

- H1: "Star" contexts are characterized by a greater number of university spin-offs than "weak" contexts.
- H2: USOs localized in "star" contexts perform better than those localized in "weak" contexts.
- H3: The composition of "star" contexts is positively correlated with the number of USOs localized therein.
- H4 The composition of "star" contexts is positively correlated with the performance of USOs localized therein.
- H5: The composition of "weak" contexts is positively correlated with the number of USOs localized therein.
- H6: The composition of "weak" contexts is positively correlated with the performance of USOs localized therein.

## II. DEVELOPMENT DETERMINANTS OF UNIVERSITY SPIN-OFFS

The influencing determinants of USOs are several and diverse. Literature usually separates such determinants into macro, meso and micro (Djokovic, Souitaris, 2008), which can merge into various types of resources required for the company development (O'Shea et al., 2005; Pazos et, 2012). The paper investigates the macro and meso aspects, in order to identify the characteristics of the areas to compare, by following the theoretical and methodological approach of the resource-based view theory, the dynamic capabilities concepts and the Knowledge Spillover theory of Entrepreneurship.

### A. Meso factors

Several studies (Markman et al., 2005; Powers, McDougall, 2005; Shane, 2004) have investigated the relationship between contextual factors and the generation of USOs. The university environment is one of the main contextual factors, variously linked to the development of university spin-offs (Fini et al., 2011; Fini, Grimaldi Sobrero, 2009; Di Gregorio, Shane, 2003; O'Shea et al., 2005; Rasmussen, Borch, 2010). First of all, an important role is played by the inventions patented by the university to be exploited commercially (Colyvas et al., 2002; Shane, 2004). Technology eminence and scientific results achieved by universities can be an essential input to the

activation of spin-off processes, creating a source of business opportunities by encoding the knowledge produced (Van Looy et al., 2011). Secondly, university policies relating to technology transfer models adopted can affect significantly the process of generation and development of USOs (Markman et al, 2005.; Shane, 2004). In this regard, the active participation of university in the shareholding structure of the USOs is a valuable support mechanism reducing their capital needs and improving their liquidity (Di Gregorio, Shane, 2003). A determining factor in the development of academic entrepreneurship is the amount of R&D funding obtained by university (Lockett, Wright, 2005), as evidenced by several studies (Lenoir, Gianella, 2006; Van Looy et al., 2011). Similarly, the level of human resources employed in that activity is a key factor in the development of new technologies and ideas to spin out new ventures (Power, McDougall, 2005; Vinig, Van Rijsbergen, 2010). The development of USOs is also determined by the infrastructural support provided by business incubators and science parks in the technology transfer processes (Al-Mubarak, Busler, 2011). Indeed, several authors argue that business incubators and scientific parks activate these processes, linking university to industry, assisting the founders by providing support in both managerial - especially marketing, which is crucial for their success - and infrastructural terms (Cooper, 1986; O'Shea, Chugh, Allen, 2008).

### B. Macro factors

It has been observed (Fini et al., 2011; Fini, Grimaldi, Sobrero, 2009; Kolympiris, Kalaitzandonakes, Miller, 2014) that the features of the local context can create a support network which is likely to produce positive effects on the USOs development. Indeed, the genesis and success of the spin-out processes are very closely related to the presence of external resources (Niosi, Bas, 2001), which may occur in an area where specific factors have developed, as well as to the way in which these are interconnected (Consiglio, Antonelli, 2003). In this sense, the role of the industrial context in terms of positive externalities and spillovers is crucial (O'Shea et al., 2007), along with the presence of regional entrepreneurial networks and technological clusters (Sorenson, Audia, 2000), which may have a significant effect on the purposes of academic founders to start the spin-off company, as well as gain access to social capital (Audretsch, Keilbach, 2004). To these facilitator factors of academic entrepreneurship is added the level of innovation generated in a geographical area (Smith et al., 2014; Sternberg, 2014), primarily measured by the regional spending on research and development (Fini et al, 2011.; Bramwell, Wolfe, 2008). The results obtained from this type of investment are considered by several authors (Acs, Audretsch, Lehmann, 2013; Audretsch, Lehmann, 2005) to be a positive indirect effect of mid-term impacting on new technology ventures. These financial resources can be both private and public, since governments are likely to encourage and support new high-tech start-ups due to non-optimal investment in new technologies resulting from the high costs and risk relating to the innovation diffusion processes to the market (Audrescht, Aldridge and Oettl 2006). Some studies (Tödtling et al., 2011; Dahlander, Linus, Gann, 2011) investigated the processes related to open innovation, i.e. those innovative processes developed and disseminated in regional

knowledge. According to this approach, the collaboration among local businesses and universities can contribute to create a supportive environment to the full development of spin-off projects through academic research and development, consultancy and contract research (O'Shea et al, 2005). This network facilitates the pursuit of open knowledge paths for a rapid development of the young university start-ups (Fini, Grimaldi, Sobrero, 2009; Fini et al., 2011).

### III. METHODOLOGY

#### A. Sample and data collection

In order to evaluate the above-mentioned hypotheses we carried out the analysis at the regional level with the aim to identify and select the "star" and "weak" contexts, as well as their influence on the number and performance of the university spin-offs localized inside. With regard to the USOs, primary data were drawn from NETVAL database ([www.netval.it](http://www.netval.it)) and university websites as at December 31, 2013. In particular, from the 747 firms detected, the idle spin-offs (34) have been omitted, together with those liquidated and deleted (193) and the ones for which no balance sheets or comparable information were obtainable (115). Thus, we analyzed a sample of 405 Italian firms equal to 54.21% of the population identified, distributed in 18 administrative regions. Secondary data collection was carried out on various sources and basically involved the assessment of financial statements and other company historical files (Infocamere, AidaBvdep). Information about 167 business incubators was collected from the national websites of the universities, the Ministry of Education (Ministry of Education, University and Research), the business incubators and regional authorities. Ultimately, data about the meso and macro factors of university spin-offs' development were collected by extracting data from the Italian National Institute of Statistics database (ISTAT), the Statistical Office of the European Communities database (Eurostat) and PATIRIS database.

#### B. Variable definition and measurement

To perform our analysis we used three sets of variables. The first one involved the meso factors which consist in the following: first we used the number of business incubators and science parks localized in each administrative regions in order to measure the business infrastructural fostering mechanisms to the academic entrepreneurship (NBusiness\_Inc); secondly, with the aim to evaluate the prominence of research and development activity into university (Degroof, Roberts, 2004; Link, Scott, 2005; Powers, McDougall, 2005; Lockett, Wright, 2005) we combined into a single index two items relating to the R&D expenditure and R&D staff level, after transforming them into standardized scores to get scale-free values (Cronbach alpha of 0.98), which we labeled the "UniR&D\_index". In accordance with O'Shea et al. (2005), we evaluated the degree of university innovativeness marketable through the spin-out processes via the number of patents owned by universities – ranking of the last 60 years - in the regions observed (NUni\_patent) and, finally, in order to assess the university participation in the USO's ownership structure (Fini et al., 2009) we used the amount of capital share controlled by university in USOs (%Uni\_sharecapital). As regards the second set of variables, it primarily involved a measure of

competitiveness level and entrepreneurial vitality of each region by an index (CompEntrep\_index) resulting from the combination of two standardized items which relate, respectively, to the presence of fast growing enterprises and to the capacity of a region to develop business services (Cronbach alpha of 0.77). Secondly, in line with Fini et al. (2011) we evaluated the degree of innovativeness in the context by merging three standardized items (Employment in technology and knowledge-intensive sector, high-tech patent applications to the EPO by priority year, persons with tertiary education (ISCED) and/or employed in science and technology) to get scale-free values (Cronbach alpha of 0.98) and to create an index labelled "Innovation\_index". In addition, we used an index (ContextR&D\_index) resulting from the combination of two standardized items (Cronbach alpha of 0.98) – the first one concerning the Total intramural R&D expenditure in the regions observed, the second one referring to Total regional R&D personnel and researchers – with the objective to estimate the level of research resources in the context (Baldini, 2010; Audretsch, Keilbach, 2004). The third set consists of a group of variables expressing a measure of business development degree by the natural logarithm of total assets (AssetLN), following the idea that high-technology start-ups are more sensitive to the assets measure than others, like sales or financial indicators (Delmar, Davidsson, Gartner, 2003); furthermore, following the resource-based view theory it can be deduced that the growth processes are based on the accumulation of resources (Delmar, Davidsson, Gartner, 2003). Following Pazos et al. (2012) and Fini et al. (2011), the last group of variables consists of the number of university spin-offs located in the administrative regions observed (N\_USO).

### IV. ANALYSIS

#### A. Descriptive statistics

##### *Individuation e categorization of "weak" and "star" contexts*

Table I shows variables data for each administrative region observed and provides the basis for the detection and categorization of the Italian environment in the two observation areas used in this analysis: the "star" contexts and the "weak" contexts. The results are sorted, in descending order, according to the summative value of the variables used for each administrative region. In this way it is possible to establish a scale of eminence among meso and macro factors of the Italian administrative regions. In order to ensure a high level of effectiveness in the comparison between the two types of areas influencing the processes of academic entrepreneurship which is theorized in the current analysis, the "star" contexts were selected according to the aggregated values recorded by each administrative region higher than 200.00, while "weak" contexts were identified on the basis of regional aggregate values lower than 50.00. Therefore, according to this categorization policy, "star" contexts include 6 regions: Friuli Venezia Giulia, Lazio, Lombardy, Piedmont, Tuscany; Emilia Romagna; while the "weak" contexts are made up of 7 regions: Abruzzo, Marche, Umbria, Puglia, Calabria, Basilicata, Trentino-Alto Adige. It must be noted that the regions categorized as "star" contexts are mostly belonging to the North of Italy; only two regions - Lazio and Tuscany - belong to central Italy, while there is a total absence of the southern regions. As regards, instead, the "weak" contexts, these are

composed of three central regions (Abruzzo, Marche and Umbria), three southern regions (Calabria, Puglia and Basilicata) and a region of the North (Trentino-Alto Adige, which is also the less performant among those observed).

#### *USOs performance and numerosity in "star" and "weak" contexts*

Descriptive statistics concerning the USO variables – numerosity and performance – for the two contexts selected are shown in Table II. By analysing the results of the "star" contexts it can be observed that, of the 747 firms considered in the study, an average of 38.16 university spin-offs are located in these areas. As the sample variance of "N\_USO" variable (202.1667) is five times higher than the sample mean of 38.16, a moderate dispersion occurs among the different regions in terms of the number of USOs located. Regarding the USOs performance (AssetLN), the results show an average of 12.85, with a very low sample variance (0.4031), which is indicative of a high homogeneity among the administrative regions observed. The results for the "weak" context show an average of 14.14 university spin-offs placed in these areas. The sample variance of the variable (168.8095) shows a significant dispersion among the regions observed (the sample variance is more than eleven times higher than the sample mean of 14.14). As regards the USOs performance, the results show an average of 12.51 and - also in this case - a low dispersion among the administrative regions observed (sample variance of 0.31209).

In light of the analyses performed it is possible to state that the "star" contexts are characterized by a greater number of USOs compared to the "weak" contexts, with a positive gap of 169.86% on average. Therefore, the H1 can be accepted. As regards, instead, the USOs performance, this is slightly higher in the "star" contexts, with a positive difference of 2.75% compared to the "weak" contexts, thus confirming H2. From the results obtained, it can be noted that the difference between the contexts is due to the number of spin-offs located therein rather than to their performance. For this reason it is necessary to further investigate these topics, the processing of which refers to section IV-B.

#### *B. Bivariate Correlation analysis*

##### *"Star" context versus USOs development*

The results of the correlation analysis between the variables - meso and macro – of the "star" contexts and the USOs performance in the same contexts (Table III) show, first, a moderate positive relationship with the number of business incubators in the region (0.25) - in line with the results obtained by Fini et al. (2011) – which highlights the prominence of infrastructural support in the development of academic start-ups. In contrast - and contrary to the studies carried out by Link and Scott (2005) and Lockett and Wright (2005) - there are negative correlations with the variable "UniR&D\_index" (-0.31) and the variable "%Uni\_sharecapital" (-0.66), pointing out that the meso factors related to the university context do not explain the success of the USOs localized therein, neither do they explain the eminence of the overall regional context where the companies operate. Also in regard to macro factors, the results show negative correlations with the variable "Innovation\_index" (-0.71) and the variable "ContextR&D\_index". This evidence shows that the degree of

innovativeness of the regional context where USOs are located, together with the prominence of research resources available, do not cause a greater development of the USOs placed in such "star" contexts. In light of the results obtained, the H3 is not accepted. As regards the correlation analysis between the same "star" context variables and the number of USOs located in such contexts, the results show a positive relationship with the number of business incubators in the administrative regions investigated (0.23), revealing that the role of facilitator increases the chances of generating USOs thanks to the availability of key resources for the activation of high tech entrepreneurship. Positive correlations were also recorded with other meso factors, such as those with the variable "UniR&D\_index" (0.20) and with the variable "NUni\_patent" (0.47) - in line with the results of O'Shea et al. (2005) and Di Gregorio and Shane (2003), indicating that the strategic resources possessed by parent organizations, i.e. resources for research and development and patents to market, are a determining factor in the creation of USOs. In contrast, the macro factors do not seem to have an impact on the numerosity of USOs in the "star" contexts; only the correlation with the variable "Innovation\_index" results to be negative (-0.83). In light of the results obtained, the H4 is only partially accepted.

##### *"Weak" context versus USOs development*

The results of the correlation analysis between the variables - meso and macro – relating to "weak" contexts and the USOs performance in the same contexts (Table IV) show a positive relationship with the variable "NBusiness\_Inc" (0.42), confirming the importance of infrastructural support in the entrepreneurial business development even in those areas. Also the correlations with the variable "NUni\_patent" (0.73) and with the variable "%Uni\_sharecapital" (0.47) appear to be positive, which shows the impact of the influencing determinants relating to the spinout processes of university. In addition, the macro factors related to competitiveness and innovation seem to have a positive and significant impact on the performance of the USOs, as confirmed by the correlations with the variable "CompEntrep\_index" (0.21) and the variable "Innovation\_index" (0.49). Instead, the macro level resources related to research and development do not seem to have a decisive role on the academic entrepreneurship performance (results of correlation with the variable "ContextR&D\_index" of -0.339). Therefore, on the basis of the results obtained, the H5 is accepted. Regarding the correlation analysis between the same contextual variables of the "star" regions and the numerosity of USOs in the same contexts, these always show a positive correlation with the number of business incubators at the regional level (0.27), though to a lesser extent compared to the results of correlations concerning the USOs performance. It should be noted that university plays a significant role in the spin-off generation processes within the "weak" contexts, as shown by positive correlations with all the meso variables related to university (UniR&D\_index = 0.38; NUni\_patent = 0.75; %Uni\_sharecapital = 0.38). Concerning the correlations with macro factors, the results are consistent with those obtained for USOs performance: positive relationships with the variables "CompEntrep\_index" (0.53) and the variable "Innovation\_index" (0.45), confirming the positive effects generated by the entrepreneurial context eminence, both in

terms of innovation dissemination, both regarding the degree of competitiveness of the high-tech industry in the context of reference. Negative correlation was found with the variable "ContextR&D\_index" (-0.28), in contrast to the results obtained by Fini et al. (2011), highlighting how the knowledge spillover in the region do not seems to have an direct effect on the amplitude of spin-out processes from university. In light of the above considerations, the H6 is accepted.

## V. CONCLUSIONS

This paper has investigated the development of the academic entrepreneurship - in terms of number of USOs and their performance - in different contexts, i.e. "star" contexts, characterized by a higher concentration of determining factors for the activation and growth of the USOs localized, opposite to the "weak" contexts, lacking a proper milieu for the stimulation and development of the spin-out processes. Following the resource-based view theory and the Knowledge Spillover Theory of Entrepreneurship, an analysis model of both contextual typologies has been developed based on meso and macro factors facilitating academic entrepreneurship as applied to the Italian administrative regions. The results highlight two critical and at the same time conflicting data: in the "star" contexts USOs achieve the best performance and are more dynamic than in "weak" contexts, but the "star" contexts alone can only partially explain the development of USOs. Indeed, the correlation analysis shows that the USOs located in the "weak" contexts are more firmly connected with the contextual features. This evidence suggests that the greater expansion of the spin-off phenomenon in the "star" contexts is most likely due to the micro determinants (Djokovic, Souitaris, 2008) related to individual aspects of founders and teams involved in the business project of the spin-out processes (Clarysse, Moray, 2004), as well as the creation of networks (Nicolaou, Birley, 2003), both with universities (Lindelöf, Löfsten, 2004) and with the industry (Grandi, Grimaldi, 2003). On the other hand, the higher vulnerability and lack of micro factors for USOs localized in the "weak" contexts lead them to be more dependent on meso and macro factors. These results are explained and related to another theoretical framework, which can be used in combination with the RBV theory, that is to say the resource dependency theory, which emphasizes the role played by the relationships established by the company in order to acquire and consolidate in-house missing resources essential for growth and development (Hillman et al., 2009; Davis et al., 2010, Van Witteloostuijn and Boone 2006; Pfeffer & Salancik, 1978). These processes are important for small high-tech companies to create, discover and successfully exploit new opportunities (Zahra et al. 2006), and may therefore be a prerequisite for the pursuit of growth-oriented business strategies. Therefore, future research may take advantage from the understanding of different aspects concerning USOs development in "star" and "weak" contexts, with the addition of micro factors too.

From a policy perspective, it should be noted that - at the global level - meso factors are more decisive for the development of academic entrepreneurship compared to macro factors, also due to the closer proximity to the spin-out processes, which increase their effectiveness. Therefore, a more active involvement of central and local government

bodies is necessary to support and especially foster new entrepreneurship opportunities, as they can contribute efficiently and directly to the growth of USOs. In order to do this, the public authorities could promote the spin-out processes in these contexts by establishing cooperative R&D programs jointly with financial fostering programs in the form of grants and public funding with the aim to have a direct and indirect impact on academic spin-off activities. This should be done by taking into account the internal conditions and resources required for their development, along with their interactions and relations with the entrepreneurial context through research contract and other forms of cooperation links with the local industry, in such a way as to establish a sustainable and innovative hub, not only for the development of academic entrepreneurship but for the entire economic and social context.

## REFERENCES

- [1] Z. J. Acs, D. B., Audretsch and E. E. Lehmann, "The knowledge spillover theory of entrepreneurship", *Small Business Economics*, vol. 41, no. 4, pp. 757-774, 2013.
- [2] A. S. Sætre, J. Wiggins, O. T. Atkinson and B. K. E. Atkinson, "University Spin-Offs as Technology Transfer: A Comparative Study among Norway, the United States, and Sweden", *Comparative Technology Transfer and Society*, vol. 7, no. 2, pp. 115-145, 2009.
- [3] H. Al-Mubarak and M. Busler, "The incubators economic indicators: Mixed approaches", *Journal of Case Research in Business and Economics*, vol. 4, pp. 1-12, 2011.
- [4] D. B. Audretsch and E. E. Lehmann, E. E., "Does the knowledge spillover theory of entrepreneurship hold for regions?" *Research Policy*, vol. 34, no. 8, pp.1191-1202, 2005.
- [5] D. B. Audretsch, T. Aldridge and A. Oettl, "The knowledge filter and economic growth: The role of scientist entrepreneurship", *Papers on entrepreneurship, growth and public policy*, no. 1106, 2006.
- [6] E. Autio, M. Kenney, P. Mustar, D. Siegel and M. Wright, "Entrepreneurial innovation: The importance of context", *Research Policy*, vol. 43, no. 7, pp. 1097 – 1108, 2014.
- [7] N. Baldini, "University spin-offs and their environment", *Technology Analysis & Strategic Management*, vol. 22, no. 8, pp. 859-876, 2010.
- [8] N. Baldini, "University spin-offs and their environment", *Technology Analysis and Strategic Management* (forthcoming), 2011.
- [9] J. Blau, "Europe's Tech Startups Take Off", *Research-Technology Management*, vol. 57 vol. 4, 2014.
- [10] E. Bode, E. "The spatial pattern of localized R&D spillovers: an empirical investigation for Germany", *Journal of Economic Geography*, vol. 4, no. 1, pp. 43-64, 2004.
- [11] A. Bramwell and D. A. Wolfe, "Universities and regional economic development: The entrepreneurial University of Waterloo", *Research Policy*, vol. 37, no. 8, pp. 1175-1187, 2008.
- [12] S. M. Breznitz, R. P. O'Shea and T. J. Allen, "University Commercialization Strategies in the Development of Regional Bioclusters", *Journal of Product Innovation Management*, vol. 25, no. 2, pp. 129-142, 2008.
- [13] G. F. Davis and J. A. Cobb, "Resource dependence theory: Past and future", *Research in the Sociology of Organizations*, vol. 28, pp. 21-42, 2010.
- [14] C.M. Lee, W.F. Miller, M.G. Hancock and H.S. Rowen, "The Silicon Valley Hedge: A Habitat for Innovation and Entrepreneurship", Stanford University Press, Stanford, CA, 2000.
- [15] E. G. Carayannis, E. M. Rogers, K. Kurihara, K. and M. M. Allbritton, M. M., "High-technology spin-offs from government R&D laboratories and research universities", *Technovation*, vol. 18, no. 1, pp. 1-11, 1998.
- [16] B. Clarysse and N. Moray, "A process study of entrepreneurial team formation: the case of a research-based spin-off", *Journal of Business Venturing*, vol. 19, no. 1, pp. 55-79, 2004.

- [17] J. Colyvas, M. Crow, A. Gelijns, R. Mazzoleni, R. R. Nelson, N. Rosenberg and B. N. Sampat, "How do university inventions get into practice?", *Management science*, vol. 48, no 1, pp. 61-72, 2002.
- [18] K. R. Conner, "A historical comparison of resource-based theory and five schools of thought within industrial organization economics: do we have a new theory of the firm?", *Journal of management*, vol. 17, no. 1, pp. 121-154, 1991.
- [19] S. Consiglio and G. Antonelli, "Il metaorganizzatore nei processi di spin off da ricerca", *Sviluppo & Organizzazione*, no. 196, 2003.
- [20] A. C. Cooper, "The role of incubator organizations in the founding of growth-oriented firms", *Journal of Business Venturing*, vol. 1, no. 1, pp. 75-86, 1986.
- [21] L. Dahlander and D. M. Gann., "How open is innovation ?." *Research Policy*, vol. 39, no. 6 pp. 699-709, 2010.
- [22] E. K. Huizingh, "Open innovation: State of the art and future perspectives", *Techovation*, vol. 31, no. 1, pp. 2-9, 2011.
- [23] J. J. Degroof and E. B. Roberts, "Overcoming weak entrepreneurial infrastructures for academic spin-off ventures", *The Journal of Technology Transfer*, vol. 29, no. 3-4, pp. 327-352, 2004.
- [24] D. Di Gregorio and S. Shane, "Why do some universities generate more start-ups than others?" *Research policy*, vol. 32, no. 2, pp. 209-227, 2003.
- [25] D. Djokovic and V. Souitaris, "Spinouts from academic institutions: a literature review with suggestions for further research", *The Journal of Technology Transfer*, vol. 33, no. 3, pp. 225-247, 2008.
- [26] K M. Eisenhardt and J. A. Martin, "Dynamic capabilities: what are they?", *Strategic management journal*, vol. 21, no 10-11, pp. 1105-1121, 2000.
- [27] H. Etzkowitz, "Silicon Valley: The Sustainability of an Innovative Region", *Social Science Information*, vol. 52, no. 3, 2013.
- [28] European Commission, "Communication from the Commission to the Council and the European Parliament. Risk Capital: A Key to Job Creation in the European Union, Brussels", Commission of the European Communities, 1998.
- [29] European Commission, "Communication from the Commission to the Council and the European Parliament". Progress Report on the Risk Capital Action Plan, (COM (2000) 658 final), Brussels: Commission of the European Communities, 2000.
- [30] R. Fini, R. Grimaldi and M. Sobrero, "Factors fostering academics to start up new ventures: an assessment of Italian founders' incentives", *The Journal of Technology Transfer*, vol. 34, no. 4, pp. 380-402, 2009.
- [31] R. Fini, R. Grimaldi, S. Santoni and M. Sobrero, "Complements or substitutes? The role of universities and local context in supporting the creation of academic spin-offs", *Research Policy*, vol. 40, no. 8, pp. 1113-1127, 2011.
- [32] C. S. Fleisher and B. E. Bensoussan, "Strategic and competitive analysis: methods and techniques for analyzing business competition", Upper Saddle River, NJ: Prentice Hall, 2003.
- [33] A. Grandi and R. Grimaldi, "Academics' organizational characteristics and the generation of successful business ideas", *Journal of Business Venturing*, vol. 20, no. 6, pp. 821-845, 2005.
- [34] A. J. Hillman, M. C. Withers and B. J. Collins, "Resource dependence theory: A review", *Journal of management*, 2009
- [35] M. Henrekson and N. Rosenberg, "Designing efficient institutions for science-based entrepreneurship: lesson from the US and Sweden" *The Journal of Technology Transfer*, vol. 26l, no.3, pp. 207-231, 2001.
- [36] M. Kenney, "Understanding Silicon Valley. The Anatomy of an Entrepreneurial Region", Stanford, CA: Stanford Business Books, 2000.
- [37] M. Kenney and D. Patton, "Does inventor ownership encourage university research-derived entrepreneurship? A six university comparison", *Research Policy*, vol. 40, no. 8, pp. 1100-1112, 2011.
- [38] C. Kolympiris, N. Kalaitzandonakes and D. Miller, "Public funds and local biotechnology firm creation", *Research Policy*, vol. 43, no. 1, pp. 121-137, 2014.
- [39] F. Lazzeri and A. Piccaluga, "Le imprese spin-off della ricerca pubblica: convinzioni, realtà e prospettive future", *Economia e società regionale*, vol. 1, pp. 43-65, 2012.
- [40] C. M. Lee, W.F. Miller, M.G. Hancock and H.S. Rowen, "The Silicon Valley Hedge. A Habitat for Innovation and Entrepreneurship", Stanford, CA: Stanford University Press, 2000.
- [41] T. Lenoir and E. Giannella, "Mapping the impact of federally funded extra-university research and development on the emergence of self-sustaining knowledge domains: The case of microarray technologies", In *University Technology Transfer and Commercialization of Research: Antecedents and Consequences Symposium*, Academy of Management Conference, Atlanta, USA, 2006.
- [42] J. Lerner, "Boulevard of Broken Dreams: Why Public Efforts to Boost Entrepreneurship and Venture Capital Have Failed – and What to Do About It", Princeton University Press, Princeton, New Jersey, 2010.
- [43] P. Lindelöf and H. Löfsten, "Proximity as a resource base for competitive advantage: University–industry links for technology transfer", *The Journal of Technology Transfer*, vol. 29, no 3-4, pp. 311-326, 2004.
- [44] A. N. Link and J. T. Scott, "Opening the ivory tower's door: An analysis of the determinants of the formation of US university spin-off companies", *Research Policy*, vol. 34, no. 7, pp. 1106-1112, 2005.
- [45] A. Lockett and M. Wright, "Resources, capabilities, risk capital and the creation of university spin-out companies", *Research Policy*, vol. 34, no. 7, pp. 1043-1057, 2005.
- [46] A. Lockett, D. Siegel, M. Wright and M. D. Ensley, "The creation of spin-off firms at public research institutions: Managerial and policy implications", *Research Policy*, vol. 34, no. 7, pp. 981-993, 2005.
- [47] A. Lockett, M. Wright and S. Franklin, "Technology transfer and universities' spin-out strategies", *Small Business Economics*, vol. 20, no. 2, pp. 185-200, 2003.
- [48] G. D. Markman, P. T. Gianiodis, P. H. Phan and D. B. Balkin, "Innovation speed: Transferring university technology to market", *Research Policy*, vol. 34, no. 7, pp. 1058-1075, 2005.
- [49] G. D. Markman, P. H. Phan, D. B. Balkin and P. T. Gianiodis, "Entrepreneurship and university-based technology transfer", *Journal of Business Venturing*, vol. 20, no. 2, pp. 241-263, 2005.
- [50] G. D. Markman, D. S. Siegel and M. Wright, "Research and technology commercialization", *Journal of Management Studies*, vol. 45, no. 8, pp. 1401-1423, 2008.
- [51] P. Mustar, M. Renault, M. G. Colombo, E. Piva, M. Fontes, A. Lockett and N. Moray, "Conceptualising the heterogeneity of research-based spin-offs: A multi-dimensional taxonomy", *Research policy*, vol. 35, no. 2, pp. 289-308, 2006.
- [52] P. Mustar, M. Wright and B. Clarysse, "University spin-off firms: lessons from ten years of experience in Europe", *Science and Public Policy*, vol. 35, no. 2, pp. 67-8, 2008.
- [53] Netval, XI Netval Reporting on Italian Public Research, 2014.
- [54] N. Nicolaou and S. Birley, "Academic networks in a trichotomous categorisation of university spinouts", *Journal of Business Venturing*, vol. 18, no. 3, pp. 333-359, 2003.
- [55] J. Niosi and T. G. Bas, "The competencies of regions—Canada's clusters in biotechnology", *Small Business Economics*, vol. 17, no. 1-2, pp. 31-42, 2001.
- [56] OECD, "Fostering entrepreneurship", OECD Publications, Paris, 1999.
- [57] R. P. O'Shea, H. Chugh, H. and T. J. Allen, "Determinants and consequences of university spinoff activity: a conceptual framework", *The Journal of Technology Transfer*, vol. 33, no. 6, pp. 653-666, 2008.
- [58] R. P. O'Shea, T. J. Allen, A. Chevalier and F. Roche, "Entrepreneurial orientation, technology transfer and spinoff performance of US universities", *Research Policy*, vol. 34, no. 7, pp. 994-1009, 2005.
- [59] R. P. O'Shea, T. J. Allen, K. P. Morse, C. O'Gorman and F. Roche, "Delineating the anatomy of an entrepreneurial university: the Massachusetts Institute of Technology experience", *R&D Management*, vol. 37, no.1, pp. 1-16, 2007.
- [60] D. R. Pazos, S. F. López, L. O. González and A. R. Sandiás, "A resource-based view of university spin-off activity: new evidence from the Spanish case", *Revista Europea de Dirección y Economía de la Empresa*, vol. 21, no. 3, pp. 255-265, 2012.
- [61] E. T. Penrose, "The Growth of the Firm", Oxford: Basil Blackwell, 1959.

- [62] J. Pfeffer and G. R. Salancik, The external control of organizations: A resource dependence perspective. Stanford University Press, 2003.
- [63] J. B. Powers and P. P. McDougall, "University start-up formation and technology licensing with firms that go public: a resource-based view of academic entrepreneurship", Journal of Business Venturing, vol. 20, no.3, pp. 291-311, 2005.
- [64] E. Rasmussen and O. J. Borch, "University capabilities in facilitating entrepreneurship: A longitudinal study of spin-off ventures at mid-range universities", Research Policy, vol. 39, no. 5, pp. 602-612, 2010.
- [65] E. Rasmussen, S. Mosey and M. Wright, "The evolution of entrepreneurial competencies: A longitudinal study of university spin-off venture emergence", Journal of Management Studies, vol. 48, no. 6, pp. 1314-1345, 2011.
- [66] E. Rasmussen, S. Mosey and M. Wright, "The influence of university departments on the evolution of entrepreneurial competencies in spin-off ventures", Research Policy, vol. 43, no. 1, pp. 92-106, 2014.
- [67] S. A. Shane, "Academic entrepreneurship: University spinoffs and wealth creation", Edward Elgar Publishing, 2004.
- [68] D. G. Sirmon, M. A. Hitt and R. D. Ireland, "Managing firm resources in dynamic environments to create value: Looking inside the black box" Academy of management review, vol. 32, no. 1, pp. 273-292, 2007.
- [69] O. Sorenson and P. G. Audia, "The Social Structure of Entrepreneurial Activity: Geographic Concentration of Footwear Production in the United States, 1940-19891", American Journal of Sociology, vol. 106, no. 2, pp. 424-462, 2000.
- [70] R. Stankiewicz, "Spin-off companies from universities", Science and Public Policy, vol. 21, no. 2, pp. 99-107, 1994.
- [71] R. Sternberg, "Success factors of university-spin-offs: Regional government support programs versus regional environment", Technovation, vol. 34, no. 3, pp. 137-148, 2014.
- [72] D. J. Teece, G. Pisano and A. Shuen, "Dynamic capabilities and Strategic management", Strategic Management Journal, vol. 18, no.17, pp. 509-533, 1997.
- [73] D. J. Teece, "Dynamic Capabilities and Strategic Management: Organizing for Innovation and Growth: Organizing for Innovation and Growth", Oxford University Press, 2009.
- [74] F. Tödtling, "Endogenous approaches to local and regional development policy", Handbook of local and regional development, pp. 333-343, 2011.
- [75] B. Van Looy, P. Landoni, J. Callaert, B. van Pottelsberghe, E. Sapsalis and K. Debackere, "Entrepreneurial effectiveness of European universities: An empirical assessment of antecedents and trade-offs", Research Policy, vol. 40, no. 4, pp. 553-564, 2011.
- [76] A. Van Witteloostuijn and C. Boone, "A resource-based theory of market structure and organizational form", Academy of Management Review, vol. 31, no. 2, pp. 409-426, 2006.
- [77] G. T. Vinig and P. J. Van Rijsbergen, "Determinants of university technology transfer—a comparative study of US, European and Australian Universities", In A. Malach-Pines (Ed.), Handbook of research on high technology entrepreneurship. Edward Elgar, 2010.
- [78] T. Vinig and P. van Rijsbergen, "University technology transfer: comparative study of US, European and Australian universities", Handbook of Research on High-Technology Entrepreneurs, no. 179, 2010.
- [79] A. Walter, M. Auer and T. Ritter, "The impact of network capabilities and entrepreneurial orientation on university spin-off performance", Journal of Business Venturing, vol. 21, no. 4, pp. 541-567, 2006.
- [80] M. Wright, "Academic entrepreneurship, technology transfer and society: where next?", The Journal of Technology Transfer, vol. 39, no. 3, pp. 322-334, 2014.
- [81] S. A. Zahra, H. J. Sapienza and P. Davidsson, "Entrepreneurship and dynamic capabilities: a review, model and research agenda", Journal of Management studies, vol. 43, no. 4, pp. 917-955, 2006.

TABLE I. VARIABLES DATA PER ADMINISTRATIVE REGIONS AND CATEGORIZATION OF "WEAK" AND "STAR" CONTEXTS

Administrative regions	Meso Variables				Macro Variables			Sum index
	NBusiness_Inc	UniR&D_in dex	NUni_pat ent	%Uni_shareca pital	CompEntrep_i ndex	Innovation_in dex	ContextR&D_i ndex	
Friuli Venezia Giulia	5.0000	-1.5540	135.0000	0.0635	15082622814.0000	-1.5625	1.2728	15082622952.2199
Lazio	9.0000	1385148.0000	381.0000	0.1000	1.8976	12060392082.0000	1.6183	12061777623.6159
Lombardy	18.0000	2805913.0000	841.0000	0.0445	496610.0000	919548.0000	1.1358	4222931.1803
Piedmont	19.0000	0.2033	319.0000	0.0095	127157.5007	0.9062	111188.2175	238684.8372
Tuscany	17.0000	1.7861	375.0000	0.0143	-0.0333	0.3172	0.1324	394.2167
Emilia Romagna	5.0000	1.8270	320.0000	0.0549	1.5505	1.5751	1.6069	331.6143
Veneto	13.0000	0.6165	159.0000	0.0281	0.4128	1.8864	0.2205	175.1644
Campania	10.0000	1.4856	114.0000	0.0044	0.2733	0.4351	-1.0427	125.1557
Sicily	5.0000	0.3723	89.0000	0.0320	-0.4573	0.6547	-1.7036	92.8981
Liguria	4.0000	-1.3904	89.0000	0.0077	-0.3029	-1.0567	0.8151	91.0728
Sardinia	7.0000	-1.3941	64.0000	0.0235	-1.6622	-2.1463	-1.6360	64.1850
Abruzzo	14.0000	-1.7676	36.0000	0.0620	-1.5825	-1.4386	-1.4545	43.8189
Marche	7.0000	-1.6350	38.0000	0.0293	-0.6103	-1.8640	-1.0529	39.8671
Umbria	7.0000	-1.7578	25.0000	0.0071	-0.9471	-2.6556	-0.8407	25.8060
Puglia	8.0000	-0.3892	86.0000	0.0721	-0.0396	-0.7470	-102621.9802	-102529.0840
Calabria	8.0000	-1.8653	66.0000	0.0332	-1.4842	-2.1631	-277116.0000	-277047.4794

Basilicata	1.0000	0.0000	3.0000	0.0000	-103118.3244	-209665.0000	-105568.0000	-418347.3244
Trentino-Alto Adige	5.0000	1190477.0000 0	11.0000	0.0600	-313408.0000	-2.3666	543230.0000	-960641.3066

Legend:  "Star" contexts  
 "Weak" contexts

TABLE II. SUMMARY STATISTICS OF USOs VARIABLES PER "STAR" AND "WEAK" CONTEXTS

	Variable	Min.	Max.	Mean	Stand. Dev.	Var.
<b>"Star" contexts</b>	AssetLN	11.9290	13.8833	12.8504	0.6349	0.4031
	N_USO	14.0000	56.0000	38.1667	14.2185	202.1667
<b>"Weak" Contexts</b>	AssetLN	11.8918	13.5723	12.5061	0.5586	0.31209
	N_USO	1.0000	37.0000	14.1429	12.9927	168.8095

TABLE III. CORRELATION MATRIX BETWEEN MESO-MACRO FACTORS AND ASOs DEVELOPMENT VARIABLE PER "STAR" CONTEXTS

	AssetLN	N_USO
<b>Meso Factors</b>		
NBusiness_Inc	0.24648	0.23247
UniR&D_index	-0.31429	0.19886
NUni_patent	.02199	0.46832
%Uni_sharecapital	-0.66260	-0.50123
<b>Macro Factors</b>		
CompEntrep_index	0.01810	-0.04018
Innovation_index	-0.71095	-0.833
ContextR&D_index	-0.22350	0.02871

TABLE IV. CORRELATION MATRIX BETWEEN MESO-MACRO FACTORS AND ASOs DEVELOPMENT VARIABLE PER "WEAK" CONTEXTS

	AssetLN	N_USO
<b>Meso Factors</b>		
NBusiness_Inc	0.4212	0.2731
UniR&D_index	0.0472	0.3782
NUni_patent	0.7270	0.7513
%Uni_sharecapital	0.4673	0.3825
<b>Macro Factors</b>		
CompEntrep_index	0.2069	0.5253
Innovation_index	0.4849	0.4461
	-0.3386	-0.2800

# Is Smart City going towards Sustainable city?

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**Abstract - Smart city's conceptualizations and interventions are gaining more and more space recently, both in management literature and in city managers' agendas. By the way, recently a new approach is acquiring relevance, namely the 'sustainable city', as a new way to approach to the resources' management of a city and to the implementation of services, both old ones and innovative ones.**

**In order to understand if these two topics are related from the scholars' point of view and which are the possible connections, the authors want to perform a bibliometric analysis to investigate on the ties between smart and sustainable. The results from our investigations show that, as the labels previously examined, it is not easy to define this more recent conceptualization because it is still hard to observe it from an all-inclusive point of view.**

**Keywords – smart city, sustainable cities, urban context, sustainability, bibliometric analysis**

## I. INTRODUCTION

In recent years the current debate around the configuration of the modern cities is even more increased because of the involving of new technologies that has facilitated the improving of quality of life for people [1]; indeed more and more labels have been used to describe the management and governance of the urban contexts.

More recently, besides the new technologies, another feature has been taken into account as one of the most relevant in the management of the modern urban contexts; in detail, in line with the Triple Bottom Line approach [2], the concept of sustainability has become the objective to be pursued, aiming at the configuration of the ones that are today defined as 'sustainable cities' [3, 4, 5].

Indeed, starting from 70s, sustainability has become one of the hottest topics in the contemporary debate; the irrational usage of the available resources [6] caused by the globalization processes is still today one of the main worries for the contemporary society; because of this, the international political debate over the last few decades has been focused on social and environmental problems [7, 8, 9, 10, 11, 12]

Our analysis aims to understand if such a conceptualization develops from the 'smart city' idea, emerged, in the current debate, as the most widespread label [13, 14, 15].

More in detail, the investigation here presented aims to catch some possible linkages among the two labels introduced above, enhancing previous researches on the different tags proposed by scholars, Public Institutions, and Big Corporations [16, 17, 18].

Through the investigation, the present work is intending to pinpoint which are the most reliable literature publications on both issues thanks to a bibliometric analysis [19] to highlight the most relevant factors both for the 'smart city' and the 'sustainable city' conceptualizations to verify the possible connections between them.

## II. THEORETICAL FRAMEWORK

### a) An overview on smart cities

In order to improve citizens' services, new technologies are even more involved in urban management, identified by the city governance as instruments to create more open and innovative cities through the participation of people, enterprises, organizations, etc. [16].

Recently, the evolution of the society brought the consideration of new aspects in everyday life and then different and innovative factors were introduced in governance and management of the urban areas [20].

The new idea of the urban context leads to a more complex conceptualizations defined as 'smart city' [13, 14, 15] in which human and social capital and modern communication infrastructures are combined to carry on the sustainable economic growth through a proper management of available resources [21] in order to improve people quality of life.

In detail, *smartization* process is supported by mobile devices, sensors, and innovation systems, used at the service of the most important aspects of everyday life – such as transport, communication, energy savings, urban green areas care, reduction of air pollution, sustainable growth [16].

The way towards the *smart city* considers more and different areas of intervention, defined as 'drivers' or 'characteristics' [22]; in order to reach the long-lasting and sustainable economic growth, it is necessary to drive the integration of all of them thanks to the traditional and modern Information and Communication infrastructures.

The following table summarizes our description.

TABLE I. MOST RELEVANT DEFINITIONS ABOUT SMART CITY

Authors	Definitions <sup>a</sup>
Caragliu et al., 2009	<i>We believe a city to be smart when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructures fuel sustainable economic growth and a high quality of life, with a wise management of natural resources, through participatory governance.</i>
Schaffers et al., 2011	<i>The more recent interest in smart cities can be attributed to the strong concern for sustainability, and to the rise of new Internet technologies, such as mobile devices (e.g. smart phones), the semantic web, cloud computing, and the Internet of Things (IoT) promoting real world user interfaces.</i>

a. Source: Our elaboration from Caragliu et al., 2009 [14] and Schaffers et al., 2011 [15]

*b) Sustainable City: towards a new configuration of urban contexts*

The concept of sustainability was introduced in the contemporary thinking starting from 70s, when scholars and big companies became aware of the damages caused by the acceleration of the industrialization and, generally, of the globalization process [7].

Nowadays, Sustainability is usually considered as the “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” [8]. Indeed, more recently, the theories on sustainability have been enlarged thanks to the ‘Triple Bottom Line’ conceptualization [23], involving elements as environmental integrity, social equity, and economic prosperity [24].

In recent years management of cities and sustainability have become the hottest topics in the contemporary debate, because of the “irrational usage of the available resources” [6] which characterize the contemporary society, focusing the attention of the international political and economic agenda on social and environmental problems over the last few decades. The meeting point between the modern conception of the urban contexts and the acquired idea of sustainability development, drives to the definition of ‘sustainable city’.

One of the first contributions referring to sustainability in territorial contexts began from the conceptualization of ‘smart city’ as a starting point to develop policies useful to ensure a “long term sustainability for urban neighbourhood in decline” [25] in line with the global axiom of ‘Think globally, act locally’.

Connected to the above cited postulate, we propose the contribution by Schelling [26] about the implementation of sustainable strategies in cities as the way to achieve new urban scenarios, involving local and smaller communities, too [26, 27], on the basis of the elements underlined in the ‘Triple Bottom Line’ approach [23] – the environmental dimension, the social dimension, and the economic dimension.

Different contributions have shown that, in order to ensure a high quality of life to the citizens in every sense is very important to create a balanced correlation among the three

different dimensions of sustainability in the urban contexts [28].

Indeed, one of the most important aspects emerged scanning literature, is that the way towards ‘sustainability city’ related the participations of citizens in management of the urban contexts establishing that is often referred as *co-production* [29], where citizens became at the same time *creators* [18] and users. This is particularly interesting because it is a relevant factor both for the ‘smart city’ and the ‘sustainable city’ conceptualization through the ‘smart community’ [30].

### III. RESEARCH METHODOLOGY

#### a) Aim and research questions

The aim of this research is to understand how literature is taking into account the two topics related to cities enhancement and interventions on management of urban and metropolitan contexts. More in detail the issue to be deepened is whether the topic of sustainable cities can be considered as an evolution of the smart city conceptualisation. In this case it would be the way to keep going on an evolution of the literature on cities’ management, as it happened when passing from digital cities to intelligent cities and then to smart cities [13, 16, 31]. Following to this the first research question can be shaped in this way:

*RQ1 Is the Sustainable city an evolution of the Smart city?*

Moreover it is interesting to investigate which features are more relevant in detailing the approach to sustainability. In order to depict the list of these elements the reference to be taken into account is composed by the so-called ‘drivers’ of ‘smart cities’ [22]. In this way linkages to the first research question can emerge, especially if a relation between ‘smart city’ and ‘sustainable city’ will come out. Otherwise, it will be interesting to depict which elements of the ‘smart city’ are carried on in ‘sustainable city’ approach, too. Due to this, the second research question can be defined in the following way:

*RQ2 Which characteristics of ‘smart city’ are considered in ‘sustainable city’ contributions?*

#### b) Method and context of investigation

In order to accomplish the research aim a bibliometric analysis has been performed, due to the relevance and the novelty of scholars’ contributions to the evolution of both topics, as they are quite well established in literature, but they are just partially implemented in empirical contexts. Moreover, as several fields of research are directly linked to ‘smart city’ and ‘sustainable city’, the dataset will be built by considering contributions from all the different branches of science.

The software chosen to perform the analysis is BibExcel [32], as it leads to the chance to select among different kinds of method and to cross the results among them. The investigation has been done through a co-words analysis, as this approach allows a focus on the connection emerging between the issues of different literature contributions starting from the keywords chosen by the authors. The ties emerging as results will be useful to track the most relevant issues deployed around the central topic of sustainable cities. Moreover the evidences from

the software will be mapped through another software - namely VosViewer [33] - in order to achieve a graphic representation, known as density map.

#### IV. FINDINGS

The bibliometric analysis performed started with the selection of contributions into the database of “Web of Science - Core Collection” as it is considered as the most reliable database when performing such a kind of investigation [34]. Through a query on the words ‘sustainable city’ and ‘sustainable cities’ a set of 367 items (papers published on journals and books) was created to start the analysis through software.

The most relevant and frequent keywords in the dataset analysed thanks to the software are presented in the following representation (Figure 1) through a map of density. In this kind of representation colours of the areas and dimensions of typefaces are two useful ways to represent the importance of linkages emerging between a central topic and a connected one.

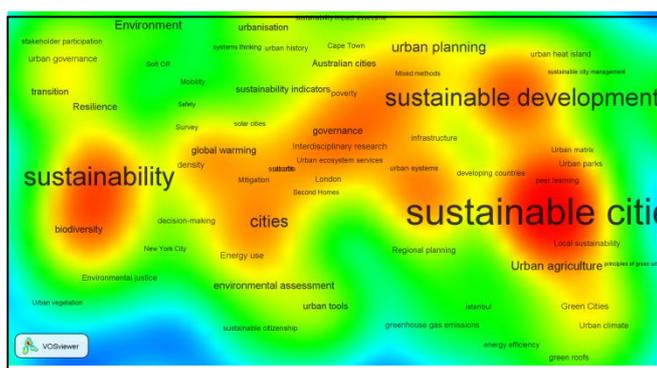


Figure 1. Main results of bibliometric analysis through VOSviewer

The most relevant topics resulting with strong linkages with sustainable cities are all referable to the domain of environmental issues (e.g., global warming, climate change, urban sustainability, biodiversity, environment, environment management, green spaces).

One minor area on which scholars focused their attention is the social aspect, as ‘participation’ is one of the most cited elements, even if it is the only way in which contributions can be taken into account as it regards social aspects of sustainability. One more result to be highlighted is the almost total absence of references to ‘smart city’ contributions, as they are cited just more than a couple of times.

In order to answer to the first RQ we investigated the evidences of ‘smart city’ as a topic linked to the main issue of the literature contributions on sustainable cities in our dataset. The results highlighted a very low usage of ‘smart city’ issue, cited just four times in connections with the topic of sustainability. We kept going on investigating by analysing the few evidences through the contents introduced in the abstracts. The conceptualisations proposed in these articles showed just in one case a linkage between ‘smart city’ and ‘sustainable cities’ as topics coming one after the other like in an evolutionary path. In the other few cases the usage of both terms in the same articles showed a theoretical tie, but not in terms of an evolution, as the two issues are integrated under

common aspects, as the usage of technology or the approach to environment as something to be safeguarded. One more evidence to be underlined is an attempt to combine the two issues under a unique perspective and tag, viz. a ‘smart living and sustainable city’, but as it is just one contribution in the whole dataset, its significance to our investigation is really limited.

By summarizing we can state ‘sustainable city’ is not theoretically conceived as the evolution of ‘smart city’, but as something linked and running on a different path.

The result from the first research question is linked even to what emerged as answer to the second RQ, hence it gave us the chance to deepen what we stated in the previous lines. In order to describe in a more complete way the items emerged from the analysis through BibExcel, the following table summarizes the 20 most important and frequent topics.

TABLE II. MAIN EVIDENCES FROM THE CO-WORDS ANALYSIS THROUGH VOSVIEWER

Words	Frequency
Sustainable cities	161
Sustainability	96
Sustainable development	86
Sustainable city	79
Industrial ecology	49
Cities	43
Climate change	38
Urban planning	31
Urban sustainability	26
Urban agriculture	25
Environment	23
Urban metabolism	22
Urbanization	21
City, China, Urban greening	19
Urban, Eco-city, Environmental assessment	16
Biodiversity, Urban environment, Governance	15
Urban development, Resilience, Global warming	13
Environmental planning, Participation, Urban tools, Built environment efficiency, Urbanisation, Transition, Environmental management, Compact city	12
Indicators, Sustainability indicators, Urban greenspace, Australian cities	11
Ecological footprint, Sustainability science, Option space, Urban governance, Energy use	10

a. Source: Our elaboration

Indeed, considering the six ‘characteristics’ introduced in the model proposed by Giffinger *et al.* [22] - namely Smart Living, Smart People, Smart Governance, Smart Economy, Smart Mobility, Smart Environment - the most cited aspects are all connected to the environmental and mobility spheres.

In detail, referring to the Triple Bottom Line approach as a whole, it is hardly ever considered. This statement can be better described by looking at the three single features of the

framework; the citations about the environmental sphere (Smart Environment and Smart Mobility) are approximately 80%, while the citations about the social sphere (Smart People and Smart Living) are about 18%, and the citations about the economic sphere (Smart Economy) are just 2%.

## V. DISCUSSION

The analysis we performed was useful to clarify how scholars are investigating the topic of 'sustainable cities', in order to improve the overview on the new visions of a city and of its management, and to describe the changes that are happening in cities in recent years from both a theoretical and an empirical perspective.

The focus of this paper was on a comparison between 'smart cities' and 'sustainable cities' and differently from what it happened with labels analyzed in previous researches [17, 31] no links emerged in this case. The novelty of the topic or the necessity to take into account the linkage between the word 'sustainability' and 'smart city' should be helpful to depict the relationship conveying a smart approach toward a sustainable approach.

The results arising from the investigation highlighted that there are quite no evidences about linkages to 'smart city' when conceptualizing on sustainable cities. Moreover, contributions on 'sustainable cities' appear as strongly related to environmental issues - like climate, environment, global warming and greening - while the 'Triple Bottom Line' takes into account even social and economic issues. By the way, a limited connection to the social sphere can be observed, thanks to some topics as participation and governance. The economic domain is not taken into account in the emerging literature on 'sustainable city'.

In this research both the literature review and the bibliometric analysis show the lack of a shared definition of the 'sustainable city' and even a common framework is missing. There are several visions of the conceptualization due to the partial point of observation; hence the evidences point out that it is still hard to define it in a complete way.

As contributions from different research fields are needed to depict both 'smart city' and 'sustainable city', it is useful to look at the previous theoretical experience in defining the first label to improve the path towards the definition of the second one.

In the end, as 'sustainable city' is framed in the area of sustainability, we highlight the necessity to take into account all the elements of the Triple Bottom Line approach to be reliable in the theoretical configuration of this new concept.

## VI. LIMITATIONS AND FURTHER RESEARCH

Despite the results emerged from our bibliometric analysis showed many contributions referring to the sustainability in cities, there are not so many works or empiric evidences describing the conceptualization of 'sustainable city', hence it is still hard to completely define this new urban configuration; such a difficulty is increased by the confusion between the conceptualization of the 'sustainable city' and the research of

sustainability in cities (or 'smart cities') emerged from our analysis.

In detail the 'sustainable city' is still observed from a partial point of view, influenced by the areas of intervention, so, at most, the contributions are strictly connected to the environmental dimension or, more rarely, to the social dimension.

The comparison among the two issues can be tested again when sustainability-based interventions in urban and metropolitan context will be performed and reported. This new analysis can be useful to understand if scholars and city managers are approaching to sustainability in the same way and how they can cross-fertilize to improve the understanding of sustainable city, as it is the most recent between the two issues.

In the future, in order to deep our analysis would be carried on a new investigation examining more recent contributions and proceedings too which could be useful because of the newness of the theme.

Moreover a co-citation analysis can support the investigation on scholars perception of the linkages between the two conceptualizations on cities.

## REFERENCES

- [1] J. Bélissent, "Getting clever about smart cities: new opportunities require new business models", Forrester, 2010.
- [2] T. Hacking and P. Guthrie, "A framework for clarifying the meaning of Triple Bottom-Line, Integrated, and Sustainability Assessment" in *Environmental Impact Assessment Review*, 28(2), 73-89.
- [3] R. Camagni, R. Capello, and P. Nijkamp, "Towards sustainable city policy: an economy-environment technology nexus" *Ecological economics* 24.1 (1998): 103-118.
- [4] M. Jenks, and N. Dempsey, "Future forms and design for sustainable cities", Routledge, 2005.
- [5] J. Cidell, "The Future of Sustainable Cities: Critical Reflections", 2013
- [6] J. D. Nichols & B. K. Williams, "Monitoring for conservation", *Trends in Ecology & Evolution* 21.12, 668-673, 2006.
- [7] Stockholm Declaration Report of the UN Conference on the Human Environment, 1972.
- [8] G. Brundtland, "Our Common Future: The World Commission on Environment and Development", 1987.
- [9] United Nations, "Agenda 21." A sustainable development agenda for the 21st century. United Nations Conference on Environment and Development. Rio de Janeiro, Brazil, 1992.
- [10] United Nations framework convention on climate change. "Kyoto Protocol", Kyoto, 1997
- [11] B. Cicin-Sain, et al. "A Guide to Oceans, Coasts, and Islands at the World Summit on Sustainable Development.", 2002
- [12] United Nations Framework Convention on Climate Change, 2013
- [13] N. Komninos, "Intelligent Cities and Globalization of Innovation Networks", Routledge, London, 2008.
- [14] A. Caragliu, C. Del Bo, and P. Nijkamp, "Smart cities in Europe", in *Proceedings of the 3rd Central European Conference in Regional Science* (Košice, Slovak Republic, Oct 7-9), 2009.
- [15] H. Schaffers, H., Komninos, N., Pallot, M., Trousse, B., Nilsson, M., & Oliveira, A... *Smart cities and the Future Internet: towards cooperation frameworks for open innovation*, 2011.
- [16] T. Ishida and K. Isbister, (eds.), "Digital cities: technologies, experiences, and future perspectives", New York: Springer, 2000.
- [17] R. P. Dameri and A. Cocchia, "Smart City and Digital City: twenty years of terminology evolution" Available at: [www.cersi.it](http://www.cersi.it), 2013.

- [18] M. Tregua, A. D'Auria, F. Bifulco, "Digital City vs. Smart City: a fuzzy debate", in Proceedings of The 3rd International Virtual Conference, 2014.
- [19] A. F. J. Van Raan, "The use of bibliometric analysis in research performance assessment and monitoring of interdisciplinary scientific developments", in *Technikfolgenabschätzung-Theorie und Praxis/Technology. Assessment-Theory and Practice*, 2003.
- [20] T. Nam and T. A. Pardo, "Smart city as urban innovation: focusing on management, policy, and context", ICEGov 2011, Tallinn, Estonia, 26-28 September, 2011.
- [21] E. Talen, "Sprawl retrofit: sustainable urban form in unsustainable places", *Environment and Planning B: Planning and Design* Vol. 38; No. 6; pp. 952-978, 2011.
- [22] R. Giffinger, C. Fertner, H. Kramar, R. Kalasek, N. Pichler-Milanović, N. and E. Meijers, "Smart Cities: Ranking of European Medium-Sized Cities," Centre of Regional Science (SRF), Vienna University of Technology, 2007.
- [23] M. Rogers, R. Ryan, "The triple bottom line for sustainable community development", *Local Environment* Vol. 6, pp. 279-289, 2001.
- [24] B.R. Chabowski, J.A. Mena, T.L. Gonzalez-Padron, "The structure of sustainability research in marketing, 1958-2008: a basis for future research opportunities", *Journal of the Academy of Marketing Science*, Vol. 39 (1), pp. 55-70, 2011.
- [25] T. Beatley, "Green Urbanism. Learning from European Cities", Island Press: Washington DC, 2000.
- [26] J. Schilling and J. Logan, "Greening the Rust Belt: a green infrastructure model for right sizing America's shrinking cities". *Journal of the American Planning Association*, Vol. 74, No. 4 pp. 451-466, 2008.
- [27] S. McDonald, N. Malys, N. Maliené, "Urban regeneration for sustainable communities: A case study", *Technological and Economic Development of Economy*, Vol. 15, No.1 pp. 49-59, 2009.
- [28] T. Yigitcanlar, A. Lönnqvist, "Benchmarking knowledge-based urban development performance: Results from the international comparison of Helsinki", *Cities*, Vol. 31, pp. 357-369, 2012.
- [29] V. Pestoff, "Collective Action and the Sustainability of Co-Production." *Public Management Review* 16.3 (2014): 383-401.
- [30] S. Mellouli, L. F. Luna-Reyes, and J. Zhang, "Smart government, citizen participation and open data" in *Information Polity*, 19(1), 1-4, 2014.
- [31] A. D'Auria, M. Tregua, F. Bifulco, "Digital City towards Smart City: a theoretical overview", in Proceedings of The 2nd International Virtual Conference on Advanced Scientific Results.
- [32] O. Persson, "Bibexcel: a toolbox for bibliometricians". Vol. 4. version 2008.
- [33] N. J. Van Eck, and L. Waltman, "VOSviewer: A computer program for bibliometric mapping", 2009.
- [34] T. L. Bremholm, "Challenges and opportunities for bibliometrics in the electronic environment: The case of the proceedings of the Oklahoma Academy of Science". *Science & Technology Libraries*, 25(1-2), 87-107, 2004.

# E-government Implementation in the Republic of Macedonia - a Practical Model

(New Developments)

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**Abstract** - This paper examines the transformation of the Macedonian government operations and the implementation of e-government processes, i.e. running and delivery of the government services through the use of information and communication technologies. The research design includes a critical investigation on the evolution of the ICT and its role in the transformation of the public services and processes of government management in the world, for which a selection was made of countries with high level in development of the e-government processes in order to inquest the best practices of the e-government management and an analysis on theoretical models on the development of the e-government. Generally, this paper aims to formulate a model to achieve a successful implementation of e-government in the Republic of Macedonia. Based on the results obtained in the research study presented, the discussion for the best e-government practices and, analysis of theoretical models of e-government and models developed by international institutions, a model for successful implementation of e-government in the country is formulated.

**Keywords** - e-government, information and communication technologies, public services, Republic of Macedonia, model.

## I. INTRODUCTION

The significance of this paper is derived, drawn out from the wide-ranging worldwide interest towards the IT revolution and the emergence of the IT society in a time of power of the IT. The changing force in the last decade has of course been the internet, the biggest machine built by men. The innovation has shifted from mechanical to electro-mechanical and later on electronic. What makes this paper different is its focus on the intelligent technology and its transforming effect as a revolutionary change in the public sector. There is a radical difference between the information and communication technologies from the generally known infrastructure from previous decades. The paper places emphasis on interaction and participation and vastly spreads towards the media used with its hundred millions interconnections and the approach of those influencing the approval or rejection of the new styles of work within the government sector. The problems regarding the factors for successful e-transformation of the government of the Republic of Macedonia and the effects of the initiative of the e-government in the growth of the Republic of Macedonia have a significant place in this paper.

## II. E-GOVERNMENT MODELS

The e-government is not a one-step process but undergoes several levels and phases of development. The process of implementation of e-government undergoes different phases that are independent from one another, one does not have to be completed before another one begins, and they conceptually offer four ways to deliberate upon the levels of approach towards e-government, interaction, transaction and integration.

To help public administrators think about e-government and their organizations Layne and Lee (2001) provided a four stage e-government development and proposes a 'stages of growth' model for fully functional e-Government:

- *Cataloguing*: In stage one of cataloguing, initial efforts of state governments are focused on establishing an on-line presence for the government.
- *Transaction*: In the transaction stage, e-government initiatives will focus on connecting the internal government system to on-line interfaces and allowing citizens to transact with government electronically.
- *Vertical integration*: Vertical integration refers to local, state and federal governments connected for different functions or services of government.
- *Horizontal integration*: Horizontal integration is defined as integration across different functions and services. In defining the stages of e-government development, the vertical integration across different levels within similar functionality is posited to precede the horizontal integration across different functions.

United Nations Division for Public Economics and Public Administration (2001) study "Benchmarking E-government: A Global Perspective, Assessing the Progress of the UN Member States" identifies the five stages for quantifying progress of e-Government. Study identifies e-Government stages as representative of the Government's level of development based primarily on the content and deliverable services available through official websites.

- *Emerging*: An official government online presence is established through a few independent official sites. Information is limited, basic and static.

- **Enhanced:** Government sites increase; information becomes more dynamic. Content and information is updated with greater regularity.
- **Interactive:** Users can download forms, e-mail officials, interact through the web and make appointments and requests.
- **Transactional:** Users can actually pay for services or conduct financial transactions online.
- **Seamless:** Full integration of e-services across administrative boundaries. Total integration of e-functions and services across administrative and departmental boundaries.

To measure progress for e-government initiatives and to establish a road map to achieve the desired levels of constituency service Gartner research (2000) study titled "Gartner's Four Phases of e-Government Model" classifies e-government into four distinct phases. This can serve as a reference to position where a project fits in the overall evolution of an e-government strategy.

- **Presence:** This stage is classified by a simple information-providing Web site of a passive nature, sometimes described as "brochure ware," indicating the same level of functions as a paper brochure.
- **Interaction:** The interaction stage offers simple interactions between government and citizen (G2C), government to business (G2B), or government agency to government agency (G2G). Interaction stage Web sites provide e-mail contact and interactive forms that generate informational responses.
- **Transaction:** The transaction stage enables transactions such as paying for license renewals online, paying taxes or fees, or submitting bids for procurement contracts.
- **Transformation:** The highest stage, most closely aligned with the concept of governance, involves a reinvention of how government functions are conceived and organized.

It is clear that e-government involves multiple stages or phases of development and is not a one-step process. The process of e-government implementation into different phases, these phases are not dependent on each other, nor need one phase to be completed before another can begin, but conceptually they offer four ways to think about the stage of e-government access, interaction, transaction and integration. Moreover, e-government does not happen just because a government buys more computers and puts up a website. While online service delivery can be more efficient and less costly than other channels, cost savings and service improvements are not automatic.

If we look at the types of explanation provided by the e-government studies some observations can be made.

Firstly, many e-government studies place an accent on the circumstances under which a successful e-government project can be implemented (in the case of realization of the e-

government goals). This approach takes a socio-deterministic perspective in the sense of dominance of the managerial and project orientation. Empirical studies are strongly focused on the influence of specific organizational, financial, technological and other conditions for successful implementation of the single window concept, government gateway and central registry. The main problem is the identification as well as how and when the change and implementation management was successful and the accent is placed on presentation and comparison of the best or good quality practices. For the theoretical basis, the study focuses on adopting these best practices and strongly relies on the change of technological literature.

Secondly, several types of lists and models exist that indicate what should be done, how to react and how to continue. This includes the so called phase method of e-government which shows through which phase the government should pass in order to reach the full form of e-government. The model begins with the presentation of a web site which evolves, develops into vertical and horizontal integration of services leading to transformation in government into interdisciplinary government. As a result of this model several types of ranking are created in order to simplify the understanding of the e-government outlook of this phase. Basically, these models are trying to understand the maturity of the e-government where the look of the e-government in the country is explained and viewed through the maturity of the services provided. These explanations are of technical-deterministic nature and they pay little attention to contextual and institutional differences. They are useful as a starting point in the international comparisons however they are based on simplified and naïve concepts of the government and therefore have limited value in the context and understanding of specific transformation.

Thirdly, due to the public and political acceptance of the assumption that ICT will contribute towards better government, e-government is defined as something 'good': good in the way that it helps modernize the government. The value of the e-government is not debatable: often the resilience is marked as old fashioned or resulting in lack of understanding of new technology. This prejudice leads to increased attention regarding the question of reaching proclaimed benefit from the e-government. Because of this, research of e-government carries a normative connotation. These normative prejudices are strengthening of the dominant starting point of numerous documents and researches regarding e-government politics. Even though many researches and documents define the citizens as customers, the central-government approach dominates. The accent is placed on the government and its perspective how to use the new technologies for interaction with citizens and companies.

### III. LEADING WORLD PRACTICES

As a common characteristic with the countries with highest level of e-government implementation is the use of an approach for different sites for personal information, services and offers for participation. In a few European countries the e-government services focus in the nationally organized one window channels providing 20 basic e-services of essential importance to the

citizens while information provided by the government forms a different site with information services integrated from all the sectors. Experience from the evaluation made in 2013 indicates a gradual integration of more and more services from sectors and agencies.

The indicators extent from static information such as links to ministries/departments, archived information and regional/local government services all the way to one-way government-citizen informational flow such as on-line politics, laws and legislatives, report, bulletin and among others information accessible via internet; up to two-way financial and non-financial transaction services and advanced technical possibilities such as phone applications as well as integrated and participative services characterized with integrated government-government, government-citizen and citizen-government interaction in the final phase. Whilst few countries notice progress and move towards one integrated site, others develop their own e-government offers through more than one site with theme and/or functional services integrated to make the e-information separated from e-services and e-participation. Even though all of them have integrated services through different sections of themes and functional sites, it tends to make it difficult for the user to search through government information, services and participation all in one. USA, Finland, Canada, The Netherlands as well as Korea, Israel, Australia, Norway, Denmark, Bahrain, Qatar, Arab Emirates and New Zealand are amongst the few who are closest to the unique one-window site for information, services and participation services integrated in a single web site.

None of the listed countries implemented the e-government strategy as a process of linear change, which continuously leads to the expected improvement, anticipated from the theory itself. These highly complex societies, processes such as culture, geography, politics, economic achievements, globalization, participation in international organizations, can result in unexpected and unpredictable interaction. These challenges are realized, understood and directed by e-government strategies in order that their vision is implemented and can contribute for the better with the economic, social and technological development.

As it may be expected, the process of implementation of e-government in all countries have to similar priorities aiming to be realized, such as: unique site for access with intention of delivering e-government services, improving ICT skills simultaneously for the civil sector of employees as well as the society, and the less similar priorities such as avoiding the external barriers which could overload the further progress, flexibility in achieving the goals, etc. Finally, the main focus for most of the e-government strategies has migrated from providing on-line access to services to transformation of the government service into civil-centralised processes.

#### IV. CASE STUDY – THE REPUBLIC OF MACEDONIA

The Republic of Macedonia has made a great progress in the development and the implementation of e-government in the past few years. It is certain that the development of the E-government is one of the strategic priorities of the Republic of Macedonia, through which an improvement in the functionality in the public administration is expected.

The first activities in the construction of e-government in the Republic of Macedonia were self-governing projects of diverse initiatives and actions, financed and initiated by donors or budgets and plans of the institution implementing the changes. The majority of these projects were successful and their products are in use up until today, but what is more important they can be used as experience to derive lessons in how to manage the process. The establishment of the Ministry of informatics society can be seen as a declarative expression of the wish and readiness for advancing in the development of the informatics society at operational and executive level and it makes it clear that the government's imperative is the development of e-government. Furthermore, a big step is the transition of the Ministry of informatics society to Ministry of informatics society and administration and the delegation of responsibilities to centralized management of the services and administration into one body and by it synchronies the development of e-government and e-governance.

Initially, the institution-citizen interaction comes down to web sites which provide all the information on services offered by the institutions. The development of the site [uslugi.gov.mk](http://uslugi.gov.mk) united all information within one web location. For the majority of services there were forms and exemplars available for download. The further development of the Republic of Macedonia, respectively its government agencies and institutions made a significant step overcoming a few steps from the standard development of the e-government project incorporating the experience of other countries which had successfully implemented the project. With it some of the services have been implemented in their most sophisticated forms.

The development of the e-government, developed, adapted or adopted is a relevant regulatory frame needed to provide and secure the exchange of information. The electronic management laws, law for protection of personal data, law for electronic communication, law for electronic data and electronic signature as well as their articles are amongst the law instruments which are subjects of change in order to provide full protection, suitable and successful implementation of the e-government applications and security in the maintenance of the concept and solutions. These instruments established security standards. Data protection and validity of on line transactions as well as increased the liberalization of the telecommunication market.

Unfortunately, the most common situation is the unwillingness to change, refusing the use of ICT on every day basis, lack of knowledge and experience in the area of ICT, lack of culture and attitude towards a service oriented administration. In this area, the Republic of Macedonia is putting in great efforts and expecting a long-lasting effect. The establishment of new ICT institutions worldwide, opening ICT departments within existing institutions, setting up tools is helping the Macedonian vision - 'Macedonia, land of information technology' to reach an academic level. This initiative begins early in the process of education of new generations, in the early years of elementary school, where the pupils have the chance to work on computers with certain dynamic and set goals. ICT is integrated in all of the subject programmes in elementary, secondary and vocational school.

Organised and regularly run are the free courses in basis in computer literacy as well as advanced courses for the administration employees and unemployed. With this the government not only is trying to built capacities for human resources but also create necessity for the e-government services.

In the republic of Macedonia the technological conditions are getting better daily down to the improvements in the telecommunication infrastructure, software and hardware. But, as a result of new trends and innovations the main challenge and goal are integration of all systems into one smart interoperable system of study. Most of the institutions are equipped with appropriate technology and have high quality service offer, but there are some key institutions facing a lack of equipment and this is getting sorted over time. The liberalized market and the Public procurement law, low taxes on ICT equipment and other measures make a solid ground for ongoing improvement in the infrastructure needed for the operation of e-services.

The Republic of Macedonia is ranked 96<sup>th</sup> out of 193 countries by its E-government Development Index (EGDI), and it is accompanied by countries from South America, Africa and Eastern Europe.

TABLE I. THE RANKING OF MACEDONIA ACCORDING TO THE EGDI

2014 E-Government Development Index	Rank	EGDI
 Saint Kitts and Nevis	90	0.4980
 Trinidad and Tobago	91	0.4932
 Bahamas	92	0.4900
 South Africa	93	0.4869
 Maldives	94	0.4813
 Philippines	95	0.4768
 The Former Yugoslav Republic of Macedonia	96	0.4720
 Bosnia and Herzegovina	97	0.4707
 Tonga	98	0.4706
 Viet Nam	99	0.4705
 Uzbekistan	100	0.4695

EGDI (ranked 0-1) has dropped in Macedonia from 0.5587 in 2012 down to 0.4720 in 2014. In terms of the development of E-Government and e-government index among the countries in the region, the Republic of Macedonia is ranked ahead Bosnia and Herzegovina, while Greece, Bulgaria, Serbia, Albania, Croatia, Montenegro and Slovenia are ranked higher.

TABLE II. THE CHANGE IN MACEDONIAN RANKING ACCORDING TO THE EGDI

E-Government Development Index	2012	2014	EGDI	Rank Change
 The former Yugoslav Republic of Macedonia	70	96	0.4720	-26

The Republic of Macedonia falls behind the pace of the other countries. That is all due to the need of process reform and transformation in order to overcome the financial, legal and technological obstacles, as well as the problems arising from the E-government process resistance coming from any party. According to world practices, the transformation processes can be unsuccessful as a result of lack of knowledge, incorrect time assesment, lack of resources, problems with the surrounding and so, that suggests the need for a strong commitment by the leaders of governmental institutions.

#### V. MODEL PROPOSAL FOR THE IMPLEMENTATION OF E-GOVERNMENT IN MACEDONIA

In order to achieve a successful e-government implementation there has to be a unique approach to this process in our country. With this it can be concluded that the e-government implementation in our country has to be adequate and improved. This paper recommends and formulates a model to achieve a successful e-government in republic of Macedonia based on the obvious results gathered through the paper presented research and the discussion for the leading e-government practices in the countries with the most developed e-government process and analysis of the theoretical model of e-government developed by international institutions, all of this with the goal to realize the vision the Macedonian e-government has.

The research for this paper was conducted as follows:

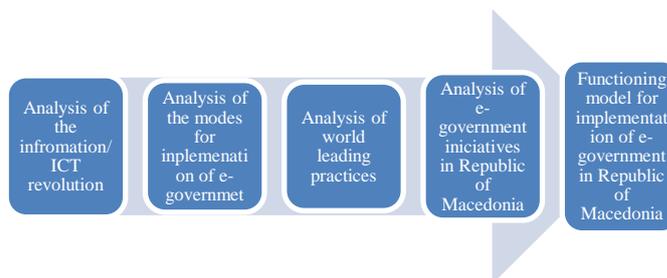


Image 1: The research flow

Taking into account the specific situation and the existing obstacles in the Republic of Macedonia, but also comparing and studying the current models of an E government, such as Gartner Research (2000), United Nations (2001), Layne and Lee (2001) World Bank (2002), as well as the achieved results in the processes of implementing e-government in the Republic of Macedonia, a potentially effective model for project implementation is offered in this paper. The framework of this model is composed by:

1. **Cataloging Stage.** This initial stage is in accordance with having the basic web page and visible, obtainable intranet connection. In other words, Republic of Macedonia can become part of the e-government. For many countries, improvement in this stage can be a real success by itself.
2. **Enhanced Stage.** The quality and quantity of information expands significantly whilst concentrating towards the needs and interests of the user. The government web sites are multiplied, but rarely is that in a organized and coherent way. Links appear between pages and a simple government site or passage can be seen. Internally,

questions arise and decisions are made regarding the transparency and openness, as well as the public status and the value of the information provided by the government. Of course, setting up a web page does not change the way the agency operates. Electronic publication appears when the agency expands its external web site to be an important element in the overall communication strategy; however, the agency does not really connect with the agency system of background working. This second stage, or some form of it, in the Republic of Macedonia and other countries in development, is being procrastinated. Even if the process of e-publishing is not made sophisticated, there is a big part of materials in need of digitalization. This strengthened presence is not restrained to simple posting of information but in time incorporates some better options for downloading documentation and the possibility of accessing it, but it is very advanced. This 'simple interaction' signalizes the natural transition to the next stage.

3. **Interaction Stage.** The government's presence over the internet is increasing dramatically with a possibility for two way interaction. Specialized data basis can be searched and some forms and applications can be downloaded or submitted. In the highest level of modernization the user can adjust the running of the web site to the way most suitable to their need. An intensive e-mail interaction with the government is encouraged so that the answers would be timely and organized. Agencies also have partial or full intranet. Rarely in this stage timely or any kind of answer is given to the sent e-mails. This shows that some time will be needed before implementing this function in the new service oriented organizational culture, which is the basis for a successful e-government.
4. **Transactional Stage.** This is the current stage for numerous world agencies and a goal for many e-government initiatives in the public sector in the Republic of Macedonia. This stage includes a total electronic case management. The users can connect to the agencies online. They can verify and take full control of the transaction. Agencies have full intranet connected to the outer web sites. They can also have an extranet to other government agencies or contractors.
5. **Integration Stage.** The final stage is closer to the vision and probably the merging of all previous phases. The extended overtake of transaction capabilities in all parts of the public sector would lead to the full merging of the government where all the agencies will be mutually connected, transformed to share give information and services to the citizens and users. In this stage the government has the capacity to instantly access any service in the unified package. Ministry, department and agency lines of demarcation are repaired using cyber space. This stage is not a characteristic of the so far analyzed models and leading world practices. This is specifically for the e-government in republic of Macedonia. This phase is possible in the republic of Macedonia because its relatively small geographical expansion and the accumulation of its citizenship in the capital where the government agencies and ministries are

located, meaning were the offer of government services is. Also, the characteristic of this stage is that it is a reflection of the e-government vision of the Republic of Macedonia.

## VI. CONCLUSION

This paper describes the appearance the e-government in Republic of Macedonia and takes in account its status, level of acceptance, level of completion, factors for successful e-transformation, desired effects on the development of Republic of Macedonia and lastly, formulated a basic and viable programme and at the same time method for a successful transformation of the e-government in Republic of Macedonia. The developed model is based on the results obtained in the research study presented, the discussion for the best e-government practices and, analysis of theoretical models of e-government and models developed by international institutions. Two social segments were included, namely: citizen/customer and government workers who take the lead roles in the e-government of the Republic of Macedonia.

The tendency of the Republic of Macedonia for the implementation of the e-government project comes from the desire to offer more efficiency and more transparency in the government dealing, as well as more quality services to the users. These ideas can be realized only by the interaction of the citizens in the process of building an information society, providing adequate infrastructure, adopting legal and institutional framework for the development of information society, creating logical infrastructure to the modern ICT solutions and network to connect the government institutions, providing electronic and on-line transactions for the E-government services which stimulate economic and social prosperity, and finally increasing the number of ICT experts and the level of ICT literacy in the public administration.

Regarding the case of the republic of Macedonia, in context of the progress in the area of e-government, it can be seen that the country has achieved a significant improvement. However, despite that Macedonia has a long way ahead before in the wish to create new services, better quality of information, creation of standardized and harmonization, running of interoperability of data and exchange between documents and integration in the system

## REFERENCES

- [1] Accenture, eGovernment Leadership: High Performance, Maximum Value, The Government Executive Series, 2004.
- [2] Baum, C. and A. Di Maio, 2000. Gartner's four phases of e-government model. <http://www.gartner.com/DisplayDocument?id=317292>.
- [3] David Coursey and Donald F. Norris, Models of E-Government: Are They Correct? An Empirical Assessment, Blackwell Publishing Limited, 2008.
- [4] Gartner Research. (2003). *Traditional ROI Measures Will Fail in Government* [http://www.gartner.com/resources/116100/116131/traditional\\_roi.pdf](http://www.gartner.com/resources/116100/116131/traditional_roi.pdf)
- [5] Layne, K., & Lee, J. (2001). Developing fully functional E-government: A four stage model. *Government Information Quarterly*, 18, 122 -136.
- [6] Ministry of Information Society and Administration, E-government National Strategy 2010-2012 [http://mio.gov.mk/files/pdf/dokumenti/Predlog-Akcionen\\_plan\\_17.06.2010.pdf](http://mio.gov.mk/files/pdf/dokumenti/Predlog-Akcionen_plan_17.06.2010.pdf)
- [7] Richard Heeks, Implementing and Managing e-Government, SAGE Publications Ltd, 2006.

- [8] United Nations, Department of Economic and Social Affairs, Division for Public Administration and Development Management.  
<http://unpan3.un.org/egovkb/en-us/Data-Center>

# Creative accounting versus the financial result of an enterprise

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**Abstract-** Each entrepreneur is obliged to run his business in accordance with the law. However, the legislator gives entrepreneurs a choice with regard to the manner of running their business. When fulfilling the basic economic goals, i.e. generating a profit and continuing the activity, economic subjects follow a lawful balance policy or overstep the boundaries of the legality of their actions and manipulate the financial data. This boundary is frequently very difficult to determine as it is based on intangible values, such as morality or ethics.

The aim of the article is to outline issues related to creative accounting and present the potential risk and consequences of unlawful balance policies for the results of an enterprise.

**Key words:** *accounting policy, balance policy, creative accounting, accounting fraud, financial result*

## I. INTRODUCTION

Due to the regulations in force, each economic subject in Poland is obliged to keep records of its business. When fulfilling their economic goals, i.e. generating a profit and continuing the activity, economic units follow a lawful balance policy or overstep the boundaries of the lawfulness of their actions and manipulate the financial data. This boundary is frequently very thin and its determination very difficult, as it is based on intangible values, such as morality or ethics.

The aim of the article is to outline issues related to creative accounting and to present its potential consequences and the influence of unlawful balance policy on the financial result of an enterprise.

## II. COMPANY'S BALANCE POLICY AND ITS ELEMENTS

The legal norms in our country contain specific regulations related to the organization and functioning of accounting. On the other hand, the legislator gives entrepreneurs a possibility to choose from among a few options, leaving them a certain area of freedom (6). Another important issue is the fact that the legislator provides the entrepreneur with a possibility of changing the selected option to another one, which comes in force on the first day of the financial year, irrespective of the date of making the decision (11). Using these possibilities allows an enterprise to achieve the goals in a faster and easier way.

Problems involved in the application of alternative solutions in accounting in the process of decision-making are referred to as balance policy. It is a component of the enterprise's policy and an instrument used to fulfil its goals. It

supports the investing, financing, tax and information policy. Balance policy instruments include among others a reduction of tax liabilities, gaining a capital or maximizing the corporate value. They shape the company's image presented in a financial statement. This allows influencing the environment's assessment of various aspects of the company's activity (10).

In subject literature balance policy is sometimes identified with accounting policy (5). According to International Accounting Standard No. 8 "Principles (policy) of accounting are particular rules, methods, conventions, principles and practices adopted by a unit when drawing up and presenting the financial statements." (3). The Accounting Act defines accounting principles (policy) as "lawful solutions selected and applied by a unit, including the ones specified in IAS, which ensure the required quality of financial statements" (15). The accounting policy is a set of principles, rules, methods, agreements and procedures adopted by the management of the company in the presentation and development of the financial statements. Adopted in the company's accounting policy should be applied continuously failing in subsequent financial years of change. Balance sheet policy is narrower concept. In the German literature in accounting policy is identified with the policy balance

From the point of view of possibilities to follow a certain balance policy, legal regulations can be divided into two groups (5). The first group includes mandatory provisions of law and the ones which formulate particular "dos and don'ts" with regard to book-keeping principles. Their observance obliges a company to present its real financial condition (6). The second group contains regulations ensuring the freedom to choose accounting principles which determine the areas of an enterprise's balance policy, e.g. a set of permitted methods of depreciation calculation or stock valuation methods. The term "balance policy" can be interpreted from two perspectives: wide and narrow. The notion of balance policy in the broad sense involves shaping a financial statement which is focused on a selected goal. This refers to both methods and theories adopted for the needs of achieving the goals and related balance concepts, such as e.g.: the trade balance concept, the tax balance concept, the consolidated balance concept, the liquidation balance concept.

As part of the balance policy, an enterprise makes use of material and formal balance policies. They are presented in Tables 1 and 2.

TABLE I. INSTRUMENTS OF MATERIAL BALANCE POLICY

Valuation alternatives			
Options		Freedom of action	
Assets	Liabilities	Assets	Liabilities
Depreciation method	Division of pension allowances	Period of tangible assets use	Value of reserves due to guarantees granted
Additional depreciation	Choice of age as a basis for pension allowance	Separation of the price of land and buildings from the acquisition price	Value of particular reserves for particular risks
Depreciation in the case of movable tangible assets	Valuation of liabilities in foreign currencies	Scope of additional depreciation allowances	Allowing for an increase in costs after the balance sheet day
Choice between valuation according to book value and current value		Taking into account the size of employment when calculating the manufacturing cost	Value of interest rate in the case of interests

Source: (12)

TABLE II. INSTRUMENTS OF FORMAL BALANCE POLICY

Instruments of formal balance policy shaping the state of affairs		
Influencing the capital structure	Improvement of solvency	Influencing the „sensitive” items
Compensation of some short-term liabilities with liquid cash	Delayed purchase of goods and materials	Avoidance of claims towards holdings by acquiring the debtor’s assets
Division of fixed assets into smaller enterprises	Funds contributed by new shareholders before the balance sheet day	Division of the enterprise into smaller ones
Change of short-term foreign capital for a long-term one	Factoring and accelerated enforcement of receivables	Decreasing the balance sheet sum by postponing the balance sheet day beyond the season
Leasing instead of purchase	Delayed payment of liabilities	Change in the structure of remuneration and bonuses
Creating reserves from the balance profit	Demanding advance payments from customers	

Source: (12)

### III. CREATIVE ACCOUNTING VERSUS ACCOUNTING FRAUDS

The fact that an economic subject observes the accounting law provisions when creating its balance policy does not guarantee the credibility of the picture of the company’s financial condition presented in financial statements. For “financial statements embellishing” is a common problem.

Creative accounting can be defined as:

- a process of manipulating the data by using loopholes in the accounting principles and the selection of methods of measuring and presenting the reporting data, transforming the financial statements into the ones which present the state of affairs in a way that fulfils the expectations of persons who draw them up;
- processes of classifying and transforming the events and operations in a way which ensures obtaining a desirable accounting result rather than presenting a transaction in accordance with the principles of neutrality and consistency (continuity of the applied principles) (4)

These phenomena are involved in accounting created by the management board in order to embellish the image of the company. Therefore, creative accounting consists in skilfully manipulating the accounting principles, making changes in the balance policy and the accounting system in order to create an impression that the financial condition of the economic subject is different than it really is (14).

However, the notion of creative accounting is understood in various ways by theoreticians and practitioners. It can have both a positive and negative overtone. In the negative meaning, creative accounting is defined as aggressive accounting or fraud. Aggressive accounting is defined as accounting aimed at embezzlement and artificial overstating of the profits (8).

However, fraud should be distinguished from mistakes. The notion “mistake” means an unintentional irregularity in financial statements or failure to recognize accounting data as well as failure to disclose information due to for example (2): improper application of accounting principles for evaluation, presentation, classification and disclosure of information, incorrect accounting estimates caused by wrong interpretation of facts or oversight, mistakes committed in the process of collecting and processing the data used for drawing up a financial statement.

According to B. Elliott and J. Elliott, the notion “creative accounting” suggests that the management board of an enterprise has prepared information contained in the financial statements in a way that satisfies the management itself rather than the shareholders. The management board is pressed to present a growing profit-generating trend rather than a convincing balance sheet. This may result in the “smoothing” of the financial result so that a desirable amount of profit can be obtained while simultaneously excluding some liabilities from the balance sheet” (1). The establishing of standards according to which the values recognized in financial statements should be calculated and, next, their mandatory application as part of normative accounting gradually contributes to the disclosure of these practices, but this process

is usually delayed in relation to the creativity and “innovation” of financial statements’ producers.

R. Parker (9) defined creative accounting as using financial statements in order to mislead rather than inform. In his opinion, it intensified the conflict between the accounting profession and institutions that establish standards regulating the financial reporting.

Financial frauds, i.e. manipulation of accounting records, occur not only in the situation of understating the profits in order to reduce the value of financial benefits for the state budget, which is a so-called “downward” forgery, but are also aimed at concealing the weak financial condition of companies, which try to increase their value by “upward” forging.

According to International Financial Revision Standards and Hedging Services (IFRS 240), fraud is defined as: intentional activity undertaken by one or a few members of the management board, employees or third parties which leads to irregularities in a financial statement. It can consist in: manipulating, forging or changing the data or documents, appropriating the assets, excluding or omitting the results of transactions in accounting records or documents, improper use of the accounting principles (policy).

All these activities belong to economic crimes when they have four common elements: they are performed in secret, they breach the perpetrator’s trust obligations towards the organization, they are undertaken in order to achieve direct or indirect financial benefits and they cause losses in the organization’s assets, profits or resources.

#### IV. INFLUENCE OF FINANCIAL FRAUDS ON THE FINANCIAL RESULT

Fraud may be beneficial for both the owners and the management board of a particular unit. The management board, in order to obtain a higher remuneration, which depends on the tangible effects in the form of data contained in a financial statement, may be interested in showing a better financial result. Also the owners may want to create an impression that the company’s value is higher than it really is. Their activities fall into two categories:

1. Forgeries aimed at cheating the tax authorities, self-governmental or economic organizations, the purpose of which is to reduce the fees, taxes and benefits or to conceal illicit interests etc. They may consist in showing results that are better than in reality so as to transfer profits concerning the previous or subsequent period to the period in which their deficit occurs. This allows avoiding the results of income tax rate progressiveness in units which do not have a legal personality.
2. Forgeries aimed at cheating third parties, when the owner presents his business in a more or less favourable light compared to the real situation. The company is usually presented in a more favourable light before its sale, in the case of new shareholders’ appearance, a projected merger, in order to obtain a bank credit as well as for advertising purposes or goals dictated by ambition. On the other hand, unfavourable

presentation of the company’s condition is aimed at cheating the creditors in conciliatory proceedings or harming the shareholders in the process of profit division (13).

In practice, a considerable part of techniques involved in accounting frauds is related to the forging of costs or incomes, which has a direct impact on the financial result of the unit in a current or subsequent periods. Much less frequently the frauds are directly connected with the category of assets and liabilities. Therefore, fraud techniques are often classified as techniques enabling cost value manipulation; techniques enabling income value manipulation and other techniques (7).

Presenting the condition of an enterprise in a favourable light may result from the fact that the management board wants to sell it, influence the level of shares, obtain high ratings which translate into bonuses, or conceal the company’s insolvency, the reasons for declaring its bankruptcy as well as the malfunctions and losses.

A positive image of a company is achieved by: showing a relatively high risk in order to present the possibilities of the unit’s development, understating the fixed assets depreciation, understating the values of accruals, high estimation of stock-taking value or recognizing the merchandise consigned for sale as the already sold one.

An overly positive picture of the enterprise may cause opposite effects, resulting in e.g. creditors demanding higher interests on the incurred liabilities.

Presenting a tendentiously negative image of the unit’s condition comes down to showing worse results or a worse financial condition of the company. Such activities may be aimed at e.g. limiting or avoiding the tax obligations (6). A tendentiously negative picture of the company’s situation can be obtained by demonstrating a possibly low profit, the lack of financial liquidity, high reserves for liabilities, maintaining the allowances or profit payments on a possibly low level, showing a balance sheet loss, establishing a fixed percentage rate of dividend despite generating a relatively high profit (12).

#### V. CREATIVE ACCOUNTING ON THE EXAMINED UNIT’S FINANCIAL STATEMENT

Company “X” provides services. In February 2014 the examined company decided to take part in a tender for preparing a training project. One of the requirements imposed by the ordering party was having an equity capital of minimum PLN 75 000. The selected items of the company’s balance sheet as of 31.01.2013 were as follows:

TABLE III. SELECTED ITEMS OF THE BALANCE SHEET OF COMPANY “X”

BALANCE SHEET	
Assets	Liabilities
Short-term financial assets 50.000	Equity capital PLN 65.000

Source: Own study based on the data provided by company “X”

In the item „Short-term financial assets” company “X” presented the value of shares of stock-listed company „Z”,

which were purchased in November with the aim of reselling them within 6 months.

To reach the level of equity capital required in the tender, the company's management board was considering shifting the value between particular categories of assets. Moreover, it could be achieved by increasing the equity capital accompanied by a simultaneous increase of the unit's assets (e.g. additional financial contribution). However, the company did not succeed in finding a new partner. The company decided to reach a higher level of the equity capital by revaluating the fair value of the possessed short-term financial assets into long-term ones. The influence of the operation on particular balance sheet items and on the total balance sheet has been presented in Table 5.

TABLE IV. INFLUENCE OF FAIR VALUE REVALUATION ON THE BALANCE SHEET ITEMS

BALANCE SHEET			
Assets		Liabilities	
Short-term financial assets		Equity capital	65 000
	50 000	increase of value	+10 000
+ increase of fair value	+10 000	Capital value after increase	75 000
	60 000		
Total balance sheet	+	Total balance sheet	+
	10.000		10.000

Source: on the basis of data provided by company "X"

By applying revaluation, the company achieved the planned effect and will be able to participate in the tender. In the presented example a particular emphasis has been placed on the fact that depending on the desired effect, companies adopt various balance sheet policies; in order to achieve their goals they may commit frauds.

## VI. CONCLUSION

The forging of financial statements can lead to very serious consequences. Despite the fact that it is done in the interests of the owners of management board or, in exceptional cases, in the interests of both these groups, in the long run it may result in bankruptcy. A problem related to objective evaluation of economic operations arises when remunerating and evaluating of the management board depends on tangible effects in the form of values recognized in the balance sheet and the profit and loss account.

A typical example was a stock exchange listed company WorldCom. In 1999 its shares were sold at the price of 60 dollars. The company operated in 65 countries and employed more than 60000 people. It had 20 m. long-distance subscribers and 2 m. local subscribers in the USA. Since the middle of 1999 to May 2002 the company applied dishonest accounting methods in order to conceal decreasing salaries so as to maintain high prices of WorldCom shares. The mechanism of fraud worked in two ways: firstly, some costs for using other companies' networks were entered in the books as investments,

and, secondly, incomes from fraudulent accounting entries were increased. Owing to this and other manipulations, for the year 2001 and the first quarter of 2002 the company showed a profit of more than 1.5 billion dollars instead of a loss reaching presumably 1.2 billion dollars. WorldCom manipulated the data in the accounting books so that the financial image of the company would fulfil the expectations of Wall Street investors. By means of "aggressive accounting" the company overstated its incomes by 3.85 billion dollars. To survive, WorldCom declared its bankruptcy. Bankruptcy affected mainly the shareholders and creditors, but also the company employees.

After divulging the affairs in America it turned out that also strong West European enterprises were not free from the phenomenon of aggressive accounting. Therefore, the topic is still relevant today. The aim of the article was to explain basic notions related to creative accounting as well as to present its effect on the financial result. This aim has been achieved.

The provisions of law striving to ensure a more standardized accounting should help to reduce differences in the interpretation of financial statements and, thus, limit the freedom of choice and possibility of committing financial crimes.

## REFERENCES

- [1] Elliott B., Elliott J.: Financial Accounting and Reporting. Financial Times-Printice Hali 2000,
- [2] Guy D.,M.: Guide to International Standards on Auditing and Related Services 2003. Practitioners Publishing Company, Texas 2002.
- [3] International Financial Reporting Standard No 8, IASB 2012
- [4] Jameson M.: A practical Guide to Creative Accounting. Kogan Page, London 1998
- [5] Kaczmarek M., Polityka bilansowa jako narzędzie rachunkowości, published by Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2008r.,
- [6] Kamiński R., Polityka bilansowa a ocena działalności przedsiębiorstwa, published by Ars boni et aequi, Poznań 2003r.,
- [7] Kutera M., Holda A., Surdykowska S., Oszustwa księgowo : teoria i praktyka, published by Difin, Warszawa 2006.,
- [8] Mączyńska E.: Nieuczciwych metod księgowych nie powinno określać się jako kreatywne. Rzeczpospolita dated 09.08.2002.
- [9] Parker R.,: Financial reporting in the United Kongdom and Australia. W: Comparative International Accounting. Joint publication edited by C. Nobes and R. Parker. Prentice Hali 1995,
- [10] Płóciennik-Napierała J.: Rachunkowość w praktyce przedsiębiorstw usługowych. Difin, Warszawa 2006,
- [11] Sawicki K., Polityka bilansowa i analiza finansowa, Nowoczesne metody zarządzania przedsiębiorstwem, "Ekspert" Wydawnictwo i Doradztwo, Wrocław 2002.,
- [12] Sawicki K. (red.) Wykorzystanie polityki bilansowej i analizy finansowej w zarządzaniu przedsiębiorstwem, "Ekspert" Wydawnictwo i Doradztwo, Wrocław 2009,
- [13] Schneider K., Błędy i oszustwa w dokumentach finansowo-księgowych, Polskie Wydawnictwo Ekonomiczne, Warszawa 2007,
- [14] Surdykowska S., Normatywne i kreatywne aspekty rozwoju rachunkowości w Polsce. w: Podstawowe problemy rachunkowości jako dyscypliny naukowej i działalności praktycznej, Katowice, 2000,
- [15] Accounting Act dated 29th September 1994, the Journal of Laws as of 1994 No. 121, item 591 (with amendments), Art. 3 paragraph 11

# The relationship between accounting and corporate governance in the light of research areas

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**Abstract - This paper is of theoretical and empirical nature and its purpose is to determine whether during the analysed years the research problems permeated between accounting and corporate governance.**

**The analysis of the content of Polish and international publications in the field of accounting and corporate governance was the research method used in this article. The content presented in the article was also developed based on literature studies.**

**Keywords - corporate governance, accounting, research**

## I. INTRODUCTION

The concept of corporate governance has been permanently embedded in the literature on accounting. It should also be noted that research in the field of accounting (including in particular financial and non-financial reporting), presented in Polish and international publications, is conducted in relation to the issues related to corporate governance.

There is no doubt that communication between a company and the environment is an integral part of corporate governance [1], which takes place largely through financial and non-financial reporting. It appears, therefore, that the information presented by companies in the annual reports is the main bond of accounting and corporate governance. It has been noted in the literature that nowadays a reliable financial statement becomes a "heart" of corporate governance [2].

Taking into account the subject of interest of corporate governance (defined as "a system by which companies are managed and controlled" [3], and the subject of interest of accounting (understood as "information system for users to make economic decisions, especially financial decisions, and to appraise management performance in terms of responsible and effective stewardship" [4], it should be noted that the scope of the relationship between these fields of science is extremely extensive.

This paper is of theoretical and empirical nature and its purpose is to determine whether during the analysed years the research problems permeated between accounting and corporate governance.

The analysis of the content of Polish and international publications in the field of accounting and corporate governance was the research method used in this article. The content presented in the article was also developed based on literature studies.

## II. TWO DIMENSIONS OF THE RELATIONSHIP BETWEEN ACCOUNTING AND CORPORATE GOVERNANCE

In my opinion, the relationship between financial reporting, which is the final product of the accounting system (encompassing both subsystem of financial accounting and management accounting subsystem), and the mechanisms of corporate governance is crucial from the point of view of this article.

One of the objectives of financial reporting is to provide information to assess company's prospects of future cash flows. Financial reporting should also help to assess how effectively and efficiently the management of the enterprise performs their duties related to the management of enterprise resources [5].

The use of the information contained in the financial statements in the governance process has been very accurately defined by K. S. Nilsson, who says that principals do not have to be present in the organization to oversee the actions of agents, the accounting system does it instead of them [6]. According to R. M. Bushman and A. J. Smith, reliable, verified information contained in the financial statements [7]:

- facilitates shareholders' monitoring and effective exercising of their rights;
- motivates the supervisory board to act to strengthen value for shareholders by controlling the decisions and actions taken by managers;
- provides a rich set of variables which can be taken into account when developing the remuneration schemes for rewarding managers for efficient operation.

Financial reporting not only improves corporate governance mechanisms, but - as noted by R. Ball - is a warning light for surveillance - an early disclosure of losses or cash shortages, (possible deterioration of financial position), revealed in the published financial reports increases efficiency of corporate governance [8].

On the other hand, according to S. T. Surdykowska who quotes research conducted in the 1980s in the UK, "the key to solving the problem of the quality of information presented in the financial reports of corporations lies in diligently exercised corporate governance and actually, only in corporate governance should one look for effective tools for reducing the negative phenomena in the form of deliberate and unintentional

falsification of information contained in financial statements” [9].

Therefore, two planes of the relationship between corporate governance and financial reporting can be found in the literature. The first concerns the impact of corporate governance on the credibility of financial reports, and the second - the use of the reports in the process of corporate governance.

Within the first of these planes individual mechanisms of corporate governance, i.e., regulatory, internal, and external mechanisms affect the reliability of financial statements.

Regulatory mechanism of corporate governance is related, inter alia, to the development of the legislative and environmental rules on the scope and type of information disclosed by the entity. In turn, the external mechanism of corporate governance, in terms of the impact of this mechanism on the credibility of financial reports, consists, inter alia, in the fact that companies competing for capital must meet the needs of capital providers. Capital providers are priority users of financial reporting and the scope of information disclosed in the reports is adapted to their information needs. Presentation of information in financial reports in a manner difficult to assess the financial situation of an entity, “beautification” of financial reports or, worse, falsified reports result in the fact that capital providers stop to commit their resources to the entity. Particularly important, given the impact on the reliability of financial statements, is the internal mechanism of corporate governance. The basic tool of the internal mechanism, in addition to the provisions of the contract, is the work of supervisory boards. Actions taken by the supervisory board members to ensure the reliability of financial reporting consist on one hand, in shaping the accounting system, on the other hand - on monitoring the system [2].

Considering the second of these planes, it should be noted that reliable information contained in the financial reports is crucial to the effective corporate governance process. Financial reporting is the primary source of information on the performance of the company, its financial position and changes in that position. In addition, it provides information on how management implements accountability function. Owners of capital can use financial statements to determine whether the management boards properly carry out their role, i.e., effectively manage entrusted assets [2]. As reflected in the literature, the accountability of the board for the efficiency and effectiveness of its performance concerns not only past, but also future actions [10]. In this respect, non-financial and financial reporting plays a key role because it provides information about the company’s “financial architecture” [11] by means of which it is possible to assess prospects of the entity.

### III. THE RESULTS OF FOREIGN AND POLISH RESEARCH ON AREAS OF RESEARCH, UNDER THE FRAMEWORK OF CORPORATE GOVERNANCE AND ACCOUNTING

The scope of a given scientific discipline is determined, inter alia, by areas of research undertaken within the discipline. Therefore it seems reasonable to analyse research areas

presented in the literature in the field of corporate governance and accounting.

P. Brown, W. Beekes, and P. Verhoeven have analysed worldwide research on governance and on this basis have identified internal and external characteristics of corporate governance [12]. The term internal characteristics used by the authors means that it includes characteristics which are the result of decisions and actions relating to shareholders and board of directors (supervisory board). These characteristics include: establishment of and participation in boards of directors (supervisory boards) and their committees, ownership structure, funding system, and forms of management compensation [12]. External characteristics include monitoring the company by external entities, such as major shareholders, institutional investors and external auditors [12], [13].

P. Brown, W. Beekes, and P. Verhoeven have identified two types of research on corporate governance, related to both finance and accounting. The first type involves the research in the field of finance regarding corporate governance, the second, in turn, is a research work in the field of accounting on corporate governance [12].

The research in the field of finance relating to corporate governance included the following issues [12]:

- corporate governance and performance of the company, including: (1) composition of the board of directors (supervisory board) and the performance of the company; (2) the performance of the company and ownership structure; (3) the performance of the company and the external controlling shareholders; (4) the performance of the company and the market for corporate control; (5) the performance of the company and the legal protection of investors;
- corporate governance and the sensitivity of CEO turnover to performance;
- corporate governance and equity, including: (1) cost of capital; (2) payout policy;
- corporate governance and debt, including: (1) leverage; (2) the cost of debt.

The results of the studies conducted by P. Brown, W. Beekes, and P. Verhoeven suggest that research in the field of accounting related to corporate governance included the following issues [12]:

- corporate governance and company’s disclosures, including: (1) the scope of disclosures; (2) analysts’ forecasts; (3) regulations and their implementation;
- corporate governance and accounting quality, including: (1) conservatism and earnings timeliness; (2) earnings informativeness (strength of correlation between profits and rates of return); (3) earnings management (the process of selecting solutions available in the accounting policy for the presentation of the target state of performance of the enterprise); (4) correction of errors in the financial statement and accounting fraud.

The types of research problems undertaken in the field of accounting have been identified by R. U. Fulbier and T. Sellhorn. These authors have studied the abstracts of papers presented in the years 1978-2008 during the Annual Congresses of the European Accounting Association (EAA Annual Congresses). Based on the research, the following fields of research resulting from the publication of the topics presented in the years 1998-2008 have been identified: (1) Accounting and Capital Markets; (2) Accounting Education and Research; (3) Accounting History; (4) Accounting and Information Systems; (5) Accounting and Strategy; (6) Accounting Theory; (7) Auditing; (8) Critical Perspectives on Accounting; (9) Economic Analytical Accounting; (10) Financial Analysis; (11) Finance and Financial Management; (12) Financial Accounting (capital markets); (13) Financial Reporting; (14) Corporate Governance; (15) International Accounting; (16) Management Accounting; (17) Organization and Behavioural Aspects of Accounting; (18) Public Sector Accounting and Nonprofit Accounting; (19) Social and Environmental Accounting; (20) Accounting and Taxation; (21) Other [14].

It should be noted that the research on research trends in the field of accounting has been also carried out in Poland. As determined by J. Dobroszek and J. Michalak, among the identified 15 thematic fields of accounting, the issue of corporate governance was the least popular issue in Poland in the years 2010-2012. On the other hand, in the case of Annual Congresses of the Association of Accountants problem of corporate governance was one of the four most frequently presented research areas (2010-2013) [15].

#### IV. CORPORATE GOVERNANCE IN THE LITERATURE ON ACCOUNTING AND ACCOUNTING IN THE LITERATURE ON CORPORATE GOVERNANCE - THE ANALYSIS OF POLISH AND FOREIGN PUBLICATIONS

As part of the study an attempt was made to identify the issues in the field of accounting presented in publications in the field of corporate governance, and to identify the issues in the field of corporate governance presented in publications in the field of accounting.

The survey examined leading Polish and international journals in which articles on corporate governance and accounting have been published. The study included the following magazines:

- ‘Corporate Governance: An International Review’,
- ‘Contemporary Accounting Research’,
- ‘The British Accounting Review’,
- ‘Zeszyty Teoretyczne Rachunkowości’ [Theoretical Journal of Accounting].

The choice of these foreign journals stems from the fact that they are plane for an international scientific discussion on corporate governance and accounting. ‘Zeszyty Teoretyczne Rachunkowości’, in turn, is a renowned journal, recognized by the Polish scientific community. The journal reflects well the subjects of research conducted in the field of accounting. In addition, during the years under study special issues of

‘Zeszyty Teoretyczne Rachunkowości’ have been published presenting papers delivered at National Conventions of Departments of Accounting.

The research process included papers which have been published over the past 20 years, i.e., during the years 1993-2013.

The survey covered also 10 conference proceedings presenting the papers on corporate governance delivered at conferences organized by the Department of Institutional Economics at the Faculty of Economics and Sociology, University of Lodz and by the Department of Corporate Finance at the Faculty of Management at the University of Gdansk (these publications have been chosen, because, it seems, they well reflect the range of research issues on corporate governance undertaken in Poland). The conferences on corporate governance have been organized since 2000. From 2000 to 2008, conferences on corporate governance were organized every two years by the Department of Institutional Economics at the Faculty of Economics and Sociology, University of Lodz. Since 2009 conferences on corporate governance have been organized every year - once by the Department of Institutional Economics at the Faculty of Economics and Sociology, University of Lodz, and once by the Department of Corporate Finance at the Faculty of Management at the University of Gdansk.

The research process involved analysis of article titles and abstracts in the surveyed journals and conference proceedings. The full texts of articles have not been examined, so it is possible that subplots, or references to accounting (in the case of publications in the field of corporate governance) and corporate governance (in the case of publications in the field of accounting) have not been taken into account. If in a given article there were two (or more) issues on accounting (in the case of publications in the field of corporate governance) or in the field of corporate governance (in the case of publications in the field of accounting), then the said article was recognized only once in the database, taking into account the prevailing issue.

The following research questions have been formulated:

- Which issues in the field of accounting are presented in publications in the field of corporate governance?
- Which issues in the field of corporate governance are presented in publications in the field of accounting?
- What is the percentage of articles in the field of accounting in all articles published in the surveyed journals in the field of corporate governance?
- What is the percentage of articles in the field of corporate governance in all articles published in the surveyed journals in the field of accounting?

Considering the examined papers on corporate governance, one should note that nine issues in the field of accounting have been identified (Table 1). Over the years under study ‘Corporate Governance: An International Review’ frequently presented articles in the field of accounting on the activities of the audit committee (total 20 articles). In the case of Polish

conference proceedings in the field of corporate governance the most often presented articles in the field of accounting involved strictly financial reporting (total 9 articles) (Table 1).

**TABLE I. ISSUES IN THE FIELD OF ACCOUNTING PRESENTED IN PUBLICATIONS IN THE FIELD OF CORPORATE GOVERNANCE**

	Corporate Governance: An International Review	Conference proceedings with the papers presented at conferences on corporate governance
Issues related to accounting	The total number of publications (years 1993-2013)	The total number of publications (years 2000, 2002, 2004, 2006, 2008-2013)
Audit Committee	20	7
Financial Reporting	18	9
Cadbury Report	12	0
External Audit	10	1
Financial scandals (Enron and Parmalat) and the Sarbanes-Oxley Act	4	0
Accounting Theory	3	0
Accounting regulations (e.g., IAS)	3	0
Report on the activities	1	1
Responsibility of the supervisory board for accounting	0	3

Source: Author's own compilation.

The research has determined the percentage of articles in the field of accounting in all articles published in 'Corporate Governance: An International Review' and in the Polish conference proceedings containing papers presented at conferences on corporate governance (Table 2). The share of papers in the field of accounting in all the papers in the case of 'Corporate Governance: An International Review' ranged from 2.4% in 1999 to 20.7% in 2003. As for the Polish conference proceedings, the share of papers on accounting ranged from 0% in the years 2000, 2001, and 2006, to 28.1% in 2009 (Table 2).

**TABLE II. SHARE OF ARTICLES IN THE FIELD OF ACCOUNTING IN ALL ARTICLES PUBLISHED IN THE JOURNAL AND CONFERENCE PROCEEDINGS**

	'Corporate Governance: An International Review'		Conference proceedings containing the papers presented at conferences on corporate governance	
Year	Number of articles *	The share of articles **	Number of articles *	The share of articles **
1993	4	11.4%	–	–
1994	2	7.4%	–	–
1995	3	11.5%	–	–
1996	2	8.7%	–	–
1997	3	9.1%	–	–
1998	2	5.4%	–	–
1999	1	2.4%	–	–
2000	2	5.3%	0	0.0%

	'Corporate Governance: An International Review'		Conference proceedings containing the papers presented at conferences on corporate governance	
Year	Number of articles *	The share of articles **	Number of articles *	The share of articles **
2001	4	12.9%	0	0.0%
2002	3	11.5%	–	–
2003	6	20.7%	–	–
2004	6	11.5%	1	2.9%
2005	6	8.3%	–	–
2006	2	4.3%	0	0.0%
2007	9	8.3%	–	–
2008	4	9.3%	1	3.1%
2009	3	6.0%	9	28.1%
2010	2	5.3%	2	5.7%
2011	1	2.6%	4	11.1%
2012	2	5.6%	2	6.1%
2013	4	10.8%	2	6.1%

Notes: \* - The number of articles in the field of accounting; \*\* - The share of articles in the field of accounting in all articles.

Source: Author's own compilation.

During the study significant variations have been identified in terms of the share of publications in the field of accounting in the total number of publications in 'Corporate Governance: An International Review'. Therefore, there is no evidence of any increasing or decreasing trend related to the share of publications in the field of accounting in the total number of publications. However, the share of publications in the field of accounting in the total number of publications in the years 2001-2004 has noticeably increased. This was probably a consequence of financial scandals, which at the time shook the world of finance [16].

An overall increase can be seen in the share of publications in the field of accounting in the period in the case of Polish conference proceedings in the field of corporate governance. By far the largest share of articles on accounting in the total number of articles published in Polish conference proceedings in the field of corporate governance occurred in 2009.

As part of the study 12 issues of corporate governance have been identified. They were presented in the years 1993-2013 in publications in the field of accounting.

An elaboration (in various aspects) on the response of the capital market to the quality, scope, and form of the information presented in annual reports was the most popular issue in the field of corporate governance, in publications in 'Contemporary Accounting Research' and 'The British Accounting Review.' In the case of the Polish journal - 'Zeszyty Teoretyczne Rachunkowości' [Theoretical Journal of Accounting] - internal control / internal audit were the most often presented issues in the field of corporate governance (Table 3).

The phrase 'corporate governance' was used in the years 1993-2013 in the 13 titles of articles published in

‘Contemporary Accounting Research.’ Exactly the same number of articles containing the phrase ‘corporate governance’ in the title has been published in ‘The British Accounting Review.’ In the case of ‘Zeszyty Teoretyczne Rachunkowości’ at the time, the phrase “corporate governance” in the title of the article has been used five times (Table 3).

TABLE III. THE ISSUES OF CORPORATE GOVERNANCE PRESENTED IN THE PUBLICATIONS ON ACCOUNTING

	‘Contemporary Accounting Research’	‘The British Accounting Review’	‘Zeszyty Teoretyczne Rachunkowości’
Issues related to corporate governance	The total number of publications (years 1993-2013)		
Various aspects related to the response of the capital market to the quality, scope and form of the information presented in annual reports	46	18	15
The impact of management on the financial result	20	4	1
The theory of agency (including the asymmetry of information)	15	2	2
‘Corporate Governance’ in the title of the publication	13	13	5
Internal control / internal audit	12	3	16
Audit committee	11	4	5
Remuneration of managers and management efficiency	7	0	0
The supervisory board / board of directors	5	4	0
Ownership structure	5	6	0
Women on the management board and performance of the company	1	0	0
Market of managerial talents	1	0	0
Responsibility of the supervisory board for the accounting	0	0	2

Source: Author’s own compilation.

In the case of ‘The British Accounting Review’, the articles on corporate governance accounted for the largest share of all articles in 1998 (30%). As for the ‘Contemporary Accounting Research’ journal, the articles on corporate governance accounted for the largest share of all publications in 2002 (38.5%). In the ‘Zeszyty Teoretyczne Rachunkowości’ the articles on corporate governance accounted for the largest share of all articles in 2012 (14.6%) (Table 4).

TABLE IV. THE SHARE OF ARTICLES ON CORPORATE GOVERNANCE IN ALL ARTICLES PUBLISHED IN A GIVEN JOURNAL

Year	‘Contemporary Accounting Research’		‘The British Accounting Review’		‘Zeszyty Teoretyczne Rachunkowości’	
	Number of articles *	The share of articles **	Number of articles *	The share of articles **	Number of articles *	The share of articles **
1993	2	12.5%	0	0.0%	0	0.0%
1994	5	8.5%	1	5.6%	1	1.8%
1995	3	12.0%	2	13.3%	0	0.0%
1996	1	3.6%	1	5.6%	1	1.4%
1997	6	22.2%	0	0.0%	2	2.2%
1998	3	12.5%	3	15.8%	0	0.0%
1999	4	12.5%	4	17.4%	0	0.0%
2000	8	28.6%	6	30.0%	1	1.5%
2001	7	24.1%	0	0.0%	2	3.2%
2002	10	38.5%	1	4.3%	1	1.5%
2003	10	35.7%	4	16.7%	2	2.4%
2004	3	8.6%	2	7.4%	1	1.2%
2005	8	21.6%	2	8.0%	0	0.0%
2006	4	10.0%	1	2.9%	2	3.5%
2007	6	13.6%	5	18.5%	2	3.2%
2008	10	24.4%	4	12.9%	3	3.8%
2009	10	24.4%	4	21.1%	6	7.1%
2010	5	10.6%	4	19.0%	5	6.0%
2011	10	17.9%	5	16.1%	7	9.5%
2012	13	27.1%	5	21.7%	7	14.6%
2013	8	14.3%	0	0.0%	3	5.9%

Notes: \* - Number of articles on corporate governance; \*\* - The share of articles on corporate governance in all articles.

Source: Author’s own compilation.

By far the largest number of publications in the field of corporate governance in the period under study has been published in ‘Contemporary Accounting Research’ (136 publications). At the same time 54 articles in the field of corporate governance have been published in ‘The British Accounting Review’ while ‘Zeszyty Teoretyczne Rachunkowości’ published 46 articles in the field of corporate governance (Table 4).

The results of the study suggest that (except for selected years) the share of publications in the field of corporate governance in the surveyed journals in the field of accounting in the total number of publications increases slightly. In turn, the share of publications on corporate governance in foreign journals in the field of accounting in the total number of publications has been very variable.

In the case of foreign journals the articles on corporate governance accounted for the largest share in the years 1998-2003, while in the ‘Zeszyty Teoretyczne Rachunkowości’ in

2012. This may be due to different levels of development of capital markets in Poland and abroad which has determined the types of research problems undertaken by scientists.

## V. CONCLUSIONS

This paper describes how research problems permeate between accounting and corporate governance. Accounting is a fundamental source of information for the purposes of supervision, in turn, corporate governance plays a key role in ensuring the credibility of the accounting information system.

As part of the research process, it has been determined that research problems in the field of accounting have been undertaken in publications in the field of corporate governance; and vice versa, i.e., problems of corporate governance have been undertaken in publications in the field of accounting. The results of the research indicate that issues in the field of corporate governance are more often undertaken in publications in the field of accounting than the accounting issues in publications in the field of corporate governance.

The results of the study indicate that it is possible to identify one issue which is shared by both accounting and corporate governance, and which has been and may be in the future the subject of many scientific studies. This is the issue of the activities of the audit committee which is a challenge for future research conducted in particular in the context of management accounting.

It seems significant that the increased interest in a particular issue abroad, reflected in the number of publications, does not translate at the same time, into the number of publications in Poland.

The comparative analysis presented in this article requires further, in-depth research, which will include more items of journals.

## REFERENCES

[1] M. Jerzemowska, „Istota i uwarunkowania rozwoju nadzoru korporacyjnego,” in *Strategiczne obszary nadzoru korporacyjnego zewnętrznego i wewnętrznego*, S. Rudolf, Ed. Lodz: University of Lodz Publishing House, 2002, p. 18.

[2] E. Walińska and J. Gad, „Wiarygodność informacji sprawozdawczych jako fundament nadzoru korporacyjnego,” *Study and Work at the University of Economics in Crakow*, vol. 14, p. 288, 2010.

[3] A. Cadbury, „Corporate Governance and Chairmanship,” Oxford, 2002, p. 1.

[4] A. Jaruga, „Rachunkowość w warunkach gospodarki rynkowej,” in *Rachunkowość finansowa*, 3rd edition, A. Jaruga, G. Idzikowska, R. Ignatowski, L. Kopczyńska, Z. Owczarek, A. Szychta and E. Walińska, Lodz: Towarzystwo Gospodarcze RAFIB, 1995, p. 8.

[5] Conceptual Framework for Financial Reporting, IASB 2010.

[6] K.S. Nilsson, „Powerful Accounts: Identities, Principal and Agents,” in *Critical Management Research in Eastern Europe: Managing the Transition*, M. Kelemen and M. Kostera, Eds. Basingstoke: Palgrave Macmillan, 2003, p. 129.

[7] R. M. Bushman and A. J. Smith, „Transparency, Financial Accounting Information, and Corporate Governance,” *Economic Policy Review*, vol. 9, no 1, p. 67, 2003.

[8] R. Ball, „Infrastructure Requirements for an Economically Efficient System of Public Financial Reporting and Disclosure,” *Brookings-Wharton Papers on Financial Services*, 2001, pp. 127-169.

[9] S.T. Surdykowska, „Kryzysy finansowe XX wieku i ich wpływ na systemowe regulacje jakości informacji wykorzystywanych przez inwestorów giełdowych,” in *Kryzysy gospodarcze a wiarygodność sprawozdań finansowych*, M. Kutera and S. T. Surdykowska. Warsaw: Difin, 2009, p. 28.

[10] Y. Ijiri, „Theory of Accounting Measurement,” Sarasota: American Accounting Association, 1975, p. 10.

[11] E. Walińska, „Roczny raport spółek w Wielkiej Brytanii w świetle potrzeb inwestora,” doctoral thesis written under the supervision of A. Jarugowa in the Department of Accounting at the Faculty of Economics and Sociology of the University of Lodz, Lodz, 1994, p. 229-230

[12] P. Brown, W. Beekes and P. Verhoeven, „Corporate governance, accounting and finance: A review,” *Accounting and Finance*, vol. 51, pp. 111-153, 2011.

[13] S. L. Gillan, „Recent developments in corporate governance: and overview,” *Journal of Corporate Finance*, 12, pp. 381-402.

[14] R.U. Fulbier and T. Sellhorn. (2014.01.15). *Approaches to accounting research – Evidence from EAA Annual Congresses*. Available at: [http://papers.ssm.com/sol3/papers.cfm?abstract\\_id=985119](http://papers.ssm.com/sol3/papers.cfm?abstract_id=985119).

[15] J. Dobroszek and J. Michalak, „Nurty badawcze w nauce rachunkowości w Polsce i na świecie,” *Zeszyty Teoretyczne Rachunkowości*, vol. 127, no 71, pp. 106-113, 2013.

[16] M. Hulicka, „Oszukańcza sprawozdawczość finansowa. Wpływ rzetelnej rewizji finansowej na efektywność nadzoru korporacyjnego i ograniczenie asymetrii informacji na rynku kapitałowym,” Jagiellonian University Publishing House, Cracow, 2008.

# Household Spending Behaviour and Property Prices

## Evidence from New Zealand

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**Abstract**—Residential property markets globally have seen a lot of turbulence in the recent past due to the significant impact of the global financial crises. The study investigates household expenditure patterns in order to explain property behaviour. The research methodology is based on a statistical fit of historical macro-economic variables which were applied to the New Zealand market. The article provides insight into the spending behaviour of households, and shows how that behaviour flows over into spending on housing and the subsequently influence on residential property values.

**Keywords:** Residential property demand, residential property prices, macro-economic property variables, property spending behaviour, Global Financial Crisis (GFC)

### I. INTRODUCTION

The global financial crisis (GFC) had substantial impacts on economic markets globally. Chor & Manova (2010:1) estimates the loss in the world GDP at 5.4% and according to the WTO world trade flows declined by about 12% in 2009. This is definitely not the first time that such occurrences take place, and surely not the last. Chossudovsky (1997:2794) explained the situation of “Black Monday”, or October 19, 1987 as the largest one day drop in the history of the New York Stock Exchange, which even exceeded the collapse of October 28, 1929, which prompted the Wall Street crash and led to the great depression in 1929. Almost 10 years later, August 15, 1997, another big decline in stock markets were experienced with symptoms that were similar to that of Black Monday.

What does this mean to households, or is it the spending patterns of households that are responsible for this? This article attempts to analyse the spending behaviour of households and the way in which it impacts on residential property behaviour in light of the macro economy and its influence on residential values. Specific events such as the GFC will be considered in order to also explain changes in spending behaviour. The value of this research is to understand spending behaviour patterns, which could lead to early warning signs to avoid turbulent market conditions.

### II. DEMAND FOR PROPERTY

When considering macro-economic behaviour, with specific reference to housing, the presumption is that house prices in the long term should follow inflation. This perception

is based on the fact that housing is the single largest expense in the basket of goods and services used to calculate the Consumer Price Index (CPI), forming 23.55% of the weight of the basket as per the 2011 weights (Statistics New Zealand, 2011:7). Figure 1 graphically shows the relationship between these two variables, using the 1999 quarter 3 as base year.

Although in Figure 1 it appears as if there was a fairly close correlation for many years, there are a number of periods during which the two indexes differed substantially. To consider this difference, the House Price Index is deflated by CPI in order to get the real property values, and is shown in Figure 2 with 1999 quarter 3 as base year. This also reveals that in real terms the recent past showed the highest growth in real property values for the data period under review.

According to the calculated data, property prices increased at approximately 1.66% per year for the period shown, while CPI increased at approximately 2.4% per year average for the same period. What are of more concern is the deviations from the average. House prices had a fairly stagnant level during the early 1990's as well as approximately 1997 to the end of 2001, with rapid growth between the two mentioned periods, as well as thereafter, up to the end of 2007, from where a real decline could be seen. The stagnant position in the late nineties as well as the decline after 2007 both follows economic shocks as discussed in the introduction. It could be that the earlier observed stagnant position might be due to the economic decline in the late eighties, but as the data for that specific period was not investigated, it is only speculation at this stage.

The reasons for these different behavioural patterns should, however, be explained in order to determine what the current state of the property market is.

Abraham et al. (1996: p192) found that the determinants of real house price appreciation could be divided into two groups: those accountable for changes in the equilibrium price level, and those that affect changes from the equilibrium price level. This was With the fluctuations in the real house price values as depicted in Figure 2, it is suspected that there was a deviation from the equilibrium price level in the past few years, but the question is: what is the equilibrium price level? If the values increased due to real demand and the correction of previous prices that were too low, it is reverting back to the equilibrium level.

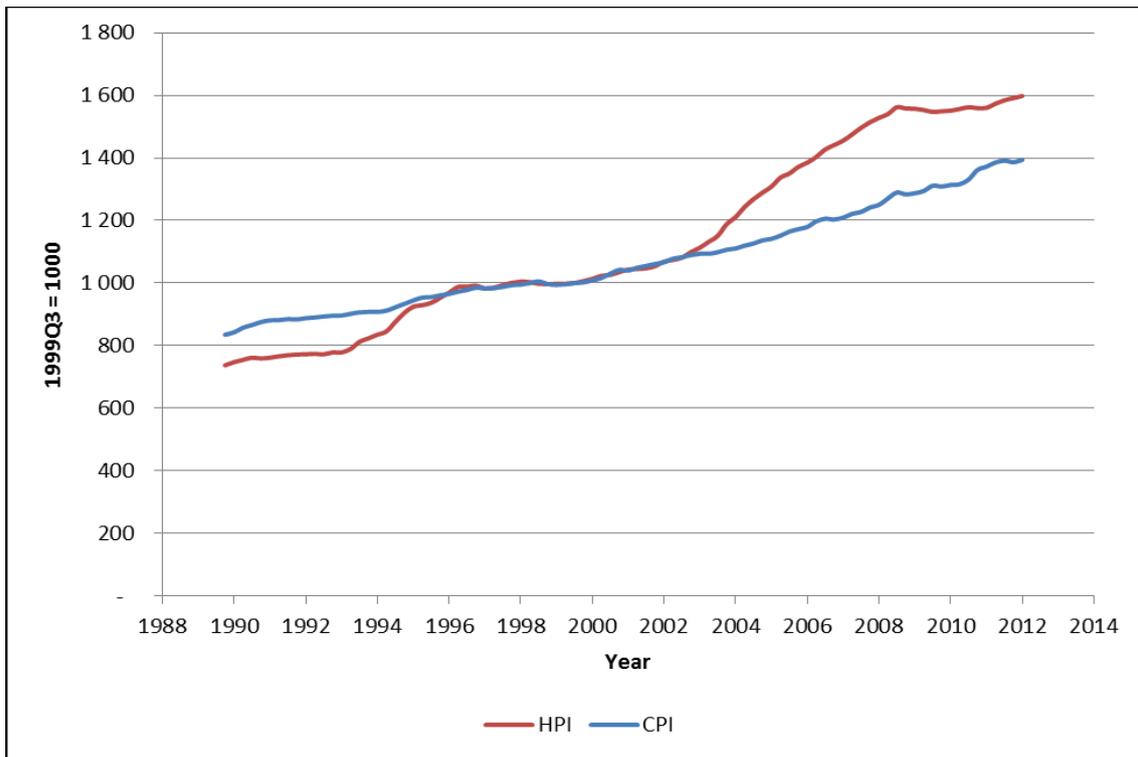


Figure 1: CPI vs Property Values

Source: Statistics New Zealand (2012, online)

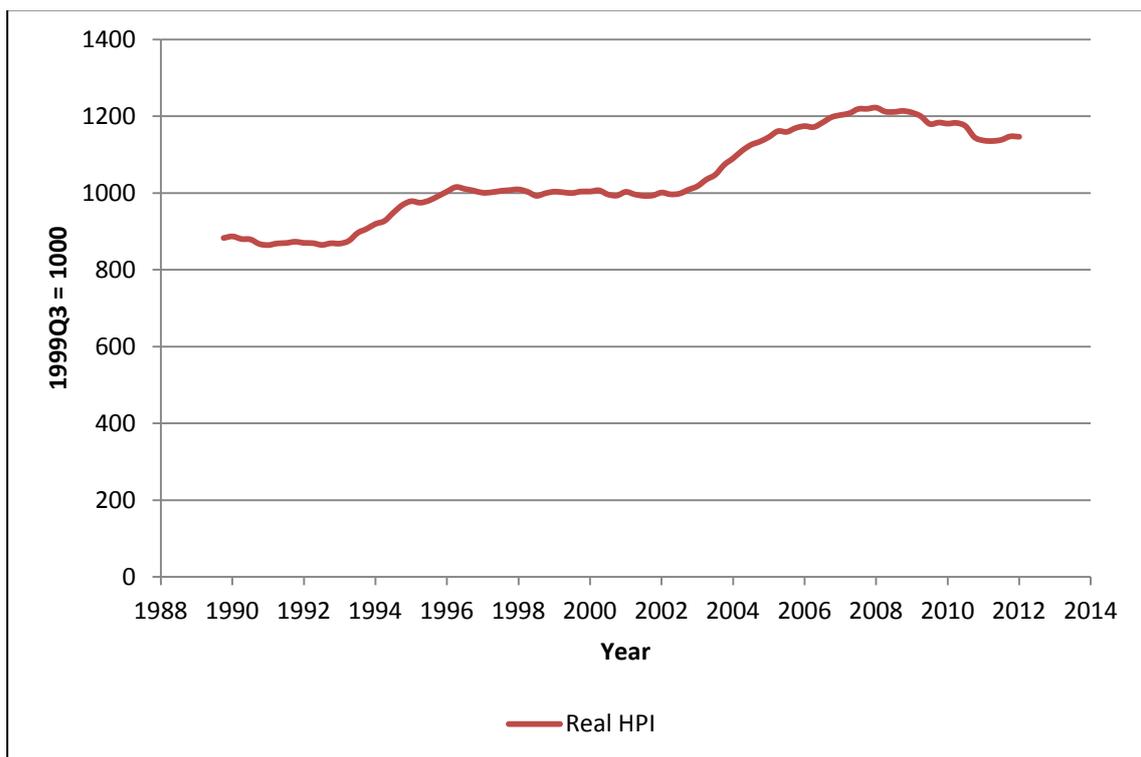


Figure 2: House Price Index deflated by CPI

Source: Author, adapted from Statistics New Zealand (2012, online)

This should be weighed against the possibility of an overvaluation of property prices that were moving away from the equilibrium level. In answering the above, consideration should be given to the real factors driving the demand for property, and subsequently the equilibrium price level, in order to assess if the current price levels are in equilibrium, and if not, why, and by how much.

If the deviations in real house prices as depicted in Figure 2 as deviations from the equilibrium are considered, it is assumed that a historical price level inflated by CPI is the equilibrium level, which should be tested if true.

In order to test this, consideration should be given to the method for calculating the consumer price index. Housing is included in the CPI basket as being either actual rent paid or, in the case of owner-occupied housing, both expenditure on newly constructed dwellings by owner-occupiers and alterations and additions to existing owner-occupied dwellings are included. (Statistics New Zealand, 2011:21). Keeping this in mind, it is expected that CPI itself is not directly linked to the value increases of residential property, as CPI is merely the reflection of the cost of living of households, while housing prices is a combination of various factors such as (but not limited to):

- decision of ownership rather than rent;

- demand and supply equilibrium levels, and
- cost of ownership, such as maintenance, interest rates, rates and taxes, etc.

Capozza, Hendershott, Mack, & Mayer (2002:20) found that the variation in the cyclical behaviour of real house prices across metropolitan areas is due to more than just variation in local economies. House prices react differently to economic shocks and depend on such factors as growth rates, area size, and construction costs. This confirms the expectation that the current house price levels are influenced by the GFC.

There are however a number of previous researchers that investigated spending behaviour with specific reference to affordability as a driver in the housing market. According to Ortalo-Magné & Rady (2006:4), the ability of young households to afford the down payment on a starter home, and in particular their income, is a powerful driver of the housing market. This is confirmed by Haurin, Hendershott & Kim (1993:284), who states that independent living and household formation, which would increase the aggregate demand for housing, is greatly influenced by an individual's ability to pay this cost. He therefore suggests that affordability is a major driver of housing demand. Égert & Mihaljek (2007:17) furthered this view by mentioning that house prices have a strong positive relationship with per capita Gross Domestic Product (GDP), real interest rates and real wages.

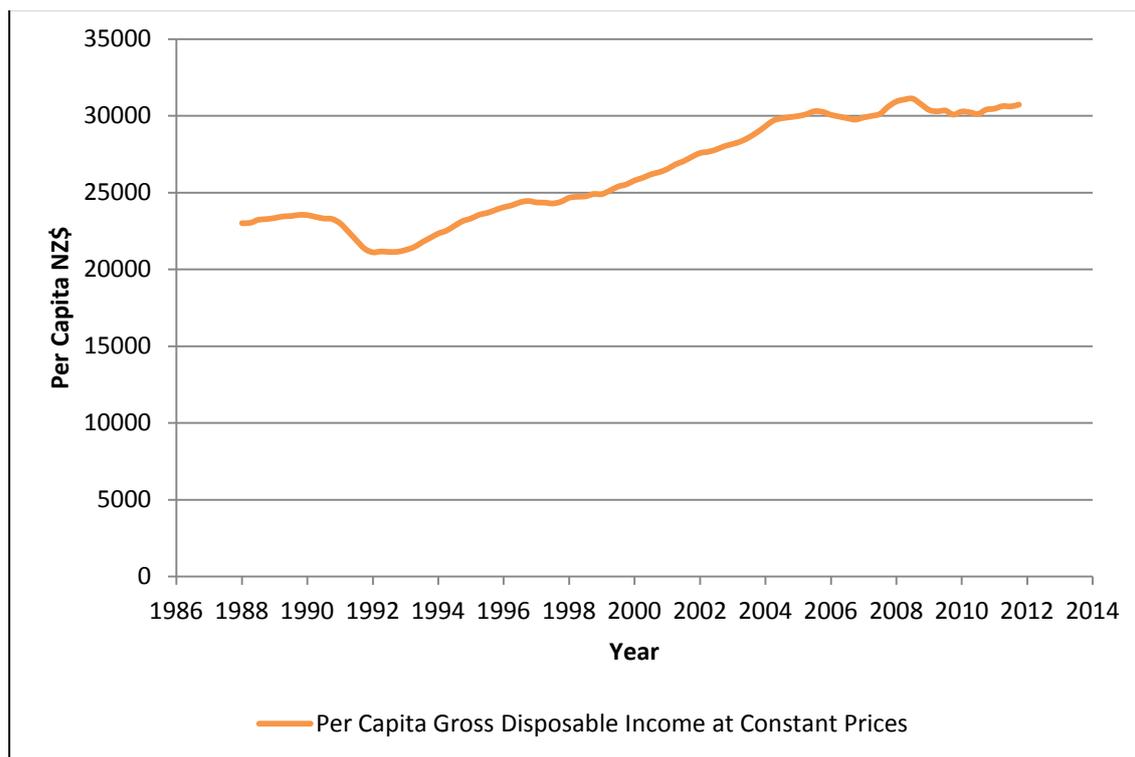


Figure 3: Per Capita Real Disposable Income

Source: Author, adapted from Statistics New Zealand (2012, online)

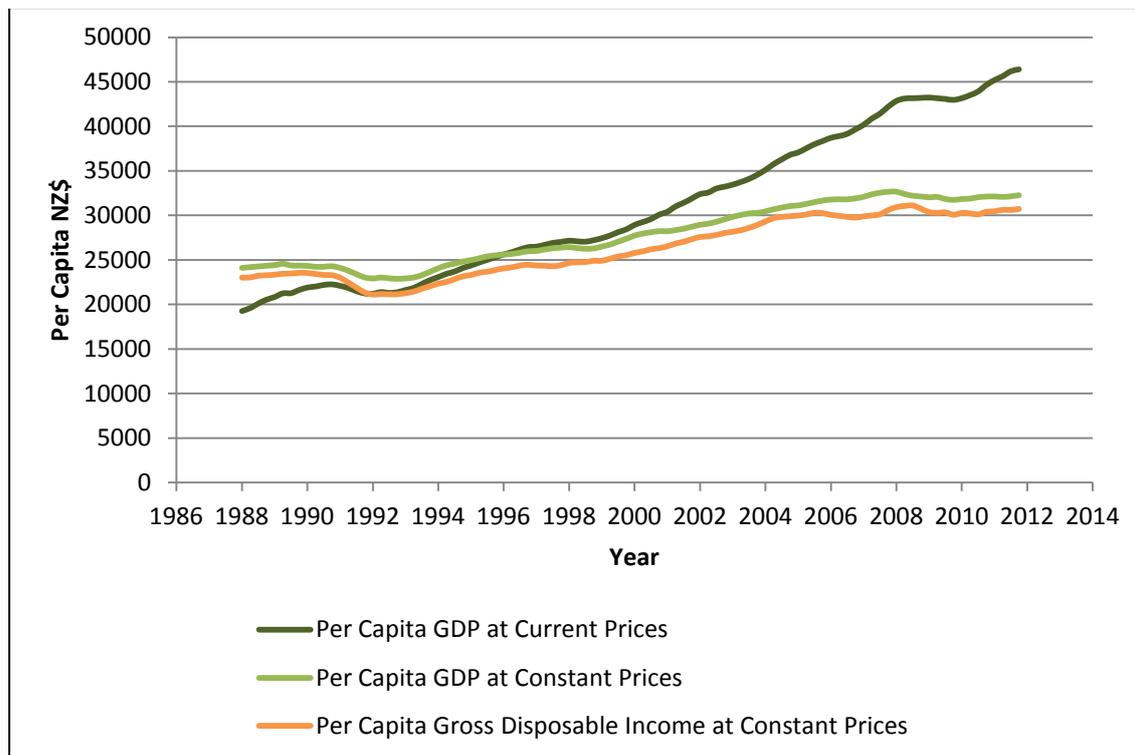


Figure 4: GDP at current and constant prices vs disposable income

Source: Author, adapted from Statistics New Zealand (2012, online)

From the above there is strong evidence that house prices are influenced by affordability. In order to test for affordability, consideration is given to disposable income. Figure 3 shows the per capita real disposable income of households since 1988. It is evident that income has been fairly stable since the early 70s through the 80s and 90s. This period was followed by substantial increases in income during the 2000s.

Mohr (2008, p.33) indicates that the GDP is an indispensable indicator of economic performance. According to the income approach, compensation of employees forms part of the calculation of the total GDP of a country in a given period (Case et al., 1999:141) and is also explained by the University of Pretoria (2010:39) as follows:

- Expenditure on gross domestic product
- Plus: Primary income from the rest of the world
- Less: Primary income to the rest of the world
- Gross national income (at market prices)**
- Plus: Net current transfers from the rest of the world
- Less: Residual item
- Gross national disposable income**

Ministry for the Environment (2009:8) explains the relationship between consumption expenditure of households

and GDP. Consumption expenditure in turn is only possible if there are disposable income, confirming the link between GDP and disposable income. Figure 4 shows this relationship between gross domestic product, gross national income and disposable income. All three are shown per capita at constant 2005 prices.

It is clear from Figure 4 that the movements in real per capita disposable income were a result of increases in economic growth or growth in GDP in the country. The correlation of real per capita disposable income to real per capita GDP is 0.9949, significant at the 0.01 level.

Figure 2 showed the Real house price index and Figure 3 showed the per capita real disposable income. The two are shown together in Figure 5. The two indexes seem to move very well together, as if it could be said conclusively that house prices are directly influenced by disposable income. Although it is evident in Figure 5 that disposable income did increase substantially, the volatility and increase in house prices are higher than with disposable income. It therefore appears as if there are other factors which affect the house prices, not taken into consideration here. This can be seen in the year on year changes of these two variables, as depicted in figure 6, where although there seems to be a similar long term trend, of closely analysed, shows very different short term fluctuations.

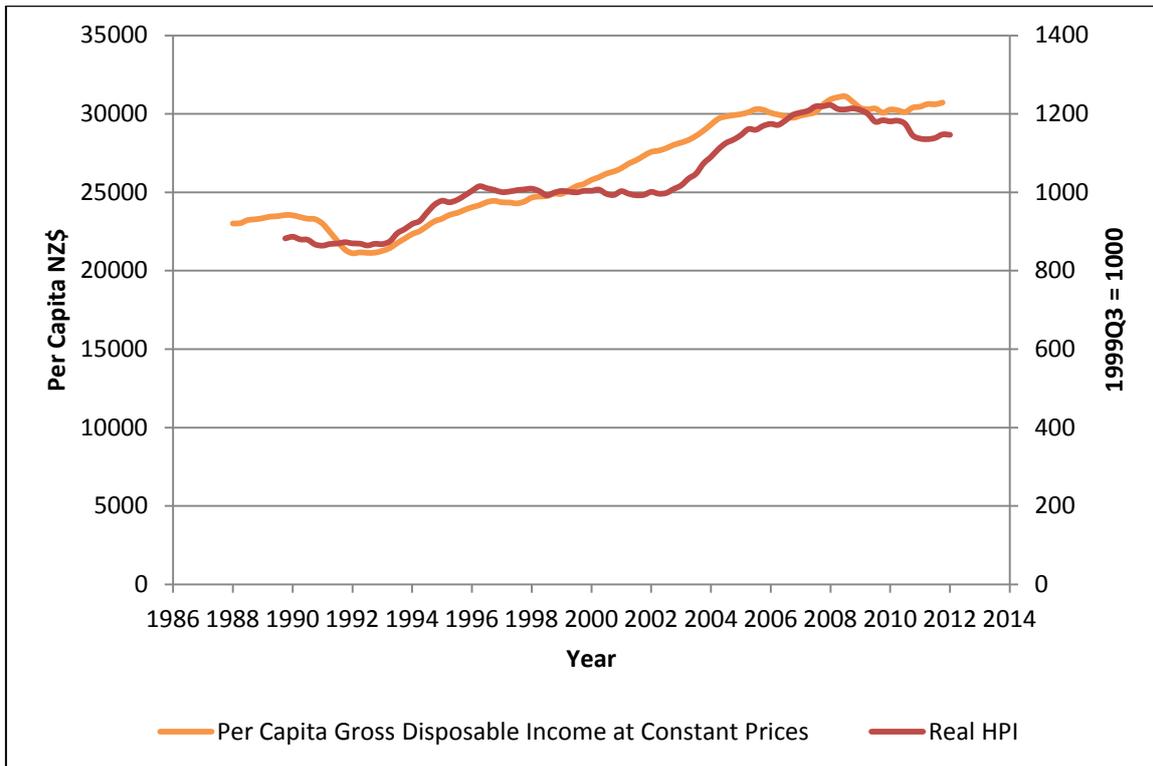


Figure 5. Per capita real disposable income vs Real HPI

Source: Author, adapted from Statistics New Zealand (2012, online)

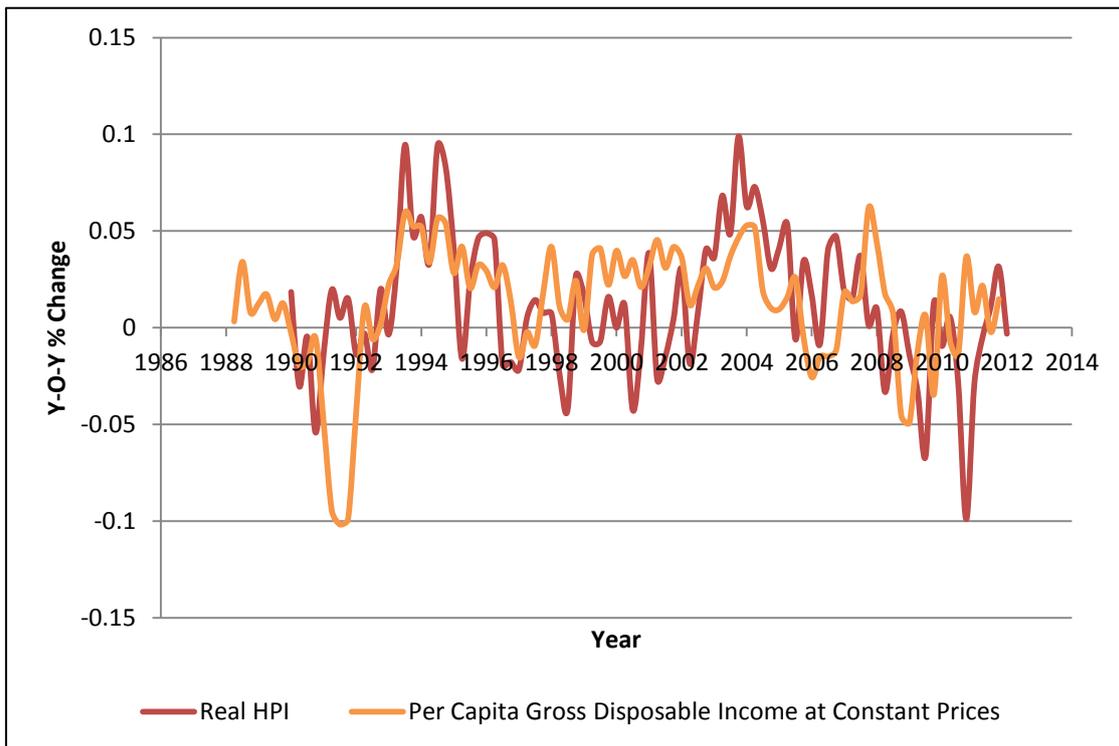


Figure 6. Y-o-y change of per capita real disposable income vs real HPI

Source: Author, adapted from Statistics New Zealand (2012, online)

prices are influenced by affordability. Disposable income is the total money at the disposal of households to pay expenses. This, however, does not only include housing, but also includes various other expenses. The spending patterns of households are monitored by the central statistical service in order to determine the consumer price index (CPI). An analysis of the CPI over time could therefore provide good information on the aggregate expenditure of households, although very little actual correlation with house prices is seen.

When we consider CPI and disposable income, we need to take cognisance of the total income at disposal (disposable income), actual expenditure that took place (final consumption expenditure), and the cost of goods that are being purchased. For any given level of income, a certain number of goods and services are consumed. The change in price of these goods and services (consumer price index) will result in a choice of how

much to consume of each item, and the combination of goods and services to be consumed might change over time.

### III. CONSUMPTION BEHAVIOUR OF HOUSEHOLDS

The actual consumption expenditure represents the demand for goods, given the available supply. If the demand for goods and services increases, but there is not an increase in the supply, the cost of the goods and services will increase. This applies to the aggregate of goods and services as well as individual goods and services, which influence the choice between alternatives.

If consumption expenditure is broken down into the most important categories that make up total consumption, the expenditure on each of these items as a percentage of total consumption expenditure could give an indication of households' preferences of the different items over time. The figures from 1987 are shown in Figure 7.

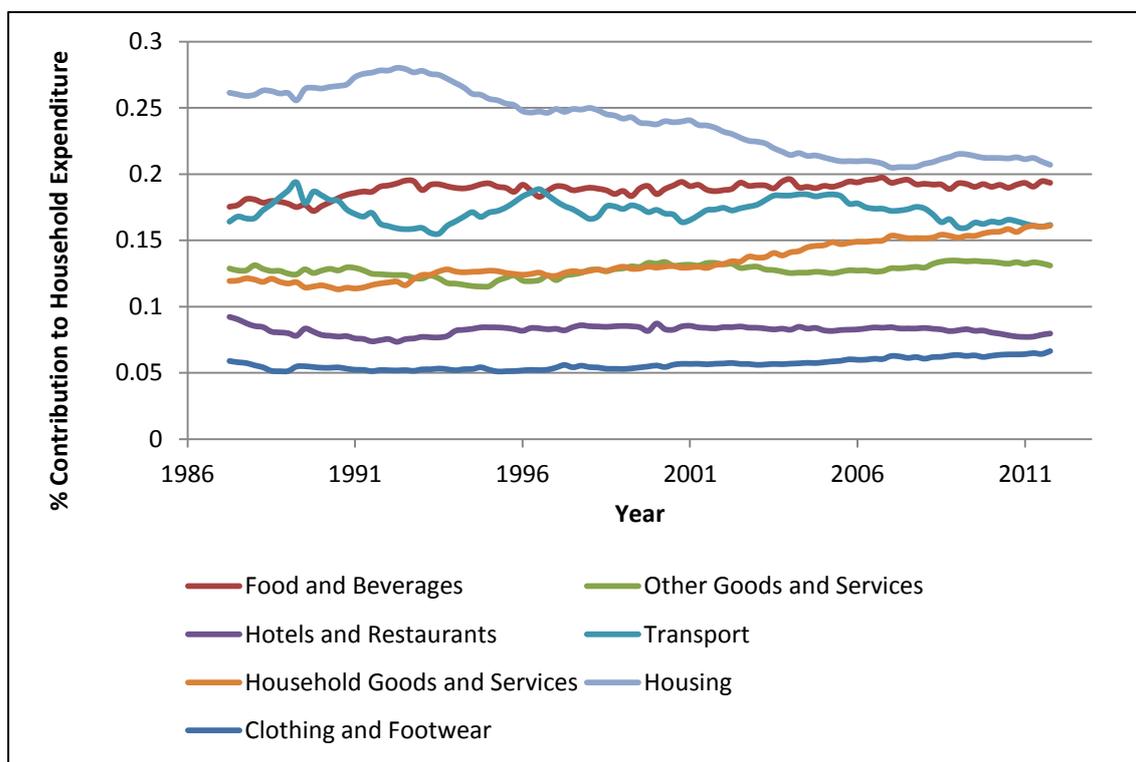


Figure 7: Comparison of different items included in consumption expenditure

Source: Author, adapted from Statistics New Zealand (2012, online)

If these relative contributions to consumption expenditure are correlated to the relative change in prices of these items, it could give some insight into the spending patterns of households, and is shown in Figure 8.

Various conclusions could be drawn from the details of figure 8, but it is evident that there are some increases, decreases and then items that show little change. Items such as “Hotels and Restaurants”, “Transport” and “Other Goods and Services” shows little change in its relative contribution to expenditure, have low correlations or are fairly volatile. This would probably indicate that households are fairly indifferent

towards the price changes of these items when making their consumption decisions.

“Food and Beverages” had an increase in relative consumption, indicating that households will sacrifice other expenditure in order to maintain consumption of this item. This indicates that households see this as an essential good in its consumption decision. Included in the item for “Food and Beverages” is alcoholic beverages, cigarettes and illicit drugs. Although not shown here, these items had the opposite behaviour to this overall category. If these items would therefore be excluded, the remaining basic food and beverages is indicated as an even more important part of the consumption

decision relative to all other items. Another item that shows very relevant importance is “Household Goods and Services”. This is the items that are used in a house, such as furniture, and is not directly linked to housing itself (Statistics New Zealand,

2011:38). Similar, but to a lesser extent is “Clothing and Footwear”. It should however be noted that these items a much lower relative price increase than the other items.

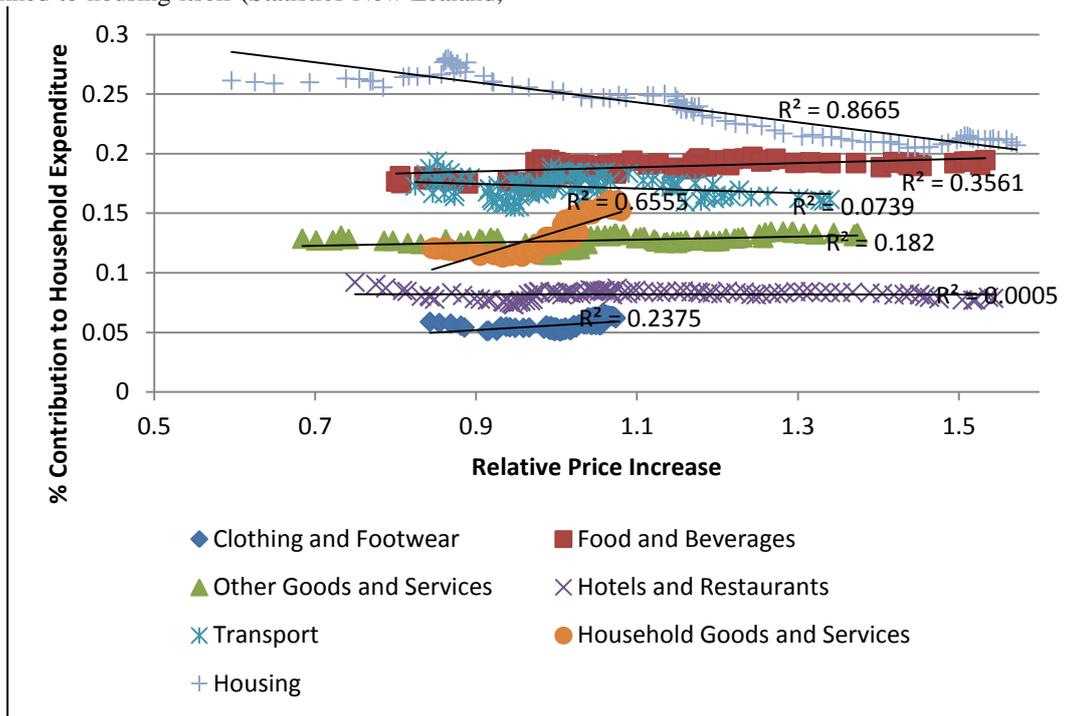


Figure 8: Correlation of expenditure items to relative price increase

Source: Author, adapted from Statistics New Zealand (2012, online)

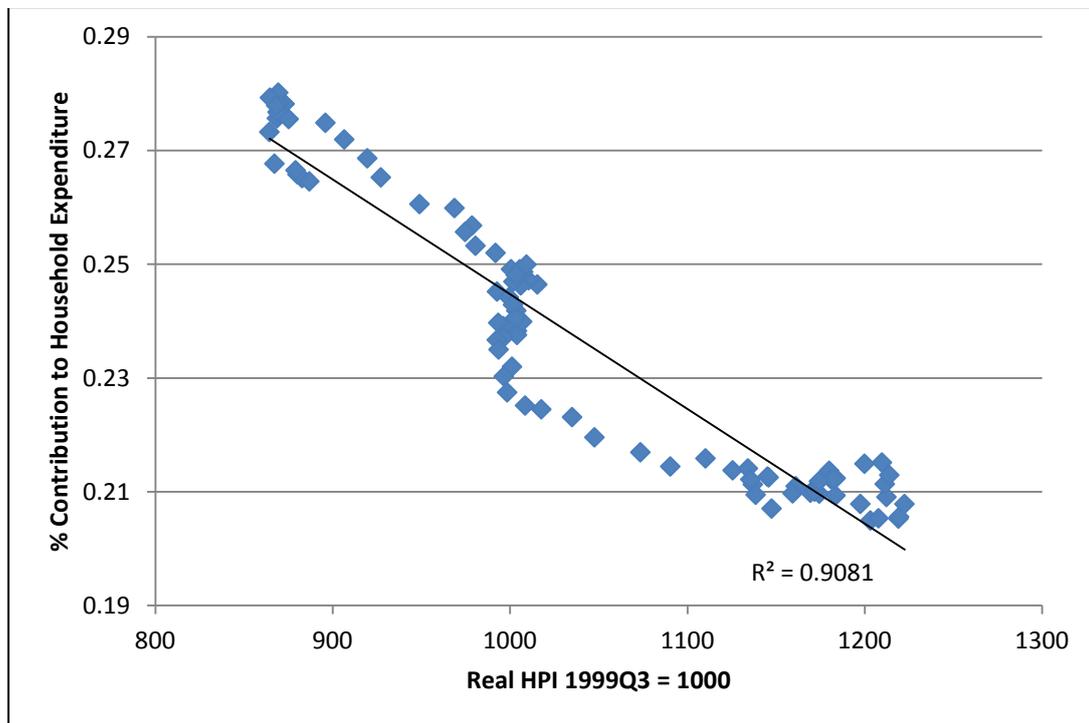


Figure 9: Correlation of relative housing expenditure to real HPI

Source: Author, adapted from Statistics New Zealand (2012, online)

A surprising result is however that of housing. The relative lower spend on housing partly contradicts the findings of Boshoff (2010:135) that households are indifferent to the price changes in durable goods in its purchasing decision of these goods. Furthermore, the strong negative correlation seems to suggest that households do not see housing as important, as it is consuming less thereof with a relative price increase. By further considering this item, the percentage contribution thereof to household expenditure is correlated to the real house price index, shown in figure 9, indicating an increased correlation coefficient to -0.953.

In order to investigate this finding, it is necessary to further explore expenditure behaviour for property.

IV. CONSUMPTION EXPENDITURE BY HOUSEHOLDS – PROPERTY

Tsatsaronis & Zhu (2004:65) mention that due to the requirement of external financing in house purchases, the cost and conditions of mortgage credit play a major role in house price dynamics. One should therefore look further than disposable income to explain the affordability of housing.

Mishkin (1995:4) and Mishkin (1996:2) showed that the traditional Keynesian ISLM view of the monetary transmission mechanism also applies to consumer spending in which ‘I’ represents inter alia residential housing. He furthermore shows that monetary expansion also operates through the land and housing price channels as well as wealth effects, of which the increase in house prices form part. He states that an increase in interest rates causes deterioration in household balance-sheets,

because consumers’ cash flow is adversely affected. Smith (2010:3-4) also state that wealth effects, easing of collateral constraints and future income prospects are factors that could influence households’ consumption behaviour, causing a close correlation between real per-capita private consumption and real house prices.

Bosworth, Hendershott & Jaffee (1980:444) comment that the sudden rise and magnitude of mortgage rates caused an increase in the cost of home ownership, resulting in a decline in the demand for owner-occupied housing.

From the above studies it is therefore evident that the wealth effects of housing, which are associated with the capital gain, as well as interest rates, have to be considered to explain affordability and consumer behaviour.

Figure 10 shows the official cash rate (OCR) at which money is borrowed for purchasing of property compared to the real HPI.

When comparing the official cash rate as shown in figure 10, there was a substantial increase in real house prices throughout most of the 2000’s, even though interest rates are also on a steep increase. This seems to contradict the principle of affordability, as the price of houses increased, even though the cost of financing is increasing. The weighted average interest rate, which is more indicative of the actual interest charged by banks, shows a more expected results, which could at most be said to have a similar long term direction.

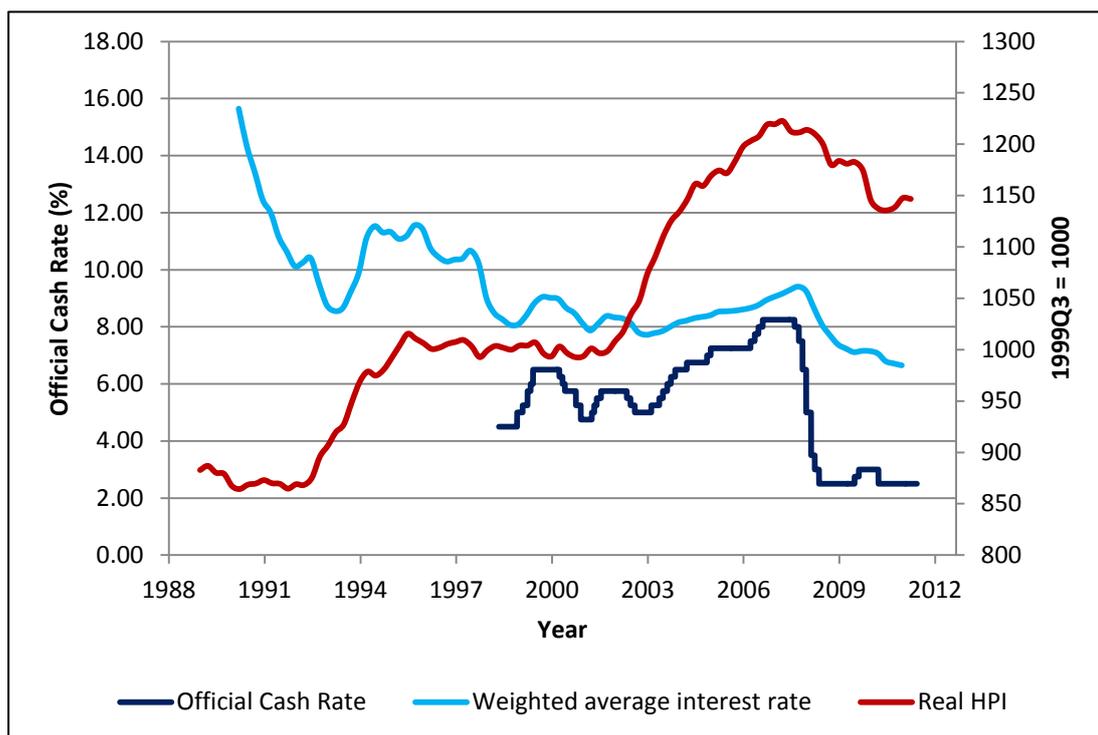


Figure 10: Interest Rates vs Real HPI

Source: Author, adapted from Statistics New Zealand (2012, online), Reserve Bank of New Zealand (2012:43)

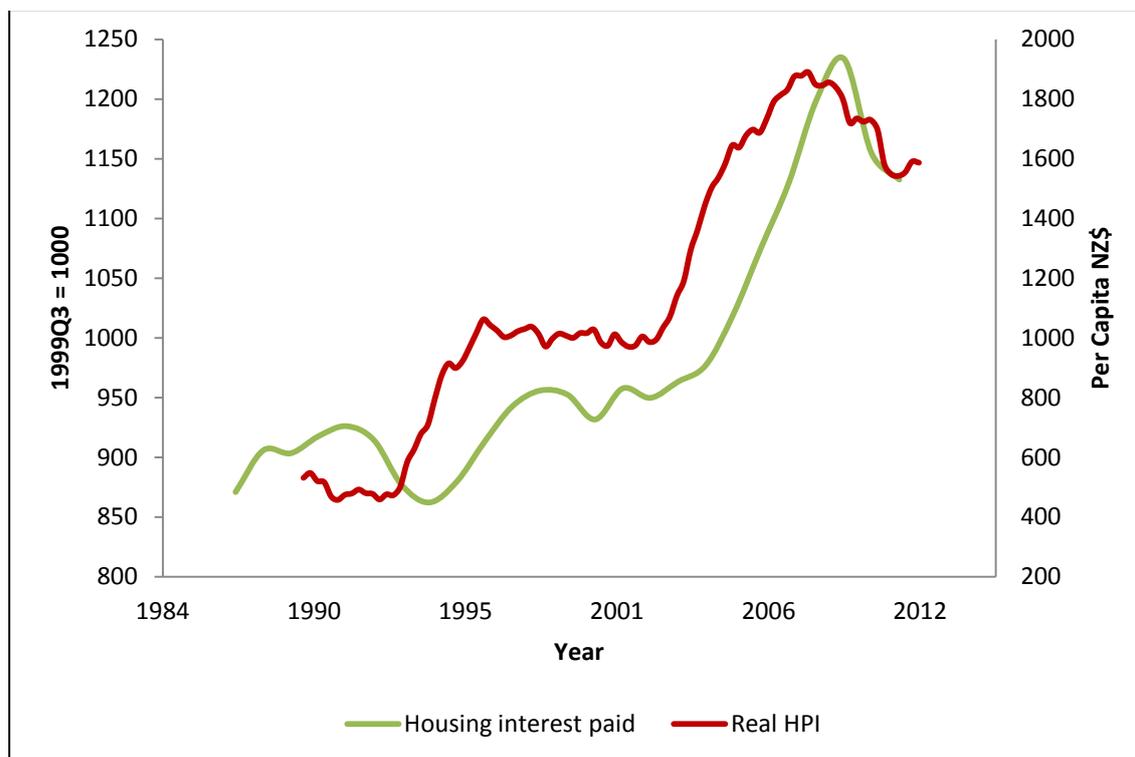


Figure 11: Per capita housing interest paid vs Real HPI

Source: Author, adapted from Statistics New Zealand (2012, online)

Kearl & Mishkin (1977: 1572) found that past monetary policy will have affected the cost and availability of credit, and thereby affecting the size of consumers' debt holding and subsequent housing demand. Bosworth et al. (1980: 444) noted that a dominant determinant of housing cycles was the availability of funds from mortgage-financing institutions, as well as the activity of federally sponsored credit agencies. Haurin, Hendershott & Wachter (1997: 137, 138, 149) found that borrowing constraints significantly reduce the tendency toward home ownership, while Mishkin (2007: 5) indicated that the housing market and, in turn, the overall economy, are directly or indirectly affected by monetary policy through the following six channels:

- user cost of capital,
- expectations of future house-price movements,
- housing supply,
- standard wealth effects from house prices,
- balance sheet, credit-channel effects on consumer spending, and
- balance sheet, credit channel effects on housing demand.

By considering the total housing interest paid by households, as per figure 11, it appears as if the real HPI and the total interest paid are moving in a very similar pattern, although interest paid is lagging somewhat behind the real HPI. Although it could be expected that due to the increase in the house prices, new financing for these more expensive

properties are increasing the total amount of interest paid, this does not explain the similar movement of the rate of interest and the HPI as per figure 10, and actually contradicts the findings of Bosworth et al. When also considering the wealth effects as mentioned by other authors, the behaviour shows a different picture. If it is accepted that households do not purchase certain goods such as houses necessarily by way of cash, but rather finance it, it would mean that the total amount that households are prepared to spend on housing, should be sufficient to service the interest on the debt to which they commit themselves, and not the full amount for the actual purchase of this good.

The total housing interest payment as shown in figure 11 is calculated as follows:

$$\text{Interest payment} = \text{Loan Amount} \times \text{Interest Rate} \quad (1)$$

This holds that for a given loan amount, an increase in the interest rate would result in an increase in the interest payment per period. If the function is re-written, the following could apply:

$$\text{Loan Amount} = \frac{\text{Interest payment}}{\text{Interest Rate}} \quad (2)$$

If the amount of interest paid is divided by the going interest rate, it calculates the total amount borrowed for purchasing of housing. The capital gain per period on financed houses can be determined by multiplying the total capital value by the change as per the HPI for that period. The results of this are shown in figure 12. it is applied to financed properties only,

not all property, in order to determine the effect on financing decisions of households. From figure 12 it is expected that households are motivated to purchase during periods when the real capital growth exceeds the zero line, due to the increasing wealth effect that the capital gain is providing the purchaser. If a purchaser is motivated to purchase, but does not have the disposable income to fund the purchase, it would be possible to finance the purchase. This effectively results in dissaving.

When considering the total consumption expenditure of households, the composition of consumption expenditure excludes the cost of interest payments made for housing finance (Ministry for the Environment, 2009:2). In the calculation of CPI, interest payment is also not included, but rather the cost of housing purchases and the cost of rent. The consumption expenditure for housing as indicated in figures 7 and 8 therefore both excludes the actual interest payment expense. Haurin, Hendershott & Wachter (1996:54) indicated that household wealth is a leading indicator of homeownership. This means that the total wealth or balance sheet growth of households is also a motivator for an increased demand in housing (Mishkin, 2001:5-6). Although not directly related to housing, Mishkin (1978:918-937) also studied the link between balance-sheet movements and aggregate demand. In a more recent study, and specifically applicable to New Zealand, Smith (2010) found that periods of higher growth in core household expenditure tend to be positively correlated with

phases of high increases in house prices (p.11), real core household expenditures for homeowners with mortgages are considerably higher than other households, which might capture the impact of the credit channel in boosting consumer spending of credit constrained homeowners (p.21), mortgage finance may be a method for facilitating additional consumption (p.23), homeownership is a positive determinant of core household expenditures (p.27), and unexpected house price increases are likely to boost expenditures (p.32). Some of the mentioned principles are discussed in principle by De Veirman and Reddell (2011:7), confirming principles such as the wealth effect, but have contradictory views on other, stating that increases in house prices do not amount to an increase in consumption possibilities for the economy as a whole (p.14), but is only a redistribution of wealth (p.7).

Figure 13 shows the 3 year moving average per capita capital growth of financed houses, compared to the actual per capita savings, as well as the 3 year moving average per capita savings, which reduce the fluctuations in the curve. The similar mirror image of the two smoothed curves is very obvious, which provides some explanation of the behaviour in financing decisions. The results confirm the wealth effect, where households would sacrifice their savings for the expected capital growth that they would receive on purchasing housing. Figure 14 shows this relationship by way of correlation (-0.871) of the two mentioned variables.

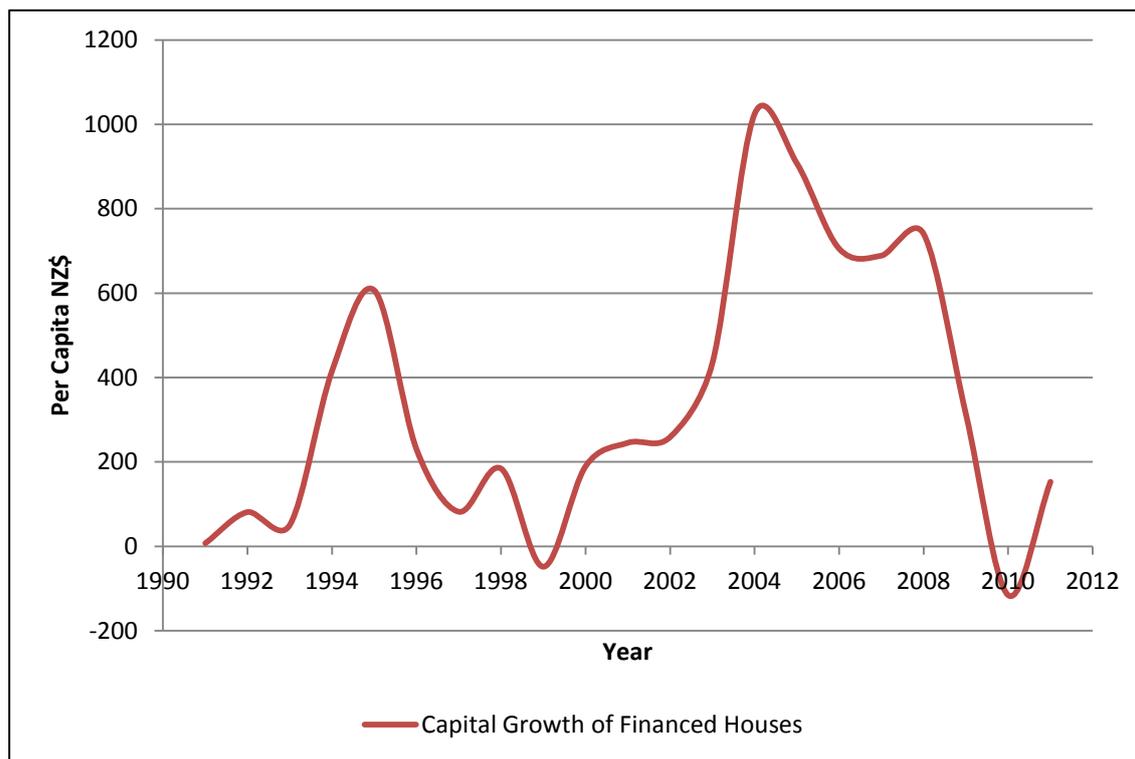


Figure 12: Per capita capital growth of financed houses

Source: Author, adapted from Statistics New Zealand (2012, online)

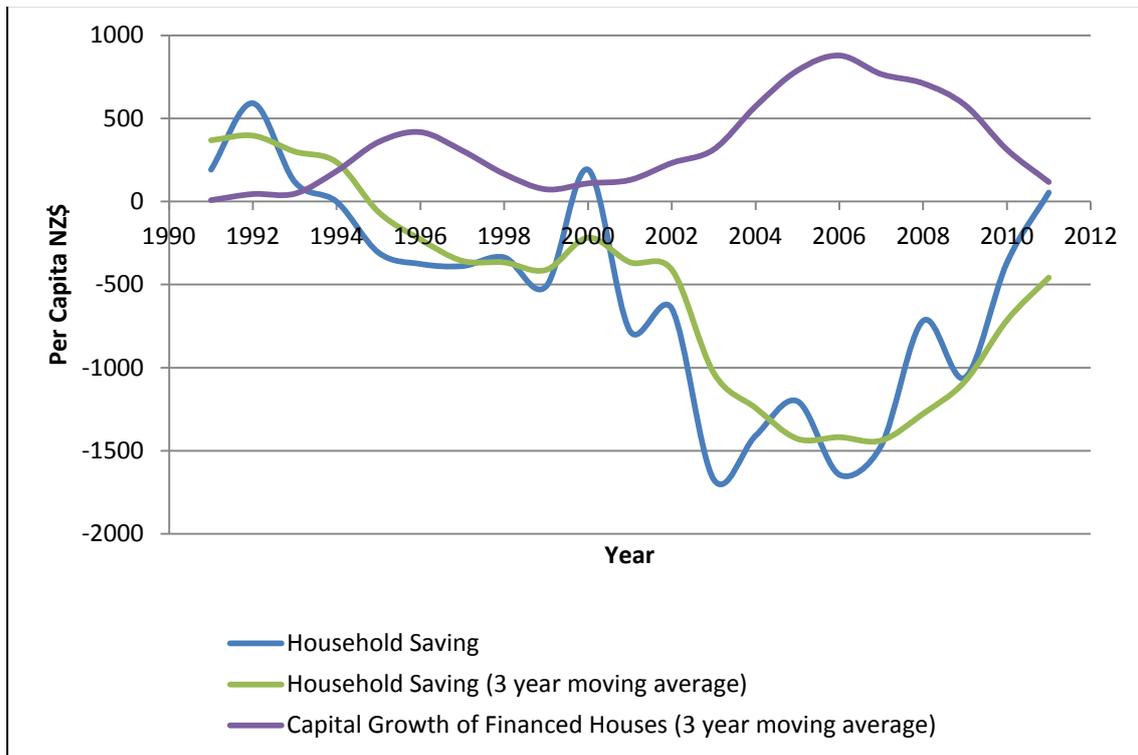


Figure 13: Per capita capital growth of financed houses vs household saving

Source: Author, adapted from Statistics New Zealand (2012, online)

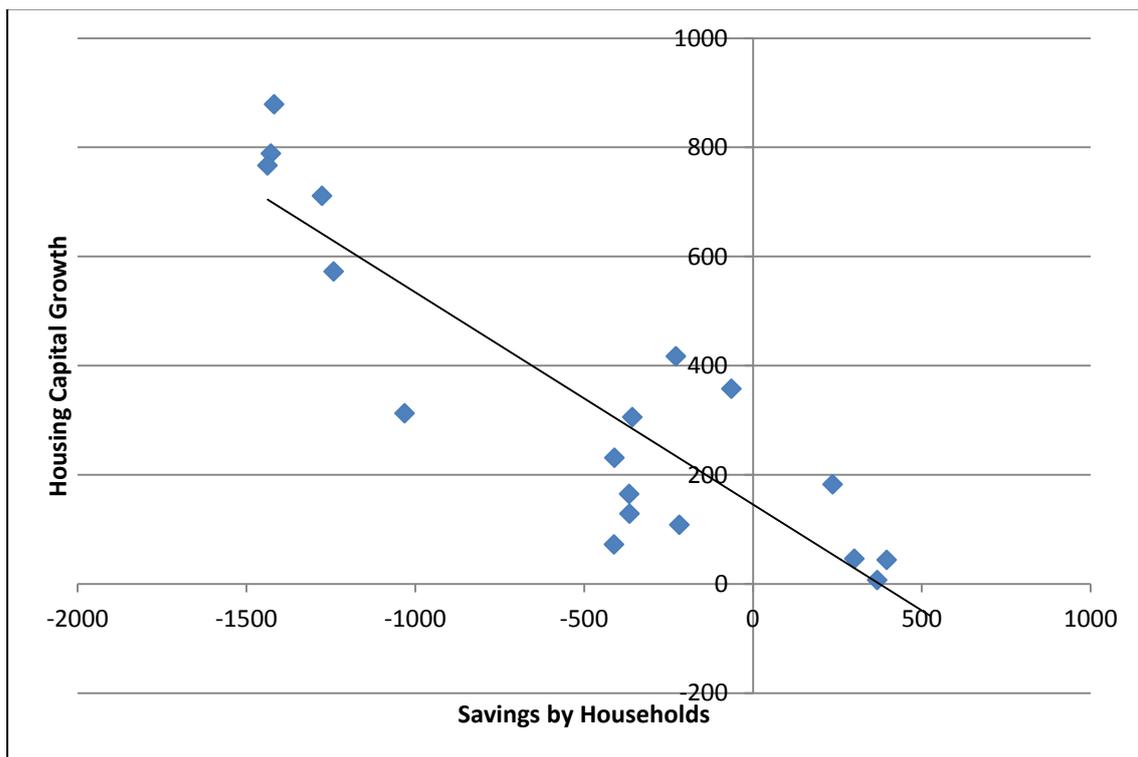


Figure 14: Correlation of real per capita capital growth of financed houses vs household saving

Source: Author, adapted from Statistics New Zealand (2012, online)

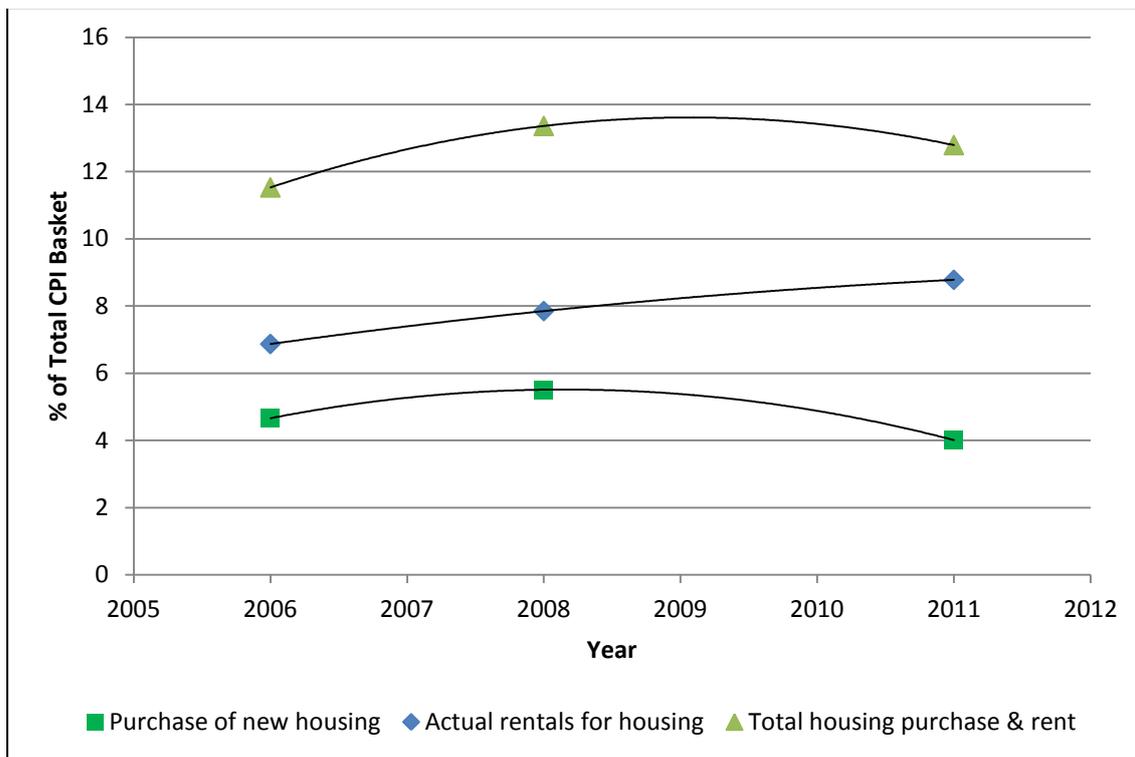


Figure 15: Contribution of housing to the CPI basket

Source: Author, adapted from Statistics New Zealand (2012, online)

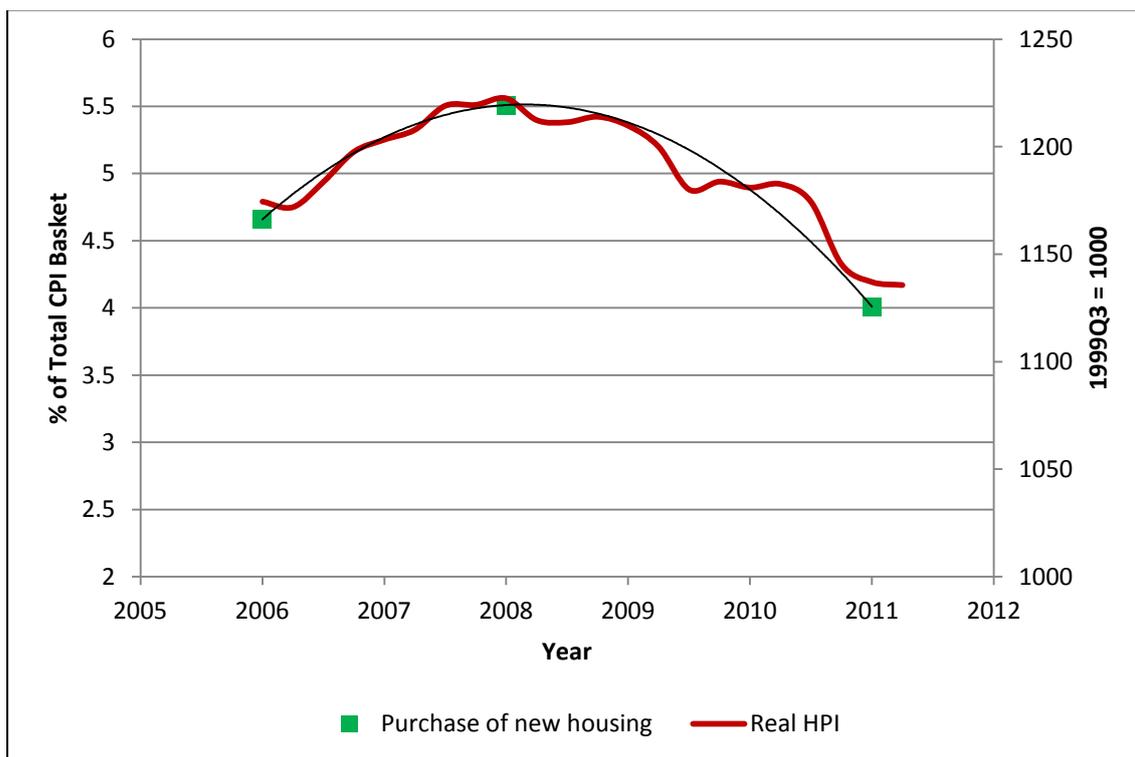


Figure 16: Contribution of housing purchases to the CPI basket vs real HPI

Source: Author, adapted from Statistics New Zealand (2012, online)

As mentioned, the cost of financing is not included in the calculation of CPI. The basket of goods is however adjusted for the number of goods that are included in the consumption expenditure, in order to account for changing spending patterns. This adjustment normally takes place every three years. Figure 15 shows the level of contribution of housing to the basket of goods and services making up CPI, and further distinguishes between rental paid and new housing purchases.

From 2006 to 2008 there was an upward adjustment in the contribution of housing purchases, while the 2011 basket showed a decline in the contribution of housing purchases. Although showing a very limited time period, figure 16 compares this change to the real HPI.

It is accepted that the results shown in figure 16 could not be stated conclusively, due to the limited period of comparison, but it does suggest a movement away from housing purchases with a decline in the expected wealth effect, whereby housing purchases are being replaced by rental housing. It confirms the findings of Mishkin (1996:2) that housing expenditure is viewed by households with an investment motive.

The consumption expenditure of housing is measured as either rent or imputed rent for owner occupiers (Ministry for the Environment, 2009:2), although the owner's expenditure on housing is the purchase price of the house. This indicates that if owners do not occupy property themselves, they have the opportunity to generate an income from it by letting it. The rent that is foregone due to personal occupation of the house is therefore an opportunity cost of occupation. A differentiation is therefore made between the investment motive of the owner, and the use motive. Alternatively, the owner could choose to invest in an alternative investment, not a house, and pay rent in order to have the use of a house. The cost of rent would therefore be weighed against the cost of ownership, with all pro's and con's attached to each, to decide which alternative would realise the highest benefit.

## V. SUMMARY

It was shown above that households over time spent relatively less on housing over time. But, housing not only forms the biggest portion of household expenditure, it also had the biggest increase in cost. This could indicate that households are forced to spend less on housing due to the cost thereof. Yet, the interest payment of households increased, but is not captured as part of consumption expenditure or CPI, which might result in a wrong impression of the real housing spend. Households are funding spending on housing interest payments from savings, which is motivated by an expectation of capital growth. This confirms the findings of Boshoff (2010:144-145) that households are making housing expenditure decisions based on expectations for capital growth, even if affordability does not permit such expenditure. Such a period of demand driven by capital growth and being funded from savings, could lead to a situation of unaffordability, and a subsequent sudden decline in property prices, or in serious cases the economy as a whole, due to the inability to fund expenditure and subsequent economic growth. This could also be explained by the same principles that are studied under behavioural finance, where the irrational behaviour of investors and the momentum of markets

are considered when buying and selling shares (Shiller, 2003: 83-104).

It is clear that factors influencing the general economy, including international events, spill over to households, and eventually is reflected in house prices, and the spending behaviour thereon. By understanding the spending behaviour of households, it is possible to see changes in behaviour, which could signal for corrective action, before it becomes out of control and turns into situations like the recent GFC.

The perceived wealth effect of house purchases, could counter the efforts of monetary policy, if households perceive interest payments to be less than the capital growth that could be expected on such purchases.

## VI. RECOMMENDATIONS FOR FURTHER RESEARCH

This article primarily considers the demand side of residential property, and assumes equilibrium through the consideration of actual consumption expenditure. The long-term effects of supply should also be taken into consideration, as noted by Archour-Fischer (1999: 33-43) in the FDW-model, the impact of property values on construction volume, and the subsequent change in stock levels which, in turn, affects the demand and supply equilibrium of space.

The paper also did not investigate the shift in spending behaviour on housing due changes in migration patterns, i.e. moving to cheaper alternative locations due the excessive cost of specific areas, or the change in alternative accommodation, i.e. smaller units or more compact types of property such as unit title rather than full title. Both of these options might result in lower overall spend on housing, although the number of houses sold does not change.

It was mentioned that the method for capturing CPI and household expenditure does not include interest payment. Further research on ensuring this is properly accounted for might be advantageous. Furthermore the calculation of CPI includes the cost of housing purchases in the basket of goods and services. Housing purchases however also contain the mentioned investment portion and not only the cost of actual usage of the space. It is the tendency in some other countries to switch towards owner equivalent rent or imputed rent in the determination of CPI, rather than the actual cost of purchases. It is suggested that this aspect be further investigated for New Zealand specific.

## REFERENCES

- [1] Abraham, J. M. & Hendershott, P. H. 1996. Bubbles in metropolitan housing markets. *Journal of Housing Research*, 7(2), pp. 191-207.
- [2] Archour-Fischer, D. 1999. An Integrated Property Market Model: A Pedagogical Tool. *Journal of Real Estate Practice and Education*, 2(1) pp. 33-43.
- [3] Boshoff, D.G.B. 2010. The impact of affordability on house price dynamics in South Africa. *Acta Structilia*, 17(2), pp. 126-148.
- [4] Bosworth, B.P., Hendershott, P.H. & Jaffee, D.M. 1980. Real user cost and the demand for single-family housing. *Brookings Papers on Economic Activity*, 2, pp. 401-452.
- [5] Capozza, D.R., Hendershott, P.H., Mack, C. & Mayer C.J. 2002. Determinants of real house price dynamics. NBER working paper series, Working paper 9262, October, 2002.
- [6] Case, K. E. & Fair, R. C. 1999. *Principles of Macro-Economics*. 5th edition. New Jersey: Prentice-Hall.

- [7] Chor, D. & Manova, K. 2010. Off the cliff and back? Credit conditions and international trade during the global financial crisis. NBER working paper series. Working Paper 16174, pp. 1-45
- [8] Chossudovsky, M. 1997. Global Financial Crisis. *Economic and Political Weekly*, 32(43) (Oct. 25-31, 1997), pp. 2794-2796.
- [9] De Veirman, E & Reddell, M. 2011. Towards understanding what and when households spent. *Reserve Bank of New Zealand Bulletin*, 74(4), pp. 5-16.
- [10] Égert, B. & Mihaljek, D. 2007. Determinants of house prices in central and eastern Europe. *CESifo Working Paper Series*, Paper 2152, November.
- [11] Haurin, D.R., Hendershott, P.H. & Kim, D. 1993. The impact of real rents and wages on household formation. *The Review of Economics and Statistics*, 75(2), pp. 284-293.
- [12] Haurin, D.R., Hendershott, P.H. & Wachter, S.M. 1996. Wealth accumulation and housing choices of young households: An exploratory investigation. *Journal of Housing Research*, 1996:1 pp. 33-57.
- [13] Haurin, D.R., Hendershott, P.H. & Wachter, S.M. 1997. Borrowing constraints and the tenure choice of young household. *Journal of Housing Research*, 8(2), pp. 137-154.
- [14] Kearl, J.R. & Mishkin, F.S. 1977. The demand for residential housing and monetary policy. *Journal of Finance*, 5, pp. 1571-1586.
- [15] Mishkin, F.S. 1978. The household balance sheet and the great depression. *Journal of Economic History*, 38(4), pp. 918-937.
- [16] Mishkin, F.S. 1995. Symposium on the monetary transmission mechanism. *Journal of Economic Perspectives*, 9(4), pp. 3-10.
- [17] Mishkin, F.S. 1996. The channels of monetary transmission: lessons for monetary policy. NBER Working Paper Series, Working paper 5464. National Bureau of Economic Research, Inc.
- [18] Mishkin, F.S. 2001. The transmission mechanism and the role of asset prices in monetary policy. NBER Working Paper Series, Working paper 8617. National Bureau of Economic Research, Inc.
- [19] Mishkin, F.S. 2007. Housing and the monetary transmission mechanism. Finance and Economics Discussion Series, Working Paper: a speech at the Federal Reserve Bank of Kansas City's Economic Symposium, Jackson Hole, Wyoming. Board of Governors of the Federal Reserve System (U.S.), August.
- [20] Mohr, P. 2008. *Economic Indicators*. 3rd edition. Pretoria: Unisa Press.
- [21] Ortalo-Magné, F. & Rady, S. 2006. Housing market dynamics: On the contribution of income shocks and credit constraint. *Review of Economic Studies*, 73(2), pp. 459-485, February.
- [22] Reserve Bank of New Zealand. 2012. *Financial stability report: May 2012*, Wellington: Reserve Bank of New Zealand
- [23] Shiller, R.J. 2003. From efficient markets theory to behavioural finance. *Journal of Economic Perspectives*, 17(1), pp. 83-104.
- [24] Smith, M. 2010. Evaluating household expenditures and their relationship with house prices at the microeconomic level, Reserve Bank of New Zealand discussion paper series. DP2010/01, pp. 1-53.
- [25] Statistics New Zealand. 2011. *Consumers price index review: 2011*. Wellington: Statistics New Zealand
- [26] Tsatsaronis, K. & Zhu, H. 2004. What drives housing price dynamics: cross-country evidence. *BIS Quarterly Review*, pp. 65-78, March.
- [27] University of Pretoria. 2010. *Economics 320: Unpublished lecturing notes*.
- [28] Statistics New Zealand, <http://www.stats.govt.nz/infoshare/>. Accessed May 2012.

# Valuation of shares and their fair value of the banking sector's companies quoted on the Warsaw Stock Exchange in Poland within 2008-2014

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**Abstract - this paper examines share price of the companies listed on the WIG-Banks and their fair value between 2008-2014. Data from 2008 to 2014 were collected from the Stooq.pl (Polish portal of shares). Two hypotheses are tested: (1) value of the shares based on the market price; (2) value of the shares as the fair value of shares.**

**Keywords-** shares, fair value, market, bank, stock exchange.

## I. INTRODUCTION

The valuation of shares is the most complex process on the financial market because the value of shares does not only depends on the demand and supply on the market but it is also reliant on many factors, which shape its exchange rate from the valuation of the company, with the use of various methods in time, until presentation of the mechanisms changing the value of shares in a way which increases or lowers its value.

In the paper, the banking sector's companies, quoted on the Warsaw Stock Exchange in Poland, were subject to analysis, and the fair value of shares was calculated objectively and on the basis of values as well as economic and financial indicators of each studied company.

The value of the banking sector's companies, quoted on this stock index, was studied on the basis of estimating their fair value because currently their values are presented as the decreased in relation to the market value, therefore, they are not fair values.

The studies were conducted on 16 companies of the banking sector in 2008 – 2014 using the indicator and comparative method, in order to prove that the theory on the fair value is appropriate.

The aim of the analysis is to determine whether the value of shares is a market value, and if the value of shares quoted on the Warsaw Stock Exchange is a fair value.

The method of testing is based on the calculation of the fair value of shares through the analysis and verification of the indicators, which were included in the financial data of the examined banks, and the indicators which were presented in this paper. The fair value is determined by the fact that minority shares constitute the object of trade on the Warsaw Stock Exchange, and retail investors or minority institutional investors are the main participants of the market. Therefore, the

share price should reflect the fair value, which is characterised by the liquid minority interest [8].

## II. BANKING SYSTEM AND ITS STRUCTURE

The banking system consists of institutions, which are different types of banks. They use their financial instruments. With these financial instruments, they generate income. According to the accepted rules, which are the effect of legal regulations, the financial products, offered by banks, allow potential clients, such as natural and legal persons, to perform financial transactions on the financial market. With such financial instruments, functioning of the entire financial system is possible [2, 3].

The classic model of the banking system is a dual banking system that is an existing central bank, which performs the functions of the national bank, issuing bank and primary bank, and also the commercial banks, which provide financial services, and their functioning are statutorily defined [7, 8].

The commercial banks operate on the market as companies. They offer their products, and thus strive for maximising profits and financial results. Sometimes they are called the public trust organisations, even if the situation may be different, and not only once the bank, which did cope with such a situation and had to declare bankruptcy, occurs. However, as a public trust organisation, banks should enjoy the trust because the funds entrusted to them ought to be well secured and bring profits, which in turn shall be paid in the form of interest of deposits and investments. However, poor management of the funds may cause the bank's bankruptcy, loss of capital, and also a violation of the stability of the banking sector. The reason is that banks are often linked with the capital and it may lead to large changes in the banking sector. However, the banks are subject to the banking supervision as well as bank and fiscal legislation, and the organisations insuring deposits and guaranteeing credits, which shows that the system is safe. Therefore, functioning of the commercial banks is based on two criteria, such as the criterion of market and public trust.

On the interbank market, there is high competition which leads to the modernisation of the banking sector. Due to this form of competition, two models in the banking sector were created. One of them is based on functioning of the stock

market, which is associated with specialised banking, and the second is characterised by universalism in the performance of banking transactions.

On the banking market, it is possible to identify the main segments of banking, which function in the current systems [7]:

- retail banking, i.e. providing a wide range of services to natural persons, that is, individual clients, who are very diversified in the context of the banking products,
- corporate banking, which includes a wide range of services provided to the business entities, such as companies, governments, organisations, institutions, foundations and others,
- community banking, which provides services for various types of entities of the local economy, e.g. entities of the local government, they are also depository and credit services,
- mortgage banking, the subject of which are mortgage loans, the issue of mortgage bonds and bonds, and valuation of properties,
- green banking, which involves the use of the bank's funds to protect the environment, and therefore, such a bank is specialised in this field,
- electronic banking, which acquires a growing number of clients, is related to the electronic transfer of funds and electronic service for the client, who does not have to leave home or a company and can manage his or her funds by making transfers, formation of deposits, currency exchange, etc.

At present, around the world, it can be observed that there is a tendency that banks do not create any new institutions (branches) according to the echo of the crisis we have experienced since 2008. However, in order to strengthen its position, they combine together and form large corporations, and thereby they increase their capital and may more aggressively compete with each other, which strengthens their market position [1, 7, 11, 12, 13].

In the last period, only the WIG-Banks index covered the losses arising at the turn of 2008 and 2009, in contrast to WIG20. However, it should be noted that some banks are undervalued, and their market price is not a fair value, the



Figure 1. WIG-Banks in the period from 01.2005 to 09.2014.

Source: Stooq.pl

assets of which should reflect it.

### III. THE BANKING SECTOR'S COMPANIES QUOTED ON THE WARSAW STOCK EXCHANGE IN POLAND

The value of the WIG-Banki sub-index allows to assess the effectiveness of investing in the banking sector companies. The portfolio of this index contains the companies included in WIG, and the ones belonging to the banking sector. This sub-index is based on the methodology of the WIG index and also includes the income due to dividend and pre-emptive rights (the income due to dividend and pre-emptive rights shall be deducted from the capitalisation of the company, affecting the so-called correction factor).

The index value is calculated according to the following formula:

$$(\sum_{i=1}^n P(i) * S(i) / \sum_{t=1}^n P(0) * S(0) * K(t) * B(0))$$

where:

- S(i) – The participant's interest of the 'i' index on a given session
- P(i) – The participant's share price of the 'i' index on a given session
- S(0) – The participant's interest of the 'i' index
- P(0) – The participant's share price of the 'i' index on a session on the base day
- K(t) – The correction factor of the index on a given session
- B(0) – The index value on the base day.

The banking sector's companies quoted on the Warsaw Stock Exchange in Poland:

**ALIOR** - Alior Bank SA is a universal deposit and loan bank, offering services to natural and legal persons, and other entities, both domestic and foreign. The main activity of the Bank includes maintaining bank accounts, granting credits and cash loans, issuing bank securities as well as purchasing and selling foreign exchange values. The Group is also engaged in brokerage, financial consulting and intermediation, and provides other financial services.

**BGŻ** - the Bank provides a universal banking activity with a particular emphasis on the financing of agriculture, food economy and regional infrastructure. The Bank's line of **business is to provide banking and financial services.**

**BNP PARIBAS BANK** - BNP Paribas Bank Polska SA is a subsidiary of BNP Paribas. BNP Paribas employs more than 200 thousand people, in more than 80 countries. The Group operates in such areas as retail, corporate and investment banking, and the management of assets and property.

**BOŚ** - BOŚ S.A. is a universal, commercial bank. The Bank started its business in 1991. It specialises in financing projects aimed at the environmental protection. The bank participates in financing numerous projects in the field of environmental protection involving own funds and these entrusted by the environmental funds. The National Fund for

Environmental Protection is a main shareholder of the bank. The Bank also provides services for companies and retail clients.

BPH - BPH Bank offers its products and services to individual clients, small and medium-sized companies and corporate clients. The bank's offer includes, among others, credits, including cash credits and mortgage loans, personal accounts, savings accounts and deposits, and credit cards. The Bank's clients can use a network of over 400 branches and partner institutions as well as universal agencies, and the internet and telephone banking.

BZWBK - Bank Zachodni WBK SA is a universal bank providing a full range of services for individual clients, small and medium-sized companies, and large enterprises. The Bank was created following the merger of Bank Zachodni SA and Wielkopolski Bank Kredytowy SA. The bank financial services also include the foreign trade service, financial transactions on the capital, monetary, foreign exchange and derivative transactions' market. In 2012, the merger with Kredyt Bank SA occurred.

GETIN - The entities within the Group are mainly financial institutions operating in banking, leasing, consulting, and distribution of financial products. The Group's companies provide operating expenses on the markets of Central and Eastern Europe, particularly in Poland, Russia, Belarus and Ukraine. The Group consists of, among others, Idea Bank, Idea Leasing, MW Trade, Tax Care.

GETINOBLE - The issuer conducts the banking activity within retail banking, in granting credits and loans, and accepting deposits, in Poland. On 1 June 2012, registration of the merger with Getin Noble Bank SA took place, and therefore the issuer took over the bank and changed the original name of Get Bank SA to Getin Noble Bank SA.

HANDLOWY - The second-largest bank in Poland, it has existed since 1870. It specialises in foreign trade service, handling large companies and investment banking. In order to support individual clients, it created a network of the Handlobank retail banks. Citigroup. The capital group includes, among others, the investment fund society, asset management company, insurance company and leasing company.

INGBSK - ING Bank Śląski is a Polish nationwide, universal bank offering its services to all market segments through a network of branches, individual counsellors and electronic banking. The clients of ING Bank Śląski have the Bank's services 24 hours a day, 7 days a week.

MBBANK - Within the frameworks of the mBank Group, companies and individual clients can use a wide range of products and services, necessary to meet the financial needs. The mBank's offer is complemented by leasing, factoring, and a complete range of brokerage. The Group also includes the specialised BRE Bank Hipoteczny. The mBank's group offers services in the field of private banking, and wealth management. In 2013, mBank appeared in a new visual opening: the unification of brands started and rebranding of all entities of the group. mBank, MultiBank, BRE Bank and BRE Private Banking began to operate under a new name and trading as mBank.

INGBSK - ING Bank Śląski is a Polish nationwide, universal bank offering its services to all market segments through a network of branches, individual counsellors and electronic banking. Previous name (BIG Bank Gdański). The Bank was created following the merger of BIG Bank and Bank Gdański. The main shareholder of the bank is BancoComercialPortugues. The Bank constitutes the centre of the Millennium Bank's Group, which includes: Millennium Leasing, Millennium Dom Maklerski (Brokerage House), Millennium Towarzystwo Funduszy Inwestycyjnych (Investment Fund Society).

PEKAO - Bank Pekao SA operates from 80 years and it is one of the largest banks of the Central Europe and the largest bank in Poland in terms of the market capitalisation. It provides services to approximately 5 million clients, including over 250 thousand of small and medium-sized companies and also over 15 thousand large companies. It is also the leading bank in Poland and the largest bank, in terms of capitalization, in the Central - Eastern Europe.

PKO BP SA - PKO Bank Polski is the largest universal commercial bank in Poland. The leader in terms of the value of assets, the volume of deposits, credits, the number of personal accounts and cash cards. It has the largest network of own branches and cashpoints. It offers its services mainly to the retail clients but it is also an important partner for small and medium-sized companies and large corporations. It also has a significant contribution in the market of services offered to municipalities, counties and provinces.

UNICREDIT - UniCredito Italiano S.p.A. is an international European bank, based in Milan and the leader of a group of banks. The most important banks belonging to the group are located in northern Italy, Austria and southern Germany. The consortium serves over 28 million clients in 19 countries, using 7 thousand branches, in which 140 thousand workers are employed.

#### IV. ANALYSIS AND VALUATION OF THE BANKING SECTOR'S COMPANIES QUOTED ON THE WARSAW STOCK EXCHANGE (WSE) IN POLAND

The current share price of the quoted banking sector's companies on the Warsaw Stock Exchange should reflect their value and the fair value. However, having regard to their maximum value, it should be noted that in relation to prosperous companies, in some cases, their current value are grossly different from the average or maximum value, which was established on the stock exchange quotation in a few years, as shown in table 1. Some of them were discounted by 80% (UNICREDIT), and the other by 78% (BPH), which shows their varied structure and different financial possibilities. In accordance with good financial data and generating profits for one share, the companies should resist the stagnation, which still takes place on the World markets, in the Central Europe after the last crisis. However, the provision of rating for some companies in a way exposing their weakness is unfair because these companies generate the profit and they are able to remain on the market and maintain its financial liquidity, the evidence of which are financial results of the banking sector's companies.

**TABLE I. THE BANKING SECTOR'S COMPANIES QUOTED ON THE WARSAW STOCK EXCHANGE IN POLAND AS OF 02.09.2014.**

Name	Average rating	rating	Current price PLN	Maximum price PLN from the beginning of the stock exchange quotation
Alior	3.0/5.0	B -	77.18	99.80
BGŻ	3.5/5.0	B	79.18	79.20
BNP Paribas Bank Polska	4.0/5.0	B	55.99	276.10
BOŚ	3.5/5.0	B -	42.00	115.00
BPH	3.5/5.0	B	38.60	179.60
BZWBK	3.5/5.0	B	382.30	408.30
Getin	3.0/5.0	BB -	2.62	6.71
Getinoble	4.5/5.0	B -	2.63	6.40
Handlowy	2.5/5.0	B +	114.60	116.10
INGBSK	4.0/5.0	B	134.90	134.90
MBANK	3.5/5.0	B	473.40	538.40
Nordea Bank Polska	4.0/5.0	B	47.57	47.99
Millennium	3.5/5.0	B	7.97	11.18
PEKAO	3.5/5.0	B	184.80	206.50
PKO BP SA	3.5/5.0	B	38.60	44.15
Unicredit	4.0/5.0	B -	25.15	121.80

Source: own development based on the data of the Warsaw Stock Exchange.

In rating, only one company reported a record value of 79.20, which is the highest from many years, and this is BGZ with the rating assessment of 3.5.

Table II presents the key ratios that show the financial condition of the banking sector's companies. Within the sixteen examined banks, the generated profit per share was reported in eleven banks, while one reported a loss. In four banks, the calculation can not be performed due to the lack of data. It shows that the banks prosper properly on the financial market and are able to record higher or lower profits.

In the view of such conducted study, it is clear that only one company had a problem with generating higher operating profit, which was per one share in the fourth quarter of 2013, and it was the UNICREDITO bank, in which the price to operating earnings ratio (P/OE) was only 1.0, in other companies [4, 5], the double-digit values were recorded. GETIN also generated a single-digit result but it did not deviate so much from the double-digit value (Table II).

The equity of the examined banking sector's companies was assessed positively in nine banks, in which it was demonstrated that they are not overvalued, while in four others, it was found that they have a low value, and these were BOS, BANK BPH,

GETIN, UNICREDIT. The remaining two banks, BNP PARIBAS BANK POLSKA and NORDEA BANK POLSKA, were not possible to examine due to the lack of data.

**TABLE II. TECHNICAL EVALUATION OF THE BANKING SECTOR'S COMPANIES QUOTED ON THE WARSAW STOCK EXCHANGE IN POLAND AS OF 2013.**

Name	P/OE (price/operating earnings)	P/BV (price/book value)	P/P (price/profit)	Profit per share
Alior	17.55	1.95	2.60	No data
BGŻ				3.132
BNP Paribas Bank Polska	No data	No data	No data	3.565
BOŚ	14.83	0.65	1.12	2.881
BPH	12.00	0.59	1.46	2.509
BZWBK	12.70	2.36	4.84	21.191
Getin	7.20	0.89	1.01	0.341
Getinoble	17.47	1.38	1.62	No data
Handlowy	13.94	2.02	6.49	7.445
INGBSK	13.62	1.90	3.64	No data
MBANK	12.10	1.89	3.72	28.604
Nordea Bank Polska	No data	No data	No data	No data
Millennium	12.39	1.78	3.15	0.442
PEKAO	14.44	2.15	5.43	10.610
PKO BP SA	11.86	1.87	3.40	2.581
Unicredit	1.00	0.54	1.44	-0.743

Source: own development based on the financial data of the companies quoted on the Warsaw Stock Exchange in Poland.

The value of the P/OE ratio is generally a useful tool for determining the absolute value of shares related to the operational earnings. The use of operating earnings instead of the net profit (the P/E ratio - price/earnings) allows to reject one-time events [4, 5, 6, 10].

The P/BV ratio informs how the equity of the company is currently valued by the market [4, 5, 6].

The value of the P/P ratio is expressed by the fact that the lower is the value of the ratio, the lower (more attractive) is theoretically the price we pay for purchasing shares of the company [4, 5, 6, 9].

The P/P ratio demonstrated that in many examined banks, the value of ratio is low and varies between 1.0 and 4.0, which shows that the banks do not have yet such a value, expressed in the share price, for which it should be valued. Thus, they are not fairly valued by the market.

**TABLE III. THE BANKING SECTOR'S COMPANIES QUOTED ON THE WARSAW STOCK EXCHANGE IN POLAND AS OF 26.03.2014.**

Name	Book value per share in PLN	ROE	ROA
Alior	38.8232	8.8029	0.8381
BGŻ	69.4785	5.0089	0.4854
BNP Paribas Bank Polska	63.5704	5.3795	0.4568
BOŚ	65.2886	4.1095	0.3295
BPH	64.6352	3.6459	0.537
BZWBK	152.9807	14.9589	1.9349
Getin	2.8726	11.7424	6.3549
Getinoble	1.8555	9.7516	0.724
Handlowy	57.6078	11.942	1.8509
INGBSK	68.2982	11.2809	1.1075
MBANK	233.2661	12.1362	1.1361
Nordea Bank Polska	No data	No data	No data
Millennium	4.5456	10.8607	0.9946
PEKAO	91.7239	11.8926	1.7971
PKO BP SA	20.7529	13.1078	1.621
Unicredit	8.088	0.00	-1.5303

Source: own development based on the financial data of the companies quoted on the Warsaw Stock Exchange in Poland.

Searching for the companies of the high return on equity (ROE) is one of the main criteria for the selection of investments. The company, which is able to consistently achieve high returns from their equity, must have a sustainable market advantage, which especially confirms the attractiveness of investment in its shares. Therefore, the 14 companies are characterised by the return on equity, one does not have a return on equity and it is UNICREDIT, and the second, NORDEA BANK POLSKA, could not be assessed due to the lack of data (Table III).

However, the return on assets is also a characteristic feature of 14 companies, and only one, UNICREDIT does not have such a rent. One company, NORDEA BANK POLSKA, could not be assessed due to the lack of data.

Therefore, it should be noted that according to the above data and financial data, the fair values for the individual banking sector's companies quoted on the Warsaw Stock Exchange in Poland, can be calculated.

**TABLE IV. THE BANKING SECTOR'S COMPANIES QUOTED ON THE WARSAW STOCK EXCHANGE IN POLAND AS OF 02.09.2014.**

Name	Current value	Maximum value
Alior	77.18	99.80
BGŻ	79.18	79.20
BNP Paribas Bank Polska	55.99	276.10
BOŚ	42.00	115.00
BPH	38.60	179.60
BZWBK	382.30	408.30
Getin	2.62	6.71
Getinoble	2.63	6.40
Handlowy	114.60	116.10
INGBSK	134.90	134.90
MBANK	473.40	538.40
Nordea Bank Polska	47.57	47.99
Millennium	7.97	11.18
PEKAO	184.80	206.50
PKO BP SA	38.60	44.15
Unicredit	25.15	121.80

Source: own development based on the financial data of the companies quoted on the Warsaw Stock Exchange in Poland.

**TABLE V. THE BANKING SECTOR'S COMPANIES QUOTED ON THE WARSAW STOCK EXCHANGE IN POLAND AS OF 02.09.2014.**

Name	Fair value	Deviation from the fair value in PLN
Alior	95.24	18.06
BGŻ	85.51	6.33
BNP Paribas Bank Polska	92.85	36.86
BOŚ	102.96	60.96
BPH	144.78	106.18
BZWBK	400.90	18.60
Getin	5.46	2.84
Getinoble	5.21	2.58
Handlowy	120.58	5.98
INGBSK	146.87	11.97
MBANK	511.63	38.23
Nordea Bank Polska	47.80	0.23
Millennium	10.25	2.28
PEKAO	202.65	17.85
PKO BP SA	43.87	5.27
Unicredit	40.54	15.39

Source: own development based on the financial data of the companies quoted on the Warsaw Stock Exchange in Poland.

Deviation from the fair value in PLN = DevFV

DevFV = Fair value - current value.

Tables IV-V presents that the fair value is significantly higher than the current value of the share prices of the banking sector's companies quoted on WIG20. The prosperous ALIOR, BANK BPH, MBANK, PEKAO, which are very undervalued, may be such pearls in the index.

## V. CONCLUSIONS

The share price of the banking sector's companies quoted on the Warsaw Stock Exchange in Poland is significantly underestimated by the current financial situation in the world, and even by the speculation of individual capital groups, which circulate around the World and exist thanks to the speculation, producing only a surplus for the purchase and sale of shares and transferring the capital to another place.

The value of the banking sector' companies should be appreciated since banks hold the majority of assets expressed in money and legal tenders. At the same time, it is important to emphasise that the banks reveal quite a profit, therefore they are the companies, which do not have much risk as the manufacturing companies, which are exposed to failure in the form of lack of the potential customers markets or turning the customers' back on the companies.

Banks earn money because they mostly focus not only on the credits, from which they have interest, but also on the provisions and fees, from which they derive large profits. Moreover, banks still create new financial products, which must be attractive to the clients, due to the fact that the money derived from the depositors is cheaper than the acquired on the interbank market.

The fair value of the banking sector's companies quoted on the Warsaw Stock Exchange in Poland should be achieved within one year, until 2015, with the improvement of situation on the Global financial markets.

## REFERENCES

- [1] Borowski K., „Wyznaczanie punktów zwrotnych indeksu Wig przy pomocy wybranych metod analizy czasowej”. *Bossa.pl, Poznań 1999*.
- [2] Copeland T., Koller T., Murrin J. „Wycena: mierzenie i kształtowanie wartości firmy”, WIG - Press, Warszawa 1997, pp. 65-69.
- [3] Jajuga K., Jajuga T. „Inwestycje”, Wydawnictwo Naukowe PWN, Warszawa 1996, pp. 34-57.
- [4] Parvi R., “Share price of the companies listed on the WIG-UKRAINE and their fair value”, Share price of the companies listed on the WIG-UKRAINE and their fair value”, Itall Ltd., 2014, pp. 179-185.
- [5] Parvi R., “Investment funds and their financial effectiveness”, Goce Delchev University Macedonia & THOMSON Ltd. Slovakia, *EDIS - Publishing Institution of the University of Zilina, 2014, pp. 262-267*.
- [6] Pierce R., “Stocks, Options & Spreads, Infinity Publishing” 2004, pp. 110-115.
- [7] Pietrzak B., “System finansowy w Polsce: System bankowy”, Wydawnictwo Naukowe PWN, Warszawa 2008, pp. 69-72.
- [8] Tennant D., Sutherland R., “What types of banks profit most from fees charged? A cross-country examination of bank-specific and country-level determinants”, *Journal of Banking & Finance, Volume 49, December 2014, Pages 178–190*.
- [9] Thompson B., “Stock Market Superstar”, Insomniac Press 2008, pp. 52-54.
- [10] Veale S., “Stocks, Bonds, Options, Futures”, Prentice Hall Press 2001, pp. 88-125.
- [11] Komisja Nadzoru Finansowego – [www.knf.gov.pl](http://www.knf.gov.pl), Warszawa, 2014.
- [12] Akcje.net J.D.G. - Informacje z rynków finansowych - [Stooq.pl](http://Stooq.pl), 2014.
- [13] Akcje notowania – [Bankier.pl](http://Bankier.pl), 2014

# Psychiatric Care in Bulgaria - Ethical and Legal Aspects

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**Abstract**—The Bulgarian legislation provides certain specific ethic and medical standards for treatment of mentally disordered people. The peculiarities of their psychiatric condition determine the medical activities applied for their accommodation in psychiatric hospitals. Treatment measures of these patients are associated with a positive limitation of their physical freedom without violating their human rights.

**Keywords**-mental disorders, medical standards, medical coercion, emergency psychiatric care

## I. INTRODUCTION

Persons with mental and behavioral disorders, citizens of the Republic of Bulgaria are subjects of special legal protection provided by different state authorities [1]. The explicit and corrective legal provisions target protection of mentally disabled people in order to assure their civil rights in the process of their socialization. Citizens with psychiatric disorders are integrated in community through the cooperation and active collaboration of government, institutions, ministries and general public. The foundations of the psychiatric care in Bulgaria are based on certain ethical and legal standards.

The fundamental ethical principles in providing psychiatric care in Bulgarian legislation are provided in the Health Act. They concern the autonomy of the individual; the informed consent of the patient and the respect of the dignity of the patient.

According to the norms of the Health Act exist determined categories of persons who are provided with special health care:

- mentally ill persons with serious infringement to mental functions (psychosis or severe personality disorder) or clear permanent mental damage as a result of mental illness
- persons with moderate, severe or profound mental retardation or vascular dementia

- persons with other disorders of mental function, learning disabilities and difficulties in adaptation, requiring medical attention, care and support to live fully in family and social environment.

## II. TYPES OF LEGAL STANDARDS FOR TREATING MENTALLY DISORDERED PEOPLE IN BULGARIAN LEGISLATION

### A. Legal standards of medical care of mentally disabled people

Medical activities related to the treatment of persons with mental disorders are provided in art. 149 of Health Act through the “numerous clausus” principle. These activities are defined in four medical patterns:

- diagnostic studies - history, clinical interview, clinical and psycho-diagnostic, laboratory and instrumental methods, including visualization of brain structures and functions; study of mental development, mental structures and mental conflicts; assessment the risk of suicide, assault and destructiveness, social exclusion and denial of assistance in the treatment
- medication treatment - use of drugs approved for the indications for which they are prescribed, or for other indications within the medical standard, or the terms and conditions of a clinical trial
- instrumental treatment - electro-convulsive therapy (applied only in certain mental health centers, psychiatric wards of general hospitals and medical institutions for inpatient psychiatric care)
- psychotherapy - treatment by interaction in a therapeutic relationship with the patient and/or his family and/or group of patients.

The law prohibits the use of surgical techniques for the purpose of changing the morphology of the central nervous system in order to achieve certain mental characteristics.

These medical procedures are carried out in medical institutions psychiatric care programs, such as coordinating cases with severe disorders; maintenance treatment of severe disorders; emergency and crisis intervention; active treatment at home; early intervention in psychosis; active treatment of depression; treatment of acute psychotic episodes; treating severe episodes of depression; treating severe episodes of mania.

#### *B. Legal standards of medical coercion of mentally disabled people*

The norms of Health Act also provide forms of specific medical treatment involving an element of coercion considered as measures of temporary physical restriction of the mentally disordered persons. These measures are applied to patients with established mental illness: mental disorder occurring with impaired ability to assess the reality of the meaning of the words or behavior of others with whom the patient communicates in social situations condition of a lack of self-control over the morbid disorder of the function of the mental apparatus due catatonic signs, impaired clarity of consciousness, abnormal affect, dissociation mental functions organic lesions in the brain; direct and imminent danger of self-harming or injury or assault [2].

Measures for temporary physical restraint are provided to be used as a prerequisite for the creation of conditions for treatment and not a substitute for active treatment. They also aim to meet an unexpected demand for a safe and secure environment for the patient, reducing the risk of disease experiences and abnormal behavior. There is a law prohibition of the application of measures for temporary physical restraint as a form of punishment.

Measures for temporary physical restraint include:

- temporary containment through forcible accommodation of the patient in isolated and secured room, determined by the head of the hospital. The design and equipment of premises for temporary isolation should be tailored to their basic functions for the treatment, safety and security
- temporary immobilization: compulsory restriction of movement of the person through the control of arms or mechanical means. Methods of immobilization by human arms of the medical staff is preferred by law; the use of mechanical means, such as straps, shirts and other restrictive is exceptional. Any use of chains, handcuffs and other sharp and dangerous tools, and those that can cause the patient's sense of humiliation is prohibited. In applying The temporary immobilization must be applied by at least four members of the therapeutic team, of which at least one is the same sex, as that of the patient [2].

#### *C. Legal standards of emergency psychiatric care*

The regulations in Bulgarian legislation dealing with the emergency psychiatric care are established out of the legal framework of emergency medical care for other diseases. Emergency psychiatric care is defined as a set of medical rules and actions applied to persons with obvious signs of mental

disorder when the behavior or condition poses a direct and imminent danger to their health or life or health or life of others.

Emergency psychiatric care is provided by mental health centers, medical institutions for psychiatric care, psychiatric wards or clinics at general hospitals and centers for emergency medical help. Emergency psychiatric care is delivered according to legal medical standards. Emergency psychiatric care includes diagnostic and therapeutic procedures: diagnostic procedures that require urgent clarification of the patient and associated risks for him and other persons. In emergency accommodation the treating team is recommended to avoid the application of measures for temporary physical restraint of the patient. Applied methods and means of temporary restriction are described in Journal of the emergency team. It should be noted that emergency psychiatric institutionalization constitutes a restriction on the rights and freedoms of the patient in the interest of his own health and safety and in order to be ensured the health and safety of others as the emergency team. After admission in the hospital the head of the hospital or the ward is responsible for limiting the rights of patients. The requirements of good medical practice concerning the dignity of the mentally disordered patient are obligatory.

Temporary accommodation for the treatment can be stated in cases of necessity of continuing the treatment of the person to whom it is given emergency medical care. The duration of treatment cannot be greater than 24 hours or as an exception, the period may be extended once with the permission of the district judge within 48 hours. The maximum duration of temporary accommodation for treatment is 72 hours. After the expiry date in order to continue treatment obtaining the informed consent from the patient or his legal representative is a must.

#### *D. Ethical principles of psychiatric care*

The issued Bulgarian legal standards of providing psychiatric care originate from fundamental ethical principles:

- universality of human rights
- autonomy of the individual;
- informed consent /art.87 of Health Act [1]/ - there are several specific hypotheses in obtaining informed consent from people with mental and behavioral disorders as the free and informed consent is an aspect of competence is part of Voluntary psychiatric treatment.

The Bulgarian Health Act is promulgated in the State Gazette 70 of 10.08.2004 and in effect from 01.01.2005. Its Chapter V "Mental Health" explicates the European Union policy concerning the involuntary hospitalization of psychiatric patients:

- Recommendation of the Committee of Ministers of the Council of Europe R No. (83) 2 "Legal protection persons suffering from mental disorders that are involuntarily hospitalized in the hospital", 1983. (Council of Europe, Committee of Ministers, Recommendation No. R (83) 2 Concerning the Legal

### Protection of Persons Suffering from Mental Disorders Placed as Involuntary Patients)

- Recommendation of the Parliamentary Assembly of the Council of Europe № 235 (1994) of Psychiatry and Human Rights (Council of Europe, Parliamentary Assembly, Recommendation 1235 (1994) on psychiatry and human rights);
- "White Paper" for the protection of human rights and dignity of people suffering from mental disorders, especially those who are involuntarily hospitalized, adopted by the Council of Europe 03.01.2000 (Council of Europe, Steering Committee on Bioethics (CDBI). "White Paper" on the protection of the human rights and dignity of people suffering from mental disorder, especially those placed as involuntary patients in a psychiatric environment).

The implementation of these legislative alterations will contribute to integrated treatment of psychiatric patients with dangerous behavior of illness and severe mental disorders which relates both to the continuity of care and treatment duration /long ongoing process life/ and the specificity of the therapeutic process /complementary therapeutic activities/.

### III. IN CONCLUSION

Persons with mental and behavioral disorders are particularly vulnerable group, compared with the general population. These people, because of their mental illness more often than other patients find themselves in situations where they are not able to independently assert their rights and therefore cannot be a victim of physical or mental abuse or neglect, exploitation, humiliation or other inhuman respect.

The mentally disordered people as legal subjects are characterized with many peculiarities which from their side influence on the manners and means for applying medical treatment. The further harmonization of Bulgarian and European legislation in the field of the standards of medical cares shall conform to these specific peculiarities. This is not only its liability towards the state in execution of its assigned legal protection function. It is also a liability towards the mentally disordered people who need protection. In order to respect their human rights and ethical standards of their treatment are suggested certain *de lege ferenda* alterations as follows:

- establishing a judicial or non-judicial body authorized to review the processes related to involuntary hospitalization or treatment of mentally ill patients and empowered to assess each involuntary admission or treatment;
- limitations in the mandatory accommodation of minors in mental health institutions;
- legal standards for certain residential institutions for post hospital care of compulsory accommodated treatment of persons with mental and behavioral disorders.

### REFERENCES

- [1] N. Nenov, Basic Rights of Men and Citizen, Sofia, 1998, p. 144 – 148
- [2] G. Onchev, Psychiatry Coercion - Empirical Data and Good Practice, Sofia, 2012
- [3] D. Zinovieva, N. Gevrenova, Legal status of persons with mental disorders, Sofia, 2012
- [4] Ph. Barker, St. Baldwin, Ethical Issues in Mental Health, Sofia, 1999

# Independent Validation of General Valuation Rolls for Property Tax

Evidence from South Africa

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**Abstract—** Although South Africa is considered to be a developing country, it is characterized by well-developed economic systems, legislation and policies, which has characteristics of a developed economy. There are, nevertheless, big discrepancies between economic activity, policies and behavior in different geographical areas, as well as between policy development and implementation capacity. This is also the case for mass appraisal techniques for property tax purposes. The property tax environment in South Africa changed significantly with the implementation of the Municipal Property Rates Act in 2004. This study investigates the implementation of the act with specific reference to the success of the requirements in terms of the appraisal of properties. The study focuses on a case study of a larger municipality and investigates the method of appraisal applied. The results show the level of success achieved with regards to the methodology applied. In line with this it is possible to make suggestions for policy changes in the requirement for appraisal of municipal rolls, whereby capacity shortcomings are evident with regards to volumes to be handled as well as methods that are applied and should be addressed by the implementation of independent roll validation.

**Keywords-** Property Valuation, Property Tax, Multiple Regression Analysis, CAMA

## I. INTRODUCTION

The general valuation roll (GV) of a Municipality is required as a base for property rates as per the Municipal Property Rates Act 6 of 2004 (MPRA). The author was requested to perform a validation of the roll as provisionally performed by the municipal valuer and after recommendations to also review the results of a sample of the amendments. The initial findings were evident of procedural concerns, which after amendment by the municipal valuer does not seem to be resolved. This report attempts to highlight the concerns with regards to the procedure followed and the expected consequences. Finally some remedial action will be suggested.

Franzsen (2009) points out a number of concerns with regards to the implementation of the MPRA, specifically with regards to valuation related matters. He points out that it is required for every municipality to appoint a municipal valuer, but very few valuers in South Africa are actively involved with municipal valuations and a big concern is the number of valuers with the technical skills to perform a computer assisted

mass appraisal (CAMA). O'Connor (2013) provides a detailed analysis of the use of statistical models and GIS in residential market analysis. This, in conjunction with unpublished guidelines by O'Connor (2014) in the use of regression and spatial analysis provides the view that linear and non-linear multiple regression analysis (MRA) is the suggested methods to perform mass appraisal, which are also the preferred method by the International Association of Assessing Officers (IAAO).

In line with the suggested practice mentioned by previous authors, this report will investigate the performance of the appraisal model applied by the municipal valuer on the GV by way of a linear MRA.

## II. FIRST ROUND RESULTS

The method adopted by the municipal valuer is a points system, whereby a predetermined number of points are assigned to different value forming attributes that provide an indication of each property's value. All properties for assessment are inspected and the value forming attributes for each property are identified and quantified. By adding all the points for each property, a total score for each property is determined, referred to as the global score (GS). The GS is then compared to properties that sold in different areas in order to quantify the value at different GS's. The GS of all properties to be valued are then used as a proxy for assessment of each property.

The concern with the technique is the questionability as to the reliability of the ratio between different scores within a variable as well as the ratio of different scores between different variables.

The first round results of this technique are indicated in figures 1 to 3. Figure 1 indicates the result of the GS for each property in the sales comparison, compared to the selling price of each. A coefficient of determination ( $R^2$ ) of 0.4834 is evident, indicating that 48.34% of the variance in the sales prices is explained by the GS.

If the values that are determined by way of the explained technique are compared to the GS, as depicted in figure 2, an  $R^2$  of 0.2493 is observed. This reduced coefficient is a concern, as it forms the base for the mass appraisal effort. Moving to the comparison of values determined for properties sold as

compared to the selling prices of same, figure 3 indicates that the  $R^2$  further reduce to 0.1252, with clear evidence of heteroscedasticity.

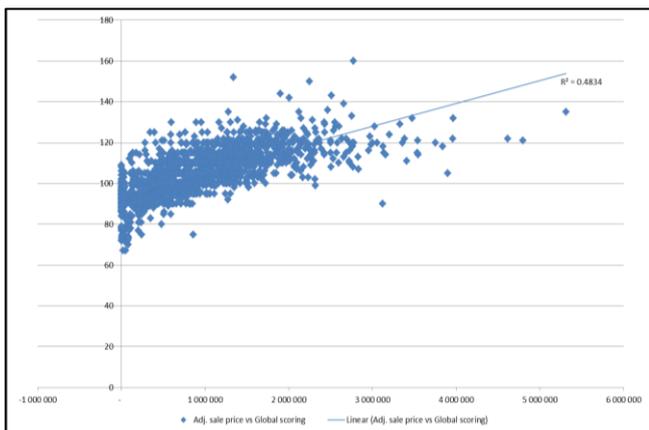


Figure 1. Sale Price vs. Global Scoring

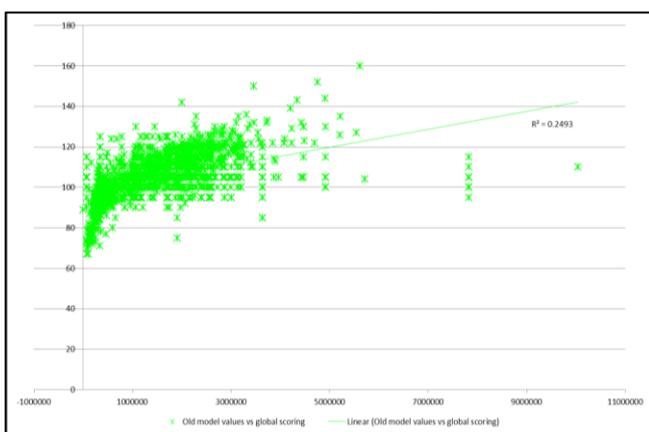


Figure 2. Old Model Values vs. Global Scoring

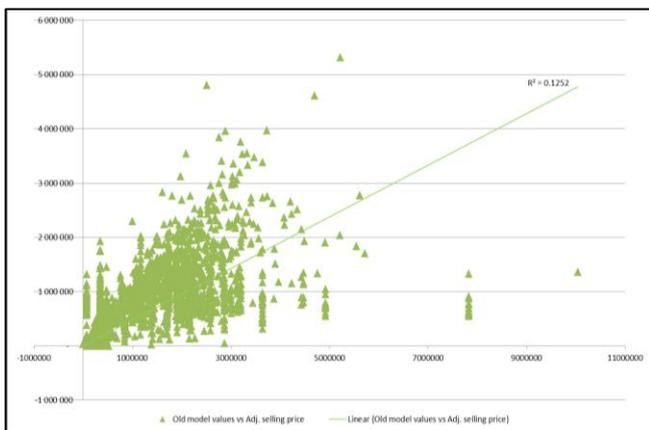


Figure 3. Old Model Values vs. Selling Price

This low level of the  $R^2$  is considered to be a concern and hence the results were compared to a MRA using the same

variables as per the GS system of the municipal valuer. Instead of applying the various points allocated to each variable in the MRA, i.e. points allocated to type of finishes as a single variable, dummy variables were used for each type of finish. This enables the possibility to quantify the relationship between the different values within each variable. Furthermore the MRA allows for diagnostic testing of both the MRA results as well as the results as previously determined by the municipal valuer.

Figure 4 shows the results of the MRA calculated values vs. the score of each property, while figure 5 indicates the MRA values vs. the selling price of each property. The improved  $R^2$  of the two regressions, 0.6124 and 0.5671 respectively, both as regressions through the origin, indicates that the MRA is a viable method for testing the data as well as the actual valuation of the properties. Figure 6 combines all the different results to see it as a comparison. It is evident that, although not tested formally, heteroscedasticity is largely reduced. Some negative values that are determined by the MRA is a result of the regression of all values together and could be eliminated by way of further model specification development, such as the introduction of homogenous areas or groups.

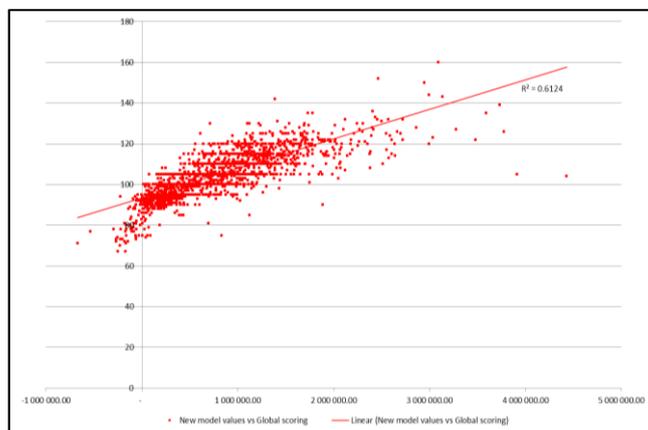


Figure 4. New Model Values vs. Global Scoring

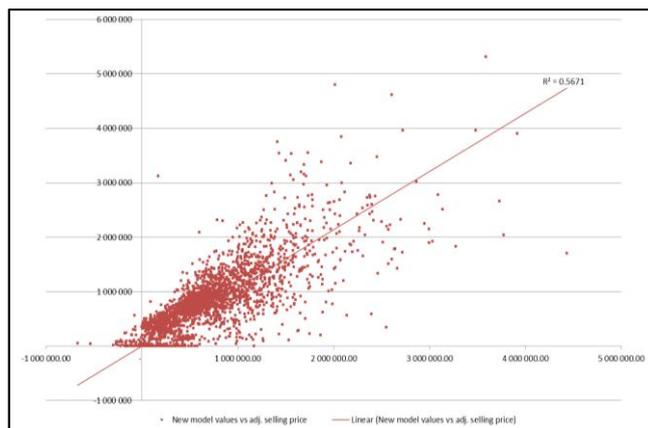


Figure 5. New Model Values vs. Selling Price

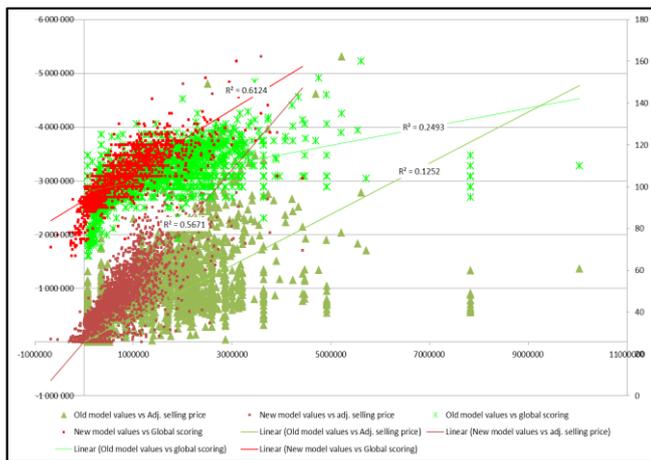


Figure 6. Combined results

### III. SECOND ROUND RESULTS

Based on the above findings, the GV was referred back to the valuer for reconsideration. A sample of the reworked data was used for further review. The results of the revised values vs. the selling price of these properties are provided in figure 7. The  $R^2$  of the revised results with a regression through the origin is 0.912, which appears to be a significant improvement and even better than the  $R^2$  of 0.5671 as determined by the MRA. It is, however, visible that a normal trendline, which is just about  $45^\circ$ , representing a perfect correlation between the determined values and the selling prices, intersects with quite a number of the results. This gives the impression that some of the results are manipulated and not determined by way of a reliable model, which questions the forecasting ability to the balance of values to be determined for the GV. The same new sample data was analysed by way of an MRA, with the results shown in figure 8. The regression through the origin provides an  $R^2$  of 0.6051, which is slightly better than the MRA applied to the previous dataset, but not as good as the analysis of the valuer's new values. It is, however, evident that the number of data points that fall on the trendline is not present in this case and suggests that the high  $R^2$  of the valuer's results might be misleading.

To test this, the GS used as the basis for modelling the values are regressed against the selling price in order to determine the extent to which the GS is explained by the selling price of properties that sold in the sample. The results are plotted in figure 8, while the statistics are displayed in table 1. It is evident that the  $R^2$  between the GS and the selling price is substantially lower than the GV against the selling prices. The GS is then also regressed against the GV, to investigate the level to which the final GV is explained by the GS, with the plotted results shown in figure 9 and the statistics displayed in table 2. It is evident from this that the GV fails to accurately predict the GV and puts a big concern on the integrity of the GV. This had been discussed with the valuer, who responded that it is a shortcoming of the method and that it is corrected by investigating individual values almost as for individual valuation purposes, a very time consuming and labour intensive process.

It is, however, visible that the pattern of the plots in figure 8 and 9 is very similar and therefore the results are further tested. For this purpose, the MRA values are used as benchmark for testing reliability of the GV, rather than the GS. An MRA through the origin is performed with 1. the selling price as dependant variable and 2. the GV value as dependant variable. The results are an adjusted  $R^2$  of 0.869 and 0.921 for the two tests respectively, which is considered not to be grossly different, suggesting that the MRA explains the valuer's results to a similar level as it explains the selling price and which is also very similar to the  $R^2$  obtained by the regression of the GV values against the selling price. A plot of the selling price vs the MRA predicted values are shown in figure 10 and the GV value plotted against the MRA predicted value is shown in figure 11, with the statistics for the two regressions in table 3 and 4 respectively. This similar and fairly high coefficient of determination indicates that the final sample of values included in the GV is of a fairly accurate and acceptable level. The F-values obtained for all these are also suggesting a level of significance below 0.001, indicating that the coefficient of determination is explaining the variability in the error term with confidence in excess of 99.9%.

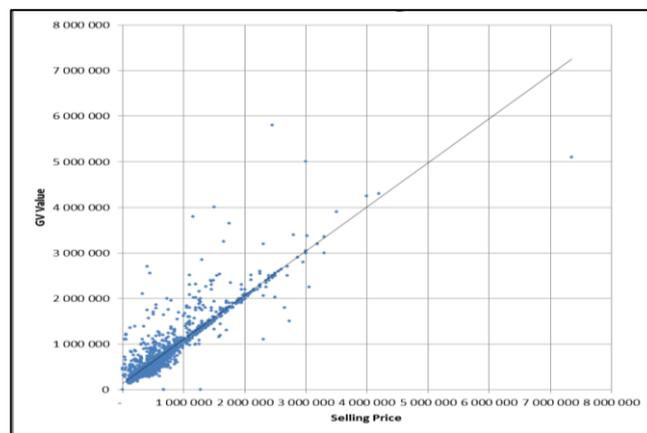


Figure 7. Valuation Roll Value vs. Selling Price

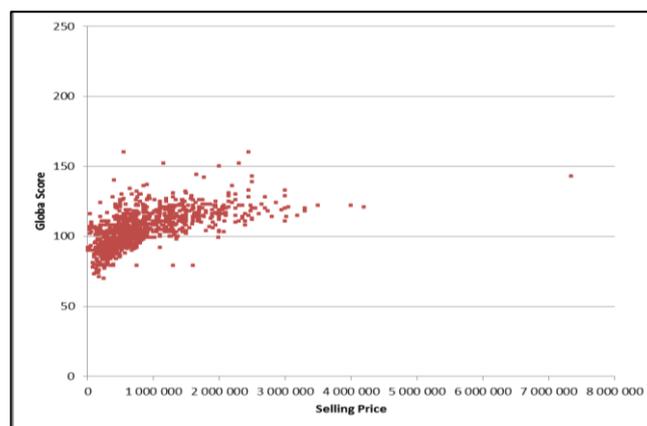


Figure 8. New Global Score vs. Selling Price

TABLE I. STATISTICS OF GLOBAL SCORE REGRESSED AGAINST SELLING PRICE

Model Summary <sup>c,d</sup>				
Model	R	R Square <sup>b</sup>	Adjusted R Square	Std. Error of the Estimate
1	.817 <sup>a</sup>	.668	.667	59.851

a. Predictors: Selling price  
 b. For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression. This CANNOT be compared to R Square for models which include an intercept.  
 c. Dependent Variable: Global Scoring  
 d. Linear Regression through the Origin

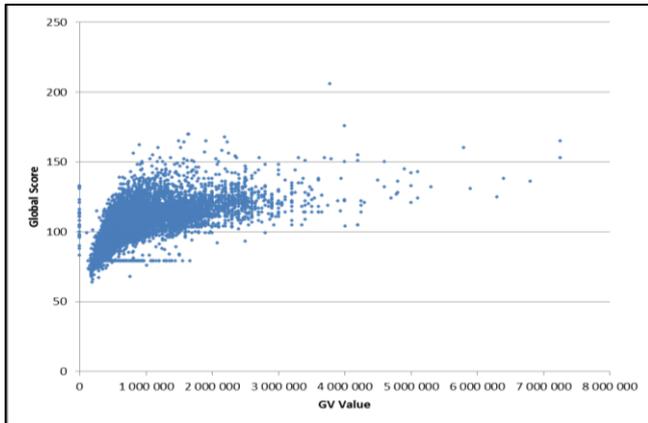


Figure 9. Global Score vs. New Value

TABLE III. STATISTICS OF NEW MRA VALUE REGRESSED AGAINST SELLING PRICE

Model Summary <sup>c,d</sup>				
Model	R	R Square <sup>b</sup>	Adjusted R Square	Std. Error of the Estimate
1	.934 <sup>a</sup>	.872	.869	365226.2229

a. Predictors: Regressed intern fin, DINE\_RM2, LIVE\_RM2, KITCHEN2, OP\_PLAN, @2LOUNGE, LIVE\_RM1, LNGE\_DINE, DINE\_RM1, GBE, @1LOUNGE, Regressed baths, Regressed windows, KITCHEN0, Regressed roofs, Regressed floors, Regressed beds, Regressed walls, Regressed intern cond, Regressed ceilings  
 b. For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression. This CANNOT be compared to R Square for models which include an intercept.  
 c. Dependent Variable: Selling price  
 d. Linear Regression through the Origin

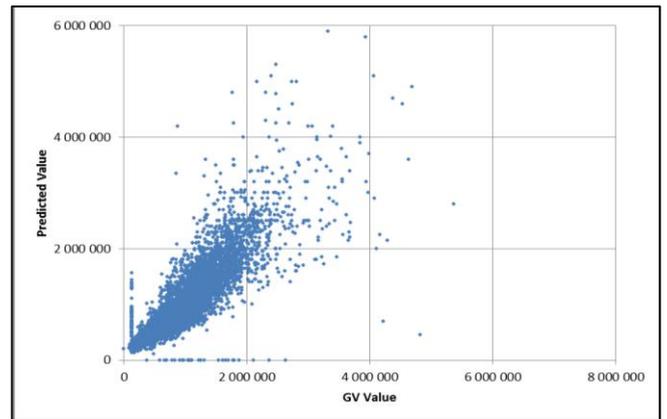


Figure 11. New GV Value vs. MRA Value

TABLE II. STATISTICS OF GLOBAL SCORE REGRESSED AGAINST GV VALUE

Model Summary <sup>c,d</sup>				
Model	R	R Square <sup>b</sup>	Adjusted R Square	Std. Error of the Estimate
1	.721 <sup>a</sup>	.520	.520	705766.341

a. Predictors: GlobalScoring  
 b. For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression. This CANNOT be compared to R Square for models which include an intercept.  
 c. Dependent Variable: GV Value  
 d. Linear Regression through the Origin

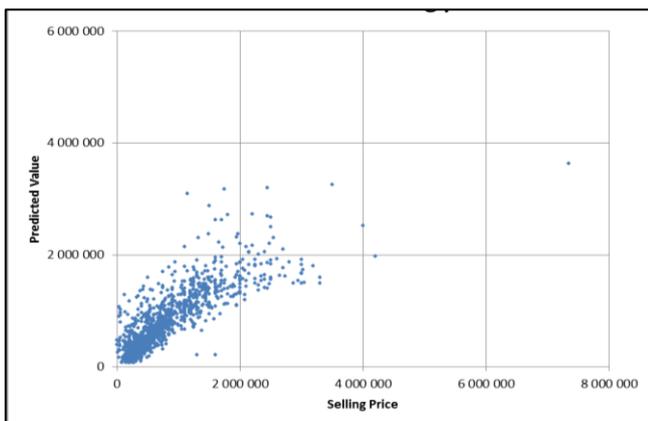


Figure 10. New MRA Value vs. Selling Price

TABLE IV. STATISTICS OF NEW GV VALUE REGRESSED AGAINST GV VALUE

Model Summary <sup>c,d</sup>				
Model	R	R Square <sup>b</sup>	Adjusted R Square	Std. Error of the Estimate
1	.960 <sup>a</sup>	.921	.921	266221.174

a. Predictors: Regressed intern fin, DINE\_RM3, LIVE\_RM2, DINE\_RM2, KITCHEN2, LIVE\_RM1, OP\_PLAN, @2LOUNGE, LNGE\_DINE, DINE\_RM1, GBE, @1LOUNGE, Regressed baths, Regressed beds, Regressed roofs, Regressed windows, Regressed floors, Regressed walls, KITCHEN0, Regressed intern cond, Regressed ceilings  
 b. For regression through the origin (the no-intercept model), R Square measures the proportion of the variability in the dependent variable about the origin explained by regression. This CANNOT be compared to R Square for models which include an intercept.  
 c. Dependent Variable: GV Value  
 d. Linear Regression through the Origin

#### IV. FINDINGS

Although the data capturing and level of information captured by the valuer was found to be of a very good level, the scoring system as applied by the valuer proved in the original testing to be a very unreliable technique.

After amendments to the values as finally submitted in the GV, the GS still failed to explain the values and to serve as a reliable predicting model. The GV values, however, are shown by the MRA to be fairly accurate and probably of an acceptable standard. This was, however, achieved through intervention by the valuer on an individual property level, beyond the GS

model, a process that is extremely time consuming and labour intensive.

Furthermore, without a benchmark, it was impossible to tell how accurate the GV values really are. The MRA provides the opportunity to provide statistical testing of this and to indicate the accuracy and level of confidence of the predicted values used in the GV. If, however, the MRA predicted values are used as a proxy for possible objections, the difference in value base between the GV values and the MRA predicted values is expected to be the value of all possible objections that might be expected.

The unreliability of the scoring system of determining the values in the roll, is expected to result in objections to the values in the sample of approximately R551 419 664.05, thereby negatively affecting the value base of the GV, with a resultant 4.68%, or approximately R6.3 million reduction in rates to be collected. By limiting this to only instances where the difference is at least 25%, i.e. all owners where there is less than 25% difference in value would not bother to object, the resultant figures are a R446 716 232.28 change in value base and 3.79% or R5.1 million reduction in rates to be collected based on the sample only. The total tax loss is therefore considered to be substantially higher if the whole GV is taken into consideration.

If the method of valuation can be improved as suggested by the MRA technique, the value base could be ensured to be more reliable, which results in the tax rate to be determined with more certainty. This would ensure that objections don't negatively affect the total taxes to be collected and that the Municipality can perform its budgeting with more certainty. This is not only an improved cash flow situation, but would also stimulate better confidence in the tax collection process, with a substantially improved objection period and willingness of taxpayers to cooperate.

## V. CONCLUSION

The above findings ultimately suggest that the MRA approach is indicated to be:

- A more reliable approach
- A more efficient method to use with quicker results for both the roll as well as dealing with possible objections
- Offers the opportunity to ensure a more reliable tax base, with increased revenue to the Municipality due to the lowered uncertainty of accuracy.

## VI. RECOMMENDATIONS

The MRA approach to testing and validating the accuracy of the GV proves to be a much quicker and reliable approach while still meeting the prescribed linear regression requirement as stipulated by the Municipality.

The tests performed in this report were, however, only applied on a sample of the properties in the GV and did not include all properties. Furthermore it cannot be said that the sample is representative of the whole population of properties in the GV, therefore it is suggested that the testing be performed in a similar way on the whole GV. It was indicated by the valuer that he would be willing to cooperate in such a process and to share the data underpinning the modelling in order to do this, with the understanding that there will be a process of up skilling and sharing of knowledge in this regard. The municipality would also benefit by this as the reliability of the whole GV could be tested and empirically verified. The MRA approach, due to the speed and scientific merit, would also assist in the handling of objections as well as maintenance of the roll. It is therefore suggested that:

1. Further analysis of the valuation rolls of other municipalities in order to provide scientific proof of the accuracy of the GV by way of diagnostic analysis. This would prove to offer trust in valuation rolls, which could be of much benefit to the municipalities. It would furthermore ensure reliability of the tax base which would put more certainty on the income to be received from taxes due to fewer objections with a resultant higher tax collection.
2. That municipal valuers consider allowing external roll validation in order to advise on accuracy of rolls prior to these being made available to municipalities or being implemented.
3. It is important that knowledge sharing takes place and it is therefore considered important to structure training sessions for the use of techniques such as the MRA in mass appraisal and the benefit thereof for the municipal budget.

## REFERENCES

- [1] Franzsen, R.C.D. (2009). Municipal Property Rates Act: Some Valuation Issues, Local Government Bulletin. 11(1):25-28.
- [2] O'Connor, P.M. (2013). Use of Statistical Models and GIS in Residential Market Analysis, Journal of Property Tax Assessment and Administration. 10(3):39-62.
- [3] O'Connor, P.M. (2014), Introduction to Regression and Spatial Analysis, Unpublished notes by Sideline CAMA Consulting. 37 pp

# The required elements for auditors' legal liability

## The Italian perspective and a comparison between the Italian and the Spanish legal systems

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**Abstract—** The Italian legal doctrine has recently provided a new interpretation for the legal liability of auditing firms. A qualified opinion report issued by an auditing firm after a voluntary audit does not make the auditor liable in any way, because he is not entitled to undertake any actions and is only allowed to disclose the results of the audit to those who requested it. In addition, if an auditor issues a no-opinion report rather than an adverse opinion, he cannot be held liable for deceiving third parties, provided that he clearly states the reasons which prevented him from expressing an opinion.

*Keywords-auditor; legal liability; certified report*

### I. OVERVIEW

In order to investigate the auditor's liability, two essential elements must be taken into account: the causal relationship between the failure of the auditor to perform his duties and the damages incurred by investors and, more important, the kind of the resulting liability towards third parties.

The Italian legal doctrine has recently addressed the problem, with two verdicts issued by the Court of Rome [1] and the Court of Milan [2], both of which deal with the same issue: defining the extent of the auditors' legal liability.

The more recent verdict refers to an action for liability against an auditing firm that performed a voluntary audit of the consolidated financial statement of a parent company and its subsidiaries and associated.

The accounting firm had issued a qualified opinion report, after discovering several critical issues that could put the stability of company at risk, in a context of general financial difficulties for the entire group.

The trustee proposed an action for liability against the accounting firm and the appointed auditor, claiming that he had not done anything to prevent a specific behavior and the resulting damage, delaying the insolvency procedures.

The Court rejected the request of the trustee because – on the one hand – the audit was voluntary, thus the auditor had no power to influence the behavior of the administrators, and was not allowed to inform the board or report anything to the

judiciary administration. Moreover, in such cases the auditor is not allowed to convene a meeting of the board even if he finds evidence that the whole capital stock has been lost.

On the other hand, since the audit was voluntary and "without certification" (in Italian: *revisione volontaria non certificativa*), the firm was not required to submit the results to the Registrar of Companies in order to make them available to the public, because the results of a voluntary audit are meant to be disclosed within the company only.

The second verdict, issued by the Court of Milan, deals with – and partly explains – the liability arising from the issuance of a no-opinion report instead of an adverse opinion.

In this specific case, the auditing firm quickly provided several important remarks about specific, critical data in the financial statement, which appeared to be significantly different from real figures.

The Court of Milan ruled that, since a no-opinion report indicates that the auditor is unable to certify the financial statement, such a statement cannot be deemed "approved" by the auditing firm.

Therefore, issuing a no-opinion report instead of an adverse opinion cannot be regarded as a deceitful action.

In the following pages, some issues concerning both verdicts will be addressed.

### II. THE LIABILITY OF AUDITORS

The legal liability of auditors towards audited entities and third parties was outlined in sections 2409-sexies of the civil Code and 164 of the TUIF (Testo Unico in materia di Intermediazione Finanziaria, i.e. Unified Text on Financial Intermediation). Under the first section, auditors were liable to pay compensation in case of nonfulfillment of their duties, whereas the second section provided for a compensation when auditors fail to fulfill their duties and commit unlawful acts.

The two aforementioned sections referred to section 2407 of the civil Code, which deals with the liability of individuals in charge of social control, drawing a comparison between

them and auditors, since both categories are supposed to operate in a professional and diligent way, due to the kind of tasks they perform.

The obligation of the auditor – an obligation of means, not one of results – arises when professional diligence requires more than just checking the technical accuracy of data and figures [3].

In order to outline the professional diligence of auditors, it was necessary to define some criteria that would allow a precise assessment of the auditors' duties<sup>1</sup>.

Nowadays, the liability of auditors and auditing firms is fully regulated by section 15 of the Legislative Decree no. 39/2010, which superseded section 2409-sexies of the civil Code and section 164 of the TUIF.

The relationship between the auditor and the subsidiary is certainly a contractual one. The following sections of the civil Code apply: 1710, 1176 (subsection 2) – concerning the diligence of representatives carrying out professional activities –, 1175 – concerning fair behavior while performing obligations – and 1375 – concerning the fulfillment of the contract in good faith.

More specifically, section 15 of the Legislative Decree no. 39/2010 deals with the joint liability of auditors and accounting firms<sup>2</sup>.

The new rules no longer refer to the principle of “diligence” to be followed by auditors while performing their tasks, a principle that section 2407 of the civil Code defines as the degree of diligence required by the kind of task being performed. In addition, the rule providing that auditors are jointly liable with administrators for the latter's acts and omissions, if the damage was caused by their failure to carry out their duties as supervisors, is no longer applied.

Moreover, auditors are no longer required not to disclose any documents or information obtained while carrying out their activities<sup>3</sup>.

<sup>1</sup> “Legal doctrine almost unanimously held that the Auditing Principles could normally serve the purpose, despite the fact that a strict compliance with such principles alone was not deemed sufficient to avoid liability in all cases. Indeed, an auditor could not be regarded as diligent for applying the aforementioned principles in performing his audit if a specific case required the adoption of alternative methods, and, at the same time, the violation of such standards did not result in automatic liability, but rather was deemed an indicator of nonfulfillment of his duties, allowing the auditor to provide evidence that the alternative methods adopted were adequate to deal with a specific case. Compliance with the Auditing Principles was important, but did not provide conclusive evidence that an auditing firm acted as diligently as required under section 2407 of the civil Code” [4] p. 64.

<sup>2</sup> Section 15 of the Legislative Decree no. 39/2010 contains two different rules, in the first and the second subsection respectively. One states that auditors, auditing firms and their administrators are jointly liable for any damage incurred by the audited entity, its partners or third parties due to the nonfulfillment of their duties, and indicates that each joint debtor is liable to the extent of the role he played in causing the damage. The other rule states that joint liability applies to supervisors and employees, for the damages caused by any breach or unlawful act, and indicates that each joint debtor is liable to the extent of the role he played in causing the damage.

<sup>3</sup> [5] does not deal extensively with professional diligence, but rather refers to section 1176 (subsection 2) of the civil Code, which defines

The event that gives rise to liability is a violation, i.e. a nonfulfillment, of the professional duties of the auditor, whether the resulting damage is incurred by the audited entity and its partners, or by an external investor<sup>4</sup>.

The obligations to be fulfilled during an audit are outlined in section 14 [2] of the Legislative Decree no. 39/2010, the contract with the audited entity, and the international principles of auditing<sup>5</sup>.

Another element required for an auditor to be held liable is that an investor or the audited entity suffered from damages as a direct and immediate consequence of the auditor's negligent or malicious behavior.

The legal doctrine provides several insights into the liability of accounting firms. In some cases, auditing firms and their employees were ordered to pay compensation for the damages incurred by investors. The Courts issued such a verdict after evaluating the general behavior of the auditing firms and noticing the lack of the required diligence and thoroughness, as well as an attitude of acquiescence towards the wrongful conduct of administrators. Auditors and auditing firms are liable for any damages incurred by investors if they fail to notice false, irregular, lacking or misleading information in the financial data provided by the audited entity [13] and [14].

It is also worth mentioning that section 15 of the Legislative Decree no. 39/2010 provides that auditors are liable to the extent of the role they had in causing the damage<sup>6</sup>.

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professional diligence as the degree of diligence required by “the kind of task being performed” by professionals. On the contrary, it emphasizes the fact that auditors are not liable for the failure to check the acts and breaches of their administrators: “[...] however, this does not mean that auditors are no longer required to check the acts of the administrators. Indeed such an obligation is referred to in sections 14 and – for public-interest entities – in section 19, subsection 3, which states that auditors are required to submit to the internal auditing committee a report concerning important deficiencies found in the internal auditing system in relation to the process of financial reporting. Following the corporate law reform of 2003, which amended section 2392 of the civil Code, it was decided to strengthen the relation between prerogatives and liabilities, while at the same time stating that such liabilities are individual, based on the fault principle, and are not liabilities for other people's acts”. [6] writes that: “with the decree, which repeatedly refers to the professional obligations of auditors, it seems that the professional liability of auditors is included in the new rules as a guideline, despite the fact that it is not overtly referred to in the section 14. We reach the same conclusion by reviewing the principles of “diligence adequate to the kind of task performed”, which have been confirmed, [...] and the distinction between activities on behalf of public-interest entities and non-public-interest entities, as well as the application of the aforementioned principles concerning professional liability in every task performed”.

<sup>4</sup> The legal doctrine comprises a large number of works devoted to this topic, such as: [7]; [8]; [9]; [10]; [11]; [12].

<sup>5</sup> The importance of the international principles of auditing is also emphasized in [5]: “they contain both principles of behavior aiming at determine the degree of diligence required for a specific task, and technical rules which give obligations provided for by the law a concrete dimension”.

<sup>6</sup> [15]: “the EU institutions have been dealing with the liability of auditors for almost forty years, without [...] managing to harmonize of the laws of the member States, and this situation shows how many different liability systems are known and adopted in the European Union. [...] In a small but relevant number of member States, the liability is limited to an extent that is either determined or determinable by the law. An analysis of the legal systems that envisage limits to liability clearly shows that each member State has implemented this principle in different ways. Such differences affect

This rule seems to introduce proportional liability, thus making each person liable only to the extent of the damage he actually caused. The liability system deals with the way in which the person who incurred a damage is allowed to claim compensation, but does not cancel the obligation of all those who are jointly liable to return the amount of money owned by each of them to the person who paid for all. As a result, everyone is liable for his actions and is required to pay a compensation only for the damages he actually caused, regardless of the liability system in use.

Finally, the last subsection of section 15 of the Legislative Decree no. 39/2010 introduces a change from the previous system, stating that any action for liability must be taken within five years<sup>7</sup> after the date of the audit report concerning a financial statement or a consolidated financial statement issued at the end of the audit<sup>8</sup>.

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the number of limits prescribed, their applicability to audited entities depending on the company's size or on whether it is listed or not, and the way such limits are defined, since in most cases they are fixed whereas in one single case they are variable and can be determined according to strict legal criteria. In Austria, four maximum limits are envisaged, depending on the size of the audited company (up to € 2,000,000 for small and medium-sized companies; up to € 4,000,000 for large companies; up to € 8,000,000 when one of the parameters defining a large company is exceeded by five times; up to € 12,000,000 when one of the parameters defining a large company is exceeded by ten times). In Belgium, two limits are applied (up to € 3,000,000 for unlisted companies; up to € 12,000,000 for listed companies). The German legal system also distinguishes between listed and unlisted companies, and applies a limit of € 4,000,000 to the former and € 1,000,000 to the latter. The limit envisaged by the Slovenian law is very low instead: € 150,000 for all the audited companies. Only the Greek legal system provides for a variable limit, which is calculated according to strict criteria and is equal to: five times as much as the annual compensation of the president of the Supreme Court or the total compensations received by the auditor during the last financial year, whichever is the greater”.

<sup>7</sup> It is useful, at this point, to provide some details about claims-made directors and officers liability insurance. The insurer protects the insured administrators and companies from compensation claims submitted during the policy period, regardless of the time in which the acts or the breaches for which compensation is claimed took place; as a result, the insurance coverage extends to damages occurred before the beginning of the policy period. This retroactivity is somewhat reduced by the principles outlined in sections 1892 and 1893 of the civil Code, concerning false declarations and reticence. Under these sections, the insurance coverage applies only to the facts that were either unknown or unknowable to the insured persons at the inception of the insurance policy. [16] writes that “*the reduced applicability of claims-made insurance policies with respect to known or knowable unlawful acts is more noticeable for administrators. Indeed, according to the prevailing trends in legal doctrine, every new administrator is required to check the previous situation of the company after being appointed, in order to solve potential problems and preventing them from affecting its management in the future, and at the same time he has to ascertain the actual amount of the company's financial resources. For this reason, any new administrator who takes over the management of a company affected by serious irregularities and fails to work in order to solve them is liable for any damages incurred by the company in the future because of such irregularities. Therefore, it seems reasonable to assume that the obligation to check the previous situation of the company is likely to make it harder for administrators to prove the unknowability of previous unlawful acts, which in turn could restrict the applicability of claims-made policies*”.

<sup>8</sup> [5] points out that, under sections 2409-sexies and 164 of the TUIF, the five-year term began at the termination of the assignment, and states that the recently introduced solution refers to the moment in which the compensable damage is produced. However, this creates a contradiction with the statute of limitation, which does not appear to be acceptable.

### III. THE REPORT ABOUT THE FINANCIAL STATEMENT ISSUED BY AUDITORS

In order to attest that the financial statement provided by the audited entity precisely and correctly reflects the company's financial situation and its result in the year, the auditor has to check the consistency of the statement, the accounting entries and the assessments conducted during the year for the purpose of confirming that the accounting entries are formally and substantially correct.

The reform has redefined the content of the report about the financial statement, which has to include: “*an assessment of the financial statement, which clearly indicates whether such a statement complies with the rules governing its preparation, and whether it truthfully and correctly reflects the company's financial situation and its result for the year*”.

The content of the report is outlined in section 11 of the Legislative Decree no. 39/2010. It includes the professional opinion of the auditor, but if such an opinion cannot be issued, or if a qualified opinion or an adverse opinion is issued, the auditor is required to state the reasons for this decision [17: 378].

For a better understanding of the verdicts referred to, it is important to point out that the words “*relazione di certificazione*” (in English: certification report) are no longer used as the title of the report, because such a heading was likely to lead users to believe that the auditor's findings provide a guarantee on the situation of a company. However, this label is still common in colloquial speech, with the risk of creating incorrect expectations about the actual scope of the audit.

The auditor issues an unqualified opinion when he finds that the financial statement is both reliable and complying with the law. An unqualified opinion can be issued only if the statement complies with all the rules governing its preparation and truthfully and correctly reflects the company's financial situation and its result for the financial year<sup>9</sup>.

Qualified or adverse opinions can be expressed when unqualified opinion reports are not issuable. Moreover, the auditor may declare the impossibility of expressing any opinion.

An auditor issues a qualified opinion in very serious cases, especially when the audit cannot be conducted according to the auditing standards and when there is no compliance with the generally accepted accounting principles<sup>10</sup>.

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<sup>9</sup> [18]; [17] p. 382: “*When some specific conditions occur, the report can be prepared in a different form and an explanatory paragraph may be added, without altering the opinion issued (which remains an unqualified one)*”.

<sup>10</sup> [17] p. 382: “*Restrictions in the execution of the procedures provided for (deviation from the auditing standards) prevent the auditor from obtaining a sufficient and adequate knowledge of some components of the financial statement. Such restrictions can be imposed either by the client or by the circumstances in which the auditor carries out his tasks, and may cause the auditor to issue a qualified opinion or not to express any opinion at all*”.

The auditor issues a qualified opinion when the financial statement exhibits significant deviations from the accounting standards, but still appears to be consistent as a whole.

An adverse opinion is issued if the statement is not prepared in compliance with the accounting standards, or if, because of such deviations, the statement does not provide a truthful and correct representation of the company's financial situation and its result for the financial year.

Upon issuing an adverse opinion, the auditor is required to describe both the cause of his decision and any other fact that, in different circumstances, would have been included in a qualified opinion report<sup>11</sup>.

Finally, an auditor declares that no opinion can be expressed when he is unable to gather enough data to evaluate the financial statement. This can occur in case of restrictions that prevent the auditor from gathering the required information or when he finds unsolvable ambiguities likely to affect the reliability of the financial statement as a whole.

At this point, it is worth dealing with the rules concerning disclosure statements, from a perspective of business continuity<sup>12</sup>.

Business continuity is referred to both in the national and international accounting principles, and in section 2428, subsection 3, of the civil Code. The Code provides that the management report has to indicate the policies and the goals of the company with respect to: financial risk management, price risk exposure, credit risk, liquidity risk, and the risk of changes in the cash flow.

If the auditor believes that the continuation of a company is highly uncertain, he is required to describe in details all the circumstances that may cause its termination, as well as "the strategies to face such events and circumstances, and emphasize the fact that, since these events and circumstances make the continuation of the company very uncertain, the company may become unable to carry out its normal actions or meet its liabilities during its activity" [20: 216].

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<sup>11</sup> [17] p. 385: "It is worth pointing out that an adverse opinion usually results from the accumulation of several deviations, that, if taken into account separately, would produce a qualified opinion report".

<sup>12</sup> According to [19] "The potential interruption of business continuity allows, on the one hand, to take a wide range of possibilities into account and, on the other hand, requires a perspective evaluation of the performance of the company, i.e. an evaluation of the damages likely to be caused by the continuation of the critical issues discovered. The possibilities to take into account include all the circumstances that might undermine business continuity, i.e. the potential consequences of the critical issues discovered. [...] It is worth mentioning that the evaluation of business continuity places itself in a perspective different from the one adopted with respect to the rules concerning the reduction of share capital due to losses below the legal limit. In such a case, the company has to recognize the capital erosion and choose between recapitalization or transformation and liquidation. On the contrary, the first case requires a careful and continuous monitoring of the financial situation of the business, in order to prevent its termination. Moreover, although the rule providing for the choice between recapitalization and liquidation may inevitably lead to the termination of the company, it is totally independent from perspective and market analyses, but relies only on the data contained in a financial statement, which may not provide precise indications about the solvency of the company".

The laws concerning financial statements do not provide for a direct notification obligation in case of a crisis that leads to the termination of a business, despite the fact that the financial statement is the main source of data on the financial situation of a company. The company is required to inform the market about the loss of the capital, "which, however, is but an imprecise and incomplete indicator of the actual situation of a company" [20: 219].

#### IV. THE CAUSAL RELATIONSHIP

The obligation of the auditor towards the audited entity is, of course, an obligation of means. This makes it hard to discover a causal relationship between all the events that determined the choice of an investment. Therefore, we could believe that, in order to ascertain the relationship between the actions of the auditor and the damages incurred by third parties, a comparison should be made between the investor's actual behavior and the way he would have behaved if he had received correct information [4: 72].

Under section 1223 of the civil Code, compensation is due for damages immediately and directly resulting from a breach. Proving that the report concerning a financial statement was the immediate and direct cause of the damage incurred by investors is a necessary element, but not a sufficient one<sup>13</sup>, to demonstrate the existence of a causal relationship.

For this purpose, it is necessary to prove the report issued by the auditor was the reason of the damage, and not just one of the factors that caused it.

The investor is required to prove that the auditor's report actually affected his choices, and that the wrong choice resulted from omitted, late or incorrect information received.

Therefore, an impartial criterion is necessary to ascertain the causal relationship [4: 79].

As it has been pointed out, "the legislative criterion is a fundamental element in ascertaining the liability of the auditor, because it allows the application of rules aiming at limiting such a liability and making a distinction between damages caused by the defaulting debtor and damages that, although connected to the default, cannot be attributed to the auditor" [10: 259].

#### V. THE LIABILITY OF THE AUDITORES DE CUENTAS

The Spanish laws, unlike the Italian ones, contain a small number of provisions dealing with the liability of *auditores* for damages caused by the failure to perform their duties.<sup>14</sup>

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<sup>13</sup> Cass. SS. UU., verdict no. 576 issued on January 11, 2008, Dir. e giust., 2008; Cass. SS. UU., verdict no. 581 issued on January 11 2008, Resp. civ. e prev., 2008, p. 527; Cass. SS. UU., verdict no. 584 issued on January 11 2008, Foro It., p. 451.

<sup>14</sup> MATÍNEZ-CALCERRADA y GÓMEZ L., Responsabilidad civil del auditor de cuentas, in *Diario la ley*, 2010, 1138; MUNOZ VILLARREAL A., La responsabilidad civil del auditor, in *Part. doble*, 2010, 1133; ILLESCAS ORTIS R., Las cuentas anuales de la sociedad anónima, 151, writes: "ante el silencio generalizado del legislador societario, debe constatar que éste ha renunciado a disciplinar en particular modo la responsabilidad de los auditores. Bien porque considera suficientes las normas existentes fuera de la LSA, bien porque ha carecido de una directriz europea precisa y obligatoria bien porque, simplemente, no ha querido pronunciarse sobre el tema, la

The civil liability of *auditores* is primarily defined in the article 22 of the TRLAC 1/2011, under which supervisors are liable for any damages resulting from the failure to perform their duties, in compliance with the general rules envisaged by private law, but with some differences due to the specificity of the subject dealt with.<sup>15</sup>

The article 42 of the *Reglamento de Auditoría de Cuentas* refers to the liability of the *auditores de cuentas*, and stipulates that they are directly, unlimitedly, jointly and severally liable towards the company and third parties for any damages caused by the failure to fulfill their obligations.

When the audit is performed by an employee of an accounting firm, both the auditor who actually signs the *informe* and the firm he works for are deemed directly, unlimitedly, jointly and severally liable.

It is clear that the article 22 of the TRLAC 1/2011 and the article 42 of the *Reglamento* contain exactly the same provisions, and that the legal system lacks coordination, at least in the field of liability of *auditores*.

Accurate audits are essential to guarantee that the financial information necessary to ensure the correct operation of markets are reliable, and the most effective way to ensure that audits are carried out in a professional way is making *auditores* liable for any violation.

The liability of *auditores*, as pointed out by the article 22 of the TRLAC 1/2011, can be both legal – i.e. arising out of the application of law provisions – and contractual – i.e. arising when the obligations envisaged by the *auditoría* contract are not fulfilled.

The legal liability of *auditores* is defined by law, and arises out of a violation, whereas the contractual liability arises out of the auditor's failure to fulfill the obligations referred to in the contract between the audited company and the individual who performs the audit.

It is worth mentioning that in no case can an agreement between the parties exempt the *auditor de cuentas* from his legal liability, because contracts of *auditoría* cannot limit or cancel the legal liability of professional auditors.

As we have previously pointed out, this liability is regulated by private law, and therefore is distinct from the other kinds of liability, including criminal and administrative liabilities, which are defined by different provisions, such as those of public law.

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realidad es que no existen normas particulares sobre la responsabilidad de los auditores de las compañías por acciones”.

<sup>15</sup> ARANA F.J., *Las cruenta anuales de la sociedad de responsabilidad limitada*, Madrid, 2000, 114; EMBID J.M., *Comentario al artículo 211*, in *Comentarios a la Ley de sociedades anónimas* (dir. da Arroyo-Embido-Górriz), Madrid, 2009, 2042; SANCHO GARGALLO I., *La responsabilidad civil profesional*, Madrid, 2003, 358; MARINA GARCÍA-TUÑÓN A., *Cuentas anuales, auditoría externa y estructura de gobierno de la sociedad cotizada. En particular, la posición y responsabilidad del auditor externo*, in *Derecho de sociedades anónimas cotizada*, Cizur Menor, 2006, 1161.

Criminal and administrative liabilities mainly aim at imposing sanctions, whereas civil liability has a restorative purpose.<sup>16</sup>

The Spanish legal system, and especially the *Código civil*, defines two different kinds of liability: contractual and non-contractual.

Contractual liability arises when a person causes a damage due to his failure to comply with a contractual obligation, a *cuasicontrato* obligation or a unilateral promise. More specifically, according to the recent legal doctrine, contractual liability arises when a previous legal relationship<sup>17</sup> exists among the parties, even if there is not any contract, whereas non-contractual liability arises when there is no previous legal relationship among the parties, except the general obligation not to cause any damages to others.<sup>18</sup>

On the contrary, the theoretical base of non-contractual liability, which arises when no previous legal relationship exists among the parties, is the *alterum non laedere* principle. According to this principle, no one can cause an unjustified damage to others, and therefore compensation is due only for damages caused by violations of general rules, as stated by the article 1902 of the *Código civil*: “*El que por acción u omisión a otro, interviniendo culpa o negligencia está obligado a reparar el daño causado*”.

The TRLAC 1/2011, its *Reglamento*, and the LSC do not define the kind of liability that applies to *auditores de cuentas* and *auditoría* companies. However, as we have already pointed out, the liability between *auditores* and the audited company is contractual, while the liability between *auditores* and third parties is non-contractual, according to the Spanish legal doctrine.

However, a part of the doctrine regards the liability of *auditores* as a professional and civil liability *en su especie contractual*.

The aforementioned article 22 of the TRLAC 1/2011 refers to the *reglas generales del Código civil*, and such rules should be further illustrated. The general rules are defined in the articles 1101 and 1902 of the *Código civil*, which states that three elements are required for civil liability to arise: damage, guilt – i.e. an action or a negligent omission – and the *relación de causalidad* among the parties.

This interpretation of civil liability is termed *culpabilista*, because requires either guilt or negligence by the person who

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<sup>16</sup> ROBIO GARCÍA-MINA L., *La responsabilidad civil del impresario, discurso de recepción en la Real Academia de Jurisprudencia y legislación*, Madrid, 1971, 28, il quale sostiene che: “*sobre qué patrimonio y en qué medida debe recare las consecuencias de un acto humano o simplemente de un hecho*”.

<sup>17</sup> See DE ÁNGEL YÁGÜEZ R., *La responsabilidad civil*, Bilbao, 1989, 24.

<sup>18</sup> YZQUIERDO TOLSADA M., *Responsabilidad civil contractual y extracontractual*, Madrid, 1993, 90; PANTALEÓN PIETRO F., *Comentario al Código civil*, 2002, defines contractual liability as “*el incumplimiento dañoso de una obligación o de un deber accessorio, integrante de una relación jurídica preexistente entre las partes, sea de origen contractual o no*”.

caused the damage. Advocates of this model argue that only the person who actually causes the damage by taking wrong decisions and misapplying principles must pay a compensation. Therefore, those who carry out their tasks diligently are not required to pay any compensation.

This indulgent model has been widely rejected by those who argue that the person who actually causes a damage should always pay a compensation, regardless of how diligently he behaved. This interpretation is termed *objetiva*.

However, under the Spanish laws, the following three element are required, together, for *auditores* to be deemed liable: *el daño, la culpa e la relación de causalidad*.

Damage is a necessary element for both contractual and non-contractual liability. Indeed, the first required element of the *auditores*' liability is a damage incurred by the company or by third parties.<sup>19</sup>

The second element required for of civil liability is *culpa*: when *auditores de cuenta* are not guilty or negligent, they are not obliged to pay compensation, because they performed their duties diligently. Therefore, civil liability does not arise in case of accidents, but only if the person causing a damage is either guilty or negligent.<sup>20</sup>

The last required element of the civil liability of the *auditores de cuentas* is the *relación de causalidad*, i.e. the causality between the failure of the *auditor* to comply with his obligations and the damage incurred by a company or by third parties. Therefore, liability only arises when the damage incurred by the company or by third parties is a direct consequence of the failure of the auditor to comply with his obligations.<sup>21</sup>

The duty of the *auditores* is checking the financial information of companies. When these professionals cause a damage, this usually happens because they fail to perform their tasks diligently. Therefore, their liability arises only if the damage would not have occurred if the *auditor* had not failed to perform a specific action.

## VI. FINAL REMARKS

This analysis shows how different the Italian and the Spanish legal systems are. Indeed, the Italian laws tend to widen the liabilities of auditors, although some attempts have been recently made to reverse this trend.

As for the Spanish legal system, it tends to distribute liabilities proportionally to the actual damage incurred.

The element which connects the two legal systems is causality, since in both contexts the liability of auditors only

<sup>19</sup> GARRIGUES J., Commentario al Código, 162: "ha de entenderse por daño una efectiva disminución del patrimonio (cuya valoración debe remitirse al momento en que el daño haya sido realizado, o a la fecha en la que aquél fue conocido por la parte agravada), consistente en la diferencia entre el valor actual de ese patrimonio y el que tendría si no se hubiera producido el hecho en que se funda la acción de indemnización".

<sup>20</sup> DÍAZ ECHEGARAY J., Deberes y responsabilidad de los administradores de sociedades de capital, 217.

<sup>21</sup> DE ÁNGEL YÁGÜEZ R., La responsabilidad civil, 241.

arises when damages are a direct consequence of the failure of auditors to perform their duties.

## REFERENCES

- [1] Court of Rome, verdict no. 9914 issued on May 8, 2013, in Banca Dati Eutekene.
- [2] Court of Milan, verdict no. 10896 issued on October 9, 2012, in Banca Dati Eutekene.
- [3] Racungo G., L'ordinamento contabile delle imprese (The Accounting System of Companies), in Trattato di diritto commerciale (Commercial Law Treatise), (edited by Buonocore), Giappichelli, Turin, 2007, p. 17.
- [4] Fatigato M., Sulla responsabilità della società di revisione: spunti minimi del "caso Parmalat" (The Liability of Auditing firms: Basic Insights from the "Parmalat Case"), Dir. Fall., 1, 2011.
- [5] Assonime, Circ. no. 16, June 7, 2012.
- [6] De Ruvo R., Sindaci e revisori (Statutory Auditors and Auditors), Giuffrè, Milan, 2010, p. 221.
- [7] Bussoletti M., Le società di revisione (Auditing firms) Milan, Giuffrè, 1985, p. 38.
- [8] Casadei D., La responsabilità della società di revisione (The Liability of Auditing firms), Giuffrè, Milan, 2000.
- [9] Santaroni M., La responsabilità del revisore (The Liability of Auditors), Giuffrè, Milan, 1984.
- [10] Buta G.M., La responsabilità nella revisione obbligatoria delle S.p.A. (Liability in the Mandatory Audit of Joint-stock Companies), Giappichelli, Turin, 2005.
- [11] Barcellona E., Responsabilità da informazioni al mercato: il caso dei revisori legali dei conti (Liability for Information to the Market: the Case of Auditors), Giappichelli, Turin 2003.
- [12] Bosticco P., La responsabilità degli organi di controllo nelle società di capitali (Liability of Audit Bodies in Corporations), Giuffrè, Milan, 2009.
- [13] Court of Milan, verdict issued on November 4, 2008, in Banca Dati Eutekene.
- [14] Sangiovanni V., La responsabilità extracontrattuale delle società di revisione nel caso Parmalat (Non-contractual Liability of the Auditing firm in the Parmalat Case). in [www.diritto.net](http://www.diritto.net).
- [15] Rondinelli M., Per un ripensamento della responsabilità civile dei revisori (Rethinking the Civil Liability of Auditors), Giur. Comm., 2010, p. 630.
- [16] Regoli D., Le polizze assicurative professionali: nuovi profili (Professional Liability Insurance Policies: New Profiles), in Responsabilità societarie e assicurazione (edited by Montalenti), Milan, 2009, p. 118.
- [17] Livatino M.; Pecchiari N.; Pogliani G., Auditing, Milan, 2005.
- [18] Bauer R., Il giudizio di revisione sul bilancio: una prima analisi del principio di revisione (The Audit of the Financial Statement: a Preliminary Analysis of the Auditing Principle) n. 2/2009.
- [19] Rosapepe R., La responsabilità degli organi di controllo nella crisi d'impresa (The Liability of Auditing firms in the Crisis of Companies), Giur comm., 2013, p. 903.
- [20] Racungo G., Venir meno della continuità aziendale e adempimenti pubblicitari (Termination of Business Activity and Notification Obligations), Giur. comm., 2012.
- [21] MATÍNEZ-CALCERRADA y GÓMEZ L., Responsabilidad civil del auditor de cuentas, in Diario la ley, 2010.
- [22] MUNOZ VILLARREAL A., La responsabilidad civil del auditor, in Part. doble, 2010.
- [23] ARANA F.J., Las cuenta anuales de la sociedad de responsabilidad limitada, Madrid, 2000.
- [24] EMBID J.M., Comentario al artículo 211, in Comentarios a la Ley de sociedades anónimas (dir. da Arroyo-Embid-Górriz), Madrid, 2009.
- [25] SANCHO GARGALLO I., La responsabilidad civil profesional, Madrid, 2003.
- [26] MARINA GARCÍA-TUÑÓN A., Cuentas anuales, auditoría externa y estructura de gobierno de la sociedad cotizada. En particular, la posición

- y responsabilidad del auditor externo, in Derecho de sociedades anónimas cotizada, Cizur Menor, 2006.
- [27] ROBIO GARCÍA-MINA L., La responsabilidad civil del impresario, discurso de recepción en la Real Accademia de Jurisprudencia y legislación, Madrid, 1971.
- [28] DE ÁNGEL YÁGÜEZ R., La responsabilidad civil, Bilbao, 1989.
- [29] ZQUIERDO TOLSADA M., Responsabilidad civil contractual y extracontractual, Madrid, 1993.
- [30] PANTALEÓN PIETRO F., Comentario al Código civil, 2002,

# Civil rights and freedoms in the Andorran Constitution in the context of the Spanish constitutional provisions

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**Abstract** – The paper is to analyze the provisions of the Andorra Constitution (1993) in the context of similarities that can be found in the Spanish Constitution (1978). The author is limited to examining only the rights, freedoms and duties of citizens. The author takes the analysis at the level of the similarities between solutions in both constitutions and tries to answer the question as to the scope of these similarities. The analysis will be focused on wording of legal acts of April 1993<sup>1</sup>.

**Keywords**-Andorra, Spain, civil rights and freedoms, constitution

## I. INTRODUCTION

Andorra for years was a subject of many analysis mainly due to (if not exclusively) its legal international status. From Since 1278 the Valleys of Andorra (*Les Valls*) were on joint sovereignty of the French Count of Foix and the Catalan Bishop of La Seu d'Urgell. Henry III of Navarre, who was also Count of Foix, in 1589 ascended the French throne as Henry IV, and by an edict of 1607 established the head of the French state, along with the Bishop of Urgell, as Co-princes of Andorra. When France became republic, title of the Co-prince passed to the president (in years 1793-1806 France renounced position of the Co-prince, but on the Andorran request Napoleon Bonaparte readmitted this title). This diarchic head of state remained to this day.

Questions were raised about position of the French head of state to Andorran state. There were doubts whether Andorra is a vassal state or a state with limited sovereignty. As other microstates there where questions whether such countries can be defined as a state<sup>2</sup>.

In contrast to the Eastern Europe, in the western part of the continent in the 90s of the 20th century there were not many geopolitical changes. But you can not forget the events of the 80s and 90s that took place in the Pyrenees. Due to changes in years 1978-1992, in 1993 inclusion of Andorra to the group of

<sup>1</sup> The author received funding for his doctoral thesis from the National Science Centre in the framework of a doctoral scholarship funding based on the decision no. DEC-2014/12/T/HS5/00140.

<sup>2</sup> Before 1993 relations between Andorra and France did not fit into the pattern of relations between sovereign states. The French Government used to refuse to recognize the Principality's statehood. The same as the other neighbor. See more: M. Łukaszewski, *Research on European Microstates in Social Science. Selected Methodological and Definitional Problems*, "AD ALTA – Journal of Interdisciplinary Research", 2011, Issue 2, pp. 74-77.

sovereign democratic states took place. The adoption of the Constitution, however, was preceded by a decision of the European Court of Human Rights on the human rights violations in the famous Drozd and Janousek vs. France and Spain case [1]<sup>3</sup>. The adoption of the constitution and signing of the Tripartite Treaty with neighbors (Spain and France) [2] completed the long process of creating a sovereign and democratic state.

Specially established Tripartite Commission had decisive influence on the shape of the Constitution of the Principality (hereinafter: CPA). This Commission was represented by 3 parties: the General Council (parliament), and each of Co-princes (Andorra is a diarchy, a state with a double head of state). Delegates of the Commission met 1-2 times a month since 1991 [3]. Delegates took experiences of neighboring countries, especially Spain, to construct the Andorran system. It is worth mentioning that both: the Episcopal Co-prince's and the General Council's delegations took advices from the Catalan specialists in constitutional law<sup>4</sup>. After developing the text of the Constitution, it was approved by parliament, Co-princes and citizens. It was published in the *Butlletí Oficial del Principat d'Andorra* on 4 May 1993.

Due to the wide range of the subject, the present paper is to analyze the provisions of the Andorra Constitution in the context of similarities that can be found in the Spanish Constitution of 1978 (hereinafter: CKS). The author is limited to examining only the rights and freedoms of citizens. The

<sup>3</sup> The case of Drozd and Janousek vs. France and Spain is frequently invoked as an academic example of how far the state's jurisdiction extends. In that case, the European Court of Human Rights had to decide if the French courts which served for the Andorran judicial system before 1993. The Court had to examine Andorran political system and legal system. According to the judgment the term "jurisdiction" is not limited to the territory of countries. Their responsibility may be taken into account when their authorities produce effects outside their own territory. The Court stated that while Principality of Andorra was not a sovereign state, the Andorran territory neither belonged to France nor to Spain.

<sup>4</sup> Parliamentarian's commission delegates had advices from: Pere Vilanova Trías, Marc Carrillo i López, Jordi Capó Giol, Miguel Ángel Aparicio Pérez (lecturers in law and political science at the University of Barcelona). Some of them were later members of the Constitutional Court. The Episcopal Co-prince's commission delegates were accompanied by 3 advisors: Isidre Molas i Batllori (author of books on Catalan constitutionalism and Catalanian MP), Enric Fossas Espadaler (lecturer at the University of Barcelona), José María Ferré (legal advisor of the Spanish Ministry of Foreign Affairs) [4].

author takes the analysis at the level of the similarities between solutions in both constitutions and tries to answer the question as to the scope of these similarities. The analysis will be focused on wording of legal acts of April 1993.

## II. BASIC PRINCIPLES

It should first be noted that both constitutions have a similar scheme. Both constitutions begin with a preamble, which indicate that each act is an expression of the will of the sovereign - the people. It was confirmed in subsequent parts of the text of each constitutions. Already in the first article of both acts 3 systemic principles are determined: the principle of a democratic state, the principle of the social state and the rule of law.

CPA, additionally as in the case with some European microstates, clearly indicates that it is an independent state (In this way among others: the Monegasque Constitution). Moreover, in both cases indicated values upon which both countries are based: liberty (freedom), equality, justice. The CPA adds: tolerance, defense of human rights and dignity of the person. Both countries have a similar regime, due to the fact that both are monarchies. Constitutions of both countries clearly determine the form of government as a parliamentary monarchy (Andorra is the world's only parliamentary Co-principality).

The similarity between Andorran and Spanish institutions is very high. We are dealing with constitutionalization of political parties in both cases. Both constitutions define the capital of the state, flag and official language. In addition, the CPA sets national anthem and emblem, and in the preamble indicates the motto of the state ("virtus, unita, fortior").

## III. CIVIL RIGHTS AND LIBERTIES

First of all, it should be emphasized that both constitutions indicate the difference between the rights and freedoms with regard to the citizens and to foreigners. Both constitutions refer regulations of the nationals' status to the relevant law (in the case of Andorra is a qualified law), as well as restrict the right to filling public offices to nationals who also have electoral rights. Constitutions clearly emphasize equality before the law, although the CPA specifies that the category is binding on all parties while the CKS – only Spaniards, indicating that aliens enjoy the public freedoms, under the terms to be laid down by treaties and the law (CPA Art. 6 par. 1, CKS art. 13 par. 1 and art. 14). Both indicate that no one may be discriminated against on grounds of birth, race, sex, origin, religion, opinions or any other personal or social condition (the only difference is the addition of features "origin" by the Andorran legislator).

Also, both constitutions regulate the age of majority and related with this voting rights issue. Both constitutions indicate that adult citizens acquire the right to vote. However, only the CKS indicates acquisition of majority (18 years). In addition, the CKS clearly indicates that the state facilitates the exercise of the right of vote by Spaniards who are outside Spanish territory. Spain in a similar way cares about its citizens when they are working abroad (art. 42).

Matter of very extensive in both constitutions is the problem of relation of the state towards a market economy.

Both constitutions provide the possibility of state intervention (art. 32 CPC, Art. 130-131 CKS). In Andorra the public authority was given the opportunity: to create the means of social communication (requires, however, that the General Council exercises control over their pluralism) (CPA, art. 36) and to intervene in economic, commercial and trade system and the labor market but only in order to implement the concept of sustainable development and the common good (CPA, art. 32). The CKS there is not any right to form media dependent on government, as is the case in Andorra, although in both cases there is provision to respect the principles of pluralism in the media.

The issue which does not appear in the Spanish Constitution is the country's right to refuse a residence or expulse individuals from the territory of the state. In Andorra, this decision can be taken only by a judicial decision (art. 22).

## IV. A SPECIAL SCOPE OF PROTECTION

A fundamental principle in both cases, is the principle of equality before the law (CPA does not allow discrimination on grounds of birth, race, gender/sex, ethnicity, religion, opinion or any other personal or social conditions and oblige public authorities to create the conditions in which equality and freedom of the individual can be realized). In the case of freedom of conscience and religion the special role of the Catholic Church in the socio-political system of Andorra is worth mentioning. In addition to cleric functioning in the Andorran diarchic head of state, the Constitution guarantees the Catholic Church free and public exercising of the activities and behavior of co-operation with the state, in accordance with the Andorran tradition (*d'acord amb la tradició andorrana*) [5]. In addition, the Constitution recognizes the full legal capacity bodies of the Catholic Church, whose legal status is defined in the internal regulations.

The constitutional legislator surrounded family and marriage with special protection. According to the CPA both spouses have the same rights and duties. All children are equal before the law, regardless of their parentage. According to art. 13 par. 1 the civil effects of Canon Law marriage are recognized. Equal rights in marriage are provided in both constitution (art. 13 par. 3 PCA, art. 32 par. 1 CKS).

Place of the Catholic Church in the political system had its effect in the legal system of the Principality. For many centuries, the canon law played a very important role in the Andorran legal system. In 2004, the Court delivered a judgment (Pla and Puncernau v. Andorra) in which he had to assess the significance of effects of the canon law on the legal system<sup>5</sup>.

<sup>5</sup> In 1939 Mr Pla Pujol's mother, drew up her will leaving him her estate. One of the clauses stipulated that her son was to pass on his inheritance to a child or grandchild "from a legitimate and canonical marriage". In the event of failure to satisfy those conditions, the estate was to pass to the children and grandchildren of Ms Pujol Oller's daughters. Mr Pla Pujol married Roser and, in 1969, they adopted Antoni, assuming full parental responsibility. In 1995 Mr Pla Pujol bequeathed the property he had inherited to Antoni, giving Roser a life-interest in the estate. In 2000 the High Court of Justice of Andorra found that that Antoni, as an adopted child, could not be considered "a child of a lawful and canonical marriage" and could not, therefore, inherit Ms Pujol Oller's estate. The court ordered the applicants to

TABLE I. ABILITY TO LIMIT THE RIGHTS AND FREEDOMS OF CITIZENS AS A RESULT OF INTRODUCTION OF A STATE OF EMERGENCY

	Andorra	Spain
State of alarm	<p>Exercising of selected rights may be limited:</p> <ul style="list-style-type: none"> <li>➤ private property,</li> <li>➤ rights of inheritance,</li> <li>➤ deprivation of individuals' goods or rights upon justified consideration of the public interest, with just compensation,</li> <li>➤ <b>right to move freely throughout the national territory,</b></li> <li>➤ <b>right to enter and leave the country,</b></li> <li>➤ <b>right to choose place of residence.</b></li> </ul>	
State of emergency	<p>Selected rights may be suspended:</p> <ul style="list-style-type: none"> <li>➤ executive detention takes no longer than the time needed to carry out the enquiries in relation to the clarification of the case, and in all cases the detained shall be brought before a judge within 48 hours and inviolability of the dwelling (but application of this suspension must be effected under the control of the judiciary notwithstanding the procedure of protection – in both cases),</li> <li>➤ freedom of expression,</li> <li>➤ freedom of communication,</li> <li>➤ freedom of information,</li> <li>➤ right of reply,</li> <li>➤ right of correction,</li> <li>➤ right of professional secrecy,</li> <li>➤ prohibition of preliminary censorship or any other means of ideological control on the part of the public authorities,</li> <li>➤ privacy of communication,</li> <li>➤ right to meet,</li> <li>➤ right of assembly,</li> <li>➤ <b>right to move freely throughout the national territory,</b></li> <li>➤ <b>right to enter and leave the country,</b></li> <li>➤ <b>right to choose place of residence.</b></li> </ul>	<p>Selected rights may be suspended:</p> <ul style="list-style-type: none"> <li>➤ right to freedom and security and prohibition of depriving freedom,</li> <li>➤ a rule that preventive arrest may last no longer than the time strictly necessary in order to carry out the investigations aimed at establishing the events,</li> <li>➤ a rule that person arrested must be set free or handed over to the judicial authorities within a maximum period of 72 hours,</li> <li>➤ <i>habeas corpus</i> procedure,</li> <li>➤ inviolability of home and prohibition of entry and search without the consent of the householder or a legal warrant,</li> <li>➤ secret of communication,</li> <li>➤ right to freely choose place of residence,</li> <li>➤ right to freely move about within the national territory,</li> <li>➤ right to freely enter and leave Spain,</li> <li>➤ freedom of expression,</li> <li>➤ right to freely communicate or receive truthful information</li> <li>➤ confiscation of publications under court order,</li> <li>➤ right to assembly and to demonstrate,</li> <li>➤ right of workers to strike,</li> <li>➤ right of workers and employers to adopt collective labor dispute measures.</li> </ul>

State of siege (martial law)	<p>Rights which may be suspended – <u>the same as in the case of state of emergency and additionally:</u></p> <ul style="list-style-type: none"> <li>➤ a rule that arrested person must be informed immediately, and in a way understandable to him or her, of his or her rights and of the grounds for his or her arrest, and may not be compelled to make a statement,</li> <li>➤ a rule that arrested person need be guaranteed the assistance of a lawyer during police and judicial proceedings, under the terms to be laid down by the law.</li> </ul>
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Source: own.

The Spanish Constitution provides special protection or special rights for more categories than does the CPA. These should include: collective labor bargaining between worker and employer representatives (art. 37), access to cultural opportunities (art. 44 par. 1), right to set up foundations (art. 34), autonomy of Universities (art. 27. par. 10), rule that elementary education is compulsory and free (art. 27 par. 4). Persons who are subject to special protection of the Spanish state: young people (art. 48), physically, sensorially and mentally handicapped (art. 49), senior citizens, the elderly (art. 50). It also provides, among others, participation of a jury in the court proceedings. Citizens may engage in popular action and take part in the administration of justice through the institution of the jury, in the manner and with respect to those criminal trials as may be determined by law, as well as in customary and traditional courts. Filed also the issue of compensation for the mistakes committed by the institutions of justice. We may find provisions of the prohibition of public office for judges and prosecutors, as well as their membership in political parties and trade unions.

#### V. DUTIES OF CITIZENS

The CPA provides two duties of citizens. Very limited range of duties in the event of Andorra is limited to the obligation to pay taxes by all persons within the Andorran territory and the possibility of the creation of community service by the state in order to carry out general interest.

#### VI. RESTRICTING THE RIGHTS AND FREEDOMS

Both constitutions provide situations in which the rights and freedoms may be limited. It takes place only in the case of introduction of one of the states of emergency (table 1). It is worth noting that the CPA provide the same states of emergency as the CKS, with the fact that the Spanish Constitution provides additionally the state of siege (martial law) (*estado de sitio*). The CKS also provides the possibility of suspending some rights and freedoms for specific persons in connection with investigations of the activities of armed bands or terrorist groups.

Restrictions in relation to fundamental rights, freedoms and political rights can not be applied and this principle is protected by the courts. In relation to the rights and freedoms of economic, social and cultural the legislator allowed for their limitations, but only under the conditions specified in the law. It is worth mentioning that the CPA provides the opportunity to

hand over the property to Ms Pujol Oller's great-granddaughters, deemed to be her rightful heirs. The decision was upheld by the Constitutional Court. Finally the European Court decided that there had been a violation of provision of prohibition of discrimination of the European Convention on Human Rights.

challenge acts of the public authorities to the Constitutional Court (residents who underwent the procedure of expulsion are deprived of this right).

## VII. SUMMARY

It should be noted that the CPA does not include provisions for the operation of the state during the war. While the CKS, among others, indicates that the monarch is commander of the armed forces (art. 62 h), defines the procedure of declaration of war (art. 63.3), requires citizens to defend the state (art. 30), whereas the CPA on this topic has no single word. This is due almost exclusively of obligations under the Tripartite Treaty, according to which the protection of the sovereignty of Andorra is provided by its neighbors.

The rights and freedoms of citizens in both countries has been relatively widely expanded. In the case of Andorra, before the adoption of CPA in 1993, in the legal system there were provisions protecting the rights of the individual: in 1989 with the submission by the prince's delegates signatures under the Law on the Rights of the Individual the Universal Declaration of Human Rights 1948 was incorporated into the legal system [6, 7]. While the Andorran decided to write that the Declaration is binding in the Principality, the Spanish decided to oblige the public institutions to recognize constitutional provisions relating to the fundamental rights and liberties need to be construed in conformity with the Declaration. The reason for such a construction of the system had probably two sources: the desire of both Co-princes to provide a wide range of rights and freedoms in connection with the transfer function of the princes to the citizens, as well as pressure from the institutions and the Council of Europe.

Noteworthy, one of the most commonly violated provisions in the case of Andorra is article 6 para. 1, according to which everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law. This article states as well that judgment should be pronounced publicly (the press and public may be excluded from all or part of the trial in the interest of morals, public order or national security in a democratic society, where the interests of juveniles or the protection of the private life of the parties so require, or the extent strictly necessary in the opinion of the court in special circumstances where publicity would prejudice the interests of justice). There were at least two well-known judgments linked with that issue: in 2008 in the case of Vidal Escoll and Guillan González v. Andorra<sup>6</sup> and in 2012 in the case of UTE Saur Vallnet v. Andorra<sup>7</sup>. In the second case we may see that Andorran government still has to deal with very limited number of independent and studied in

<sup>6</sup> Failure to execute a judgment ordering the partial demolition of buildings facing the applicants homes which exceeded the authorized height. The applicants applied to have the planning permits set aside and complained that the expropriation of part of their properties to widen the road was aimed solely at preventing the execution of the judgment.

<sup>7</sup> The case concerned a complaint made by a business consortium about an alleged lack of impartiality and independence of the Administrative Division of the Andorran High Court of Justice. The reporting judge of the Administrative Division having heard its case on appeal was at the same time a partner in a Barcelona law firm providing legal services to the Andorran Government in other proceedings.

the judges who are Andorran nationals. The very similar case was in the case of Drozd and Janousek vs. France and Spain.

In conclusion, it should be noted the very broad catalog of rights and freedoms is provided Co-princes' intentions expressed yet already in 1989. So extensive catalog is supported by a strong political position of the Constitutional Court and so-called constitutional complaint mode may settle the violation of individual rights. As indicated by reports of international organizations, Andorra fulfills the obligations to respect rights and freedoms [8, 9]. One of the few problems of protection of individual rights in the Principality may be a relatively short period of functioning of independent (from other bodies) institutions of the judiciary, the Constitutional Court and the Ombudsman. However, it should be emphasized that we can notice a system of mechanisms to ensure the highest possible independence of these bodies (the selection procedure, the independence of the budget). It should also be noted that a wide range of civil rights and freedoms enshrined in the Constitution of the Principality has its source in solutions of eastern neighbor as well as the experience of the Commission's advisers.

TABLE II. THE RIGHTS AND CIVIL LIBERTIES RECORDED IN THE CONSTITUTION OF KINGDOM OF SPAIN (1978) AND CONSTITUTION OF PRINCIPALITY OF ANDORRA (1993)

		Spain	Andorra
1.	Publicity of trials (with limitations) and oral procedure	Art. 120 par. 1-2	Art. 86 par. 3
2.	Position of the Universal Declaration of Human Rights in the legal system	Art. 10 par. 2	Art. 5
3.	Right for workers and employers to defend their rights without prejudice to the community	Art. 37	Art. 19
4.	Courts of exception are prohibited	Art. 117 par. 6	Art. 85 par. 2
5.	Right to form and maintain trade-union associations	Art. 28	Art. 18
6.	Right to form and maintain managerial and professional associations	Art. 36	Art. 18
7.	Right to life	Art. 15	Art. 8 par. 1
8.	Right to physical and moral integrity	Art. 15	Art. 8 par. 2
9.	Prohibition of torture and the death penalty	Art. 15	Art. 8 par. 2-3
10.	Right to freedom and security	Art. 17 par. 1	Art. 9 par. 1
11.	Right to jurisdiction and to have a ruling founded in the law	Art. 24	Art. 10 par. 1
12.	An obligation to transfer the suspect before a judge in a certain time	Art. 17 par. 2	Art. 9 par. 2
13.	The law establishes a procedure ( <i>habeas corpus procedure</i> ) so that the detained may request the court to decide on the legality of the detention	Art. 17 par. 4	Art. 9 par. 3
14.	Freedom of ideas, religion and cult	Art. 16 par. 1	Art. 11 par. 1
15.	No one is bound to state or disclose their ideology, religion or beliefs	Art. 16 par. 2	Art. 11 par. 1
16.	Position of the Catholic Church	Art. 16 par. 3	Art. 11 par. 3

17.	Freedom of expression, of communication and of information with right of professional secrecy	Art. 20 par. 1 a), d)	Art. 12
18.	Prohibition of preliminary censorship	Art. 20 par. 2	Art. 12
19.	Protection of the family	Art. 39 par. 1	Art. 13. par. 2
20.	Children are equal before the law, regardless of their parentage.	Art. 39 par. 2	Art. 13 par. 3
21.	The right to privacy, honour and reputation	Art. 18 par. 1	Art. 14
22.	Inviolability of the dwelling (except in case of <i>flagrant delicto</i> )	Art. 18 par. 2	Art. 15
23.	Protection of human dignity	Art. 10	Art. 4
24.	Privacy of communication (except upon a reasoned court order)	Art. 18 par. 3	Art. 15
25.	Right to meet and assemble	Art. 21	Art. 16
26.	Right of association	Art. 22	Art. 17
27.	Right to education	Art. 27 par. 1-2	Art. 20 par. 1
28.	Freedom of education and of establishing teaching centres	Art. 27 par. 1 and 5-6	Art. 20 par. 2
29.	Parents' right to moral or religious instruction for their children in accordance with their own convictions.	Art. 27 par. 3	Art. 20 par. 3
30.	Right to move freely throughout the territory and to enter and leave the country	Art. 19	Art. 21 par. 1
31.	Right to choose place of residence in the country	Art. 19	Art. 21 par. 2
32.	Right to petition	Art. 29	Art. 23
33.	Citizens have the right of accession to public service and office	Art. 23	Art. 25
34.	Private property and the rights of inheritance	Art. 33	Art. 27
35.	Right of enterprise	Art. 38	Art. 28
36.	Right to work	Art. 35 par. 1	Art. 29
37.	Right to social assistance	Art. 41	Art. 30
38.	Right to health protection	Art. 43 par. 1	Art. 30
39.	The state has the task of ensuring the rational use of the land and of all natural resources	Art. 45 par. 2	Art. 31
40.	Right to decent housing	Art. 47	Art. 33
41.	The State is obliged to guarantee the conservation, promotion and of the historical, cultural and artistic heritage	Art. 46	Art. 34
42.	Rights of consumers and users	Art. 51	Art. 35
43.	Prohibition of arbitrarily detained	Art. 17	Art. 9 par. 1

#### COMMENTS:

2. – In the case of A., the UDHR is binding in that country, and in case of S.: provisions relating to the fundamental rights and liberties recognized by the CKS have to be construed in conformity with the UDHR

3. – CKS provides: collective labor bargaining, collective labor dispute measures, binding force of the agreements between workers and employers.

5. – In A. those forms: have to have their own autonomy without any organic dependence on foreign bodies and need to function democratically, in the case of S. in is stressed twice that no one may be compelled to join a trade union. While in S. there is a restriction about this right (in the Armed Forces or Institutes or other bodies subject to military discipline).

6. – In A. those forms need to have their own autonomy without any organic dependence on foreign bodies. In the case of S. the law regulates the

peculiarities of the legal status of Professional Associations and the exercise of degree professions. In both cases those associations need to function democratically.

9. – In S. death penalty is abolished, except as provided for by military criminal law in times of war.

12. – In the case of A. it is 72 hours, in the other – 48 hours.

16. – In S., no religion has a state character. The Constitution stands that public authorities have to maintain appropriate cooperation relations with the Catholic Church and other confessions. In A., position of the Catholic Church is a little stronger: the Constitution guarantees the Church free and public exercise of its activities and the preservation of the relationship of special cooperation with the State and recognizes the full legal capacity of the bodies of the Church which have legal status in accordance with their own rules.

19. – In S. the public authorities ensure social, economic and legal protection of the family, and in the other case – the public authorities only promote a policy of protection of the family.

25. – Restrictions in the Andorran case: lawful purpose; the authorities must be notified in advance; the assembly can not prevent the free movement of goods and persons. Restrictions in the case of Spain: peaceful and unarmed assembly; in the case of meetings in public places and of demonstrations, prior notification must be given to the authorities, who can only forbid them when there are well founded grounds to expect a breach of public order, involving danger to persons or property.

26. – There is a constitutional requirement for: 1) establishing public registry of the associations in both cases and 2) all association need to be made for a lawful purpose

27. – In both cases: education has to be orientated towards the dignity and full development of the human personality, respect for freedom and fundamental rights.

29. – In the Andorran case: parents have the right to decide the type of education for their children.

30. & 31. – In the case of S. it is restricted only to Spaniards.

32. – In the case of S. there is a restriction for members of the Armed Forces or Institutes or bodies subject to military discipline.

33. – In the Andorran case: the exercise of institutional offices is reserved for citizens, with the exceptions that may be provided for in this Constitution or in international treaties.

34. – In both cases: The social function of these rights determines the limits of their content and no one can be deprived of their property and rights, except on justified grounds of public interest and with a compensation in accordance with the law.

36 – A.: All persons have the right to work, to their promotion through work, and to just income which shall guarantee a living befitting human dignity for themselves and their families, as well as to reasonable limitation of the working day, weekly rest and paid vacation.

S.: All Spaniards have the duty to work and the right to work, to the free choice of profession or trade, to advancement through work, and to a sufficient remuneration for the satisfaction of their needs and those of their families. Under no circumstances may they be discriminated on account of their sex

37. – In both cases there is a requirement for the authorities to maintain a public social security system.

40. – In the Andorran case there is only a need of promoting the necessary conditions to ensure the right to enjoy decent housing, while in Spanish case there is right to enjoy decent and adequate housing.

#### REFERENCES

- [1] T. Zwart, The Admissibility of Human Rights Petitions: The Case Law of the European Commission of Human Rights and the Human Rights Committee, Martinus Nijhoff Publishers, Dordrecht 1994, p. 119.
- [2] The Treaty of Good Neighbourliness, Friendship and Co-operation between the Principality of Andorra, the Kingdom of Spain and the French Republic was signed in Paris and Madrid on 1 June 1993 and in Andorra la Vella on 3 June 1993.
- [3] J. Becat, Emergencia i reconeixement d'Andorra com a Estat, "Treballs de la Societat Catalana de Geografia", No 41, vol. XI, pp. 273-282.
- [4] El procés constituent de la Constitució del Principat d'Andorra, Consell General, 2006, s. 675-676.
- [5] S. Bueno Salinas, F. Pérez-Madrid, Religion and the Secular State in Andorra, Religion and the Secular State: National Report, International Center for Law and Religion Studies, 2010, p. 57.

- [6] Llei sobre drets de la persona, de 29-3-89, núm. 06, 10.04.1989, BOPA, art. 1.
- [7] Resolution 946 (1990) on the situation in Andorra, Parliamentary Assembly.
- [8] Report of the Secretary-General, Promotion and protection of human rights: human rights questions, including alternative approaches for improving the effective enjoyment of human rights and fundamental freedoms Human rights and unilateral coercive measures, United Nations, A/67/181, 25 July 2012, p. 3.
- [9] Report of the Working Group on the Universal Periodic Review, Andorra, United Nations, A/HRC/16/8, 4 January 2011.
- [10] Constitució del Principat d'Andorra de 28 d'abril de 1993, núm. 24, 4.5.1993, BOPA.
- [11] Constitución Española, «BOE» núm. 311, de 29/12/1978.
- [12] Decret legislatiu del 28-3-2007 de publicació del text refós de la Llei qualificada de la nacionalitat, del 5 d'octubre de 1995, amb les seves modificacions successives, núm. 029, 04.04.2007, BOPA.
- [13] Kleinstaat und Menschenrechte. Festgabe für Gerald Batliner zum 65. Geburtstag, A. Riklin, L. Wildhaber, H. Wille, Helbing & Lichtenhahn, Basel-Frankfurt am Main 1993.
- [14] European Court of Human Rights, Andorra, Press Country Profile, Press Unit, June 2014.

# A SYSTEMATIC LITERATURE REVIEW ON SELF-ESTEEM AND PSYCHOLOGICAL WELL- BEING IN KOSOVO

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**Abstract—** Self-esteem represents a basic behavioral motive. As such this construct is related to several dimensions of psychological well-being. The aim of the present study was to analyze research on self-esteem in Kosovo and discuss findings relating self-esteem to psychological well-being. Eight full papers and five abstracts have been identified. Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used as a measuring instrument in all cases. Apart from three studies where participants were Serbian, the rest were Kosovo-Albanians. The samples varied from 60 to 34684 participants. The internal consistency of the questionnaire has shown acceptable values (alpha between .70 - .83). The mean values of self-esteem in these studies ranged from 22.1 to 37.65. These values are comparable with other countries such as Bosnia, Greece, Italy, Serbia etc. As regards the relationships between self-esteem and psychological well-being the study found significant correlations with suicidal ideation, emotional difficulties and behavioral problems. Also significant correlations have been reported between self-esteem and anxiety, shyness, depression, impulsive behavior, eating disorders etc. Conversely self-esteem correlates positively with hope and life satisfaction. The present findings were discussed in the context of methodological shortcomings and suggestions were given for future research.

**Keywords-** self-esteem, Kosovo, psychological well-being

## I. INTRODUCTION

Global self-esteem has been defined as an individual's overall sense of worthiness as a person [1,2]. The need for self-esteem is a fundamental human motive [3]. The self-actualization theory of Maslow places self-esteem fourth in the hierarchy of needs, together with the need for achievement, competence, independence, and respect [4].

This construct has been broadly investigated in social science research as well as in several areas of psychology such as clinical, developmental or counselling psychology [5,6]. Results from empirical studies have established self-esteem as one of the most important constructs related to and explaining multiple behavioural outcomes. For instance, studies have identified self-esteem as an important determinant of emotional well-being, so that individuals with high self-esteem experience greater emotional stability and are better at managing their emotions [7,8]. Nonetheless, the mechanism correlating self-esteem to emotional wellbeing has been subject to further research investigation and this construct has been

given the role of a protective factor, a moderator, a mediator or just a result of emotional well-being [4, 9, 10, 11, 12]. A longitudinal study in New Zealand which followed adolescents over 20 years reported that adolescents with low self-esteem also had poor physical and psychological health, poor economical prospect and higher chances to be involved in criminal behaviour by age 20 [13]. In this context self-esteem has been also considered as a risk marker [14].

On the other hand there is also research associating high self-esteem with egoism, narcissism or violence [4,7,15,16]. Indeed, there is some evidence that when confronted with refusal or criticism, people with particularly high self-esteem (narcissistic) might be more prone to aggressive behaviour as compared to people with low self-esteem; several authors have referred to this aspect, as the dark side of self-esteem [5, 14]. Hence, it seems as though particularly high levels of self-esteem might be associated with negative psychological and behavioural outcomes. Conversely, a comprehensive review on self-esteem [7] concluded that there is weak support for the view that high self-esteem leads to better adjustment (e.g., improved school performance, reduced antisocial behaviour). Thus, many researchers take a pessimistic view of the causal role played by self-esteem in forecasting adaptive life outcomes.

The investigation of self-esteem is particularly intriguing in countries such as Kosovo especially because of the particularity of this country in terms of ethnic composition, and the accompanying socio-cultural dimensions. Kosovo is the youngest country in Europe as almost half of the country's population (47.6 %) is under age 24 and more than 1/5 (22 %) is between 15 and 25 years old [17]. Kosovo is also the poorest country in South East Europe, as the annual mean income per capita is the lowest in Europe (€1.611). Additionally the country has very high rates of unemployment ranging from 40% (in the general population) to 70% (among youth) [18] (European Commission, October 2009). Estimates of the World Bank (2007) suggest that almost half of the population (45%) still live under the poverty level (€1.42/day) and 15% of the population live in extreme poverty (€0.93/day) [19]. Fifteen years after the Kosovo war, consequences (both economical and psychological) are still very present in the country. Also Serbian minorities living in predominantly Albanian regions are quite isolated within the poorest regions of the country;

they also have limited mobility and access to education. Thus the post-war repercussions are still quite intense within this minority group [20].

## II. AIMS

The aim of the present review is to identify, summarize and evaluate studies on self-esteem in Kosovo. A secondary purpose is that of comparing the findings with those from other cultures and countries, and providing some general considerations.

## III. METHOD

The inclusive criteria for studies included the following in hierarchical order:

- Papers that were published in international journals ,
- Presentations in international conferences, published in proceedings online,

Published studies and published abstracts were found in the known scientific databases as PubMed (1 studies), Google scholar (7 studies), ScienceDirect (5 studies) from Internet search with the words “self-esteem, Kosovo”. The search resulted in 8 full papers and 5 abstracts investigating the specific topic. The full paper, data and results were obtained only for three (out of five) of the abstracts.

## IV. RESULTS

A classical theoretical approach was used to analyse these studies [21] .

Eleven out of thirteen studies have measured self-esteem during adolescence. Thus the age range of participants generally varied from 11 to 18 years old, except for three studies. More specifically one study included participants between 8 and 11 eleven years old while two other studies were conducted with adult population ( $M_{age} = 24.61; 30.7$ ) [22,23]. Only one sample was from clinical adolescent setting of community centre [24].

In terms of ethnicity, three of the studies had Serbian samples while the rest Kosovo Albanians. Study samples differ greatly in their sizes; the range goes from 60 to 34684 participants. In terms of gender composition, the samples were generally balanced (see Table 1). Nonetheless two cases should be mentioned: first the study by Statofci (2013) which does not report on gender composition [25] and second the study by Chatard, A.; Selimbegovic, L.&N’drikonan, P., (2009) which reported having 3 times as many females as males [22].

TABLE I. SUMMARY OF RETRIEVED STUDIES BY GENDER COMPOSITIONS

Study	Male		Female		Sample Total
	Nr	%	Nr	%	
Fanaj, Fanaj, Poniku, Gashi, Vehbiu, and Morina, (2012) <sup>a*</sup>	341	44.4	414	53.9	768 <sup>1</sup>
Fanaj, Poniku, Gashi, and Mujja, (2012). <sup>b*</sup>	26	45.6	31	54.4	57
Fanaj, Bajraktari, Poniku, and Azemi, (2012) <sup>c*</sup>	341	44.4	414	53.9	768 <sup>1</sup>
Sujoldzić and De Lucia, (2007)	189	43.15	249	56.85	438
Chatard, Selimbegovic, and N’drikonan., (2009)	13	22	47	78	60
Kadriu, Kelpi and Kalyva (2013)	98	49	100	51	198
ESPAD, (2011)	885	45	1073	55	1958
Morina and von Collani, (2006)	111	51.9	103	49.1	214
Randelović, Milošević and Minić, (2010)	168	55.4	135	44.6	303 (Serbian)
Krstić, Randelović, and Babić--Antić, (2013)	219	46.3	254	53.7	473 (Serbian)
Jaređić, Stanojević, Radović, Minić and Pavićević, (2013)	91	57	69	43	160 (Serbian)
Statofci, (2013)	n.r.	n.r.	n.r.	n.r.	150
Arēnliu, (2009)	19313	56	15371	44	34684

Note: \* - Three abstracts, full data analysis; a,c. - same sample;<sup>1</sup>- unknown in 13 cases; n.r. – not reported

### A. Internal consistency of the –scale

In all cases, Rosenberg’s Self-Esteem Scale was used as a measuring instrument [26]. In three studies, the scale was used in Serbian language while in the other cases the Albanian version was used. The internal consistency of the scale for three studies varies from good ( $\alpha = .83$ ) [27] to acceptable ( $\alpha = .74$ ;  $\alpha = .70$ ) [28, 29]. Nonetheless, low values for internal consistency have also been reported in four studies: values of  $\alpha = .61$ ; [22],  $\alpha = .62$  [30, 31],  $\alpha = .64$  [23]. Also one of the studies does not report any values for internal consistency [25] and yet two other studies have modified the original scale. Thus Jaređić, Stanojević, Radović, Minić and Pavićević (2013) report that they modified Rosenberg’s Self-Esteem Scale [33] to make it more suitable for use with children [32]. They added two items and changed the scoring as follows: I agree (3), I partly agree (2) and I disagree (1). The scoring in the original Rosenberg Scale was rated on a 4-point Likert-type scale, ranging from 1 (totally disagree) to 4 (totally agree) [26]. Krstić, M., Randelović, D., & Babić--Antić, J. (2013) also modified the scoring of the scale by expanding the range of response options from 1-incorrect to 7-correct [34]; the total score was calculated as the sum of the items, while the possible results were in the range 10 to 77 [20].

### B. Levels and correlates of self-esteem

#### 1) Studies with Kosovo Albanians

The first study, using RSES [32] assessed the impact of war experiences of Kosovo Albanians. The study measured

posttraumatic reactions, subjective wellbeing, and self-concept. Results showed a high prevalence of post-traumatic stress (83%), which was inversely related to self-esteem,  $r = -.22$ . On the other hand self-esteem was also positively correlated with life satisfaction,  $r = .27$ .

Three studies, Arënliu, (2009) and Fanaj, Poniku, Gashi, & Muja (2012); Fanaj, Fanaj, Poniku, Gashi, Vehbiu, & Morina, (2012) have found associations between self-esteem and suicidal ideation. More specifically, Arënliu, (2009) found that self-esteem was an independent predictor of suicidal ideation ( $\beta = .129$ ,  $p < .000$ ) in a sample of 34684 adolescents. Hence self-esteem was negatively correlated with suicidal ideation. Apart from self-esteem, the predictive model also included behavioural disengagement, self-blame, acceptance, life happiness and well-being index. However the study did not report on self-esteem scores of the sample or any other findings related to self-esteem.

Fanaj, Poniku, Gashi, and Muja (2012); Fanaj, Fanaj, Poniku, Gashi, Vehbiu, and Morina, (2012) have also reported findings of positive significant correlations between self-esteem and suicidal ideation in a community sample ( $r = .169$ ;  $p < .00$ ) but negative significant correlations in a clinical sample ( $r = -.394$ ;  $p < .00$ ). self-esteem show negative significant correlation in both samples with hopelessness – community ( $r = -.147$ ;  $p < .00$ ) clinical ( $r = -.507$ ;  $p < .00$ ); However, apart from suicidal ideation, this study also assessed three other dependent variables including school grades, emotionality and substance use. Thus, significant positive correlations were reported between self-esteem and school grades ( $r = .110$ ;  $p < .00$ ) and significant negative correlations were reported between self-esteem and emotionality ( $r = -.084$ ;  $p < .00$ ). Nonetheless no significant relationships were found between self-esteem and substance use. Also the study found no significant gender differences in self-esteem for both the community and the clinical sample.

ESPAD (2011) also reported no gender differences in self-esteem; while the overall mean value reported was 28.8 ( $SD = 6.7$ ), the values by gender were 29.6 for boys and 28.1 for girls. It should be also mentioned that the measure in this study had good internal consistency ( $\alpha = 0.817$ ).

Statofci (2013) examined self-esteem in correlation with impulsivity and interpersonal relations in a sample of 150 adolescents aged between 16 and 18 years old. Results showed that only 1.3 % of the sample reported low self-esteem while 52.7 % reported moderate values; nonetheless the author does not explain the criteria for this classification. In terms of correlations between variables, the study reported a significant negative correlation with impulsive behaviour (measured with Barratt Impulsiveness Scale),  $r = -.404$  but a significant positive correlation with interpersonal relations,  $r = .334$ . Nonetheless it should be mentioned that the study does not report the internal consistency of the Rosenberg scale, or mean values.

Finally, Kadriu, Kelpi and Kalyva (2013) examined self-esteem in the context of body image and eating habits. The study involved 198 adolescents aged between 16 and 18 years old; the RSES measure showed poor internal consistency ( $\alpha = .62$ ) and the mean value reported for self-esteem was

22.01 ( $SD = 3.78$ ). As regards relationships between variables, self-esteem was negatively correlated with body image satisfaction ( $r = -.32$ ) and eating disorders behaviours ( $r = -.21$ ).

## 2) *Studies with Serbian population in Kosovo*

The three studies were conducted with Serbian participants living in northern Kosovo. The first study with Serbian sample included 303 students; authors do not state participants' age but mention that they were high school students (third level) from Kosovo and Serbia. The internal consistency of RSES was acceptable ( $\alpha = 0.74$ ). The study assessed the relationships between self-esteem and different dimensions of state and trait anxiety, as well as the endangerment level of living in enclaves and in the conditions of social crisis. Results showed high levels of self-esteem in the sample ( $M = 37.65$ ,  $SD = 6.35$ ). Also significant correlations were found between self-esteem and state anxiety ( $r = -.345$ ) and self-esteem and endangerment level ( $r = -.140$ ) [28].

The second study measured self-esteem in correlation to shame by using a modified version of the RSES (see previous section for a detailed account of the modification of the measure). The study was conducted with 160 children, between 8-11 years old, and reported significant negative correlations between self-esteem and shame ( $r = -.280$ ;  $p < .00$ ). Conversely, positive correlations were reported between self-esteem and academic success ( $r = .377$ ;  $p < .00$ ) [32]. Gender, birth order and parental education were unrelated to self-esteem.

The third study included 473 Serbian students from Mitrovica and assessed the relationships between self-esteem, anxiety, depression, hope, and life satisfaction. Results showed that self-esteem levels were barely above average. The study also reported significant correlations between self-esteem and hope ( $r = .443$ ), life satisfaction ( $r = .464$ ) anxiety ( $r = -.189$ ) and depression ( $r = -.347$ ). No differences in self-esteem were reported as regards gender or residence [20].

## 3) *Cross-cultural studies*

Chatard, Selimbegovic, and N'drikanan,, (2009) examined the way in which differences in self-esteem across 55 countries (including a small sample of university students from Kosovo) were reflected in suicide rates. There were only four nations with low reliability coefficients of RSES ( $< .70$ ): Congo, Kosovo, Tanzania, and Ethiopia. The study concluded that self-esteem was negatively related to national suicide rates for several countries, including Kosovo. No gender differences were reported in self-esteem.

Another cross-cultural study involving adolescents 15 to 18 years old from Kosovo, Albania, Bosnia, Albanian emigrants in Italy, Bosnia emigrants in Croatia, and Austria assessed self-esteem in the context of other psychological constructs including anxiety, depression and life satisfaction. Results showed similar levels of self-esteem for Albanians, Kosovo Albanians and Albanian emigrants in Italy. Nonetheless, gender differences were also reported so that boys had higher self-esteem than girls [35].

**TABLE II. SUMMARIES OF RETRIEVED STUDIES BY TYPE, SAMPLE CHARACTERISTICS, MEASURE CHARACTERISTICS AND RESEARCH FINDINGS**

Study	Type/Access	Sample	Mean Age	Internal Consistency of Instrument	Mean Score	SD	Main findings regarding self-esteem
Fanaj, Poniku, Vehbiu, and Morina, (2012) <sup>a*</sup>	Abstract published online, full data analysis	768	16.44	.70	29.06	4.74	Community: correlations– suicidality (+), emotionality (-), hopelessness (-), grades (+).
Fanaj, Poniku, Gashi, and Muja, (2012). <sup>b*</sup>	Abstract published online, full data analysis	57 (clinic)	16	.73	23.77	4.67	Clinic: correlations – suicidality (-), emotionality (0), hopelessness (-), grades (0).
Fanaj, Bajraktari, Poniku, and Azemi, (2012) <sup>c*</sup>	Abstract published online, full data analysis	768	16.44	.70	29.06	4.74	correlations – substance abuse(0)
Sujoldziç and De Lucia, (2007)	Full paper	438	16.3	n.r.	29.5	n.r.	Boys higher self esteem
Chatard, Selimbegovic, and N'drikonan,, (2009)	Full paper	60	24.61	.61	32.23		correlations – National suicide rates (-)
Kadriu, Kelpi and Kalyva (2013)	Full paper	198	17.2	.62	22.01	3.78	Lowest level of self-esteem, correlations – body satisfaction (-); eating dis. behaviour (-)
ESPAD, (2011)	Full paper	1958	15-16	.62	28.8	6.7	Self-esteem level higher than other Europe countries, sub. abuse (0)
Morina and von Collani, (2006)	Full paper	214	30.7	.64	21.7	4.6	correlations – Traumatic stress (-), satisfaction with life (+)
Randelović, Milošević and Minić, (2010)	Full paper	303 (Serbian; 212 from Kosovo)	Third class high school	.74	37.65	6.35	Higher level of self-esteem, correlations – anxiety (-), endangerment level (-)
Krstić, Randelović, and Babić--Antić, (2013)	Full paper	473 (Serbian; 243 from Kosovo)	Faculty students, 2-3 year	.75 (mod. version, scores 1-7)	39.24 (max. mod. vers. 77)	6.61	correlations – Hope (+), satisfaction with life (+), anxiety (-), depression (-)
Jaredić, Stanojević, Radović, Minić and Pavićević, (2013)	Full paper	160 (Serbian)	8-11	n.r.; (mod. version; 12 items, scores 1-3)	31.22 (max. mod. vers. 36)	3.4	correlations – Shyness (-), academic success (+)
Statofci, (2013)	Full paper	150	16-18 year	n.r.			correlations – Impulsive behaviour (-), interpersonal raport's (+)
Arënlju, (2009)	Abstract	34684	17.4	.83 (reported for only 70 participants)	n.r.	n.r.	Prediction power for suicidality

Note: \* - Three abstracts, full data analysis; a,c, - same sample; n.r. – not reported

## V. DISCUSSION

The present review aimed to summarize and evaluate existing research on self-esteem in Kosovo. Although the number of retrieved studies was relatively small, it seems like the research interest is growing in the last years. In the existing studies self-esteem has been considered as an independent variable in the context of explaining the dependent variables of interest, such as anxiety, depression, impulsivity, shame, emotionality, substance use, etc. Although this research mostly considers self-esteem as a peripheral variable, results suggest that in fact it might be quite important in the context of its relationship to several behavioral outcomes.

In terms of descriptive data, the reviewed studies reported scores for self-esteem in the range from 21.7 to 37.65 (mean score in the clinical sample 23.77); however in most of the studies the mean score is above 30 [36]. Although these scores derive from samples which are quite different in their sizes and composition they are comparable with values reported from other countries in the region such as Greece (31.29), Italy (30.56), Serbia (33.59), Turkey (32.14), Croatia (31.94) [36].

As regards gender differences, only one study has reported that boys have significantly higher self-esteem than girls [35]. Other studies have found no significant gender differences, a finding which is in line with studies from other countries [37, 38].

Comparisons of results derived by the Albanian and Serbian samples are quite difficult mainly due to the great variety in sample composition (e.g., age; mainly adolescents in Kosovo Albanian samples vs. Children and adults in Serbian samples). Another very important methodological aspect refers to the use of a modified version of the instrument, the Rosenberg Self-Esteem Scale; the scale was modified in two of the studies with Serbian samples but the authors do not provide sufficient information on the need or specific procedure followed to realize the modification. A comparison between these studies would be particularly interesting considering findings that minority groups report lower levels of self-esteem [39]. This aspect might be successfully addressed in future research.

Findings on relationships between self-esteem and other variables are interesting and controversial at the same time. In the context of suicidal behaviour, two studies report negative correlations with self-esteem [22, 24], and a third one identifies self-esteem as an important predictor of suicidal ideation [27]. Conversely, there is one study which reports a positive correlation between self-esteem and suicidal ideation [29]. Authors explain this finding in terms of the specific socio-cultural context, which involves constant clashes between traditional collectivistic values and western individualistic values; the search for individuality in this context becomes particularly challenging for adolescents, an aspect which is suggested as a pathway towards suicidal ideation. Nonetheless, this claim of the authors needs to be tested in future research especially considering that research in the area has mostly suggested the existence of a negative correlation between self-esteem and suicidal ideation, although the strength of the relationship might vary by country [22].

Research findings on the relationship between self-esteem and emotionality are more consistent; thus self-esteem has been negatively correlated to anxiety [20, 28], depression [20], shame [32] and emotional difficulties [29, 40]. These findings are in line with research from other countries too [10, 41, 42].

On the other hand, two studies did not find any significant correlations with substance abuse [29, 31]. However negative correlations were reported between traumatic stress, endangerment level of living in enclaves, impulsive behaviour, eating disorder behaviours and body dissatisfaction.

Conversely self-esteem has been positively correlated to hope [20,24,29,40], academic success [20,24,29,40] and life satisfaction [23,28]. It is evident that studies which relate self-esteem to positive developmental outcomes are very few as compared to those relating this variable to negative behavioural outcomes. It might be suggested that future research should be focusing more on the empowering dimension of self-esteem (i.e., positive developmental outcomes related to self-esteem) apart from its' protective dimension (from negative developmental outcomes).

Although a discussion of findings certainly provides a contribution to the field, it should be noted that methodological shortcomings in the reviewed studies are considerable. The main limitation has to do with the instrument used across all studies, the S. This measure is not standardized for Kosovo, and almost all studies provide no details on the translation

procedure they used. According to Heine, Lehman, Markus and Kitayama (1991) the concept of self-esteem is particularly subject to socio-cultural influences and interpretations (since basically it is a Western Individualistic construct), an aspect which raises important issues on the use of the unstandardized tests [43]. Indeed research has shown considerable differences in self-esteem levels across cultures [36, 44, 45, 46].

Moreover, there are even studies which have modified the measure by changing the scoring [20] or adding new items [32]. Even so it should be mentioned that the internal consistency values reported are not particularly problematic at least for some studies. However, the use of the unstandardized measure raises important issues especially in the context of interpreting mean values or comparing them to other countries. Thus this kind of interpretations should be carefully considered. Yet another limitation has to do with the great variation in sample composition, an aspect which makes it rather difficult to compare or generalize any findings. This aspect also needs to be addressed in future research.

To conclude, the present review identified, summarized and evaluated existing research on self-esteem in Kosovo. Self-esteem seems to provide a crucial construct in the context of understanding both negative and positive developmental outcomes (especially among youth in Kosovo) such as anxiety, depression, academic success, life satisfaction etc. However present findings should be discussed and compared in the context of their limitations; indeed future research needs to promptly address important methodological shortcomings in order to allow valid conclusions (e.g., unstandardized measures).

#### REFERENCES

- [1] R.F.Baumeister. The self. In S.F.D. Gilbert, The handbook of social psychology, New York: Random House.1998, pp. 680-740.
- [2] M.Rosenberg. Society and the Adolescent Self-Image. Revised edition. Middletown CT: Wesleyan University Press. 1989
- [3] H.Kaplan. Self-esteem. In D. Carr, Encyclopedia of the Life Cou and Human Development. Macmillan Reference USA, a part of Gale, Cengage Learning. 2009, pp. 424-429.
- [4] D.Myers. Psychology, 10 ed. New York: Worth Publishers. 2013, p. 406.
- [5] S.Thomae, A. Poorthuis and S.Nelemans. Self-Esteem. Në B. Bradford Brown, & M. Prinstein, Encyclopedia of Adolescence, Volume 1. Elsevier Inc.G. 2011, pp. 316-324.
- [6] C.Mruck. Self-esteem research, theory, and practice: toward a positive psychology of self-esteem 3rd ed. Springer Publishing Company, Inc. 2006
- [7] R.F.Baumeister, J.D.Campbell, J.I.Krueger and K.E.Vohs. Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? Psychological Science in the Public Interest, vol. 4, pp 1-44, 2003.
- [8] C.Peterson and T.A. Steen. Optimistic explanatory style. In C. R. Snyder and S. J. Lopez (Eds), Handbook of positive psychology. Oxford University Press. 2002, pp. 244-256.
- [9] K.Lacković-Grgin. Stres in children and adolescents (Stres u djece i adolescenata). Jastrebarsko, Naklada Slap. 2000.
- [10] A. Lee and B.L. Hankin. Insecure attachment, dysfunctional attitudes, and low self-esteem predicting prospective symptoms of depression and anxiety during adolescence. Journal of Clinical Child and Adolescent Psychology, vol. 38, 2009, pp. 219-231.
- [11] R.Tambelli,F.Laghi,F.Odoriso and V.Notari. Attachment relationships and internalizing and externalizing problems among Italian

- adolescents: age and gender differences. Children and youth services review, vol. 34, 2002, pp. 1465–1471.
- [12] F. Laghi, S. Pallini, M. D'Alessio and R. Baiocco. Development and validation of the efficacious self presentation scale. Journal of Genetic Psychology, vol. 172, 2011, pp. 209–219.
- [13] K. H. Trzesniewski, M. B. Donnellan, T. E. Moffitt, R. W. Robins, R. Poulton, and A. Caspi. Low self-esteem during adolescence predicts poor health, criminal behavior, and limited economic prospects during adulthood. Developmental Psychology, vol. 4, 2006, pp. 381-390.
- [14] J. Boden. Self-Esteem. In R. Levesque, Encyclopedia of Adolescence. Springer Science+Business Media, LLC. 2011, pp. 2567-2591.
- [15] M.R. Leary. Making Sense of Self-Esteem. Current Directions in Psychological Science vol. 8 (1), 1999, p.p. 32–35
- [16] M. Seligman. Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment. New York: Free Press. 2002.
- [17] International Data Base. (2013,08,13). *Population Pyramid Kosovo 2010*. Available at: <http://www.census.gov/ipc/www/idb/country.php>.
- [18] European Commission (2014,10,04). *Kosovo-Fulfilling its European Perspective*. Brussels: European Commission (EC). 2009. Available at: [http://ec.europa.eu/enlargement/pdf/key\\_documents/2009/kosovo\\_study\\_en.pdf](http://ec.europa.eu/enlargement/pdf/key_documents/2009/kosovo_study_en.pdf)
- [19] World Bank, Europe and Central Asia Regional, Poverty Reduction and Economic Management Unit 2007 Kosovo Poverty Assessment. Volume I: Accelerating Inclusive Growth to Reduce Widespread Poverty. October 2, 2007.
- [20] M. Krstić, D. Randelović, and J. Babić-Antić. Factors of Mental Health of Students at the University of Pristina-Kosovska Mitrovica. School Journal of Educational and Instructional Studies in the World, 3, Art. 12, 2013.
- [21] I. Montero and O. Leon. A guide for naming research studies in Psychology. International Journal of Clinical and Health Psychology, Vol. 7 (3), 2007, pp. 847-862.
- [22] A. Chatard, L. Selimbegovic and P. N'drikonan. Self-esteem and Suicide Rates in 55 Nations. European Journal of Personality. Vol. 23, 2009, pp. 19–32
- [23] N. Morina, and G. von Collani. Impact of War-Related Traumatic Events on Self-Evaluation and Subjective Well-Being. Traumatology, vol. 12 (2), 2006, pp. 130-138.
- [24] N. Fanaj, I. Poniku, M. Gashi, and G. Muja. Hopelessness and self-esteem of adolescents referred to mental health in Prizren. 20th EPA European Congress of Psychiatry (f. Page 1). Prague, Czech Republic: European Psychiatry, Volume 27, Supplement 1, 2012. Available at <http://www.sciencedirect.com/science/article/pii/S092493>.
- [25] Sh. Statofci. Self-esteem and impulsive behavior to children ages 16 - 18 years in the region of Podujevo. The 1st International Conference on Research and Education – Challenges Toward the Future (ICRAE2013). Shkodra, Albania: University of Shkodra “Luigi Gurakuqi”. 2013.
- [26] M. Rosenberg. Society and the Adolescent Self-Image. Revised edition. Middletown CT: Wesleyan University Press. 1989.
- [27] A. Arënlju. Results of two large scale studies on suicidal ideation and behaviour among Kosovar adolescents. In Abstract book (p. 185). Rome, Italy: 13th European Symposium on Suicide and Suicidal Behaviour. 2010. Available at: <http://www.esssb13.org/download/abstract-book.pdf>
- [28] D. Randelović, B. Milošević and B. Minić. Anxiety, self-esteem and endangerment level in the conditions of social crises. The Bulgarian Journal of Psychology, 1–4, 2010, pp. 157-164.
- [29] N. Fanaj, B. Fanaj, I. Poniku, L. Gashi, B. Vehbiu and E. Morina. Hopelessness, self-esteem and other psychological characteristics of adolescents: Comparison between clinical cases and the community sample. 20th World Congress of the International Association for Child and Adolescent Psychiatry. Paris, France: Neuropsychiatrie de l'Enfance et de l'Adolescence, Vol. 60, (5), 2012, pp. S130-S131. Available at: <http://www.sciencedirect.com/science/article/pii/S0222961712001997>.
- [30] F. Kadriu, M. Kelpi and E. Kalyva, E. Eating-disordered behaviours in Kosovo school-based population: potential risk factors. Procedia - Social and Behavioral Sciences 114, 2014, pp. 382 – 387.
- [31] M. Haskuka. ESPAD Kosovo Country Report 2011. Prishtinë: Fondacioni Together Kosova. 2012.
- [32] B. Jaredić, D. Stanojević, O. Radović, J. Minić and M. Pavićević. Shyness and Self-Esteem in elementary school. Journal of Educational and Instructional Studies in the World, 3 (2), 2013, Article: 12.
- [33] G. Keresteš, L. Arambaši, G. Kuterovac-Jagodic, and V. Vizek-Vidovic. Pet ownership and children's self-esteem in the context of war, Anthrozoos, 12, 1999, pp. 218-223.
- [34] J. Todorovic. Educative style of parents and adolescents self-esteem (Васпитни стилови родитеља и самопоштовање адолесцената). Prosveta. Nish. 2005.
- [35] A. Sujoldžić and A. De Lucia. A Cross-Cultural Study of Adolescents - BMI, Body Image And Psychological Well-Being. Collegium Antropologicum 31 /1, 2007, pp. 123-130.
- [36] D. Schmitt and J. Allik. Simultaneous administration of the Rosenberg Self-esteem Scale in 53 nations: Exploring the universal and culture-specific features of global self-esteem. Journal of Personality and Social Psychology, 89, 4, 2005, pp. 623-642.
- [37] J. M. Twenge and W. K. Campbell. Age and birth cohort differences in self-esteem: A cross-temporal meta-analysis. Personality and Social Psychology Review, 5, 2001, pp. 321–344.
- [38] K.C. Kling, J.S. Hyde, C.J. Showers, and B.N. Buswell. Gender differences in self-esteem: a meta-analysis. Psychol Bull. 125(4), 1999, pp. 470-500.
- [39] R. Feldman. Discovering the life span. 2nd ed. Pearson Education, Inc. 2012.
- [40] N. Fanaj, F. Bajraktari, I. Poniku and F. Azemi. Some Features Of Substance Use Among Adolescents In Region Of Prizren (Kosovo). Odvisnosti - Ovisnosti - Zavisnosti SEEA Addictions, Vol XII, Supl 1, 22, 2012.
- [41] U. Orth, R. W. Robins, and B. W. Roberts. Low self-esteem prospectively predicts depression in adolescence and young adulthood. Journal of Personality and Social Psychology, 95, 2008, pp. 695–708.
- [42] A. Millings, R. Buck, A. Montgomery, M. Spears and P. Stallard. School connectedness, peer attachment, and self-esteem as predictors of adolescent depression. Journal of Adolescence, 35, 2012, pp. 1061-1067.
- [43] S. J. Heine, D. R. Lehman, H. R. Markus and S. Kitayama. Is there a universal need for positive self-regard? . Psychological Review, 106, 1999, pp. 766-794.
- [44] J. Brown, H. Cai, M. Oakes and C. Deng. Cultural similarities in self-esteem functioning. Journal of Cross-Cultural Psychology, 40, 1, 2009, pp. 140-157.
- [45] S.P. Farruggia, C. Chen, E. Greenberger, J. Dmitrieva, and P. Macek. Adolescent self-esteem in cross-cultural perspective. Testing measurement equivalence and a mediation model. Journal of Cross-Cultural Psychology, 35, 6, 2009, pp. 719-733.
- [46] S. Rusticus, A. Hubley and B. Zumbo. Cross-National Comparability of the Rosenberg Self-Esteem Scale . Poster presented at the 112th Convention of the American Psychological Association, . Honolulu, Hawaii: American Psychological Association. 2004.

# Attachment style and racial-ethnic prejudice: the perception of immigrants in a group of young adults

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**Abstract**—The study examines the predictor variables to the latent and manifest prejudice, and relationship between attachment style and prejudice. The research involves 100 Italian college students. They completed: *Relationship Questionnaire* and *Latent Subtle and Blatant Prejudice Scale*. We are hypothesized: a) that, as regards the prejudice, there is a significant difference owing to gender and age variables; b) the presence of a correlation between attachment with both latent and blatant prejudice; c) that psychological factors of prejudice are assumed to operate in a similar way and regardless of the target groups. The analyzes of the data support the second and the third hypothesis search.

**Keywords** - *Manifest Prejudice; Latent Prejudice; Attachment Style.*

## I. INTRODUCTION

The process of identity formation is a complex process, during which the individual operates a work of synthesis and integration between childhood experiences and future plans related to attachment [1, 2].

The individual develops the concept of self in the process of socialization; the identity is formed in the conflict and acceptance of differences, in the relationship between belonging and separation within of the inter-subjective exchanges.

In the process of group formation, people are influenced by ingroup and outgroup bias, that is they tend to form closer ties with members of their own group (ingroup) and tend to reject members of other groups (outgroup); ingroup and outgroup bias lead people to think that members of the outgroup are all similar, while their ingroup members are different [3].

This is one of the main ways of classifying social environment. This tendency has two major goals: to simplify the social environment by categorizing others in that way, and to enhance the self concept by thinking that we do not belong to a homogeneous group [4].

As suggested by social identity theory, people, ethnic minorities or indigenous tend to identify with their own group, as long as the characteristics of the latter will be able to meet, maintain and enhance positively evaluated aspects of the their social identity.

Therefore, the social categorization is the process of identifying individuals as members of a social group, that share certain characteristics typical of that group. This cognitive

process is useful because it allows us to deal with others in an appropriate way [5].

However, the use of such schemes exaggerates the similarities within groups and the differences between groups, laying the groundwork for the racial-ethnic prejudice.

Ethnic prejudice constitutes a distortion in the perception and evaluation of phenomena that affect immigrants; usually the distortion consists in overestimating the difficulties that these individuals can create, both as a social category, either as individuals.

In particular, literature [6, 7] discern between "subtle" prejudice and "blatant" prejudice. Subtle prejudice is considered as a hidden form of prejudice, that provides a positive public image and useful to build a self-representation suitable for the principles of socially accepted tolerance; blatant prejudice corresponded to an attitude rejection toward minority groups, not explicitly influenced by social desirability [8].

## II. ATTACHMENT STYLE AND RACIAL PREJUDICE

The literature emphasizes the relevance of attachment theory within group contexts, for understanding intergroup attitudes.

According to the Attachment Theory, the early interactions with primary caregivers affect the social competence and the develop in terms of the ability to establish social bonds by engaging in both the exploration of interpersonal context and risk-taking activities [9].

Recent experimental studies show how interventions designed to increase secure attachment have positive effects on mental health, pro-social behavior, and intergroup relations [10, 11].

Infact, secure base could activate more positive self-representations, which in turn could encourage more positive reactions towards members of different ethnic groups. Also, secure attachment could be associated with higher expectations of self-efficacy in coping with stress and anxiety about encounters with different people [11].

In particular, in childhood the secure relationship with a caregiver leads to an ability to experience pleasure or to derive positive affect from social contacts and to develop relational abilities: so, secure children show more self-control and reciprocal behaviors than do insecure children.

In the same way, secure adolescents show greater social abilities than insecure adolescents (in terms of better quality in interpersonal relationships), who manifest the lower levels of social competence [12].

Also, literature show the presence of a positive relationships between the secure attachment on the one hand and the psychological adjustment on the other; as well as, the ambivalent attachment is negatively associated with the psychological adjustment, and the dismissive attachment is negatively related to the socio-cultural adjustment [13].

Similar results are obtained from a research [14] who measures attachment style differences in group-related cognitions and behaviors, through 4 studies: in studies 1-2, participants complete scales on group-related cognitions and emotions; in studies 3-4, participants are divided into groups, to assess the level of cohesion through group tasks. Results show that both attachment anxiety and avoidance in close relationships are associated with negative group-related cognitions and emotions. Avoidance attachment is related to the pursuit of distance goals and deficits in socio-emotional performance. Group cohesion significantly moderates the effects of attachment anxiety.

It is interesting a research that investigates the relationship between attachment styles and acculturation attitudes in a group of immigrants and a indigenous population of the Netherlands. This research starts from the theoretical assumption that the Attachment Theory emphasizes the interaction that the individual has with others in new situations, relations that are influenced by the primary relationships of care. Research shows that both indigenous people and migrants with a secure attachment are shown in the integration, while people with a style of dismissing attachment are not. Immigrants with dismissing style are more positive towards the integration of the indigenous population. Considering that both immigrants that members of the majority, with a secure attachment style, show a similar pattern of correlations between attachment and acculturation, they seem to react differently, and also in the opposite way, when they present a preoccupied attachment style; however, the different reactions can be caused by the same psychological process: in fact, the existential ambivalence of people concerned can lead to different reactions. [15]

Another study examines the relationship between attachment styles and attitudes of a majority group towards adaptation strategies of immigrants. The research involves 177 students of psychology and a group of 260 adults, who complete the questionnaire on attachment, and an instrument on the adaptation strategies of immigrants. Research shows that secure attachment style seems to be positively correlated with the attitude towards integration in both groups. In addition, the fearful attachment is positively associated with attitudes toward assimilation within the first group, and negatively with the attitude towards integration within the second group. Dismissive attachment is negatively related to the integration in the first group and a positive separation in the second group; preoccupied attachment style seems to be positively related to marginalization, but only in the group of college students. These results appear stable over time in both groups [16].

Recently, another study examines the relationship between gender variable and adult attachment styles in a group of college students, investigating different measures of attitude, that is authoritarianism, ethnocentrism, homophobia, and religious fundamentalism. The results show that compared with women, men report higher levels of homophobia, ethnocentrism, and authoritarianism. In addition, the authors show that in reference to the gender variable, homophobia is influenced by the attachment style: in particular men with dismissive style show the highest levels of homophobia, while women manifest the lower levels of homophobia; so, a fear of intimacy seems to contribute to homophobic attitudes found among heterosexual men [17].

### III. MATERIALS AND METHOD

Aims of this study are: *a)* to analyze the predictor variables to the latent and manifest prejudice (according to the Pettigrew and Meertens' model); *b)* to examine relationship between prejudice and attachment style.

It is assumed that, as regards the level of the prejudice, there is a significant difference owing to gender and age variables, and in particular it is assumed that, as confirmed by literature:

- a) girls present lower level of prejudice, both latent and manifest, than those ones expressed by males [18, 17];
- b) older students express a positive outgroup representation than younger ones[5].

Investigating the studies in the literature that identify a correlation between personal dimension and prejudice, it is hypothesized the presence of correlation:

- a) between secure attachment and low level of prejudice, and between dismissive attachment and high level of prejudice, according to the literature [13, 15, 16];
- b) between fearful attachment and high level of latent prejudice, disagree with literature that shows as the fearful attachment is positively associated with attitudes toward assimilation [16];

Furthermore, confirming the literature [19] psychological factors of prejudice are assumed to operate in a similar way and regardless of the target groups, that is the groups towards which greater level of prejudice is perceived.

The research involved a group constituted by 100 Italian university students, i.e. 17 males and 83 females aged between 18 and 23 ( $M=19.88$ ;  $S.D=1.20$ ), who are attending the Faculty of Psychology. With reference to the varying age, participants were subsequently divided into: a) a group of 53 subjects (53%) aged between 18 and 19; b) a group of 47 students (47%), aged between 20 e 23 years.

The instruments administered to both groups of students are: Relationship Questionnaire and Latent Subtle and Blatant Prejudice Scale.

*Relationship Questionnaire* [20]: is a single item measure made up of four short paragraphs, each describing a prototypical attachment pattern as it applies in close adult peer relationships. An individual might rate him or herself

something like: secure, fearful, preoccupied, and dismissing. The RQ extends the original attachment, Three-Category Measure, by adding a fourth style, that is dismissing-avoidant, characterized by avoidance of intimacy, being highly self-reliant and independent.

*Subtle and Blatant Prejudice Scale* [3]: is constituted by 20 items, divided in two subscales, that is 10 items to explore the subtle prejudice, divided in: defense of traditional values, exaggeration of cultural differences and denial of positive emotions; 10 items to analyze the blatant prejudice, structured in threat and rejection and anti-intimacy. These scale classify individuals into three different categories: *fanatics*: subjects with high scores on both scales tend to discriminate against the out-group in a manifest and subtle way; *egalitarian* (or Democrats): who has a low propensity to discriminate in a subtle way should also show a low propensity towards open forms of prejudice; *thin*: individuals who do not openly express prejudice against the out-group, are ready to manifest it if they have a socially acceptable way at their disposal.

#### IV DATA ANALYSIS

A factorial multivariate variance, of type 2 (Gender) X 2 (Age) is used to verify the influence of the independent variables on level of prejudice.

The Pearson's correlation is used to assess the relation between type of attachment and level of prejudice.

To verify the absence of influence of the target group on the level of latent and manifest prejudice is done the univariate analysis of variance.

#### V RESULTS

In reference to the first open question "When you think about non-EU immigrants, what is the first ethnic or racial group that coming to your mind?", that is groups towards which they express a greater prejudice: the largest group indicated is that of blacksmen (33%), followed by moroccans (37%) and romanians (11%).

The three categories of immigrants are: fanatics, egalitarian and thin: the frequency distribution shows that 27% manifests high level of latent and manifest prejudice (fanatics); 26% have an high latent prejudice but a low manifest prejudice (thin) and only 23% are egalitarian subjects, with a low level of prejudice.

All subjects showed higher levels of subtle ( $M = 29.05$ ,  $S.D = 6.18$ ) than blatant prejudice ( $M = 33.64$ ,  $S.D = 6.54$ ), and this result was a disconfirmation of theoretic assumption [3].

From the analysis of the frequency distribution on the basis of attachment style, the following emerges that 43% of the students present an dismissing attachment, followed by 27% with fearful attachment and 20% with a secure attachment.

A factorial multivariate variance, of type 2 (Gender) X 2 (Age: 18-19 vs. 20-23 years), was done to verify the influence of the independent variables on level of prejudice; data analysis underlines no main effect linked to the gender variable [ $F(1, 99) = 0.55$ ;  $p = 0.46$ ], and no effect due to age [ $F(1, 99) = 0.33$ ;  $p = 0.57$ ].

In reference to the second research hypothesis, concerning the presence of correlation between prejudice and attachment style, the Pearson's correlation shows how:

- a) the level of manifest prejudice is positively correlated to the dismissing attachment style ( $r = 0.62$ ,  $p < 0.01$ ), the preoccupied style ( $r = 0.25$ ,  $p < 0.05$ ), fearful style ( $r = 0.51$ ,  $p < 0.01$ ); and negatively to the secure style ( $r = - 0.38$ ,  $p < 0.01$ );
- b) the level of latent prejudice is positively correlated with the dismissing ( $r = 0.20$ ,  $p < 0.01$ ) and fearful style ( $r = 0.32$ ,  $p < 0.01$ ); and negatively with the secure ( $r = - 0.39$ ,  $p < 0.01$ ), and the preoccupied style ( $r = - 0.30$ ,  $p < 0.01$ ).

In particular, a subsequent analysis of variance shows that the type of attachment appears to affect both the level of manifest prejudice [ $F(3, 96) = 44.16$ ;  $p < 0.001$ ], and the latent prejudice [ $F(3, 96) = 14.01$ ;  $p < 0.001$ ].

Duncan's post hoc analysis conducted on the level of manifest prejudice shows that the lower scores are obtained from adolescents with the secure attachment, and the higher scores concern the preoccupied attachment; with respect to latent prejudice, adolescents with the preoccupied and the fearful attachment have lower scores, subjects with the avoidant attachment have higher scores.

Means and standard deviations for all variables are presented in Table I.

TABLE I. MEANS AND STANDARD DEVIATIONS FOR ALL VARIABLES

Attachment	Manifest Means	Manifest St. Dev.	Latent Means	Latent St. Dev
Secure	24.35	4.23	28.60	5.36
Fearful	33.42	3.67	35.16	5.98
Preoccupied	33.60	3.63	27.70	6.13
Dismissing	23.89	4.72	37.15	4.65
All groups	29.05	6.18	33.64	6.55

Another objective is to verify the absence of influence of the target group (i.e. the group towards which students perceives a greater prejudice) on the prejudice. The univariate analysis of variance shows us the absence of influence both manifest prejudice. [ $F(8, 99) = 1.35$ ;  $p = 0.23$ ] and latent prejudice [ $F(8, 99) = 0.98$ ;  $p = 0.46$ ]. These results confirm the third research hypotheses.

#### VI DISCUSSION AND CONCLUSION

According to Pettigrew and Meertens's theory, based on the distinction between forms of latent and manifest prejudice, participants are divided into three groups: fanatics, thin and egalitarian. The group most frequently mentioned is the Moroccans one, followed by the black men and Romanians one.

In reference to the attachment style, most of the students show an dismissing attachment, followed by students with fearful attachment and a secure attachment.

The correlation between prejudice and attachment style shows that: subjects with secure attachment show low level of prejudice; This data can be explained by the role of the internal working models, according to which the sense of a secure base promotes exploration and risk-taking. In detail there is an association between secure base, cognitive openness and a reduction in dogmatism and authoritarianism; this cognitive openness would normally attenuate negative reactions towards outgroup members.

Data show that adolescents with dismissive and fearful attachment have high level of manifest and latent prejudice; this result may depend on the fact that avoidant people possess negative models of others and an absence of helping, which lead to apparent indifference to what others think of them, although this apparent indifference represents a defensive mechanism to prevent potential social rejection; this could explain the avoidant individuals' expression of blatant prejudice towards members of different ethnic groups.

Finally, research shows that students with a preoccupied attachment manifest low level of latent prejudice and high level of manifest prejudice. Insecure people, in fact, tend to possess negative models of themselves and others. Encounters with outgroup members may give rise to a sense of threat and anxiety because of the expectation of conflictual interactions or the anticipation of negative outcomes such as disapproval and rejection. Because of their fear of strangers, people with insecure attachment may be suspicious of out-group members, and to believe that out-group members possess malevolent intentions and are culturally very different.

Teaching and learning are functional to build a shared and meaningful knowledge. Since life gets inside the school and a lot of other educational agencies, the need for research, the need for change and the anxiety of adaptation are therefore constituent parts of education [21, 22].

#### REFERENCES

- [1] M. Pellerone, "Identity status, coping strategy and decision making process in Italian university students", *Social and Behavioral Science Journal – Procedia*, vol. 106, pp. 1399-1408, Dec. 2013. Doi 10.1016/j.sbspro.2013.12.156.
- [2] M. Pellerone, and V. Schimmenti, "Stati di identità, interessi e processo decisionale: Gli adolescenti ed il percorso di scelta vocazionale", *Giornale italiano di psicologia dell'orientamento*, vol. 12, no. 1, pp. 27-37, April 2011. ISSN: 1720-7681.
- [3] T.F. Pettigrew, R.W. and Meertens, "Subtle and blatant prejudice in western Europe", *European Journal of Social Psychology*, vol. 25, no. 1, pp. 57-75, Feb. 1995. Doi: 10.1002/ejsp.2420250106
- [4] H. Tajfel, and J.C. Turner, "An interactive theory of intergroup conflict", in *The social psychology of intergroup relations*, W.G. Austin, and S. Worchel, Eds., Monterey, CA: Brooks-Cole, 1979, pp.33-47.
- [5] M.A. De Caroli, R. Falanga, and E. Sagone, "Subtle and blatant prejudice toward Chinese people in Italian adolescents and young adults: the role of friendship and outgroup representation", *Procedia-Social and Behavioral Sciences*, vol. 82, pp. 74-80, July 2013. Doi: <http://dx.doi.org/10.1016/j.sbspro.2013.06.227>
- [6] T.F. Pettigrew, R.W. and Meertens, "Subtle and blatant prejudice in western Europe", *European Journal of Social Psychology*, vol. 25, no. 1, pp. 57-75, Feb. 1995. Doi: 10.1002/ejsp.2420250106
- [7] T. F. Pettigrew, and R.W. Meertens, "In defense of the subtle prejudice concept: a retort", *European Journal of Social Psychology*, vol. 31, no. 3, pp. 299-310, May 2001. Doi: 10.1002/ejsp.45
- [8] S. Salmeri, and M. Pellerone, "The role of identity development on latent and manifest prejudice: the perception of immigrants in Italian university context", *The International Conference on New Horizon in education*, pp. 87, June 2014, on line [int-e.net/INTE\\_2014\\_Program.pdf](http://int-e.net/INTE_2014_Program.pdf)
- [9] M. Mikulincer, and P.R. Shaver, "Boosting Attachment Security to Promote Mental Health, Prosocial Values, and Inter-Group Tolerance", *Psychological Inquiry*, vol. 18, no. 3, 2007, pp. 139-156.
- [10] M. Pellerone, and S. Micciché, "Prenatal Attachment and Anxiety: Women Who Decide to Try in Vitro Fertilization and Women Who Procreate Naturally", *Psychology Research*, vol. 4, no. 6, June 2014, pp. 419-427. ISSN 2159-5542
- [11] M. Mikulincer, and P.R. Shaver, "Attachment theory and intergroup bias: Evidence that priming the secure base schema attenuates negative reactions to out-groups", *Journal of Personality and Social Psychology*, Vol 81, no. 1, July 2001, pp. 97-115. doi: 10.1037/0022-3514.81.1.97
- [12] L. Di Pentima, and A. Toni, "Subtle, blatant prejudice and attachment: A study in adolescent age", *Giornale di Psicologia*, Vol. 3, no. 2, June 2009, pp. 153-163
- [13] W. Bakker, J.P. van Oudenhoven, and K.I. van der Zee, "Attachment styles, personality, and Dutch emigrants' intercultural adjustment", *European Journal of Personality*, vol. 18, no.5, pp. 387-404, July 2004. doi: 10.1002/per.515
- [14] R. Eldad, and M. Mikulincer, "Attachment theory and group processes: The association between attachment style and group-related representations, goals, memories, and functioning", *Journal of Personality and Social Psychology*, Vol 84, no. 6, pp. 1220-1235, June 2003. doi: 10.1037/0022-3514.84.6.1220
- [15] J. P. Van Oudenhoven, and J. Hofstra, "Personal reactions to 'strange' situations: Attachment styles and acculturation attitudes of immigrants and majority members", *International Journal of Intercultural Relations*, Vol. 30, no. 6, pp. 783-798, Nov. 2006.
- [16] J. Hofstra, J. P. Van Oudenhoven, B. P. Buunk, "Attachment styles and majority members' attitudes towards adaptation strategies of immigrants", *International Journal of Intercultural Relations*, Vol. 29, no. 5, pp. 601-619, Sept. 2005.
- [17] B. Gormley and F. G. Lopez, "Authoritarian and Homophobic Attitudes: Gender and Adult Attachment Style Differences", *Journal of Homosexuality*, Vol. 57, no. 4, 2010, pp.525-538. doi: 10.1080/00918361003608715
- [18] A. M. Manganelli Rattazzi, and C. Volpato, C., "Forme sottili e manifeste di pregiudizio verso gli immigrati", *Giornale italiano di psicologia*, vol. 2, June 2001, pp. 351-378. doi: 10.1421/349
- [19] A. Zick, T.F. Pettigrew, and U. Wagner, "Ethnic Prejudice and Discrimination in Europe", *Journal of Social Issues*, vol. 64, no. 2, 2008, pp. 233-251.
- [20] K. Bartholomew, and L.M. Horowitz, "Attachment styles among young adults: A test of a four category model", *Journal of Personality and Social Psychology*, vol. 61, no. 2, Aug. 1991, pp. 226-244. Doi: 10.1037/0022-3514.61.2.226
- [21] M. Pellerone, "Interpersonal adjustment, personal resources, aptitudes and interests: vocational decision making process in a group of Italian adolescents", *US-China Education Review A & B*, vol.4, no.9, Sept. 2014, pp. 648-655. ISSN:2161-623X; 2161-6248.
- [22] M. Pellerone, "L'orientamento oggi: tra Servizi Multifunzionali ed Interventi di Counselling", *Quale Psicologia*, Semestrale dell'Istituto per lo Studio delle Psicoterapie e della Società Italiana di Psicoterapia, no.35, June 2010. ISSN 1972-2338.

# Validation of the Core Self-Evaluations Scale research instrument in the conditions of Slovak Republic

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**Abstract** - The study is focused on psychometric attributes verification of the Core Self-Evaluations Scale questionnaire (CSES) and validation of this instrument in the conditions of Slovak Republic. The sample comprised of 873 participants ( $M=25.50$ ,  $SD=5.774$ , 17-52). The internal consistency of the questionnaire was proved to be satisfactory ( $\alpha=0.780$ ). To investigate the construct validity like convergent and discriminant validity of the CSES questionnaire we examined the potential correlations of the Core self-evaluations (CSE) and Big Five personality traits on the sample of 255 individuals ( $M=29.89$ ,  $SD=6.787$ , 20-52). Principal component analysis was used to determine suitability of particular factor model that followed the four original constructs of the questionnaire (self-esteem, generalized self-efficacy, neuroticism, locus of control). Our results demonstrated the suitability and reliability of the translated version of the investigated CSES questionnaire.

**Keywords** - The Core Self-Evaluations Scale, self-esteem, generalized self-efficacy, locus of control, neuroticism, internal consistency, principal component analysis (PCA), validation.

## I. INTRODUCTION

The investigation of dispositional sources of job satisfaction has a rich and diverse history. The researchers investigating the relations between individual's personality and his/her job satisfaction have employed variety of research designs, methodological approaches, measurement strategies and statistical analyses. In recent years, an increasing number of studies has been focused on three theoretical approaches [6]: (1) positive affectivity/negative affectivity, (2) the five-factor model of personality, and (3) Core Self-Evaluations model. Each of these approaches, due to its fundamentals, has particular advantages in investigation of dispositional sources of job satisfaction. The first two approaches are well-established in Slovak Republic. However, the last mentioned approach is still an unknown instrument in the investigation of job satisfaction dispositional sources in the conditions of Slovak Republic.

The Core Self-Evaluations model represents a relatively new concept in the dispositional approach to job satisfaction research. According to its authors [9], Core Self-Evaluations (CSE) represents a broad, latent, higher-order trait indicated by four well established traits in personality psychology: (1) self-esteem - the overall value that one contributes on oneself as a person, (2) generalized self-efficacy - an evaluation of how well an individual can perform across different situations, (3)

neuroticism - the tendency to have negativistic cognitive/explanatory styles and to concentrate on negative aspects of the self, and (4) locus of control - beliefs about the causes of events in one's life - the locus is internal when individuals understand events as being contingent on their own behavior.

In most cases the personality traits creating the Core Self-Evaluation model have been studied as individual constructs without discussions on their interrelationships. However, based on the results of number of studies, authors (for example [6], [10], [2], [7], [8], [11]) have discovered that due to empirically proven strong similarities among the respective traits, it might be possible to determine these traits as a one single factor comprising of four dimensions. Several studies have been undertaken to prove the reliability as well as validity of the developed construct (for example [10], [11]). In addition to the United States, its reliability and validity have been confirmed also in other countries, for example in Germany [16] or Japan [14].

Since the Core Self-Evaluation model appears as theoretically and empirically suitable instrument for job satisfaction dispositional sources investigation, we argue that verification of this concept in conditions of Slovak Republic could provide Slovak researchers a set of individual traits that would be useful predictors of job satisfaction.

In the presented study we focus on verification of the internal consistency of CSES research instrument. This characteristic could provide basic information about reliability of this method in Slovak conditions. In our study we also investigate the factor structure of the translated questionnaire, as well as its validity in order to develop a standardized instrument, which is a necessity of a quality research method.

## II. METHODS

### *Participants*

A total of 873 individuals participated in testing of the psychometric properties of CSES questionnaire in the conditions of Slovak Republic. This sample comprised of 644 females (73.8%) and 228 males (26.1%), one respondent did not indicate the gender (0.1%). The average age was 25.5 years (the youngest participant was 17, the oldest one 52 years old).

A part of the sample (N=255; M=29,89; SD=6,787; 20-52 years) was used in testing of the construct or convergent validity of the CSES questionnaire by analyzing the correlations between CSE and Big Five personality traits.

*Measure*

In 1997, reference [9] introduced the theoretical concept of Core Self-Evaluations (CSE) in attempt to provide the personality traits that would be useful predictors of job satisfaction. Based on the theory arguments, reference [10] have in 2003 created an instrument called The Core Self-Evaluations Scale (CSES) that was used to verify the theoretical groundings.

During the construction and verification of an instrument assessing the key aspect of CSE, the authors extracted from existing instruments a group of items representing four factors (self-esteem, generalized self-efficacy, neuroticism, locus of control), that have been previously identified based on personality psychology literature review. In the process of validity and components structure identification, the authors performed a series of 6 independent measurements and have developed the final 12-items scale. The total score of the scale is formed as a sum of scores for all twelve items, with respect to reverse items. Respondents indicate their level of agreement with the particular statements on 5-point Likert-type scale, with answers ranging from strong disagreement (1) to strong agreement (5).

In the first stage of testing a four factor model was examined by exploratory and confirmatory factor analysis. However, alternative models identified strong intercorrelation between the first three factors, while locus of control reported considerably lower values and was therefore understood as a separate factor. In the next stage the differences between two-factor and one-factor model have been tested. However, the differences showed very low values, thus the CSES questionnaire was determined by its authors as a single-factor model [10].

The internal consistency analysis has been performed in a series of six independent measurements (N<sub>1</sub>=280; N<sub>2</sub>=175; N<sub>3</sub>=126; N<sub>4</sub>=265; N<sub>5</sub>=205; N<sub>6</sub>=126), and in all measurements it achieved values of Cronbach's alpha greater than 0.80 ( $\alpha_1=0.85$ ;  $\alpha_2=0.83$ ;  $\alpha_3=0.85$ ;  $\alpha_4=0.87$ ;  $\alpha_5=0.83$ ;  $\alpha_6=0.81$ ), with average value of 0.84. Also, the correlations between different items of the research instrument have been tested, and their valued ranged from 0.48 to 0.55 (average value was 0.50). Since the correlation matrix proved intercorrelation between the respective items, the authors [10] considered the research instrument to be internally consistent.

The presented research comprises the creation of a new version of the CSES questionnaire, which analysis (in terms of translation into Slovak language) is a subject of the analysis. After studying the questionnaire we prepared its translated version, based on independent translations of two psychologists. The translated CSES questionnaire has been administered to 873 persons with detailed instructions how to fill the questionnaire. The data obtained (N=873) was used to test the psychometric properties of the questionnaire using principal components analysis, that analyze the correlations

between manifest variables and based on them determines the latent variable. In the translated questionnaire we also examined its internal consistency and its validity. The obtained data was processed using SPSS statistical software.

**III. RESULTS**

One of the common ways of estimating reliability of a test method is the assessment of internal consistency reliability, which is counted by Cronbach's coefficient alpha [18]. Internal consistency reliability was used mainly because the original questionnaire authors [10] established the presence of sufficiently strong positive correlations among all items of the CSES questionnaire, which is a basic requirement for the internal consistency estimation.

TABLE I. DISTRIBUTIONAL PROPERTIES AND RELIABILITY ESTIMATES OF THE CSES QUESTIONNAIRE

Mean (SD)	Internal consistency reliability (N of items)
3.101 (0.577)	0.780 (12)

Note: Internal consistency estimates are Cronbach's coefficient alpha ( $\alpha$ ) reliability estimates.

Table 1 presents the CSES questionnaire's descriptive statistics and its internal consistency estimate. The minimum acceptable value of reliability is to be 0.70 [17]. In this context, we can say a satisfactory internal consistency coefficient is achieved. In the comparison to the English version of the original questionnaire authors [10] the consistency of the Slovak questionnaire is slightly lower, since the authors achieved an average internal consistency of 0.840.

Potential correlation relations among CSE and personality traits of Big-five model of personality were examined in order to assess the CSES construct validity. Based on the personality traits theoretical definitions it is assumed a presence of a relations (convergent validity), or on the contrary an absence of relations (discriminant validity) with total Core Self-evaluations (CSE).

TABLE II. CONSTRUCT VALIDITY THE CSES - NEO-FFI (CORRELATION COEFFICIENTS)

	Neuroticism	Extraversion	Openness to experience	Agreeableness	Conscientiousness
<b>r</b>	-0,637	0,376	-0,038	0,227	0,467
<b>p</b>	0,000	0,000	0,555	0,000	0,000

As can be observed in Table 2, positive moderate correlations (0.376 and 0.467) among personality traits extraversion, conscientiousness and CSE are found. A negative, moderate correlation (-0.637) is found between neuroticism and total score of the Core Self-Evaluations (G-CSES). Overall, the G-CSES showed significant convergence with the three personality traits. The data thus provide support for convergent validity of CSES.

Analogically we tested discriminant validity of the questionnaire, where we assumed that G-CSES should correlate weakly or not statistically significantly with openness

to experience and agreeableness in the Five-factor model of personality traits in compliance with the conclusions of the original questionnaire authors [10]. These constructs are shown to be distinct from CSES and therefore their results support discriminant validity of the English version CSES. In Table 2 are shown the correlations between G-CSES and the two mentioned personality traits. One personality trait, namely openness to experience, doesn't significantly correlate with CSE (-0.038) and agreeableness correlates with G-CSES weakly (0.227). The openness to experience - G-CSES correlation supports discriminant validity of the Slovak version CSES. Weak correlation between agreeableness and G-CSES is contradictory. However, it is consistent with the German-language CSES validation findings [4].

Testing of the CSES construct validity indicates that the questionnaire is a valid construct, it converges with three personality traits and diverges from openness to experience.

Reference [10] analysed the structure of the CSES questionnaire using Confirmatory Factor Analysis. There was suggestion that the structure could be composed by 4 or 2 factors but it was found out that these structures gave little incremental information than treating it as a single measure. We also tested the factor structure although we used Exploratory Factor Analysis. In this study, Principal Components Analysis (PCA) was used to examine psychometric properties of the CSES questionnaire. The reason to use PCA in our study is that this is not final psychometric properties testing, the study has exploratory character.

In the following, we present the results of Exploratory Factor Analysis for the CSES questionnaire. The data obtained from the translated version of the questionnaire is analyzed by Principal Component Analysis. We allowed the factors to be rotated to see if there was a clear under structure to the items. We used a rotation method Promax because this rotation allows us to monitor the interdependence of the components.

Kaiser-Meyer-Olkin test of Sampling Adequacy gained a sufficient value (0.875) as each value above 0.5 is acceptable [13], so it is possible to consider that PCA is in this case adequate and its results are explicitly distinguishable components. Moreover, the result of Bartlett's test of Sphericity is significant (Approx.  $X^2 = 4576.843$ ;  $p = 0.000$ ), suggesting that the variables are related. Both tests lead to the conclusion of the adequacy of Principal Components Analysis.

To determine the ideal number of factors we applied both the Eigenvalue and a Scree test. Based on Kaiser Normalization which determines the importance of a component by eigenvalue, we can conclude that the model manifests two significant components in the data. Two factors together explain 59.102% of the variance. The first component has an eigenvalue of 4.263 and accounts for 35.524% of the total variance. The second factor has an eigenvalue of 2.829 and accounts for an additional 23.579% of the variance. The scree plot for these eigenvalues is shown below (Figure 1).

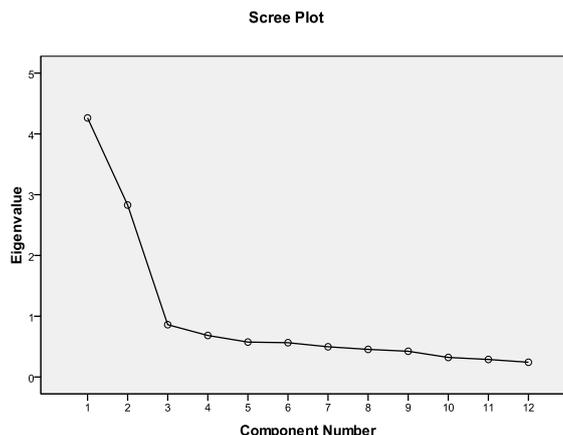


Figure 1. Scree Plot

As can be seen in the scree chart there is a dramatic break after the third factor which tends to support the existence of three components. However, the third component has an eigenvalue of 0.860 and as long as the number of variables is less than 30 it is appropriate to use Kaiser Normalization [12]. Two-component model in this regard seems to be ideal; when we examined the actual items that were loading on each component we have got the following structure (Table 3). In this case we have applied Promax rotation, because it is designed to help clarify the difference between factors, it provides the optimal balance between simple structure and correlated components result [5].

TABLE III. PRINCIPAL COMPONENT ANALYSIS WITH PROMAX ROTATION METHOD

	Component	
	1	2
Item 11	,867	
Item 3	,861	
Item 7	,838	
Item 5	,827	
Item 9	,761	
Item 1	,713	
Item 12		,772
Item 4		,728
Item 8		,721
Item 2	,302	,679
Item 6		,668
Item 10	-,380	,514

The factorial distribution presumed by the original CSES questionnaire authors in the two-factor model was not estimated in Slovak translation of the questionnaire. The authors [10] report that locus of control correlates with generalized self-efficacy, self-esteem and neuroticism weaker as these factors are correlated with each other. Therefore, authors assembled a two factorial model of the questionnaire,

in which locus of the control represents one factor and three other concepts represent the other factor. As it can be seen in Table 3, items of the questionnaire are distributed in two equivalent components. The items loading to Component 1 would appear to feeling of confidence in life, ability to cope with problems and success in life. Items loading to Component 2 are very similar, they are represented by the feeling of control over one's career, positive thoughts over life and self-worth. It is difficult to distinguish one component from another one, which suggests that to a large extent they are measuring the same construct.

A rational analysis of the data can be accepted as a basic confirmation of the findings by authors [10]. As we discovered, it is possible to extract two components from the data, but it does not add much incremental information to the interpretation. Since the informational value of two-factor model is difficult to support, the next step in our analysis should be determining a single-factor model. However, in order to confirm the suitability of the single-factor model, it would be necessary to carry out Confirmatory Factor Analysis, which will be realized in the near future. In the present study, the objective was to verify internal consistency reliability of the Slovak version of the CSES questionnaire and exploring sources of validity in the conditions of Slovak republic.

#### IV. DISCUSSION

Quality instrument measuring psychological attribute must meet certain requirements. One of the basic conditions is reliability. However, if a method should be considered as quality and standard, it must reach certain values. Internal consistency can have values ranging from 0 to 1, while the value of empirical reliability index should ideally be as close as possible to the value 1. The aim is not always reach a value of 1, the optimal values range from 0.80 to 0.90 [3]. The minimum value of reliability coefficient should reach 0.70 [17].

In this sense it can be established that the translated version of the CSES questionnaire reached an adequate degree of internal consistency, the evidence of the questionnaire reliability will be verified on larger research samples and under different conditions (such as persons with different professions, age, from different regions, different personality features) in the next period.

Another basic requirement of a quality psychological instrument is its validity. Our study's aim is to verify the construct validity of the investigated questionnaire, respectively to verify its construct resources [17]. Construct validation of the present article is verified on one hand by correlation analysis between Core Self-evaluation score and selected personality constructs and on the other hand using Principal Component Analysis.

Construct validation pursued on Slovak sample shows positive relations with extraversion and conscientiousness. Those who tend to be more sociable and active tend as well to evaluate themselves and their control over their environment in a more positive manner. Therefore, a moderate correlation between these personality traits and CSE can be expected. Our

data provided support for convergent validity of CSE as a part of construct validity.

Openness to experience and agreeableness are believed to divergent from CSE. Openness to experience is characterized as a tendency to have an active imagination, intellectual curiosity, flexibility, as well as being autonomous [1]. As such it is distinct from CSE, which we succeeded to achieve since openness to experience doesn't significantly correlate with Core Self-Evaluations. This finding supports discriminant validity of the Slovak version CSES.

Agreeableness is defined as a trait with interpersonal tendencies through altruism [15]. Weak correlation between agreeableness and CSE can be broadly interpreted as transfer of gentle approach from oneself to the interpersonal environment. We don't understand this relation as contradictory to discriminant validity of the translated questionnaire since there can be found some common indicators as mentioned and the correlation between them is weak.

Construct validity of CSES suggests it is a valid construct. However, further testing the construct validity of the translated questionnaire will be a part of the questionnaire future adaptation. Construct validity will be evaluated through correlation analysis between translated questionnaire CSES and questionnaires oriented to the four original constructs, which are self-esteem, generalized self-efficacy, neuroticism and locus of control. We will proceed to this process because in conditions of Slovak republic there is no instrument that would examine Core Self-Evaluation, in case we understand it as a separate psychological construct. Incremental validity will be verified in the coming period concerning the criteria of job and life satisfaction. CSES should add incremental validity beyond locus of control and personality traits of Five-factor model of personality concerning the criteria of job satisfaction.

Executed Principal Component Analysis represents two-component model which doesn't have the same item loadings as the original questionnaire. Items load to different components as the original version of the questionnaire; different factor analysis was used and therefore it was not possible to determine in advance which items should be included in which component, but this follows from possibilities of current psychometric testing. Despite different factor analysis, exploratory versus confirmatory factor analysis, similar results are expectable. Different factor loadings could on one hand arise from imprecision in the original meaning of the items or on the other hand understanding of feelings and behaviour described in some items may be in the Slovak population other than abroad.

Two-component model includes one component connected to feelings of confidence in life, ability to cope and success in life and another component presented by feeling of control over one's career, positive thoughts over life and self-worth. The difficulty to distinguish one component from another suggests that to a large extent they are measuring the same construct. In order to confirm the suitability of the single-factor model a Confirmatory Factor Analysis will be executed.

Preliminary results suggest the Slovak version of CSES to be reliable and there is some empirical evidence about

construct validity of the questionnaire. Even though further evaluations are necessary, present study can be an important step towards possibilities in the Core Self-Evaluations research in Slovak environment.

#### ACKNOWLEDGMENT

This study was realized as a part of the research project "Validation of the Core Self-Evaluations Scale in the conditions of Slovak Republic" supported by the University of SS. Cyril and Methodius Research and Development Support Fund number FPPV-07-2014.

#### REFERENCES

- [1] D. W. Ariani, "Personality and learning motivation," *European Journal of Business and Management*, vol. 5, no. 10, pp. 26-38, 2013.
- [2] A. Erez, and T. A. Judge, "Relationship of Core self-evaluations to goal setting, motivation, and performance," *Journal of Applied Psychology*, vol. 86, pp. 1270-1279, 2001.
- [3] J. Gliem, and R. Gliem, "Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales," 2003 Midwest Research to Practice Conference in Adult, Continuing and Community Education. Columbus, Ohio, 2003.
- [4] T. Heilmann, and K. Jonas, "Validation of German-language Core self-evaluations scale," *Social Behavior and Personality*, vol. 38, no. 2, pp. 209-226, 2010.
- [5] A. E. Hendrickson, and O. White, "Promax: A quick method for rotation to oblique simple structure," *The British Journal of Statistical Psychology*, vol. 17, no. 1, pp. 65-70, 1964.
- [6] T. A. Judge, D. Heller, and R. Klinger, "The dispositional sources of job satisfaction: A comparative test," *Applied Psychology: An International Review*, vol. 57, no. 3, pp. 361-372, 2008.
- [7] T. A. Judge, J. Bono, and E. A. Locke, "Personality and job satisfaction: The mediating role of job characteristics," *Journal of Applied Psychology*, vol. 85, pp. 237-249, 2002.
- [8] T. A. Judge, A. Erez, and J. Bono, "The power of being positive: The relationship between positive Self-concept and job performance," *Human Performance*, vol. 11, pp. 167-187, 1998.
- [9] T. A. Judge, E. A. Locke, and C. C. Durham, "The dispositional causes of job satisfaction: A Core evaluations approach," *Research in Organizational Behavior*, vol. 19, pp. 151-188, 1997.
- [10] T. A. Judge, et al., "The Core self-evaluations scale: Development of a measure," *Personnel Psychology*, vol. 56, pp. 303-331, 2003.
- [11] T. A. Judge, et al., "Dispositional effects on job and life satisfaction: The role of Core evaluations," *Journal of Applied Psychology*, vol. 83, pp. 17-34, 1998.
- [12] H. F. Kaiser, "The Varimax criterion for analytic rotation in factor analysis," *Psychometrika*, vol. 23, no. 3, pp. 187-200, 1958.
- [13] H. F. Kaiser, "An index of factorial simplicity," *Psychometrika*, vol. 39, no. 1, pp. 31-36, 1974.
- [14] R. F. Piccolo, et al., "Core self-evaluations in Japan: Relative effects on job satisfaction, life satisfaction, and happiness," *Journal of Organizational Behavior*, vol. 26, pp. 965-984, 2005.
- [15] I. Ruisel, and P. Halama, *NEO Five-Factor Inventory*, Praha: Hogrefe Testcentrum, 2007.
- [16] T. Stumpp, et al., "Core Self-evaluations in Germany: Validation of a German Measure and its relationships with career success," *Applied Psychology: An International Review*, vol. 59, no. 4, pp. 674-700, 2010.
- [17] T. Urbánek, D. Denglerová, and J. Širůček, J. *Psychometrika*. Praha: Portál, 2011.

# Quality of life and depression in Albanian older adults

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**Abstract**—Research suggests strong links between quality of life and depression symptoms among the elderly. The present study aimed to examine the relationships between the physical, social, psychological, and environmental dimensions of quality of life and depressive symptoms in a sample of 160 Albanian elderly living in nursing homes. The study used two self report measures: the World Health Organization Quality of Life Measure, brief version (WHOQOL-BREF) and the Beck's Depression Inventory-II. A significant model resulted,  $F(8, 118) = 8.10$ ,  $p < .001$ , explaining 35.4% of the variance in depression symptoms ( $R^2 = .354$ ). The variables of age, gender, number of children and marital status did not contribute significantly to the model. The only two variables contributing significantly to the model were the physical dimension of QOL,  $\beta = -.32$ ,  $p < .01$ , and the social dimension of QOL,  $\beta = -.28$ ,  $p < .01$ . The present findings have important implications especially in terms of policies and interventions to promote quality of life among the elderly and prevent depression.

**Keywords**-depression, quality of life, old age, Albania

## I. INTRODUCTION

Quality of life in older age is affected by changes in the physical, cognitive, and social domains, which are characteristic of this developmental stage [1]. Some of the factors with a direct impact on quality of life of the elderly include poor health, unemployment, retirement, death of one's partner etc. Depression is also among the most common psychological disorders associated to decreased quality of life among the elderly [2,3]. While acknowledging the detrimental effects of depression on several dimensions of quality of life, it is also quite important to examine the reverse, i.e., effects of poor quality of life on depressive symptoms.

The examination of this relationship becomes important especially in social contexts where the old age suffers great economic problems as well as healthcare and social neglect. Developing countries such as Albania are still struggling to address socio-economic problems across multiple levels, but difficulties are evident. To mention a few, as a result of the considerable changes in the structure of the Albanian family over the two last decades, the number of old people living alone has steadily increased. Nursing homes are still very few to meet the increasing needs and quality of life of the elderly is further impoverished by lack of appropriate healthcare, which is costly [4]. The very small pensions pose yet another challenge for fulfilling even the basic needs such as appropriate

nutrition, heating during the winter, or medication for chronic conditions (e.g., hypertension, heart disease etc) [4].

Therefore, objectively there are severe challenges to quality of life of the elderly in Albania. However, there has been no study so far examining the subjective perceptions of quality of life, across its several dimensions, and especially the relationship of each dimension with depression symptoms.

Research has found close associations between low levels of quality of life in the physical dimension and depression symptoms. Physical changes, chronic disease, pain or disability are associated with depressive symptoms [5,6]. Changes in body functioning, energy levels, memory problems, difficulties in coping with pain and disability are all potential sources of negative mood and depressive symptoms, but not necessarily clinical levels of depression [7,8]. Other more specific research has found relationships between depression and conditions such as heart failure, myocardial infarction, osteoporosis etc. [9-11]

Apart from physical changes, another dimension of quality of life which is greatly affected with the passing years is the psycho-social dimension. Relationships with partners, children, friends, and colleagues are subject to change, with increasing age [12, 13]. However, quality of relationship with one's partner and children are particularly important in ensuring a good quality of life [14, 15]. Death of one's partner is associated with a poorer quality of life, and depressive symptoms [16]. Also retirement from work represents an important challenge for adaptation which is often accompanied with reduced social activities and increased isolation [17]. Research has shown clear links between social isolation/loneliness, and depression or poor quality of life [18]. Indeed there is evidence that social engagement is associated with decreased depressive symptoms over time [19].

To summarize research suggests strong links between several dimensions of quality of life and depression symptoms among the elderly. The purpose of the present research was to examine the relationships between quality of life (physical, social, psychological, environmental) and depressive symptoms in a sample of Albanian elderly living in nursing homes. The study also examined the predictive power of a model including the four dimensions of quality of life, as well as gender, age, marital status and number of children in predicting depression.

## II. METHODOLOGY

### A. Participants

Participants were 160 elderly (age range between 57 and 93 years,  $M_{age} = 65.1$  years,  $SD = 6.67$ ). They were recruited from two day-care centers (one in Tirana and one Shkodra). Participants were explained the study and if they agreed to participate, were assisted in filling in the questionnaires. In terms of gender composition, 54.7% were women and 45.3% men. The number of children declared by the participants ranged from a minimum of one to a maximum of six with an average 2.6 children ( $SD = 1.11$ ). As regards their professions, 8.6% reported to be teachers, 19.2% economists, 4.6% doctors, 3.3% nurses, 7.3% drivers, 16.6% sellers, 1.3% cleaning ladies 1.3%, 5.3% tailors, 4% engineers 4%, and 7.9% masons. In terms of educational level, 20.1% of the sample had elementary level education, 53.6% high school education, and 26.3% university level education.

### B. Measures

The study used two self report measures: the World Health Organization Quality of Life Measure, brief version (WHOQOL-BREF) [20] and the Beck's Depression Inventory-II [21]. WHOQOL-BREF is a short version of the original instrument consisting of 26 questions, with higher scores indicating higher quality of life. The Questionnaire comprises 4 dimensions and the score of each was calculated according to authors' instructions. **Dimension 1** includes 7 questions assessing physical health (everyday activities, pain, energy levels, mobility etc). The internal consistency for this dimension was acceptable,  $\alpha = .85$ . **Dimension 2** refers to psychological health (negative and positive feelings, self-esteem, etc) and includes 6 questions. The internal consistency for this dimension was also acceptable,  $\alpha = .86$ . **Dimension 3** refers to social relations (personal relationships, social support) and comprises 3 questions. The internal consistency for this dimension was low but acceptable considering the small number of questions,  $\alpha = .54$ . **Dimension 4** refers to environmental features (financial resources, physical safety, home environment etc.) and is composed of 8-questions. The internal consistency was acceptable,  $\alpha = .85$ . The second measure used was the Beck Depression Inventory-II [21]. Scores were calculated according to authors' instructions. The internal consistency of the questionnaire was very good,  $\alpha = .92$ . Questionnaires were translated into Albanian by using the Translation/Back-translation method; thus they were first translated into Albanian and then back translated to English, and compared to the original versions. Adjustments in wording were made to ensure comprehensibility. After translation the questionnaire was pilot tested on 10 individuals to ensure comprehensibility, and the necessary changes were made according to the participants' comments.

## III. RESULTS

Descriptive results for quality of life dimensions are shown in Table 1. As regards Beck Depression Inventory scores participants were classified for descriptive purposes as follows: 55.7% of participants were classified as being in the normal range, 17.1% with mild mood disturbance, 0.6% with borderline clinical depression, 9.5% with moderate depression, 3.2% with severe depression, and 5.1% with extreme

depression. However considering that the test is not standardized in Albania, the categorization was not used for the purpose of the analyses and Beck's score was considered on a continuous dimension. Even so, individuals who were classified in the categories borderline depression through extreme depression, were informed of the test results and were referred for further psychological assessment.

Stepwise regression was conducted with Beck's depression score as the dependent variable, and two blocks of variables (demographic and quality of life dimensions) as independent variables. In step 1, age, gender, number of children and marital status were entered. In step 2, psychological, physical, social and environmental dimensions of quality of life were entered. Table 2 shows correlations between variables. Beck's score was negatively correlated with all four dimensions of Quality of life, and the strongest correlation was with the physical dimension,  $r = -.51$ ,  $p < .01$ , followed by the social,  $r = -.47$ ,  $p < .01$ , psychological,  $r = -.46$ ,  $p < .01$ , and environmental dimension,  $r = -.24$ ,  $p < .01$ .

A significant model resulted,  $F(8, 118) = 8.10$ ,  $p < .001$ , explaining 35.4% of the variance in depression symptoms ( $R^2 = .354$ ). The variables of age, gender, number of children and marital status did not contribute significantly to the model. The only two variables contributing significantly to the model were the physical dimension of QOL,  $\beta = -.32$ ,  $p < .01$ , and the social dimension of QOL,  $\beta = -.28$ ,  $p < .01$ .

TABLE I. DESCRIPTIVE ANALYSES FOR QUALITY OF LIFE

Dimensions	Number	Minimum	Maximum	Mean	SD
Psychological	156	3.00	26.00	14.46	4.86
Environmental	160	12.00	39.00	25.48	6.27
Physical	159	12.00	27.00	20.77	3.72
Social	140	3.00	15.00	8.24	2.68

TABLE II. CORRELATIONS BETWEEN QUALITY OF LIFE DIMENSIONS AND BECK'S SCORE

Variables	1.Psychol.	2. Physic.	3.Social	4 Environ.
1.Psychological				
2.Physical	.58**			
3.Social	.56**	.42**		
4.Environmental	.42**	.33**	.45**	
5. Beck	-.46**	-.51**	-.47**	-.24**

Sig. \*\* $p < .01$

TABLE III. REGRESSION MODEL FOR AGE, GENDER, NUMBER OF CHILDREN, MARITAL STATUS, AND QUALITY OF LIFE ON BECK'S DEPRESSION SCORE.

Model	Beta	Sig.
1 (Constant)		.235
Age	-.007	.941
Gender	-.094	.302
No. of children	-.014	.877
Marital status	-.070	.483
2 (Constant)		.000
Age	-.042	.618
Gender	-.030	.697
No. of children	-.037	.629
Marital status	-.010	.910
Psychological	-.148	.168
Environmental	.060	.509
Physical	-.321	.001
Social	-.282	.004

#### IV. DISCUSSION

The present study aimed to assess the relationships between quality of life and depression among Albanian elderly. Results revealed significant relationships between all four dimensions of quality of life and Beck's depression score. On the other hand all four dimensions of quality of life were positively correlated with each other, so that higher scores in one dimension predicted higher scores in the other dimensions. However, only scores in the physical and social dimensions significantly contributed to the prediction of depression symptoms among the elderly. The non-significance of the psychological dimension was quite unexpected especially considering that by definition it was a proximal variable to depression (as compared to the others). However, it seems that in the context of other dimensions of QOL, the psychological dimension does not make a unique contribution; instead QOL in the physical dimension serves as the most important predictor.

The finding that the physical dimension of quality of life is relevant in explaining depression symptoms is in line with much research in the area finding associations between age-related changes in body functioning, energy levels, pain, disability, or other conditions and depressive symptoms [5,9]. Additionally the relevance of the social dimension of QOL in predicting depression scores is also in line with research suggesting that social disengagement is related to depression symptoms (e.g., changes in the relationships with one's partner, children or social activities involving friends, colleagues etc. ) [15, 19].

The present findings have important implications especially in terms of policies and interventions to promote quality of life among the elderly and prevent depression. The relevance of the

physical domain of quality of life over other domains in the explanation of depressive symptoms, indicates the need to focus efforts especially in the quality of healthcare in old age. Indeed, research has found that the unavailability of medical care has been reported by almost 1/3 of the older adults from three main districts in Albania; moreover the situation was much worse in rural as compared to urban areas [4]. Although the present study did not provide evidence of particularly low scores in the health dimension of quality of life, it is possible that results could be different if participants were not recruited from day-care centers (where they get medical and also psycho-social assistance).

A similar argument applies in the case of the social dimension of quality of life, where scores provided by the specific study also are not particularly low; despite this, the social dimension remains quite important to be addressed especially if we consider reports claiming that one in five older adults perceive themselves as isolated from social networks [4]. The encouragements of social networks among the elderly, especially in terms of joint activities is a recommendation which is already being applied in few centers.

Despite the limitations of the present research including translated measures, small sample size, and cross-sectional data, this is the first study conducted in Albania, focusing on quality of life dimensions, and depression levels in the old age. The study provides some results which should guide further research into this still neglected age category.

#### REFERENCES

- [1] E. H. Erikson, J. M. Erikson, and H. Q. Kivnik, *Vital involvement in old age*, New York: Norton, 1994.
- [2] S. M. Alavinia, and A. Burdorf, "Unemployment and retirement and ill-health: A cross-sectional analysis across European countries," *International Archives of Occupational and Environmental Health*, vol. 82, pp. 39-45, 2008.
- [3] D. Blazer, *Depression in late life*, New York: Springer, 2002.
- [4] A. Ylli, (2010). "Health and social conditions of older people in Albania: Baseline data from a national survey," *Public Health Reviews*, vol. 32, pp. 549-560, 2010.
- [5] M. E. Posthauer, B. Dorner, and E. K. Friedrich, (2014). "Enteral nutrition for older adults in healthcare communities," *Nutrition in Clinical Practice*, vol. 29, pp. 445-458, 2014.
- [6] E. J. Lenze, L. M. Martire, B. L. Rollman, R. Schulz, and R. Reynolds, "The association of late life depression and anxiety with physical disability," *American Journal of Geriatric Psychiatry*, vol. 9, pp. 113-135, 2001.
- [7] R. E. Roberts, G. A. Kaplan, S. J. Shema, and W. J. Strawbridge, "Does growing old increase the risk for depression?" *American Journal of Psychiatry*, vol. 154, pp. 1384-1390, 1997.
- [8] A. M. Zeiss, P. M. Lewinsohn, P. Rohde, and J. R. Seeley, "Relationship of physical disease and functional impairment to depression in older people," *Psychology & Aging*, vol. 11, pp. 572-581, 1996.
- [9] S. Williams, S. Kasl, A. Heiat, J. Abramson, H. Krumholz, and V. Vaccarino, "Depression and risk of heart failure among the elderly: A prospective community-based study," *Psychosomatic Medicine*, vol. 64, pp. 6-12, 2002.
- [10] K. W. Lyles, "Osteoporosis and depression: shedding more light upon a complex relationship," *Journal of American Geriatrics Society*, vol. 49, pp. 827-828, 2001.
- [11] D. Michelson, C. Stratakis, and L. Hill, "Bone mineral density in women with depression," *New England Journal of Medicine*, vol. 335, pp. 1176-1181, 1996.

- [12] M. Aartsen, and M. Jylhä, "Onset of loneliness in older adults: Results of a 28 year prospective study," *European Journal of Ageing*, vol. 8, pp. 31-38, 2011.
- [13] M. V. Long, and P. Martin, "Personality, relationship closeness, and loneliness of oldest old adults and their children," *J Gerontol B Psychol Sci Soc Sci*, vol. 55, pp. 311-319, 2000.
- [14] M. Abas, M. Hotopf, and M. Prince, "Depression and mortality in a high-risk population," *The British Journal of Psychiatry*, vol. 81, pp. 123-128, 2002.
- [15] J. J. Gierveld, M. B. van Groenou, A. W. Hoogendoorn, J. H. Smith, "Quality of marriages in later life and emotional and social loneliness," *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, vol. 64, pp. 497-506, 2009.
- [16] G. J. Byrne, and B. Raphael, "Depressive symptoms and depressive episodes in recently widowed older men," *International Psychogeriatrics*, vol. 11, pp. 67-74, 1999.
- [17] M. Pinquart, and S. Sorensen, "Influences of socioeconomic status, social network, and competence on subjective well-being in later life: A meta-analysis," *Psychology & Aging*, vol. 15, pp. 187-224, 2000.
- [18] V. Burholt, and T. Scharf, "Poor health and loneliness in later life: The role of depressive symptoms, social resources and rural environments," *J Gerontol B Psychol Sci Soc Sci*, vol 69, pp.311-324, 2014.
- [19] V. W. Lou, I. Chi, C. W. Kwan, and A. Leung, "Trajectories of social engagement and depressive symptoms among long term care facility residents in Hong Kong," *Age & Ageing*, vol. 42, pp. 215-222, 2012.
- [20] World Health Organization, WHOQOL-BREF: Introduction, administration, scoring and generic version of the assessment. Geneva: WHO, 1996.
- [21] A. T. Beck, R. A. Steer, and G. K. Brown, *Manual for the Beck Depression Inventory-II*. San Antonio, TX: Psychological Corporation, 1996.

# The occupational therapy for a child with myelocystocele – case study

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**Abstract**—Short information about causes, symptoms and statistics of meningocele (MMC). Goals of different types of therapy including occupational therapy, neurodevelopmental therapy (NDT Bobath) and sensory integration for the subject. Information about the girl case. Importance of the right body positioning of the child for therapy effectiveness. Exercises which were done by the girl and their results. Importance of cooperation between the different kind of therapists and family and close people.

**Keywords**-meningocele, occupational therapy, self-service, socializing, rehabilitation

## I. INTRODUCTION

The attitude of man towards his own life, his judgment, his expectations and plans play a special role in situations of incomplete efficiency of the body. Life with the constraints eventuated directly from invalidity is stymied in addition by the social environment, and related to incorrect healthy people attitude towards people with disabilities, architectonic and legal barriers [1].

Meningocele (MMC) is the most frequently occurring malformation of central nervous system (CNS). It is estimated that 2 children per 1000 live birth have got this malformation. This complex defect involve the spinal cord, spinal nerves and their sheath; cerebrospinal meningitis, the vertebrae of the spine, muscles, subcutaneous tissue and skin. The defect is accompanied by the abolition or weakening of the conduction of nerve stimuli from the central structures to the external parts of the body, to the muscles, skin and internal organs [2]. It is currently believed that the defect is created in two steps. The first is abnormal kind of aggregation like roll between 4 and 8 weeks of fetal life. The second is the secondary damage to the uncovered spinal cord exposed to amniotic fluid and proximate injury to the wall of the uterus [3]. These defects, in addition to injuries and cancer, are the most common cause of death, disability and reduced quality of life. The male children are more commonly affected by them than female ones.

Characteristic symptoms are enlarged head circumference and delayed psycho-motor development. In the image of a child with MMC neurological assessment is important, including evaluation of spontaneous movability, tonicity, the physiological reflexes. This is needed to determine the direction of work in the early rehabilitation of the child.

Early diagnosis allows you to determine the main objectives of the child rehabilitation with MMC. The main

objective is to maximize of improvement of the child mobility, other objectives are: to reduce the deformation of bones and joints, the stimulation of intellectual development and integration with the environment. The essential elements, which influence for the effectiveness of ways of realization everyday life activities should be implemented in the prepared improvement program, which included the following areas:

- sense of security,
- multi-direction sensory impacts by stimulation of deep sensibility (proprioception), balance, touch, sight and hearing,
- stimulation of active participation of the child while performing complex operations,
- effectiveness and desirability of our actions,
- the correct positioning of the child and to show the correct motor pattern.

## II. DATA ABOUT THE CHILD.

### A. Medical treatment of the case (epicrisis).

The five years old girl born in week 40 by caesarean section in the average condition (the Apgar score - 5 points) with weight 2800 g. From an obstetric interview: type G2 diabetes mellitus. In USG of the fetus - cleft lumbar spine with hydrocephalus. In physical examination after birth – hernia of lumbar region covered with incomplete skin, the equinovarus feet, it was suspected knee dislocation, moderately severe respiratory insufficiency symptoms.

### B. The opinion of The Psycho-Education Center no. PP-P.42.21.2013.

The little girl after a surgery of MMC, with the flaccid paresis of lower limbs. She puts in word touch with the investigator. She has difficulty with concentrating the attention for an extended period of time. She talks about herself in the third person, by her behavior she tries to focus the attention of people in her closest environment. Intellectual abilities are within normal limits and the psycho-motor development proceed disharmonious due to the health condition. There are considerable difficulties in acquiring motor skills typical for the age, and as a consequence in the implementation of self-service activities. The girl properly analyze the color and similar shapes. She cannot draw a circle and build the bridge with bricks, her drawing is at the stage of doodle. She looks

around her body schema at the basic level. The dominance of hand and eye is not settled. There are big problems in terms of gross motor skills including getting dressed and undressed.

### III. THE THERAPY

Work with the child was concentrated on the self service and fine motor improvement.

Within fine motor skills to assess the functionality the scale of MACS (Manual Ability Classification System) was very helpful, while for gross motor skills - GMFCS scale (Gross Motor Function Classification System). GMFCS scale, which is used in most of Europe and the world, revolves around gross motor skills and refers to people with cerebral palsy and categorizes their mobility. The scale has five levels of mobility (I - a child has difficulty with complex operations only, V - the child is totally dependent on other people). The girl can be classified at the fourth level, because she shifts around, using a wheelchair. Due to the limited movement in the lower extremities, she uses the services of other people. Sarah is not only limited in physical sphere, but they are also observed irregularities in terms of visual functions – it occurs the seventh nerve facial palsy). Motor disorders in lower limbs, upper limbs, contractures, abnormal muscle tone within the chest muscles, oblique muscles of the abdomen and dorsum (these are the postural muscles, which are responsible for the correct posture of the body). Her efficiency in terms of fine motor skills according to the classification of MACS is the second level, which is manifested in her attempts to simplify catching the other objects, for example by using the surface to sustain, instead of gripping objects with both hands. MACS is a classification system for the manual ability of children with cerebral palsy aged from 4 to 18 years of age. Thanks to MACS we can evaluate the abilities level of children at home, school and social relations.

### IV. POSITIONING OF THE CHILD'S BODY IN THERAPY.

Prior to the scheduled tasks it must be formed correct child's posture while sitting on a chair, wheelchair or chair with specific characteristics, which must make it possible to correct posture. Chair or armchair should have support for protection against falling back. The length of the seat should be equal to the length of the child's thighs, and the height on which it is located, equal to the length of the leg so that the feet touch all their surface to the ground. The correct positioning of the disabled child contributes to correcting the wrong body posture. The correct posture forces the muscle work, improves muscle tone. It was noticed, that Sara's chest muscles were contracted and the muscles of the back were stretched, resulting in a round back. The consequences of this are the restrictions on the respiratory system, and short respiratory track. All of this makes the little girl pronounces the words while she inhales, which deepens the muscle tone on the perimeter that means she increases her muscle tone in the upper and lower extremities. The diaphragm works incorrectly, therefore her excretory system does not work properly, there are trouble with bowel movement. Thanks her willingness to work on the computer, with the use of shims under the laptops with adjustable angle, Sara has a strong incentive to correct her posture. The needs to watch the monitor or look at the picture or sheet on the shim makes her

head begins to actively work and thus forces work of individual muscle groups, including back and chest muscles. The angle of her body changes. The girl is more upright, the head tries to be an extension of the back, begins to shape the linearity. This prevents further aggravation of side spinal curvature, as well as deformation of her thoracic cage. It is built symmetry in the axis of the body, the abnormal movement patterns integrate including a tonic labyrinth reflex, increases tension and balance. The corrected sitting position influence providing some proprioception stimuli. In providing proprioceptive stimuli are essential three ways:

- spinal cord- medulla oblongata tract - running posterior funiculus of spinal cord, which is responsible for conducting deep sensibility from mechanoreceptors of Meisner's corpuscles and Pacinian corpuscles, joint receptors, muscle spindles.
- spinocerebellar tract anterior and posterior road front and rear - in connection with the coordination of the movement of the lower limb position, running lateral column of spinal cord. transfer information of proprioceptive stimuli to the cerebellum associated with the arousal of the muscle spindles, neurotendon and receptors of pressure,
- sphenocerebellar tract - transfers information of proprioceptive stimuli, which come from the upper extremities, to the cerebellar [4].

#### A. A twin-track acquisition of somatognosis functions according to Zofia Kulakowska.

According to Zofia Kulakowska somatognosis proceed as shown in the Fig. 1. It shows stages of acquisitions of

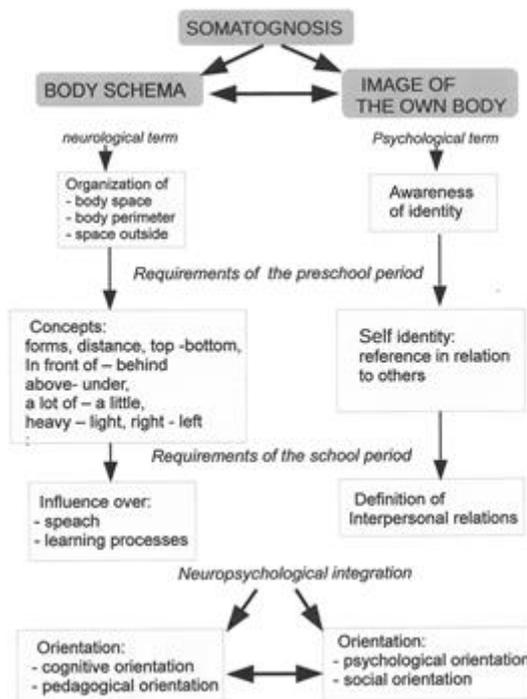


Figure 1. A twin-track acquisition of somatognosis functions

somatognosis functions. The author says that they are strictly involved the child's development and go ahead twin-track: in a cognitive, pedagogical direction and in a psychological one [5].

### B. Positioning of the girl's body.

The right sitting posture of the child in a chair or wheelchair, if upper limbs will have the supports, will correct the occurring abnormalities. This posture also will have an impact on the other senses. The activity of the chest and back muscles causes that Sara raises her head and she does not slump, whereby she can focus her sight on a subject. Her central vision shapes in this way and the outer muscles of her eye strengths. Visual fixation also affects the work of the ciliaris muscle. On Sarah, as it was mentioned above, there is the seventh nerve palsy. The exercises described above will contribute to correct this abnormality. In the next exercise was used a laptop, which stand was placed in 30 cm distance from the girl's head. Thanks to this Sara unknowingly performed the corrective exercises. By touching the keyboard with fingers and supporting the stand she was perfecting her visually-motor coordination. At the same time she provided the sensory stimuli. In another exercise was used a small clipboard and for instance a marker pen. She had to hold the clipboard with one hand and do the independent movement of her fingers, for example holding the thick marker and drawing circles on a piece of paper lying on the clipboard top. It forms balance and the right muscle tone at the child in this way, which affects the process of lateralization. From the viewpoint of pedagogy and psychology it is believed, that lateralization process is to gain the state in which there is "a kind of advantage when the right hand dominates the left one. The advantage of one side of the body over the other one does not show up immediately in the ready form, but occurs gradually and builds up during overall development of the child" [6].

The correct positioning of the child was used to teach the activities of everyday life. In the initial part of the therapy, as it was already mentioned above, were used inter-articulat holdfasts, that formed the right reception of proprioceptive stimuli. Then to better forming of symmetry it was used some things as the rubber ring, plastic steering wheel. The circumference of this things had meaning. It should not be too small, because too small toys girth could cause to occur of the shoulder protraction (pulling shoulders ahead), and as a consequence it would manifest at a limited range of motion in the shoulder joints, constricting of chest muscles, increasing muscle tone on the perimeter which in turn lead to incorrect settings of its wrist (dorsal flexion) and abnormal pressure force on the drawing instrument. The girl had to put this rubber ring on her one hand once, then for the second one and on head at the end. When inserting a rubber ring on the head, as "the crown", she had to use both hands. In this way, she formed her balance, knowledge of her body schema, the differentiation of the parties in the area of self-service. It allowed me to improve her self dressing and undressing. By providing things of the varied texture and colors of fabric she was getting sensory stimuli and, at the same time, she preserved the names of colors, formed the hand grips. In the framework of strengthening the muscular jacket and grip standardization the exercises in lower lower positions were done, i.e. when she sat flat the exercises regarding for rotation in the area of thoracics

spine were done. It also affected the active crossing the midline of the body, that is, according to the concept of sensory integration, the ability of the eyes, arms, legs and head to the movements, during of which central body areas are exceeded [7], [8], [9].

From the physiological point of view crossing the midline is done in the thoracic spine. The following muscle groups are responsible for it: erector spinae muscles, transversus abdominis muscles, rectus abdominis muscle. Their combined work allow for a wide range of movements in the central part of the body, giving spine and pelvis stability [10]. These exercises have helped teach the child to put on and pull footwear with toes, and dress or undress her pants or skirts. Of course, it needs further improvement, but the girl can do it now. As a result of exercises aimed at strengthening the muscular corset in the chest and back, the girl can climb the mattress 20 cm thick. Trunk stability has made the girl began to eat on her own. To eat used cutlery, designed in Petö Institute in Hungary. These are the cooking utensils that have a wooden base of cylinder shape. The base diameter is dependent on the individual capabilities of each child. A big one is applied for children who have trouble with balance and adapting the appropriate pressure to the grip. Thinner one is for children who are able to maintain balance and use already the spherical or triple-finger grip. To develop a spherical grip the end of cutlery base were placed in balls, which were made of sponge. In this way function of the hand was formed. It should be remembered that the general shape of the hand is based on two systems of arcs. The longitudinal arc system (prehensile) is created by gently bending of the metacarpals bone's and phalanxes toward the dorsal side creating concavity on the palm side of the hand. This conformation promotes adaptation to the subject. The transverse arc system (opposition parties) makes it easy to grip, because during the opposition of the thumb a line connecting the head of the metacarpal bone's showed on the dorsal side of the hand. This makes the spherical grip much easier, for example during holding a tennis ball, eating with your hands, keeping potatoes, apples, crayons with a polygon cross-section. Looking at the hand from the dorsal side (with bent fingers) it can be noticed the diagonal composition of the line connecting between metacarpus fingers joints. This has functional importance at finger-palm grip (eg. holding handle scoops), as well as at a similar precision grasp (e. g. holding a screwdriver, holding cutlery, holding of drawing utensils).



Figure 2. The special fork (my own photo)



Figure 3. Sara is building the tower. (my own photo)



Figure 4. Sara is drawing. (my own photo)

#### V. THE ROLE OF THE FAMILY.

The parents have a huge impact on the comprehensive development of the child. Thanks to them, this girl functions in psychomotor and social spheres so well. They are very

heavily involved in the entire process of rehabilitation. They allow their child through a close bond, experiencing different social relationships with other children and adults. The child's parents are very aware of the limitations of the child that result from the disability movement, which often limits the possibility of contacts, particularly with peers. They realize, what has been noticed at the other parents, that: "Elimination of fun with a peers group may deprive disabled children opportunities to learn and adopt the moral and social rules, the development of fellowship, friendship and solidarity. There will not have opportunities to imagine their own possibilities and learn ways of overcoming difficulties "[11]. In everyday life they adopt different roles for Sara, they are therapists, teachers but above all loving parents so Sara works so well in the surrounding world.

#### VI. CONCLUSIONS.

In children affected by meningomyelocele big problem is to reduce the possibility of self-reliant functioning during the daily routine of everyday life. This phenomenon is associated with excessive focus on dysfunction of the lower limbs, that is the reason of neglecting and not using all possibilities of the upper and lower limbs. A child with myelocystocele may be more affected by the psycho-motor and psychosocial retardation [12], [13], [14].

The important factors in improving the functioning of the child are:

- respect the child's daily routine,
- the ability to self dressing and undressing,
- the ability to self-reliant washing her hands and teeth,
- self-reliant movement with rehabilitation equipment.

Comparing her level of functioning before the nine months and the present level of functioning, it can see a big difference. Nine months ago she had trouble with:

- incorrect grip adjustment to the drafting of the instrument,
- the lack of isolated movements of the fingers – spherical grip was poorly functioning,
- balance,
- getting dressed and undressed,
- eating meals - she needed help.

At the present day there has been an improvement in the following areas:

Self service:

- uses a spoon to eat without help of others,
- can drink without help, holding a bottle with both hands,
- uses a table knife with a thick base to smooth marmalade over a slice of bread,
- uses a table knife with a thick base to cut (soft items),
- begins to use a potato peeler,

Motor skills;

- move in the symmetric pattern on the floor,
- runs wheels in her wheelchair by herself using her upper limbs,
- can climb the mattress with a height of 20 cm,
- can climb stairs,
- is able to move on the flat surface using rehabilitation equipment including for instance a low.

Toilet and washing:

- wipes (drought) hands exactly without supervision others (however, at their presence),
- carefully washes hands with soap using the baths and the bowl,
- can distribute shampoo over her hair by herself
- washes the face and ears self-reliantly,
- cleans her teeth, using a toothbrush with a rubber shaft,
- brushes her hair using the brush with a thick shaft.

Dressing up;

- takes off his socks,
- takes off his pants,
- takes off his shoes,
- she can put her hand in a large hole of sleeve,
- uses burrs,
- puts on a cap on the head and scarf on the neck,
- understands the compositions of words containing: for, to, in, over, under, behind, in front, on the outside, on top, at the bottom, for instance:
  - a) "put your book on the chair",
  - b) "put the book into the box",
  - c) "rise hands above the head",
  - d) "put the book on top of the box",
  - e) "put your pencil under the paper".

- understands simple questions and gives sensible answers for them, for instance:

- a) "What do you do when you are hungry?"
- b) „What do you put on your legs”
- c) „What do yo do with the ball? "
- d) "What do you eat for breakfast?"
- e) "What do you drive?"
- f) "What do you draw?"
- g) "From what do you drink? "

Using a pencil and paper with using of a board under the laptop:

- holds a pencil,
  - can draw vertical lines and arcs,
  - can outline the wheel,
  - draws man crudely, by marking the head and legs.
- Manual activities with using of a base for a laptop:
- arranges the puzzle,
  - arranged mosaic,
  - browses the books,
  - can string larger beads,
  - can twist the cap off,
  - begins to cut paper with scissors,
  - can mold various items with plasticine, build with bricks.

Socialization:

- plays in the company of others,
- waits for the "her moment" and can involve the game at the right time,
- plays with interacting with other players,
- enacts the stories she heard before,
- takes part in board games, for example: tiddlywinks, domino.

Improving the functioning of the girl was a consequence of the work of the whole staff of people associated with the early support of a child's development program. The insightful observation of her spontaneous activity and adequate level of theoretical and practical knowledge of therapists allowed properly selected supporting within pedagogy, psychology, rehabilitation and occupational therapy, which consequently contributed to the improvement of the dysfunctions. It should be mentioned parents' hard work without it so large progress would not be achieved, since the current functional state is the result of early begun rehabilitation and proper care. It is necessary to continue the work over the psychomotor development of the girl to enable her to learn new activity used at home, at school and in a sandlot.

REFERENCES

- [1] J. Konarska, "Młodzież niepełnosprawna wobec poczucia sensu życia" in K. Popielski (ed.), "Człowiek, wartości, sens", RW KUL, Lublin, 2013, pp. 423, 428.
- [2] A.K. Bruce, "Neural tube defects.", *Pediatr Clin N Am* 2004; vol. 51, pp.389-419.
- [3] J. Bohosiewicz, "Diagnostyka i terapia wad płodu – aktualny stan wiedzy i praktyki", *Annales Academiae Medicae Silesiensis*, 2013, p. 67.
- [4] R. Podemski, S. Budrewicz, „Kompedium neurologii”, ed. R. Podemski, Gdańsk, 2008.
- [5] Z. Kułakowska, "Wczesne uszkodzenie dojrzewającego mózgu od neurofizjologii do rehabilitacji", *Folium*, Lublin, 2003, p. 97.
- [6] H. Spionek, „Psychologiczna analiza trudności i niepowodzeń szkolnych”, Warszawa, 1970, p. 143.
- [7] V.F. Mass, „Uczenie się przez zmysły”, Warszawa, 1998, p. 174.

- [8] S. Cermak, "Developmental Age Trends in Crossing the Body Midline in Normal Children", *American Journal of Occupational Therapy*, 1984, vol. 34, no 5, pp. 313-319.
- [9] J. Ayres, S. Cermak, "Crossing the Body Midline in Learning-Disabled and Normal Children", *The American Journal of Occupational Therapy*, 1984, vol. 38, no 1, p. 34.
- [10] Complete Conditioning for Swimming, 2008, p. 132.
- [11] M. Loska, "Wychowanie i kształcenie dzieci z uszkodzonym narządem ruchu.", in: M. Loska, D. Myślińska, (ed.) "Uczeń z niepełnosprawnością ruchową w szkole ogólnodostępnej. Poradnik dla nauczycieli szkół ogólnodostępnych." MEN i S, Warszawa, 2005, p. 56.
- [12] Z. Florczak – Nowak, „Warsztaty terapii zajęciowej jako forma rehabilitacji osób niepełnosprawnych”, in „Praca i rehabilitacja niepełnosprawnych”, 2009, pp. 12, 4-12.
- [13] A. Godlewska, „Czym jest terapia zajęciowa? Niepełnosprawność i rehabilitacja”, 2010, pp. 2, 34.
- [14] A. Ptak, E. Demczuk – Włodarczyk, D. Wójtowicz, „Charakterystyka rozwoju funkcji społecznych dziecka z przepukliną oponowo – rdzeniową pod wpływem indywidualnie dobranego programu terapii”, *Fizjoterapia*, 2011, pp. 19, 1, 26

# Social competence, emotional intelligence in adolescents within a stress-resilience model

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**Abstract** — To examine the influences from life stress and the hypothesized protective variables of social competence, emotional intelligence on quality of life in adolescents within a stress-resilience model. Variables were assessed with questionnaires completed by 185 adolescents (aged 11–15 years). Data was collected with The Child and Youth Resilience Measure, Trait EI Questionnaire and Tromsø Social Intelligence Scale. The results confirmed the significant relationship of emotional intelligence with social intelligence of adolescents and gender differences of emotional and social intelligence in sample of students. The observed preferences of looking for understanding and emotional support by adolescent girls indicate the influence of gender on the selection of a certain type of resilience resources. Meaning and contribution of this study is seen in the identification of running and successful strategies and resources of resilience can show the ways to improve the quality of life and the feeling of personal contentment in situations that are strenuous for a man.

**Keywords**— social competence, emotional intelligence, resilience, early adolescence

## I. THEORETICAL BACKGROUND

To examine the influences from life stress and the hypothesized protective variables of social competence, emotional intelligence on quality of life in adolescents within a stress-resilience model. Only in the last few years has research started to examine constructs of intelligence in relation to children's development. Research outcomes regarding the relation of different forms of intelligence and children are even more rare. Social and emotional intelligences are multidimensional constructs and they overlap with each other. This overlap is evident from the definition of both constructs, despite the fact that, there are not enough research studies that would be directly comparing those phenomena.

Social and emotional intelligences are multidimensional constructs and they overlap with each other. This overlap is evident from the definition of both constructs, despite the fact that, there are not enough research studies that would be directly comparing those phenomena in developmental stage of early adolescence.

On the other hand Austin and Saklofske explain the potential difference between them. Their view is that EI is composed by intra and interpersonal factors, while SI is created only by interpersonal.

Models of emotional intelligence create a core, which is formed by the intrapersonal (e.g. regulation of mood) and the

interpersonal (perception of emotions) components. Research devoted to emotional intelligence (EI) presents more models of emotional intelligence (EI) and their measurement methods derived from these models. The various perspectives of EI differ regarding the non/separation of the cognitive abilities constructs from personality traits. According to this, some authors define EI as an ability (includes cognitive processing of emotional information's), which is measured by performance tests [1].

## II. GOAL OF THE PRESENTED STUDY

Concentrating on the constructs resilience (protective factors), emotional and social intelligence. Reveal the relationships between the measurement methods of EI (trait perspective) and SI, specifically in the sample of adolescents. Assume some positive similarities and associations of our examined, contextually closed constructs and differences according to gender of our participants as well.

## III. METHOD

### A. Participants

The sample included 185 participants (aged 11-15 years), attending 5th and 9th grades of primary schools (73 boys, 112 girls, AM=12.06).

Samples of respondents were non-randomly selected for this study. The inclusion of the students was influenced by the will of schools and attendees themselves (their agreement expressed in consent forms) to participate.

### B. Measures

The aim of this study was assessed through a global measure of trait EI and social intelligence.

- *Trait Emotional intelligence* was measured using the short form of original Trait Emotional Intelligence questionnaire (TEIQue-ASF) [4]. It is a simplified version, in terms of wording and syntactic complexity, of the adult short form of the TEIQue. The scale includes 30 short statements responded to on a seven-point Likert scale (e.g. 'I often find it hard to understand other people'). Although TEIQue-ASF offers 4 factors (well-being, social control, emotionality, and sociability) and global score for trait EI, authors recommend to use the global trait EI score rather than 4 factor structure, which is reliable and effective only in original version of TEIQue. Higher

scores on the TEIQ-ASF indicated higher levels of trait EI. TEIQ-ASF usually shows good psychometric properties. Cronbach alpha is between .70 and .80. [4]. In this study the internal consistency of global score was .72 in adolescents sample.

- *Social Intelligence* was assessed with The Tromsø Social Intelligence Scale [5]. It is 21 items self report measure method, including 3 subscales (social information processing, SP, social skills, SS, social awareness, SA) on 7point likert scale for answers ranging between 1 and 7(1-it is not characteristic for me to 7-it is very well characteristic for me). Authors state the values of Cronbach Alfa of global score TSIS .78 and for individual subscales: SP = .79; SS = .85; SA = .72 [5]. The  $\alpha$  for global score was .77 in the current sample of adolescents, consistency in subscales (SP= .67, SS=. 55, SA=. 58).
- CYRM, *The Child and Youth Resilience Measure* [6], 58-item self-report instrument covering four dimensions of children’s lives (Individual, Relational, Community and Culture factors).

**C. Statistical analyses**

Statistical analyses of descriptive and explorative processes, nonparametric test (Mann Whitney U test), Spearman correlation in sample of adolescents were processed in statistical programme SPSS 17.0 in respect to gender of participants.

The reason of using nonparametric methods in sample of respondents was resulting from Kolmogor’s Smirnov’s and Shapiro –Wilks’s tests of normality, which didn’t show normal distribution of the values in the mentioned sample.

**IV. RESULTS**

In the group respondents scored higher in relationship factors and education factors (see Graph 1).

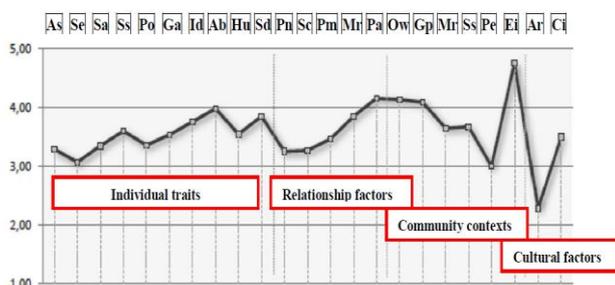


Figure 1. Overview of the values of factors resilience

Individual traits: As/Assertiveness, Se/Self-efficacy, Sa/Self-awareness, Ss/Social support, Po/Positive outlook, Ga/Goals, aspirations, Id/Independence, dependence, Ab/Abstinence, Hu/Humor, Sd/Sense of duty;

Relationship factors: Pn/Parenting, child's needs, Sc/Social competence, Pm/Presence of positive mentors, Mr/Meaningful relationships, Pa/Peer group acceptance;

Community contexts: Ow/Opportunities for age-appropriate work, Gp/Government provision, Mr/Meaningful rights, Ss/Safety and security, Pe/Perceived social equity, Ei/education, information; Cultural factors: Ar/Affiliation with a religious organization;

Ci/Cultural and/or spiritual identification

Girls show higher emotional intelligence in comparison with boys, with the exception of the feeling satisfaction, which includes a scale of feelings of happiness and optimism (see Table 1). With girls we saw a low social-perception score, too; this may also be interpreted as their belief to have limited social skills, accompanied with their feelings of anxiety caused by an unknown environment.

In spite of low values of these factors, the girls showed a high self-control score, which reveals their ability to regulate emotions that are growing in stress episodes. As for boys and their emotional intelligence, they achieved a high satisfaction score, reflecting their overall positive feeling.

On the contrary, they achieved low sociability levels confirming their insecurity in social situation. In the scales of emotional intelligence, boys demonstrate a control over their feelings; they also show their positive self-esteem and satisfaction in several aspects of life.

TABLE I. AM OF SI AND EI, NONPARAMETRIC INDELENDENT SAMPLES U TEST

	SIP	SSk	SAW	TEIQ-ASF	TSIS
Soc. Inf. Proc.	1.000	0.190	0.185	0.136	<b>0.606**</b>
Social Skills	0.190	1.000	<b>0.626*</b>	0.265	<b>0.788**</b>
Soc. Awareness	0.185	<b>0.626**</b>	1.000	<b>0.285*</b>	<b>0.819**</b>
TEIQ-ASF	0.136	0.265	<b>0.285*</b>	1.000	<b>0.414**</b>
TSIS	<b>0.606**</b>	<b>0.788**</b>	<b>0.819*</b>	<b>0.414*</b>	1.000

correlations are significant at\*\*p <.01, \*p<.05, TSIS- social intelligence scale, TEIQ-ASF-trait emotional intelligence questionnaire

Intercorrelation between emotional and social intelligence are highlighted in Table II.

TABLE II. SPERMAN'S INTERCORRELATIONS OF EI AND SI

	Boys Mean	Girls Mean	Boys SD	Girls SD	U test Z	p-value
Soc. Inf. Proc.	4.480	4.322	1.064	1.008	-.732	.463
Social Skills	4.155	4.237	1.007	1.016	.067	.945
Soc. Awareness	4.057	3.970	0.979	1.012	-.144	.885
TEIQ-ASF	4.364	4.292	0.676	0.651	-.723	.469
TSIS	4.200	4.183	0.779	0.802	0.190	0.849

correlations are significant at\*\*p <.01, \*p <.05. **TSIS**- social intelligence scale, **TEIQ-ASF**-trait emotional intelligence questionnaire

#### DISCUSSION AND CONCLUSION

Gender differences in total items of EI and SI as well as their specific relations and differences in both samples of respondents were proved. The overlapping of some subscales of social intelligence with interpersonal factors of emotional intelligence and with trait EI as whole was partly confirmed in group of participants. It is necessary to note: subdivision of trait EI (TEIQue method) into 4 factors is effective to offer relevant outcomes only in long version of the test.

That's why the results are needed to be viewed with some limitations. For the complex study, it would be more suitable to use longer version of TEIQue or different measurement tool for trait EI. The concepts of emotional and social intelligence are aimed at forming of the interpersonal relationships, and the ways how inadequate relations and negative emotions attack on our psychological health.

Despite the conspicuousness of gender differences during adolescence [3], score of SI and EI of respondents didn't differentiate between the gender and few statistically

significant gender differences of both constructs were present in sample. The average values of social intelligence and TEIQ in adolescents are not markedly different to those found in other studies [2].

Consequences of lacking the basic emotional and social skills can expose a person at several risks and negatively influence the development of complex coping strategies. Meaning and contribution of this study is seen in the identification of running and successful strategies and resources of resilience can show the ways to improve the quality of life in situations that are stress.

#### ACKNOWLEDGMENT

This study was supported in part by grant from the Comenius University in Bratislava, Department of Psychology and Pathopsychology (KEGA, 067UK-4/2014).

#### REFERENCES

- [1] J. D. Mayer, D.R. Caruso, P. Salovey, Selecting a measure of emotional intelligence. In: Bar-On, R., Parker, J.D.A. (Eds.), *The Handbook of Emotional Intelligence*. San Francisco: Jossey-Bass, A Wiley Imprint, 2000, pp. 320-342.
- [2] S. Mavroveli, K. V. Petrides, C. Rieffe, F. Bakker, Trait emotional intelligence, psychological well-being and peer-rated social competence in adolescence. *British Journal of Developmental Psychology*, 25, 2007, pp. 263-275.
- [3] T. E. Moffitt, A. Caspi, M. Rutter, P.A. Silva, *Sex differences in antisocial behaviour: Conduct disorder, delinquency, and violence in the Dunedin Longitudinal Study* Cambridge Cambridge University Press, 2001.
- [4] K. V. Petrides, J. C. A. Furnham, Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal of Personality*, 15, 2001, pp. 425-448.
- [5] D. H. Silvera, M. Martinussen, T. I. Dahl, The Tromsø Social Intelligence Scale, a self-report measure of social intelligence. *Scandinavian Journal of Psychology*, 42, 2001, pp. 313-331.
- [6] M. Ungar, An International Collaboration to Study Resilience in Adolescents Across Cultures. *Journal of Social Work, Research and Evaluation*, 6, 1, 2005, pp. 5-24.

# A particular order

## *A non transitive but asymmetric binary relation*

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**Abstract**—The paper presents a binary relation that satisfies asymmetry but not transitivity and can be used to derive a partial order on a given set of alternatives according to a given set of criteria that, as a basic hypothesis, are not comparable among themselves. The proposed relation has been nicknamed *particular order* and is presented with the aid of two toy examples together with a somewhat detailed description of its properties.

**Keywords**- *partial order, decision making, multicriteria, multideciders, non-transitive asymmetric binary relations*

### I. INTRODUCTION

In this paper we present a binary relation that can be used as a decision making or rather decision aiding tool for the selection of an alternative from a set of  $a$  alternatives  $A$  according to the  $c$  criteria of a set  $C$ . Both sets must be seen as exogenous sets with respect to the selection process so that we are in the so called *static setting* as opposed to the *dynamic setting* where such sets may vary during the selection process itself. The proposed tool aims at producing a directed graph of all the alternatives in which it is possible to identify the *worst alternatives*, that are discarded, and the *best alternatives* among which it is possible to perform the final selection. The binary relation introduces a partial order on the alternatives that is represented through a directed graph and that has been nicknamed *particular order* since it purposely fails transitivity while it satisfies asymmetry ([1], [2], [5] and [6]).

### II. THE BACKGROUND

#### A. A preliminary remark

The literature abounds of binary relations (see for instance [5], [6] and [15]). So why devising another one? This need arose during the draft of my PhD thesis ([7]) when I faced the problem of a set of decision makers (or deciders) that have to rank a common set of alternatives according to a possibly but not necessarily common set of criteria so that I had to devise a multideciders multicriteria method since the methods I was able to find in the literature that I analyzed proved to be unsatisfactory for my purposes. For these reasons I decided to devise a new method. The method that I devised essentially works as follows: every decider defines his own *individual partial order* of the alternatives then these partial orders are merged in a single *final partial order* that is used by the deciders themselves as a decision aiding tool for the final selection of one of the alternatives. Each individual partial order is the end product of the application of the particular order on the set  $A$  through the use of the elements of the set  $C$ .

#### B. A note on the deciders

The deciders ([2], [3], [4] and [12]) form a set  $D$  of  $d=|D|$  peers that face the task of ranking the alternatives of the set  $A$  as a collective effort in order to arrive at the identification of the best alternatives that form a subset  $A_b \subset A$  from which they, as a political decision, have to choose the preferred alternative. The final decision is termed to be political since the alternatives of the set  $A_b$  must be seen as equivalent, at least according to the criteria of the set  $C$ , so that the final selection can be performed, for instance, with the use of the Borda method or any other voting method ([8], [9] and [14]) but in cases where we have  $|A_b|=1$ .

#### C. A note on the criteria and on the alternatives

The *criteria* of the set  $C$  ([1]) are assumed to be independent and to produce  $c$  total orderings that are not comparable among themselves. On the other hand the set of the *alternatives*  $A$  is assumed to have been pruned of the *dominated alternatives* or of the alternatives that are indistinguishable from at least another alternative for a certain number of criteria and are worse than the same alternatives for the remaining criteria. This pruning can be performed independently by the authority that defines the sets  $A$  and  $C$  for the deciders and independently from the deciders before each of them evaluates his partial order.

#### D. A note on the orders

Both the individual orders and the final order are partial since, given any two alternatives  $a_i$  and  $a_j \in A$ , it may be impossible to state, over the whole set of the criteria, either a strict preference condition of  $a_i$  over  $a_j$  or the opposite strict preference condition or an indifference condition between the two alternatives. We note how, on the other hand, each criterion  $c_k \in C$  produces by itself a total transitive ordering (with possible ties) of the alternatives of the set  $A$  (see, for some instances, the linear graphs of Fig. 1).

#### E. A note on the method

The proposed binary relation represents the main tool that the deciders can use within a multideciders multicriteria method ([2] and [4]). This method takes  $d$  ordered graphs, one for each decider (and so one for each individual order), and produces a single directed multigraph that corresponds to the final partial order. Each of the  $d$  ordered graph is obtained, as the outcome of an individual effort of every decider, through the composition of  $c$  linear graphs. Both the composing ordered graphs and the composite multigraph fail transitivity from the

very way they are defined, as it will be shown shortly, whereas the linear graphs satisfy transitivity.

### III. THE PARTICULAR ORDER BINARY RELATION

The key element is, therefore, represented by a binary relation that satisfies asymmetry but fails transitivity and that we nicknamed as a *particular order* ([1], [2] and [5]).

The main features of this binary relation derive from the way we defined it starting from a relation of strict preference that satisfies transitivity and asymmetry ([6]) and from a relation of indifference that satisfies reflexivity, symmetry and transitivity ([6] and [15]) and so is an equivalence relation.

#### F. The primitive relations

For each criterion  $c_i \in C$  we may define a strict preference relation  $>_i$  and an indifference relation  $\sim_i$  between pairs of alternatives  $a_i, a_j \in A$ . Such relations are the primitive relations on which we ground the particular order.

Such relations are endowed with the classical properties that we have already listed ([6] and [15]).

In this way if  $A=\{a_1, a_2, a_3\}$  and  $C=\{c_1, c_2\}$  we can obtain the following total orderings (with possible ties) for the two criteria and for a single decider:

$$a_1 >_1 a_2 >_1 a_3$$

$$a_2 >_2 a_1 \sim_2 a_3$$

From (1) we derive  $a_1 >_1 a_3$  and similarly from (2) we derive  $a_2 >_2 a_3$ . It is easily seen how such relations generalize to more than three alternatives and to more than two criteria as well as to more than one decider, each defining his own orderings. It is easily seen how we can put in correspondence to each of such orderings a linear graph (as it is shown, for another case, in Fig. 1).

#### G. The particular order

On the basis of the two primitive relations we can define our binary relation to be represented simply as  $\succ$  and that allows us to define the *particular order* among the alternatives. In order to make such definition we have to define two numerical quantities denoted, for simplicity, as  $x$  and  $y$  for each pair of alternatives  $a_i, a_j \in A$ .

For a given pair of alternatives  $a_i, a_j \in A$  we can use  $x$  to denote the number of criteria such that  $a_i \succ_k a_j$  for all the  $c_k \in C$  whereas we can use  $y$  to denote the number of criteria such that  $a_j \succ_k a_i$  for all the  $c_k \in C$ .

At this point we have the following three mutually exclusive cases:

$$(o_1) \quad x > y \text{ so we can state that } a_i \succ a_j$$

$$(o_2) \quad x < y \text{ so we can state that } a_j \succ a_i$$

$$(o_3) \quad x = y \text{ so we cannot state any relation between } a_i \text{ and } a_j.$$

If  $z$  denotes the number of criteria such that  $a_j \sim_k a_i$  we have, for each pair of alternatives, the following invariant relation:

$$x + y + z = c \quad (3)$$

where  $c$  denotes the cardinality of  $C$ . This invariant relation might allow us to derive some useful consequences (see section VI for some hints). We can represent both  $(o_1)$  and  $(o_2)$  with directed arcs from the preferred alternative to the other one but the possible occurrence of  $(o_3)$  prevents us from drawing any link between the two alternatives and this qualifies the ordering as partial. In order to verify its being particular we need to verify that it satisfies asymmetry and fails transitivity. For this verification and some further comments we refer to the next section.

#### H. A verification and some further comments

First of all we have to verify the alleged properties of the  $\succ$  binary relation.

We start with *asymmetry*. Given  $a_i, a_j \in A$  we may know that  $a_i \succ a_j$  so we have that there exist  $x$  and  $y$  such that  $x > y$  from where we derive  $\neg (y > x)$  or  $\neg (a_j \succ a_i)$  and hence the asymmetry.

For what concerns *transitivity* we may reason as follows. Given any three alternatives  $a_i, a_j, a_k \in A$  we may consider the pair  $a_i, a_j$  so to get (for instance)  $x > y$  or  $a_i \succ a_j$  then we may consider the pair  $a_j, a_k$  so to get (for instance)  $x > y$  or  $a_j \succ a_k$ .

At this point we have to consider the remaining pair of alternatives and so  $a_i$  and  $a_k$ . In order to have transitivity we should have  $x > y$  and so  $a_i \succ a_k$  but, instead, we may get either  $x = y$  or  $x < y$  and so either we cannot state any preference relation between the alternatives  $a_i$  and  $a_k$  or we get  $a_k \succ a_i$ . In this latter case we have the cycle  $a_i \succ a_j \succ a_k \succ a_i$ . The treatment of cases like this it outside of the scope of the present paper. For an analysis and some tentative solutions of cases like these we refer to [4].

In both cases we have a failure of transitivity. It is easily seen how similar considerations hold also in all the other possible cases some of which are illustrated in the examples that we present in section IV.

The loss of transitivity is a consequence of the pairwise comparisons among the alternatives according to independent criteria ([6], [8] and [9]).

Once the particular order has been defined and its main properties verified some further comments are in order.

- The binary relation  $\succ$  has been defined under the assumption that the criteria of the set  $C$  have the same weight or importance. If this is not true it is easy to modify the evaluation of the numerical indexes such as  $x$  in order to account for such differences in weight. The basic procedure assumes as equal to 1 the weights with the lowest value and scales accordingly all the others so to use these new weights as multiplying factors in the evaluation of the foregoing numerical indexes  $x$  and  $y$ .
- Situations such as  $(o_1)$  and  $(o_2)$  allow us to identify the preferred alternative from each pair whereas situations like  $(o_3)$  introduce particular conditions of incomparability since the number of criteria that favor

an alternative against another is equal to the number of those that give the opposite ranking.

- Since the set  $C$  has a fixed cardinality we are sure of the occurrence of one of the foregoing situations for any pair of alternatives of the set  $A$ .

#### IV. TWO TOY EXAMPLES

At this point, in order to make things more clear, we present two toy examples from [4] and [7] in order to show both the particular order and the multideciders multicriteria method at work.

These examples can be used both to verify what we have stated about the properties of our binary relation and to see how the method is robust also in presence of some differences among the deciders.

##### 1. The first example

In the first example we assume that a first decider considers four criteria and four alternatives so that he has  $A=\{a_1, a_2, a_3, a_4\}$  and  $C=\{c_1, c_2, c_3, c_4\}$ . According to this decider the four criteria define over the four alternatives the following total orderings with possible ties:

- ( $t_0_1$ )  $a_1 \sim_1 a_2 >_1 a_3 >_1 a_4$
- ( $t_0_2$ )  $a_2 \sim_2 a_3 >_2 a_4 >_2 a_1$
- ( $t_0_3$ )  $a_3 \sim_3 a_4 >_3 a_1 >_3 a_2$
- ( $t_0_4$ )  $a_1 >_4 a_3 >_4 a_2 >_4 a_4$

These total orderings are represented as linear graphs in Fig. 1 (in the order from left to right and from top to bottom) where the alternatives are represented only with their index, an undirected arc represents an indifference relation and a directed arc represents a strict preference relation.

At this point the decider can perform the six pairwise comparisons among the four alternatives by using all the four criteria. If, for instance, he considers the pair  $(a_1, a_2)$  he gets  $x > y$  or  $a_1 > a_2$  and so a directed arc from  $a_1$  to  $a_2$ . If now he considers the pair  $(a_2, a_3)$  he gets  $x < y$  or  $a_3 > a_2$  and so a directed arc from  $a_3$  to  $a_2$ . If, however, he considers the pair  $(a_1, a_3)$  he finds  $x = y$  so he cannot define any ordering and so any arc between such alternatives. In this case we have a failure of the transitivity since its being satisfied would have required, for instance,  $a_1 > a_3$ .

If, moreover, he considers the pair  $(a_1, a_4)$  he finds  $x = y$  so he cannot define any ordering and so any arc between such alternatives. Again we have a failure of transitivity since, on the other hand, we have both  $a_1 > a_2$  and  $a_2 > a_4$ .

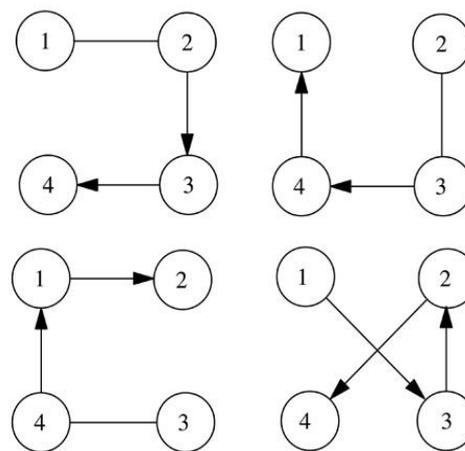


Figure 1. Four linear graphs for four total orderings, first example

By performing all the six pairwise comparisons the decider can perform similar considerations so to derive the directed graph of Fig. 2.

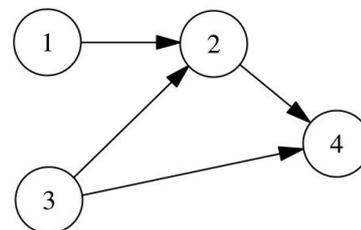


Figure 2. The resulting graph in the first example

From Fig. 2 it is easily understood how the ordering is partial since the alternatives  $a_1$  and  $a_3$  are incomparable (see section V) whereas the presence of a directed path together with the lack of a directed arc between the alternatives  $a_1$  and  $a_4$  denotes a further incomparability condition (see section V) together with the failure of transitivity.

From Fig. 2, moreover, it is easily seen how this decider considers  $a_4$  as the worst alternative and the alternatives  $a_1$  and  $a_3$  as the best alternatives however with a small prevalence of  $a_3$  owing to its being preferred to two other alternatives rather than to only one. Using a sort of *backward induction* ([10] and [11]) termed *backward pruning* it is possible to remove the worst alternative  $a_4$  and so the corresponding node labeled as 4 (since it has no outgoing arcs) and its incoming arcs from the graph of Fig. 2. After this removal the alternative  $a_2$  becomes, on its turn, the worst alternative and can be discarded together with the corresponding node with its incoming arcs. In this way we obtain two isolated nodes (see section VI) among which the final selection must be performed. We underline, indeed, that backward pruning has no effect on node without incoming arcs. The dual method of *forward pruning* is based *forward induction* ([10] and [11]) and removes nodes without incoming arcs together with their outgoing arcs until it finds isolated nodes when it stops. In the case of Fig. 2 we have the successive removals of the the nodes 1, 3 and 2 so that we remain with node 4 that represents the worst alternative, in this simple case.

J. The second example

In the second example we assume that another decider considers only the first three criteria but the same four alternatives so that he has  $A=\{a_1, a_2, a_3, a_4\}$  and  $C=\{c_1, c_2, c_3\}$ . According to this decider the three criteria define over the four alternatives the following three total orderings with possible ties:

$$(t_0_1) a_1 >_1 a_2 >_1 a_3 \sim_1 a_4$$

$$(t_0_2) a_2 \sim_2 a_3 >_2 a_4 >_2 a_1$$

$$(t_0_3) a_3 >_3 a_4 \sim_3 a_1 >_3 a_2$$

These three total orderings are represented as linear graphs in Fig. 3, again from left to right and from top to bottom.

By performing also in this case the six pairwise comparisons between the four alternatives and then evaluating, for each pair, the proper numerical parameters  $x$  and  $y$  to be pairwise compared this decider obtains the following strict preference conditions:  $a_1 > a_2, a_3 > a_1, a_2 > a_4$  and  $a_3 > a_4$ .

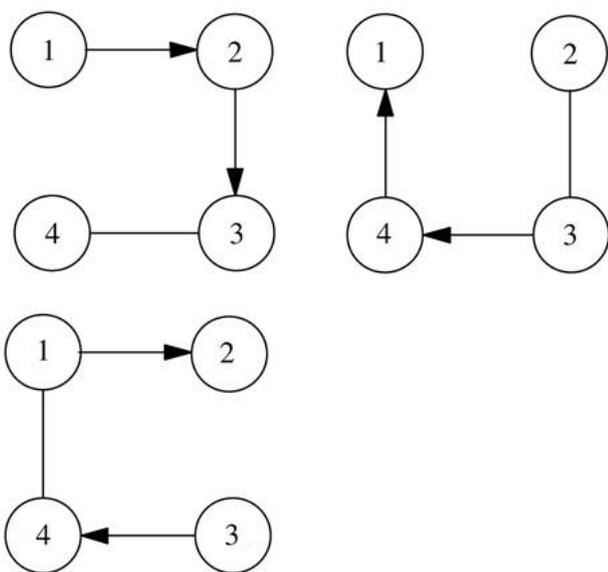


Figure 3. Three total orderings, second example

Such relations reflect the fact that:

- for alternatives  $a_1$  and  $a_2$  we have  $x > y$  and so  $a_1 > a_2$
- for alternatives  $a_1$  and  $a_3$  we have  $x < y$  and so  $a_3 > a_1$
- for alternatives  $a_2$  and  $a_4$  we have  $x > y$  and so  $a_2 > a_4$
- for alternatives  $a_3$  and  $a_4$  we have  $x > y$  and so  $a_3 > a_4$

On the other hand the alternatives  $(a_2, a_3)$  and  $(a_1, a_4)$  are incomparable for him, according to the rules that we have given for the definition of the  $>$  binary relation. The situation, after the merging of the three total orders in a single partial order from this decider, is represented in Fig. 4.

According to the opinion of this second decider, therefore, alternative  $a_4$  is the worst alternative whereas the best alternative, notwithstanding the presence of an incomparability

condition on the pair  $(a_2, a_3)$ , seems to be alternative  $a_3$ . In this case the use of *backward pruning* would leave the decider only with the node 3 and, correspondingly, with the best alternative  $a_3$  whereas the use of *forward pruning* would leave him with node 4 and so with the worst alternative  $a_4$ . We recall how the best alternatives correspond to nodes with no incoming arcs but with outgoing arcs whereas the worst alternatives correspond to nodes with no outgoing arcs but with incoming arcs.

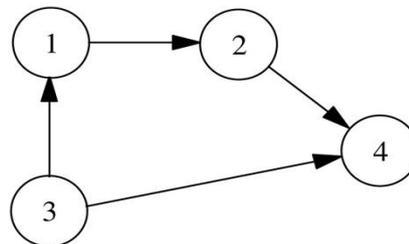


Figure 4. The resulting graph in the second example

K. Comments on the properties of the particular order

We use the two foregoing examples to comment a little on the properties of the binary relation  $>$ .

From Fig. 2 we derive a failure of the transitivity on the three alternatives  $(a_1, a_2, a_4)$  whereas this property is satisfied by the three alternatives  $(a_2, a_3, a_4)$  as it is shown by the presence of the directed arcs between the three pairs of alternatives. In the former case we have  $a_1 > a_2$  and  $a_2 > a_4$  but our criteria prevent us from stating a preference relation between  $a_1$  and  $a_4$ . Since  $>$  is not transitive we could even have  $a_4 > a_1$ .

From Fig. 4 we derive a failure of the transitivity on the three alternatives  $(a_1, a_2, a_3)$  and  $(a_1, a_2, a_4)$  as it is shown by the absence of the third arc between a pair of distinct alternatives of each group. This absence prevents us from stating, on the ground of the current set  $C$ , a preference relation between the alternatives that are at the ends of each chain of two preferences.

In both figures the property of asymmetry prevents the forming of local cycles that involve two nodes and, together with the failure of transitivity, may prevent the formation of simple cycles involving more than two nodes although this is not true in general how it is discussed in detail in [4].

L. Merging the two cases or the multideciders step

Up to this point we have assumed that the two deciders act in isolation, each one of them producing his own partial order graph and using it as a decision aiding tool for the selection of the best alternative from the set  $A$  according to (possibly some of) the criteria of the set  $C$  ([2], [3] and [4]). The fact that each decider can use a personal set of criteria, though with some constraints, is a proof of the robustness of the proposed tools, as it is discussed more thoroughly in [4].

We can imagine, however, that the two deciders are cooperating in a collective decision effort so that they can merge their individual oriented graphs of Figs. 2 and 4 in order to obtain the multigraph ([15]) of Fig. 5 where between two

nodes we can have more than one directed arc, as it is denoted by the multiplicity index for each arc.

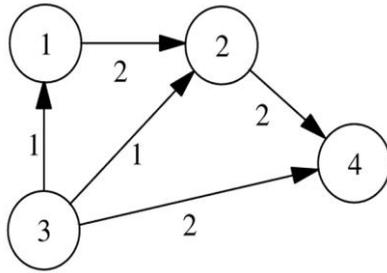


Figure 5. The resulting multigraph

The merging is easily performed by considering the nodes and by drawing between each pair of nodes an arc that has the same orientation of the arcs that are present between the same nodes on each of the composing graphs. On each arc of the multigraph we put a label (the multiplicity index) that identifies the number of arcs with that orientation between that pair of nodes. If, for instance, we consider the nodes 1 and 2 we have a directed arc from 1 to 2 in Fig. 2 and another arc with the same orientation in Fig. 4 so we get the result of Fig. 5. Similar considerations hold in all the other cases.

We note that if between a pair of nodes we have two arcs with opposite orientations we neither cancel them out nor collapse them in an undirected arc.

The treatment of this case (as well as that of other critical issues such as the presence and the treatment of cycles) is outside the scope of the present paper where we give only the basic ideas of this multideciders multicriteria method with the aim of providing the general picture in which to frame the particular order. The justification we can provide at this level is that the criteria (and the corresponding orderings) are seen as incommensurable so that they cannot give rise to cancellations (or compensations) between conflicting criteria or criteria that rank two alternatives in opposite ways. For a deeper treatment of these issues we refer to [4].

Also in this resulting multigraph we have a situation of incomparability on the pair  $(a_1, a_4)$  but this situation does not prevent the deciders from saying that the best alternative (as it is enforced by an application of *backward pruning*) is the alternative  $a_3$  (that corresponds to a node without incoming arcs) whereas (as it is enforced by an application of *forward pruning*) alternative  $a_4$  (that corresponds to a node without outgoing arcs) is the worst one.

From this perspective, the multigraph is therefore the end product of this multideciders multicriteria procedure and must be seen as a decision aiding tool according to the general approach of the multicriteria methods ([2], [3], [4], [13] and [15]).

#### M. Some final comments on the examples

From the two foregoing toy examples it should be evident how the lack of transitivity as a general property of the binary relation  $\succ$  derives from the fact that the single total orderings are produced by using independent criteria, from the fact that the

alternatives are compared pairwise for each criterion and from the definition of the  $\succ$  binary relation that forces us to produce partial orders ([1], [5] and [6]).

Notwithstanding their simplicity such examples show how our binary relation can be used with any set of alternatives  $A$  and criteria  $C$  by a set of deciders (some of which can even use a subset of the set  $C$  of the criteria) with the aim of identifying at least the set  $A_b$  of the best alternatives.

We note how the final selection from the set  $A_b$  (if it contains more than one alternative) both in the single decider and in the multideciders case represents, in many cases, a policy choice that must be performed by using methods distinct from those based on the criteria of the set  $C$  but, in any case, starting from a sound set of potentially best alternatives ([8], [9], [13] and [14]).

#### V. DECIDABILITY AND INCOMPARABILITY

From the resulting graphs of our toy examples we derive the possible existence of both *decidable* and *incomparable* pairs of alternatives.

We say that two alternatives are decidable if there is a directed arc between them and so if we can state a preference between such alternatives. If all the pairs of alternatives are decidable then, in absence of cycles, we have a single best alternative and a single worst alternative either for the single decider or for the whole set of the deciders. The presence of cycles represents a reason of failure of the Condorcet voting method ([5], [8], [9], [13] and [14]) and represents also a weakness of the proposed method though in [4] we discuss some possible solutions.

If we have no arc between two alternatives we say that such alternatives are *incomparable*. The presence of incomparable alternatives may widen the sets of the best and the worst alternatives.

With reference to our toy examples we have that:

- in the first example the pairs of alternatives  $(a_1, a_3)$  and  $(a_1, a_4)$  are incomparable whereas all the other pairs are decidable;
- in the second example the pairs of alternatives  $(a_1, a_4)$  and  $(a_2, a_3)$  are incomparable whereas all the other pairs are decidable;
- in the multigraph of Fig. 5 the pairs of incomparable alternatives are those that are common to all the composing graphs (and so only the pair  $(a_1, a_4)$ ) whereas all the other pairs are decidable.

The presence of incomparable alternatives is a sufficient condition for making the ordering a partial order and is also the main reason for the failure of the transitivity. Moreover the incomparable alternatives are the best candidates for being either the best or the worst alternatives of our decision problem.

#### VI. HOW TO DEAL WITH CYCLES AND ISOLATED NODES

Both the composing oriented graphs and the resulting multigraph can contain cycles as an undesired byproduct of the

pairwise comparisons among the alternatives. Such cycles represent a problem for our method and a possible source of failure so that the deciders must face and possibly solve it through the use of a modified Condorcet method that aims at the definition of a reduced graph or multigraph without cycles. The procedure that we devised is described in [4].

In some other cases there may be an alternative  $a_h \in A$  that is strictly preferred neither to nor by any other alternative  $a_j \in A$  so that in a resulting graph it would be represented as an *isolated node* or a node for which we have  $x = y$  for any other alternative with which we may perform the comparison.

We have two possible cases.

In the former case we have  $x = y = 0$  (and so  $z = c$ ) so that the possible relations between  $a_h$  and all the other alternatives  $a_j$  are indifference relations  $\sim_i$  that satisfy transitivity. In this case  $a_h$  can be inserted in the set of the best alternatives of the resulting graph that coincides with the set  $A$ .

We can verify this by considering that if we have  $a_h \sim_i a_k$  and  $a_h \sim_i a_l$  for all the criteria  $c_i \in C$  and for any  $k \neq h$  and  $l \neq h$  we have, from the transitivity of  $\sim_i$ ,  $a_l \sim_i a_k$  and hence the stated coincidence ([6] and [15]).

In the latter case we have  $x = y \neq 0$  so that the alternative  $a_h$  does not belong either to the set of the worst alternatives or to the set of the best alternatives (since it has both incoming and outgoing directed arcs in each of the single total orderings) so it can be discarded without any problem.

The presence of the isolated nodes in a resulting graph may represent a problem since it may determine, for a single decider, either a situation of full equivalence among the alternatives (so that the method proves useless) or a situation where he is not able to decide about the quality of an alternative in relation with that of the other alternatives.

A possible solution is to enrich the set  $C$  of the criteria so to obtain a finer classification of the alternatives or to assign to each criterion a different weight or importance or to recur to both solutions at the same time.

Although isolated nodes hardly ever remain as such in the resulting multigraph it is better to avoid their presence and so to arrive at situations where each decider is able to fully assess all the alternatives at his disposal.

If the resulting multigraph contains isolated nodes it is possible to make similar considerations to those that we have already done and that led us to state that, again, the only solution is an enrichment (both qualitative and quantitative) of the set  $C$  in order to avoid the presence of isolated nodes.

## VII. CONCLUSIONS

In this paper we have presented a binary relation  $\succ$  that defines a *particular order* or a partial order that satisfies

asymmetry and fails transitivity. The main aim of this relation is to be used as a decision aiding tool for the ranking and selection of the members of a set  $A$  of alternatives according to a set  $C$  of criteria.

The relation must be seen as part of a method that can be used both by a single decider and by a plurality of deciders within either an individual or a collective decision process.

Future plans include the use of the foregoing tools in more complex real-world cases and a verification that the alleged properties of the binary relation  $\succ$  are enough to provide the deciders with a useful and flexible decision aiding tool.

## ACKNOWLEDGMENT

The author wishes to thank Professor Giorgio Gallo of the Computer Science Department of the University of Pisa, his tutor for both the Master Degree thesis and the PhD thesis, for his precious help and his many advices.

## REFERENCES

- [1] L. Cioni, Particular order, Technical Report TR-12-02, Computer Science Department, University of Pisa, Pisa, Italy, 2012.
- [2] L. Cioni, Merawti: a method for the ranking of the alternatives with ties, Technical Report TR-12-03, Computer Science Department, University of Pisa, Pisa, Italy, 2012.
- [3] L. Cioni, "Ranking and selecting competing alternatives. An iterative procedure", Proceedings of "The 2nd Global Virtual Conference" GV-CONF, April 7 - 11 2014, pages 547 – 551.
- [4] L. Cioni, "Multicriteria for multideciders", Homo Oeconomicus, in press.
- [5] D. Bouyssou, T. Marchant, M. Pirlot, P. Perny, A. Tsoukias, and P. Vincke, Evaluation and decision models, a critical perspective, Boston, Mass.: Kluwer's International Series, 2000.
- [6] F. S. Roberts, Measurement Theory with Applications to Decision-making, Utility, and the Social Sciences. Reading, Mass.: Addison-Wesley, 1979.
- [7] L. Cioni, Methods and Models for Environmental Conflicts Analysis and Resolution, PhD Thesis in "Mathematics for the Economic Decisions", University of Pisa, Pisa, Italy, 2010.
- [8] D. G. Saari, Decisions and Elections, Explaining the Unexpected. Cambridge, Mass.: Cambridge University Press., 2001.
- [9] D. G. Saari, Disposing Dictators, Demystifying Voting Paradoxes. Social Choice Analysis. Cambridge University Press, 2008.
- [10] R. B. Myerson., Game Theory. Analysis of conflict. Cambridge, Mass.: Harvard University Press, 1991.
- [11] M. J. Osborne and A. Rubinstein, A Course in Game Theory. Cambridge, Mass.: MIT Press, 1994.
- [12] A. Rapoport, Decision Theory and Decision Behavior. Normative and Descriptive Approaches. Kluwer Academic Publishers, 1989.
- [13] G. Gallo, Problemi, modelli, decisioni. Decifrare un mondo complesso e conflittuale. Pisa, Italy, Edizioni Plus, 2009.
- [14] J. K. Hodge and R. E. Klima, The Mathematics of Voting and Election: A Hands-On Approach. AMS, Providence, R.I., 2005.
- [15] K. H. Rosen, Discrete Mathematics and Its Applications. WCB Mc Graw Hill, Singapore, 1999.

# Territorial Social Dialogue – Open Perspective of Social Innovation in Regions

## Dialogue at Regional Level as a New Form of Social Dialogue

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**Abstract**—Regional and local politics capable of handling industrial changes need to work in the context of regional and local identities. They are based on support, recognition and empathy for a set of common values within a common vision of the future. Agreement between public and private entities on a common procedure is important to enhance the quality of life and competitive and sustainable economic and social development of regions. Consolidated social dialogue at local and regional levels is essential for maximizing the advantages of foreseeing industrial and market changes as well as of general and professional education of human resources. It can contribute to the interconnection of the anticipation of regional economic development and the anticipation of labour market development and adoption of actual effective solutions.

**Keywords**-Social dialogue, territorial social dialogue, socially responsible territory, regional development, local economy, employment.

### I. INTRODUCTION

Social dialogue is a political concept in which all interested parties agree with respecting their interests in decision-making process. It includes all forms at a two-sided level (bipartite) and three-sided level (tripartite) of a dialogue, negotiation and consultation regarding social issues at the European Union level (European social dialogue) as well as at all levels of society, industry or company and which involves employers (and their organisations) and offices (social dialogue in a particular country). This concept is also used to denote a dialogue including other partners. Non-governmental organisations and other representatives of so called civil society (the third sector) can also participate in negotiations or consultations on a certain issue (civil dialogue). There is no common definition of social dialogue at a national level. Each member state has its own rules, habits and practice of defining social dialogue.

At the international level, social dialogue is defined by the International Labour Organisation as follows: “It includes all types of negotiations, consultations or simply an exchange of information between government officials, employers and employees on the issues representing a common interest in economic and social policy”. At the European level, social dialogue is defined by the provisions of Articles 152, 154 and 155 of the Treaty on the Functioning of the European Union (TFEU). These articles determine a framework and general

principles of the functioning of European social dialogue. This framework was also recorded in the Commission’s communications and decisions.

### II. TERRITORIAL SOCIAL DIALOGUE, RESPECTIVELY DIALOGUE AT REGIONAL LEVEL

New forms of social dialogue, implemented in regions, are being elaborated as a new concept in the EU countries. In their reports on industrial relations, EESC and the European Commission use the term social dialogue at a regional level as a concept, and in France, where it has been implemented since the 1980s, the term territorial (respectively regional) social dialogue is used.

Consolidated social dialogue at local and regional levels is important in order to best use the advantages of foreseeing industrial changes and market changes as well as of general and professional education of human resources. It can be defined as different forms of exchange, consultations and concentration comprehended as a negotiation at the given territory. It includes a field of a very broad intervention in social sphere, employment sphere, economic development and innovation. It is initiated by different actors from the world of labour, civil society, state and local communities. It has been developing in Europe since the end of the 1980s.

Regional social dialogue started to appear in different forms as so called territorial pacts, emphasised by European institutions, which were supporting them at least financially, when occupational and inter-occupational local committees, established by social partners, or various initiatives related to economic and social future of a territory were created in different European countries in the 1990s. In France, there was e.g. Brittany Charter for the quality of employment, Health Observatory at work, established in the region of Languedoc-Roussillon, etc.

General reasons why territorial social dialogue is developing in Europe can be explained by the context of globalisation and market pressure, new forms of production, employment and labour (networks of enterprises, sub-supplies, uncertainty, flexibility) on the one hand, and a common tendency of decentralisation in individual states and transformation of public activities, connecting the benefits of local actors in taking decisions and their implementation in practice, on the other.

The innovative character of regional social dialogue is created by numerous characteristics, which are related to an environment it is built in, to participants encouraging it, to topics it brings, to measures it is based upon, and to own results.

It is possible to define particular arguments for implementing territorial social dialogue. Such key arguments include the following:

- A need to adapt to the development of structuring and intervention in public administration. Territorial framework has a significant impact upon implementing the social policy of a state. Regional level should be evaluated by social partners as rather inclined to discussions at a departmental level.
- A need to reshape social actors against public administration is not their only motivation. Concerns about the efficiency of implementing different policies in spheres like employment, integration, requalification, education and trainings, etc. push a number of those responsible towards an agreement on the fact that the basis of this fact is the closeness of environment. Local level is relevant for the execution of particular projects affecting employment. According to some interested actors, the declination of different national policies, professional training and anti-discrimination events should rather rely on the territorial level in order to achieve a much greater benefit in results.
- Social dialogue at the national level does not include minority representatives, while the territorial dialogue can include several actors and diversify from the viewpoint of origin (unions, employers as well as associations, local voted representatives, etc.). Territorial social dialogue decreases the number of those intervening. Social dialogue is becoming a vector of democracy in bridging the area of relationships between central authorities and citizens.

In addition to this aspect, the participation of different actors leads to differences in representations of different regions, as each of them is different. A direct confrontation at commencing a common project leads to mutual getting to know each other and respecting the opinions of others, or sharing them.

### III. FORMS OF TERRITORIAL SOCIAL DIALOGUE

Territorial social dialogue can be distinguished according to several viewpoints. We present the following classification:

- According to C. Belin, A. Charvet, M.-O. Sasso, D. Brisson [1], according to structure, direct social dialogue, can be distinguished between the organisations of employers and unions, representing either professional negotiations in certain industries or the management of parity institutions (e.g. regarding professional training in France); tripartite clash of opinions with the presence of public administration along with social partners (e.g. regional agencies aiming at improving working conditions in France) and

the presence of the representatives of civil society with social partners and public administration (e.g. committees focused on employment in France).

- According to contractual issues, it concerns different spheres of territorial social dialogue, including economic, social and societal spheres, vocational training, employment, social inclusion, health at work and working conditions, social protection, fairness, local development, etc.
- From the viewpoint of executed activities, we can distinguish managing activities, the activities of discussions aimed at achieving an agreement, negotiating activities (e.g. negotiations on salaries in an industry).
- According to the intervention level, we recognise local, district and regional dialogue.

In the context of territorial social dialogue, researchers were trying to examine a regional level of social dialogue in order to enable the analysis of to what extent regional social partners create solutions to crises. There is no available evidence that social partners in whole Europe have introduced negotiations at regional level. Significant problems upon searching for data on the activities of social dialogue at this level in the EU represent an obstacle to complex analysis. According to R. Guyet, D. Tarren, C.-E., Triomphe [2] some European regions have created economic development plans and better support for further education. This level of activity is particularly significant in France, where regions have an authority to intervene with the issues of public policy, including economic development and further education (education, training). According to E. Puissant, E. et al. [3] aiming at fighting the crisis, most of French regions have developed their own regional usage of the plan, including economic development and employment, especially on the grounds of answers to the stimulation of access to lifelong learning of the youth and adults. Where such plans were introduced, they were supported by social partners, and their support was thus obviously part of the process.

### IV. CONCEPT OF SOCIALLY RESPONSIBLE TERRITORY AS A BASIS FOR SOCIAL DIALOGUE AT REGIONAL LEVEL

The concept of socially responsible territory was supported by the European Economic and Social Committee (EESC), which started emphasising it during the implementation of Lisbon and Gothenburg strategies. This position resulted from a need to renew local territorial networks, i.e. organic groups of public and private entities, structures and infrastructure, which, on the grounds of common initiatives supporting territorial development, connect high levels of prosperity and competitiveness with nationwide social and environmental responsibility. It is essentially a process determining the result of a series of interactions at each place of a territory (CCMI/055 opinion of EESC). We will therefore use the opinions of EESC as a basis upon defining this new concept

According to EESC [4], socially responsible territories should also enforce a structured social dialogue at the given territory and at the same time support partnerships between

local institutions, predominantly at a cross-border level. The objective is to attain, by means of more solid partnerships, the overall strengthening of capacities, know-how and efficiency of self-governments, whose efficiency has different levels and which often compete with each other. The starting point is an enhancement of the ability to anticipate economic, social and environmental changes, an improvement of the organisation of involved parties upon creating socially responsible territory, and the definition of responsibilities of companies, self-government authorities, social partners and all entities involved in increasing the competitiveness of a territory, while taking into account the dynamic, solidary and coherent European social model.

Regional and local policies, able to handle industrial changes, need to work in the context of regional and local identities and are based on a mixture of support, recognition, empathy for a set of common values within a common vision of the future. It is connected to integrated territorial approach and management strategy supporting the socially responsible development of regions.

Such an approach requires fulfilment of further tasks by local, regional, national and European authorities of public administration, particularly:

- general and professional education (it functionally corresponds to the requirements of economic and industrial development based on knowledge and competitiveness);
- measures to create capacities for institutions and associations, and to support social dialogue;
- integrated territorial policy (in its framework, the potential of local development is mobilised as well as the ability to adapt and anticipate innovations is strengthened);
- consolidated social dialogue at local and regional levels;
- support for corporate social responsibility and its voluntary implementation by companies (a contribution to sustainable development);
- improvement of the integrated multi-level system of managing socially responsible territories.

A socially responsible territory is defined as a territory having managed to achieve a sufficient level of prosperity as well as to fulfil commitments within social responsibility. A condition is that territories are able, in accordance with participatory democracy, to take into account social and environmental considerations, models and values of increasing competitiveness, the best practices and permanent dialogue between respective entities upon taking economic decisions, aiming at stimulating innovations and increasing competitiveness.

In relation to improving the quality of life and competitive and sustainable economic and social development of the EU regions, EESC assumes that it is appropriate to develop citizen-oriented democracy, connecting political, economic and social representatives of the given region. In order to achieve this

goal, different public and private entities need to agree on a common procedure, while taking into account strengths and weaknesses of such regions and the perspective of growth of companies and employment.

The project of regional social dialogue is based on citizen-oriented democracy, with different forms and ways as the key pillar of European management depending on individual national contexts. Citizen-oriented democracy should include the following elements:

- a process of coordinating entities, social groups and institutions focused on the achievement of goals discussed and coordinated within a structured dialogue, individual and common responsibility between social partners and the representations of employees and corporate clubs,
- the enforcement of subsidiarity, territorial cohesion and participatory democracy principles (set out in the Treaty of Lisbon),
- well-coordinated structure of multi-level management, aiming at ensuring the cohesion of decision levels closest to citizens on the one hand and political, economic, social and environmental responsibility on the other, best corresponding to territorial competence and identities. It is at the same time necessary to ensure compliance with national and European frameworks and open, cooperative and coordinated approach focused on achieving a synergy of different levels,
- development of a learning regional community,
- elaboration of a common anticipation vision on the development of local economy and community
- support for the creation and strengthening of the role of local economic and social committees or similar instruments,
- approval of the complex tools of participatory territorial management,
- active role of business, industrial, commerce and agricultural chambers as well as occupational associations and consumer organisations,
- cultural support of the highest quality in the sphere of university education and optimisation of relations between industry and academia.

A learning regional community is based on the ability of self-evaluation and constant adaptation of goals and strategies of local development and on the strengthening of expanded innovation culture, comprising all spheres. This concept can essentially be denoted as a learning region.

A common anticipation vision of the development of local economy and community should include the following objectives - to define specific sources of the given territory, to evaluate a challenge and threat of the competition of other territories, to evaluate a possibility of entering national and international market, to find methods and means enabling

solutions to specific problems of a territory by means of local professional capacities, to take decisions to improve measures regarding competition.

Local economic and social committees or similar instruments (already working in several member states) represent institutionalised participants to the discussion within the decision-making and execution process at a level of the given territory with a right to initiate different activities and monitor implemented measures.

Complex instruments of participatory territorial management represent electronic provision of public services (e-government), SWOT analysis, the procedures of participatory prognosis (a systematic and participatory process of information collection and preparation of a medium-term and long-term vision), general implementation of EMAS mechanisms (the European Eco-Management and Audit Scheme) in private and public sectors, adoption of the standards of corporate social responsibility, benchmarking methods, evaluation table for open coordination, the systems of regional and cross-regional networks, the systems of education via the Internet.

Good territorial management needs to predominantly support and develop all forms of cooperation, all processes of mutually beneficial partnerships between companies as well as between companies and collective entities. Democratic territorial management is an integrated decentralised decision-making process, which, according to EESC, needs to be based on the principles of transparency and responsibility and on participatory approach oriented to analysis, elaboration, enforcement and management of a common medium-term and long-term strategic vision of development. Development of a socially responsible territory should particularly include the objectives of citizen-oriented democracy, strengthening of the spread culture of innovation and participation, efficient territorial management harmonised with the European agenda frameworks (originally the Lisbon Strategy, currently the post-Lisbon Europe 2020 Strategy) at a level of member states and the EU, partnership with many entities and industries, able to strengthen the attraction and competitiveness of the given territory on global market with simultaneous anticipation of industrial changes and evaluation of local social capital.

Territorial development presupposes not only a full enforcement of citizen-oriented democracy but also a structured local management for managing development.

## V. CONTEXT MOTIVATING TERRITORIAL SOCIAL DIALOGUE IN THE EU

According to B. Wartelle, B. and F. Pinon [5] the development of territorial social dialogue in the EU is affected by several tendencies and global development.

### 1) *Decentralisation places more responsibility on regions.*

With decentralisation, responsibility of regions in the sphere of employment and vocational training was also developing during the economic crisis in Europe.

### 2) *Europe supports regions.*

The European politics relies on regions. By means of the European Regional Development Fund and European Social

Fund, it puts significant budgetary resources in increasing the competitiveness of enterprises, employment and reducing imbalances within European regions.

### 3) *New production models strengthen the pressure of global markets on local economy.*

If an area is presented as a territory of social and economic regulation, the boundaries of a company are transformed, especially due to the creation of new productive configurations (networks, sub-supplies), and new, more horizontal relationships between enterprises, between enterprises and local actors, etc. are created. The pressure on a local economy increases with the internationalisation of groups in all industries and is manifested by the following factors:

- the usage of sub-supplies increases and offers more adaptation possibilities,
- requirements for the quality of production increase,
- the pressure on costs and employment increases.

In this relation, gradual removal of decision-making centres of (internationalised) companies represents a risk for local economies and naturally leads local actors to an increased attention, even to a more significant participation in solving crisis situations.

### 4) *Regional elements mobilize at a time of crisis.*

All regions are not affected by economic difficulties in the same way and with an equal intensity. In individual regions, different sectors are affected and different problems occur. Geographic mobility of labour force remains at low levels everywhere and it is therefore important to search for local solutions adapted to regional characteristics. The debt crisis at the same time requires state budget cuts, affecting all budgets allocated to institutions and local communities. These budgetary pressures challenge an optimisation of the existing decisions and a dialogue between local actors.

### 5) *The dynamics of social dialogue help increase the dynamics of territorial social dialogue*

Territorial social dialogue has probably also been developing because social dialogue is generally strengthened. A greater legitimacy of representative actors strengthens social dialogue as a whole, which contributes to territorial social dialogue. However, territorial social dialogue should not be mistaken for other forms of cooperation at a regional level (e.g. in the sphere of housing, transport, etc.). The attraction of a territory is always a key to local economic dynamics; however it is currently more dependent on local immaterial resources (research, education, etc.) than on material resources, which results in the perception of the territory as a source of immaterial resources. In global competition, new manufacturing organisations tend to recreate an active role of a territory. The ability of companies to cooperate is a basis for a specific type of “ecosystem” of producing and using resources of a local social system, which a company chooses at a time of making a decision on settling at the given territory. Territorial social dialogue is a basic element of this “ecosystem”, as it helps achieve the best possible local combination of development factors. Territorial dialogue already exists in the context of how its actors (politicians, institutional, social and

economic actors, civil society, and associations of citizens) gradually change. It can also be defined as social dialogue. It can naturally include social partners, however, dealing with issues non-related to work. Within a single example of territorial dialogue, social partners can comment on issues related to work, however they open them from a broader perspective – transport, housing, local educational system, etc. Territorial dialogue is becoming an input for local democracy. Participants also differ depending on the social networks and character of a territory, i.e. on whether it is a territory established by legislation (institutional) or a naturally created territory.

#### VI. BASIC ELEMENTS OF FUNCTIONING OF TERRITORIAL SOCIAL DIALOGUE IN SLOVAKIA

Decentralisation is connected to the responsibility of regions for employment and regional education. Our legislation enables the establishment of specific institutionalised authorities (structures), having some features creating a specific environment for territorial social dialogue in relation to employment. It is a legislation directly concerning employment and vocational education and training.

Act No. 280/2013 Coll. on Employment Services and on change and amendment of some laws specifies in its § 16 the Committee on Employment, establishing the Office of Labour, Social Affairs and Family in its district in order to solve principal issues of employment and assess applications of legal entities or physical entities for allowance provision (under this act), to which they are not entitled. Under the act, the committee has 11 members, three of which are representatives of the office, while one of them is the director of the office, other members include two representatives of the self-governing region to whose district the office belongs, two representatives of towns and municipalities, two representatives of employers operating in the office district and two representatives of union organisations operating in the office district. Under § 18, in relation to the objective of our research (paragraph 1), the scope of committee's activities includes the approval of priorities within supporting employment in the office district and analyses and prognoses of labour market development.

Act No. 184/2009 Coll. on Vocational Education and Training and on change and amendment of some laws specifies in its § 2 that coordination of vocational education and training for labour market is carried out, besides the national level, also at a level of self-governing region. Regional School Office, the Office of Labour, Social Affairs and Family in a municipality of region headquarters, self-governing region, employer or regional chambers of corporate organisations and professional organisations, union organisations and employee representatives participate in the coordination of vocational education and training for the needs of labour market.

These committees could actively support, within their scope of activities, the development of some territorial social dialogue elements for the benefit of employment, also in a direct connection to vocational education and training already at present.

#### VII. CONCLUSION

It can be assumed that responsibility of regions for regional development and employment will gradually develop. We consider the concept of a socially responsible territory to be an interesting and innovative concept, usage of which under our conditions could potentially contribute to a socially responsible development of regions, especially from the viewpoint of adopting particular solutions with a positive impact on labour market. Consolidated social dialogue at local and regional levels, based on European experience, could contribute to the interconnection of foreseeing economic development in a region with anticipating labour market development and with adopting real and effective solutions in a real time. With regard to different forms of territorial social dialogue, already being enforced in Europe, the professional discourse should focus on searching for those forms usable under our conditions. In relation to the analysis of possibilities and benefits of implementing socially responsible territory and adequate forms of territorial social dialogue, special attention should be paid to the so called local economic and social committees, which could connect economic and social development in regions. We consider this approach to be significant with regard to new conditions of current global development with effects unforeseeable in the long term, while solutions will have to be searched for with regard to different conditions in individual regions. Small enterprises should be involved in territorial social dialogue, as they represent a great employment potential in regions, and their opinions are not directly taken into account in social dialogue at national economic level (and European level). Regional chambers of corporate organisations and professional organisations should have a greater impact within supporting the development of learning regions and lifelong learning and updating of regional competences, and they should search for their roles within regional dialogue also outside the instruments offered by e.g. Act on Employment.

#### REFERENCES

- [1] C. Belin, A. Charvet, M.-O. Sasso, D. Brisson (ARAVIS, 2006). Dialogue territorial, la place des partenaires sociaux.. Available at: [http://www.aravis.aract.fr/wp-content/uploads/2012/03/Ouvrage\\_Dialogueterritorial\\_placesdespartenairesessociaux.pdf](http://www.aravis.aract.fr/wp-content/uploads/2012/03/Ouvrage_Dialogueterritorial_placesdespartenairesessociaux.pdf).
- [2] R. Guyet, D. Tarren, C.-E., Triomphe, Social dialogue in times of global economic crisis. Luxembourg: Publications Office of the European Union, 2012.
- [3] E. Puissant, E. et al., "Dialogue social territorial: origines, enjeux et leviers d'action pour la qualité de l'emploi dans l'aide à domicile, à partir de deux études de cas", in: I.R.E.S. La Revue de l'Ires, 2013/3, Vol. 78, pp. 127 - 155, 2013.
- [4] Opinion of the European Economic and Social Committee CCMI/055 on „Industrial Changes, Territorial Development and Corporate Responsibility“, Brussels 3/12/2009.
- [5] B. Wartelle, B. and F. Pinon (2012). Realiser un etat des lieux et outiller le dialogue social territorial. Paris: Stratorg Management consulting, 2012. Available at: [http://www.cfdt.fr/upload/docs/application/pdf/2013-02/rapport\\_dialogue\\_social\\_territorial.pdf](http://www.cfdt.fr/upload/docs/application/pdf/2013-02/rapport_dialogue_social_territorial.pdf).

# Eligibility for Social Services to Elderly people

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**Abstract** Eligibility issues are central to the identification of people to be served, the services to be available, the management models used to ensure service accessibility, the quality control mechanisms employed, and to the fiscal procedures used to support service delivery. This appears constant in both public, and private sectors. Definitions of eligibility are frequently used as administrative tools to limit service populations and regulate program costs. The evolution of neoliberal economic/political models in the development of human services has been a significant factor in this flux of definitions of social policy.

**Keywords** – eligibility, social services, elderly, state, neoliberal approach

## I. INTRODUCTION.

### ELIGIBILITY WITHIN THE SOCIAL SERVICES FRAMEWORK

From a general perspective, eligibility is a multi-faceted concept with diverse interpretations and applications. Generic dictionary definitions focus on necessary or required qualities and conditions (Oxford Dictionary, Cambridge Advances Learners Dictionary and Thesaurus).

Applications of the concept of eligibility may be complementary or competitive at national, regional or state and local levels. Definitions differ widely among public or private and Non-Governmental Organizations (NGO), Non-Profit Organizations (NPO), and For Profit Organizations (FPO). These definitions reflect the constitutional, statutory and case law influences and enactments in the respective countries. Cultural mores and religious biases may be affective.

An overall framework for articulating the complex forces and relationships which affect the social services development process may be viewed as:

- Constitutional or similar provisions defining basic human and civil rights and protections for all citizens.
- Legislative/political processes which define socialpolicy authorize program development and provide fiscal support.
- Judicial/legal processes and procedures which interpret and define constitutional intent and legal status of rights and services.
- Administrative/management/evaluation models, structures and procedures in program and fiscal areas.
- Implementation and provision of direct services, opportunities, interventions and supports to vulnerable persons and populations.

Each of these spheres of influence is an essential part of the social services development process. However, it is the collective effect of first three spheres of influence which provide the basis for service program development as a matter of social policy. Logic and ethics suggest that eligibility must be conceptualized within the context of citizens' rights of each country and reflect its social exclusion/inclusion processes. In practically all participating countries services eligibility requires national citizen status in the country of residence.

Social inclusion and exclusion are concepts which have been promoted by the European Union project in the 1970s - 1990s and associated with politics and policy at the beginning of the 2000s. [1, 2] The term 'social exclusion' is used to identify individuals, groups or even entire communities to be disenfranchised, and is mostly associated with poverty, unemployment, inequality age and disadvantage. Economic and social inequality, unattainable wealth is viewed as causes of social exclusion [3, 4]. Exclusion can take place through practices and processes that are embedded; value based, and restrict peoples access to markets, services, and spaces [5].

Just as eligibility is an integral part of a set of complex relationships and processes basic to the evolving social service system(s), the philosophical right to services concept is embedded within the context of broader citizen and individual rights. Actualizing these rights for all citizens has been a priority in many countries. Eligibility is viewed as a key element in the matrix of relationships and forces determining which social services will be provided and who will qualify to receive those services. It involves citizens' rights and obligations, basic human rights and constitutional protections, social policy commitments, as well as political and economic processes and conditions. The consequences of decisions regarding service eligibility affect the inclusionary status and basic quality of life of all vulnerable individuals and groups.

### SUMMARY REVIEW OF RELATED LITERATURE

The philosophical underpinnings for the design and development of human services should be basic human and civil rights. Shifting to value and rights based service development models and practices must consider the entrenched political and social patterns, economic factors, traditional cultural mores, punitive and discriminatory legal codes, and religious tenets common to the respective country.

Eligibility for social services must be considered in relation to three related terms: entitlement, availability, and accessibility. Eligibility (entitlement) → availability → accessibility = service outcome. Outcomes of social services

need to be considered across three domains: quality of care, quality of life and system efficiency [6].

All types of care programs illustrate the application of eligibility concepts to both entitlement and consumer contribution based programs. They also represent the problems and issues inherent in their inception. The economic factor becomes paramount. Can a society afford the costs associated with meeting the economic demands created by the rights commitments to huge service populations? Some countries find that entitlement costs are a major contributing factor leading to potential national bankruptcy. Curtailment or capping of costs is considered essential to program continuance. How to achieve fiscal limits without compromising eligibility or entitlement rights is a basic issue. These economic realities apply at national, state and municipal levels. The combinations of health and retirement costs; together with related legacy benefit costs for public employees, e.g., teachers, police, and firemen are viewed as unsustainable and may lead to bankruptcy of public agencies and political jurisdictions.

Needs based eligibility programs frequently require adjustment to prevent the fostering of welfare dependency for major segments of the population. What may be intended as limited term supports to assist people through crises become life span dependency support programs; frequently on a multi-generational basis. People begin to believe they have the right to receive the benefits on a different basis than the initial eligibility standards or program intent.

Eligibility criteria may serve a gatekeeping function by granting access to some but denying services and goods to others. A person may be considered to potentially benefit from but not be sufficiently "in need" of the service. Someone else may be considered eligible based on disability status and potential benefit, but not poor enough to receive it at no cost.

In many cultures the family is expected to be the first front of support to prevent institutional placement, with community services as a second line of support. In the last decade in neoliberal countries across the world the capacity of families to continue to provide care has been severely reduced by demographic trends, such as decreasing family size and increasing participation of women in the workforce (traditionally the major source of family care giving) [7].

Demographic factors place stress on the ability of national, states and municipalities to respond to both rights based commitments for services and the realities of finite fiscal resources. For example, increased life expectancy results from improved health care and quality of life. These two conditions result in the aging of the population with significant increases in the number of elderly persons eligible for services; accompanied by significant decreases in the number of persons contributing to the financing streams or tax base to meet the costs for very real needed service. Earlier retirement from remunerative, and taxpaying employment places further stress on fiscal support areas. The conditions of increased life expectancies and reduced birth rates result in more and more people eligible for services and fewer and fewer people contributing to the revenue base to support these services. Capping these spiraling program costs is a major challenge at national, state and local levels. Therefore, eligibility for some

specialized services may be based on a condition, e.g. disability and economic status [8].

Early policy researchers made the a priori assumption that the state was the sole focus of social policy. By applying certain contingencies and procedures the pool of those eligible for services can be broadened or narrowed to the desired level. Given reduced budgets and expanding service populations the basic decisions relate whether to reduce levels of service or to reduce the potentially eligible service pool. An alternative option is to find more cost-effective ways to provide the needed services. Bureaucratic inertia is a primary impediment to the latter effort.

Priorities for cost containment or reduction and perceived failures in the public agency sector illustrate the factors which led to increased market structures in service provision. The expectation was that such market based services would cost less and be more accessible for elderly. Some no-cost to the person services could be provided by networks in local communities. Other services might be available on a cost basis. The users would have the right to choose which services to access and to select the service provider [9]. This approach involves a high level of self-determination and personal responsibility.

From the viewpoint of the person being served, services are judged to be adequate when "the organization of care meets the clients' expectations" [10]. This position is referenced to the need for program evaluations to include appropriateness, effectiveness and satisfaction ratings by the persons receiving the services in the program evaluation designs and procedures. It also stresses the need for involving the intended recipients (stakeholders) of the services in planning and development decisions.

There have been significant increases in the levels and types of services provided by social service organizations. Many civil societies are oriented to the provision of community based social services. They serve to complement and broaden the services provided by publicly funded agencies [11]. These Non-Governmental Organizations (NGO) and related Non-Profit Organizations (NPO) comprise a major segment of the service spectrum in many geographic areas. They frequently function with eligibility criteria which are different from those effective for the agencies within the public bureaucracy. When the NGO or NPO accepts money from the public budgets as part of their operating budgets, the eligibility criteria of the funding agency are usually in effect for the particular program or service.

The development of private sector social services has been prominent in recent decades. Services to elderly persons have been commonly the initial primary target priorities. Many of the private sector service entities are For Profit Organizations (FPO). Contracting (out-sourcing) of public funds to FPO by the administering public agency has become a common practice. Direct purchase of care or services by persons or families able to pay has rapidly increased. On this basis, the ability to pay is the primary eligibility requirement.

There may be general agreement regarding the goals for services and life opportunities for elderly people while having

major differences in ideology and approaches regarding the appropriate means to achieve those goals. The neo-liberal model for social policy development is based on a free market approach with services provided substantially or entirely by the private sector. This obviously alters the historical social contract between the state, society and its citizens. The recognition of basic citizens' rights or entitlements within the processes of privatization is a fundamental concern. The redefinition of service eligibility standards and procedures is a direct corollary to the core concerns for individual rights and societal obligations.

#### PRIVATIZATION AND SERVICE ELIGIBILITY

Privatization of social services is a central priority for many planners involved in the application of neo-liberal model(s) for program development. Thus the increased use of privatization models has been a key element of efforts to achieve public budget constraints. The transfer of major "market shares" of social services to the private sector has acute and pervasive implications for conceptualizing and actualizing both eligibility criteria and program quality standards. The basic citizens' rights and protections should be affective regardless of the public or private models for service provision and delivery.

Privatization in human services has been common on a long-term basis. The trends toward increased utilization of such models over recent decades does, however, result in major shifts in the traditional state controlled centralized systems of social services resulting from the dual processes of urbanization and industrialization common to the last century. From the beginning in M. Thatcher's time there were two main considerations in privatization of social services 1) the need to restrain state expenditures in welfare and 2) the acceptance of neo-conservative ideologies by some governments [12]. Economic factors appear to be differentially affective in determining the priorities for social services and persons eligible to benefit from them, and the willingness to allocate funds for their support. A basic question is whether the state should retain the responsibility for service provision regardless of delivery modes or mixes. If so, does this implicitly require associated budgets? A second basic question relates to the transfer of public funds to private Non-governmental Organization (NGO), Non-profit Organization (NPO) and For-profit Organization (FPO).

#### II. CONCLUSIONS

Changes in global and national socio-political and economic conditions and processes have markedly affected the

planning and development of social services. Service eligibility is confirmed as a key element in the planning and development of social services for elderly. The philosophic base and its operational program contributions are crucial in the service design and delivery process. Its basis is in general human and civil rights but its impact as a keystone of services to elderly persons is pervasive.

#### III. ACKNOWLEDGMENT

Our thanks for supporting the researches within the Project RSCF 14-18-03434 "Models of the interaction between society and the elderly: a study of opportunities for the social inclusion".

#### REFERENCES

- [1] R. Peace Social exclusion: a concept in need of definition, *Social Policy Journal of New Zealand*, 2001, vol.16, pp. 17–36.
- [2] N. Wright, T. Stickley. Concepts of social inclusion, exclusion and mental health: a review of the international literature. *Journal of Psychiatric and Mental Health Nursing*, 2013, 20, pp. 71–81.
- [3] M. Marmot. Fair Society, Healthy Lives: The Marmot Review. Crown, London, 2010.
- [4] R.G. Wilkinson & K. Pickett. *The Spirit Level: Why Equality Is Better for Everyone*. Penguin, London, 2010.
- [5] Inclusion matters. The foundation for shared prosperity. World Bank, Washington, 2013.
- [6] Peach A., Cook A., Miller E. Partnership working and outcomes: do health and social care partnerships deliver for users and carers? *Health and Social Care in the Community*. 2013, vol. 21 (6), pp. 623–633.
- [7] Mason A., Lee S.-H. & Russo G. Demography of aging across Asia. In: H. Yoon & J. Hendricks (Eds.) *Handbook of Asian Aging*. Baywood Publishing Company, New York, 2006, pp. 25–65.
- [8] Hollenweger R. Development of an ICF-based eligibility procedure for education in Switzerland *BMC Public Health*, 2011, 11 (Suppl 4):S7. <http://www.biomedcentral.com/1471-2458/11/S4/S7>.
- [9] Otto, H.U., & Ziegler, H. Capabilities and education. *Social Work & Society*. 2006, 4(2), pp. 269-287.
- [10] Obrist B, Iteba N, Lengeler C, Makemba A, Mshana C, et al. Access to Health Care in Contexts of Livelihood Insecurity: A Framework for Analysis and Action. 2007. *PLoS Med* 4(10): e308. doi:10.1371/journal.pmed.0040308.
- [11] Cook, L., Vinogradova, E. NGOs and Social Policy Making in Russia's Regions. *Problems of Post-Communism* 53 (5), 2006, pp. 28-41.
- [12] Stoesz, D. A wake for the welfare state: Social welfare and the neoconservative challenge. *The Social Service Review*. 1981, pp. 398-410.

# Comparative Research of Drug Addiction Treatment by the Traditional Indigenous Medicine of Peruvian Amazon and the Matrix® Model

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**Abstract**— This article is based on the previous longitudinal research of traditional indigenous medicine of the Peruvian Amazon and its application on the problems of drug addiction. The aim of this article is to compare the treatment system in Takiwasi, Center for the Rehabilitation of Drug Addicts and Research of Traditional Medicines (Tarapoto, Peru) with the Matrix® model used in CEA, Center Specialized in Addictions (Managua, Nicaragua). In the second center, only the preliminary research has been realized, but it was discovered that an efficient form of community treatment with similar parameters is provided. The question is what are the conceptual differences between them and how much they contribute to the effectiveness of the rehabilitation programs. The objective of this article is to enable the expansion of methodological framework of work with drug addicts in therapeutic communities.

**Keywords** - drug addiction, traditional indigenous medicine, matrix

## I. INTRODUCTION

This article further draws on anthropological research of the traditional indigenous medicine of the Peruvian Amazon. From 2007 to 2009, there were two field works in the total length of nine months realized in Takiwasi, Center for the Rehabilitation of Drug Addicts and Research of Traditional Medicines. The center is located in Tarapoto city (San Martín department) in the north of Peru. There the therapeutic methods used by local experts in the given field were researched. Its output was a thorough analysis of the system of treatment in the community and the study of its effectiveness.

In January 2013, short field work was carried out in the Nicaraguan Center for drug addicts CEA, which is located near the capital city of Managua. During this research, it was found out that the way of conducting the therapeutic process in this rehabilitation center shares some key elements with the Peruvian one, even though there are significant differences between the two. That is why in this article we want to deal with the comparison of concepts and efficiency of both rehabilitation centers. Further longitudinal research (2014-2015), realized thanks to the subsidy of the Czech science foundation, will be focused on participant observation of the differences in conducting the therapy in CEA, detail analysis of the concept of addiction, study of the influence of spirituality on the success of rehabilitation, retention in care statistical

analysis and methodological research of the possibility to apply foreign models of drug addicts rehabilitation in domestic conditions.

## II. THE APPROACH OF TAKIWASI

Therapeutic community Takiwasi ("the house that sings" in the Quechua language) was founded in 1992 at the instigation of a French medical doctor, Jacques Mabit, who has studied Peruvian traditional indigenous medicine. [3] The reason for founding the rehabilitation center was to provide drug addicts mostly from South America and Western Europe with an efficient alternative to therapeutic approaches based on substitution and total abstinence. [10]

As far as the effectiveness of treatment in Takiwasi is concerned, it is possible to say that from the total number of 341 internal patients, who underwent therapy here between 1999 and 2008, 27% of them completed the whole process of rehabilitation and the therapists considered them cured. 43% of the patients ended the treatment at their own request, stating that they are also cured from the drug addiction. However, there has not been any follow-up research done to verify that they are not consuming drugs again 5 years after leaving the program. 15% of patients were expelled because they had transgressed the rules of treatment. The same number escaped.

The originality of Takiwasi lies in the use of traditional indigenous medicine combined with psychotherapy and community treatment. The key element of the traditional indigenous medicine is ayahuasca, psychoactive mixture from plants *Banisteriopsis caapi* and *Psychotria viridis*, which is not addictive, has emetic effects and produces altered states of consciousness. [6] Of course, there are many different plants used in the center, e.g. purgative plants such as yawar panga (*Aristolochia didima*) which are administered in order to prepare a patient for the ayahuasca session, or dietetic plants like ajo sachá (*Mansoa alliacea*) that are administered during the patients' eight days long individual stay in the jungle hut situated in the estate of Takiwasi.

The administration of ayahuasca is carried out under professional supervision of medical doctors and psychotherapists and the way in which the use is realized is based upon thorough knowledge of traditional indigenous processes and respecting their rules. [14] Many scientific

studies point out that ayahuasca has a great therapeutic potential and can be brought into good use in the treatment of drug addicts. But the essential condition for using this substance is that it must be administered in controlled environment. [4]

For this reason, a therapeutic program with a shaping influence on the patient was developed in Takiwasi. All experiences which one has during the use of ayahuasca and other supplementary medicines affecting human consciousness are processed in the course of a nine to twelve months lasting therapy, which is - for security reasons - conducted in the relatively isolated environment of the community. [16]

The community is solely male and the maximum number of members is fifteen. Each member can enter the treatment program only once and has to pay for it himself (the costs for residential treatment are 1000 USD/month). The majority is able to cover them; otherwise the center offers hire purchase and also free treatment for local applicants from low or no income families. [19]

The therapeutic program of the Takiwasi center is divided into several phases, the transition between which is always clearly marked by way of some of the rituals. They include:

1. Preliminary phase: acquainting the applicant with the treatment and the evaluation of his motivation (ends with acceptance and entering the treatment program)
2. Physical recovery: from the stay in solitary confinement to the end of the second month
3. Personal restructuration: from the first to the third diet
4. Existential, social and familial restructuration: from the first diet;
5. Reinsertion: reintegration of the patient in society (from the seventh month);
6. After-care: five years after the end of treatment.

The preliminary phase of treatment lasts ten days. During this time, telephone contact is established with the applicant and basic personal information is gathered. In case of foreigners, their language abilities are checked.

The basic requirement for starting the treatment is that it must be the patient himself who is requesting it. The condition for entering the program is taking full responsibility for the problem of addiction. The rule is that somebody who wants to enter the program only to escape from external circumstances will not be accepted. If it is within their possibilities, patients' family members support them morally and financially.

The primary condition for entering the treatment is abstinence. Before the start of the program, psychological tests as well as a medical examination are performed. The medical examination is repeated at the end of the first month and after a year. In the shortest possible time after entering the treatment, antiparasitic and dental examinations are carried out in the adjacent medical center (Centro médico "Sagrada Familia"), led by one of the center's employees.

The first phase of the rehabilitation process starts with a solitary confinement. This is to ensure that the person gets rid of abstinence syndrome and prepares for entering the community.

Detoxification in Takiwasi follows a specific procedure. It does not take place in the environment of a mental hospital and lasts only eight days. This is among the greatest advantages of the local program and it is possible to consider the application of supplemental herbal medicines with emetic effects used there in the practice of other countries as well. [17]

The solitary confinement is a period when the patient confronts his own motivation and re-evaluates the reasons for undergoing the rehabilitation program. A supportive role in this process is played by the presence of a psychotherapist who visits the patient on every day basis. It is in this initiation phase, when the escape attempts are most common. [21]

If the patient resorts to escape, the treatment is immediately terminated. In the opposite case, a transitional ritual is arranged for him, after the completion of which he enters among the residents and becomes an inseparable part of the therapeutic community.

The relationships in the community are of a horizontal nature. Hierarchy between patients is non-existent. The total number of participants in one run of the program is kept relatively small in order to maintain social coherence of the group. [12]

So called guarantor (called godfather, padrino) is assigned to each of the patients and he guides them through the whole time of the treatment process. The only difference here is that the "godfather" is one of the employees. Usually it is a patient who helps new member of the community to adapt.

As soon as the patient adapts to the everyday rhythm of the center (usually from the second month), he starts to participate in the ayahuasca sessions that are held two times per week from 9 pm to 4 am. These always take place on the second day after detoxification. The content of the session is subsequently analyzed in the group and it represents the keystone of the psychotherapeutic work.

The end of the phase focused on physical recovery ends with the first diet. This therapeutic procedure, by which is not meant losing weight in order to improve one's looks, is undergone by all patients two or three times a month. This diet is characterized by an individual stay in the primeval forest and a ritualized consumption of some herbal extracts under the supervision of a healer, his assistants and psychotherapists. [11]

Of course it remains a question whether such conditions are adequate for addiction treatment. Nevertheless, on the basis of participant observation, it was concluded that the patients themselves put an extraordinary emphasis on the diet. At the end of the first phase, this represents a certain risk, which can lead to the termination of the treatment. It is the next stage, focused on personal problems, which provides a more detailed explanation of the true nature of their drug habit. [13]

The last, usually two month phase of the rehabilitation process, is aimed at finding a personal mission in life and re-

establishing the lost contact with the transcendental. The work at the physical level is finished. So, all effort is directed towards patients' preparation of future plans and settling the family relations. In this sense, the financial independence on the family is of prime significance.

The more realistic and pragmatic the behavior of the patient is, the more pressingly is he affected by the reflections on the metaphysical and existential questions which are the subject of almost all therapeutic sessions. People who have given up the use of drugs for good and are aware of the addiction structure of their personalities start looking for foundations on which to build their lives. In order to facilitate their search, various rituals and ceremonies are held for them. The goal of these rituals is to create an adequate environment for change. If the patient discovers a spiritual level in his everyday life, it is a strong impulse providing him with motivation for abstinence. [15]

Various facts point out to the mutual interconnection of spirituality and the phenomenon of drug addiction. Firstly, there are so called interaction models which explain the reasons of its origin and development by making connections between numbers of different factors (bio-psycho-socio-spiritual). Secondly, there are numerous scientific studies proving that spirituality and religiosity can have a positive influence on the treatment of addiction. [1]

Other activities typical for the third phase of the rehabilitation process involve group sessions, group dynamics, activities connected with maintaining the self-sufficient operation of the community and ergo therapy. In addition to therapy sessions, the daily program also includes sport activities and diversely themed workshops (e.g. art-therapy).

The penultimate phase of reinsertion, with the approximate duration of two months, serves as a period during which the patient prepares for leaving the center. Its purpose is that the patient, who has freed himself from the structures which had previously drawn him to drugs, can reintegrate into society. The fact that he goes to work or to school during this time and lives in private does not mean that he is excluded from the therapeutic group activities. On the contrary, his presence in the group has a motivational purpose.

The treatment does not end with patients' stay in Takiwasi. Patients who finish their treatment successfully or abandon it prematurely after previous consultation with therapists are offered a system of after-care by the center. In Takiwasi it lasts for five years and includes organized interviews with a psychologist each month, family counselling and participation in therapeutic sessions. If needed, the patient is offered a short time stay in the center which has a reinforcing purpose.

For patients from distant parts of Peru and most of the patients from foreign countries, it can be a disadvantage that Takiwasi has no after-care facility. The French and the Argentinians can make use of external cooperation with the centers La Maison Qui Chant (Lyon) and Runawasi (Buenos Aires) whose therapeutic models work on the same basis. Nevertheless, most of the patients have no option but to rely on self-help. With the help of further research, CEA center in Nicaragua could become more well-known and the patients,

who were treated in Takiwasi and still need therapeutic assistance, could use its services in future, because it is relatively easily accessible.

### III. THE CEA APPROACH

The Nicaraguan rehabilitation center CEA, situated on the outskirts of the capital city Managua, has been in operation since 2009. It is an organization whose basic philosophy is to provide complex treatment for everyone on the physical, psychological, emotional, social as well as a spiritual level. The absence of herbal medicine application in the CEA model is not a limiting factor since the center shares the same philosophy and there are also principal similarities in the methodology of work with the addicts.

CEA creates projects aimed at disseminating of professional knowledge and raising the population's awareness in the area of addictions, their prevention and treatment. Its vision is to organize programs of national and international prevention and treatment of alcoholism and addictions through education and certification of its professionals in accordance with international standards.

The CEA results are based on the twenty year experience of Matrix Institute in Los Angeles where the employees of this center undergo a formal preparation for therapeutic work. Cognitive and behavioral model Matrix®, which is taught at this institute, is recommended in the USA by the National Institute on Drug Abuse (NIDA) as an effective way of treating cocaine addiction. The model has been tested as a part of many studies which prove that with patients addicted to cocaine, alcohol and other substances, there was a significantly lower consumption of drugs, better psychological indicators and an increased retention in treatment up to 38%. [20]

High effectiveness of this program was also confirmed by an internal evaluation which took place in January 2013. According to the statistical data, 51% of 92 patients rehabilitated in the past three years do not take drugs any more (the number of patients who were expelled from the treatment, escaped or left it voluntarily is not known). 25 of them underwent ambulatory treatment, 72 internal. 11 patients are in the after-care program, 3 of them receive social support for six months.

With regard to the fact that this data – similarly to the Peruvian center Takiwasi – is not supported by a long time observation of the patients after the end of their rehabilitation, which is caused by technical difficulties connected with visiting them in their homes, we devote our research solely to the theoretical study of therapeutic methods, analysis of the system of treatment and evaluation of effectiveness based on retention.

The originality of this approach lies in the fact that the study which would examine the influence of the Matrix® model on public health in Latin American countries has not yet been conducted. In scientific literature, there is no similar comparative work, whose results would contribute to the area of addiction research. Even the Matrix® Model has not been studied in detail.

As mentioned above, the CEA offers patients two treatment programs – ambulatory and internal rehabilitation. The latter includes a nine month stay in a therapeutic community of fifteen members identical to Takiwasi (also costs for residential treatment are the same, i.e. 1000 USD/month). But in the Nicaraguan center, the groups are mixed (there are both male and female patients). A partial aim of the further research is to compare different aspects of work with patients with regards to their sex. [7]

In Takiwasi women are restricted from entering the rehabilitation program mainly because of the restrictions pertaining to using herbal medicine. The second fundamental reason lies in the fact that according to Peruvian therapists, the effectiveness of treatment in mixed program is reduced since the patient has a tendency to transfer personal troubles connected with addiction into partnerships formed in the closed group or even terminate the treatment because of a new relationship. However, the center does not close its doors to those who succumbed to relapse. As it is in the case of CEA, also here the therapists maintain a contact with the patients and they have the possibility to consult with them even though they are not staying in the center any longer.

#### IV. METHODOLOGY AND RESULTS

A set of methods was used during the previous research in Takiwasi. Participant observation in the group of patients; the first group during three months long preliminary research in 2007 had 7 patients. The second one, observed during six-month long research in 2009, had 14 (1 person stayed in the treatment in both cases because he relapsed).

The field work also contained participation in all kind of therapeutic methods available in the center (i.e. ayahuasca sessions, purgation, diet etc.). Thanks to this approach, it was discovered that the administration of traditional indigenous medicine in Takiwasi takes place in controlled environment. To protect patients against possible negative consequences of the psychoactive drugs use (e.g. psychosis), all therapeutic methods are ritualized and they have strict rules which are obligatory to obey, or the patient is expelled from the treatment.

Another research method used during the field work was a semi-structured interview with all patients and staff present in the community (n=32). The content of transcribed interviews was later analyzed using grounded theory. (Holton & Glaser 2012)

Analysis of frequency was then applied to the content of patients' files stored in the local archive (n=328) to discover what kind of phenomena occurs in the visions of patients, because there was a strong debate in the public about the lack of coherent meaning in the ayahuasca visions and their hallucinatory character. It was found that the most frequent are so called visualizations which can be basically divided into two categories. (Shannon 2003)

The first of them, visualizations without semantic context, e.g. abstract or geometrical forms, colored images and intense lights, are usually present at the beginning of the ayahuasca inebriation. The second type, visualization with semantic context, occurs more in the files of patients and it contains

mandalas, tunnels and complex labyrinths (whose form is particularly modified by musical accompaniment of the session). There are also images of various objects and situations from the patients' personal life present in its content, which are later analyzed during the therapeutic process in individual or group sessions for their emotional or semantic connotations.

Statistical analysis of ayahuasca session protocols from 2003 to 2009 based on Spearman's correlation coefficient also showed that the patients put strong importance on the visionary content of their experience, in spite of the fact that the doctors in Takiwasi put emphasis more on the purgation and emetic effects of the plant.

The aim of the further research is to make comparison of the Takiwasi approach with CEA (Nicaragua), analyze the Matrix® model applied here and describe the conceptual differences between them on the basis of participant observation. The efficiency of both centers will be measured by the Dimension of change instrument which summarizes eight factors of treatment process from a client perspective: Community responsibility; Clarity and safety; Group process; Resident support, sharing and enthusiasm; Introspection and self-management; Positive self-attitude and commitment to abstinence; Problem recognition; and Social network. (Orlando et al. 2006)

#### V. CONCLUSIONS

Even though many partial studies on the indigenous medicine of Peruvian Amazon have been published, no comprehensive comparative research dealing with this topic has yet been realized. Specialized information on the Nicaraguan treatment center CEA and the Matrix® model used there is not available either. The results of preliminary research show that both centers can offer an efficient alternative for patients with a problem of addiction who have not been successfully treated in other forms of treatment. Both centers focus on the same profile of patients, i.e. amphetamine, cocaine and alcohol users. A long distance, which must be traversed by applicants from other countries to get to these rehabilitation centers, should be seen as a part of the motivational process which can finally result in total abstinence, with the result not being a premise of the rehabilitation process. The same applies for the price of these exclusive treatments.

#### REFERENCES

- [1] Borrás, L.; Khazaal, Y.; Khan, R.; Mohr, S.; Kaufmann, Y. A.; Zullino, D. & Huguelet P. 2010. The relationship between addiction and religion and its possible implication for care. *Subst Use Misuse* 45(14): 2357-2410.
- [2] Bouso, J. C.; González, D.; Fondevila, S.; Cutchet, M.; Fernández, X.; Ribeiro Barbosa, P. C.; Alcázar-Córcoles, M. Á.; Araújo, W. S.; Barbanoj, M. J.; Fábregas, J. M. & Riba, J. 2012. Personality, psychopathology, life attitudes and neuropsychological performance among ritual users of Ayahuasca: a longitudinal study. *Human Experimental Neuropsychopharmacology* 7(8): 1-13.
- [3] Bustos, S. 2006. The House that Sings: The Therapeutic Use of Icaros at Takiwasi. *Shaman's Drum* 73: 33-39.
- [4] Brierley, D. I. & Davidson, C. 2012. Developments in harmine pharmacology--implications for ayahuasca use and drug-dependence treatment. *Progress in Neuro-Psychopharmacology & Biological Psychiatry* 39 (2): 63-72.

- [5] Castro De la Matta, R. & Zavaleta, A. 2003. *Epidemiología de Drogas en la Población Urbana Peruana*. Peru: CEDRO.
- [6] Guimaraes Dos Santos, R. 2013. Safety and Side Effects of Ayahuasca in Humans—An Overview Focusing on Developmental Toxicology. *Journal of Psychoactive Drugs* 45 (1): 68-78.
- [7] Heffner, J. L.; Blom, T. J. & Anthenelli, R. M. 2011. Gender differences in trauma history and symptoms as predictors of relapse to alcohol and drug use. *American Journal on Addictions* 20(4): 307-311.
- [8] Hillhouse, M. & Florentine, R. 2001. 12-step program participation and effectiveness: do gender and ethnic differences exist? *Journal of drug issues* 31(3): 767-780.
- [9] Holton, J. A. & Glaser, B.G. (Eds.) 2012. *The Grounded Theory Review Methodology Reader: Selected Papers 2004-2011*. Mill Valley, CA: Sociology Press.
- [10] Jakubczyk, A. & Wojnar, M. 2012. Total abstinence or harm reduction - Different strategies of alcohol treatment in research studies and international guidelines. *Psychiatria Polska* 46 (3): 373-386.
- [11] Jauregui, X; Clavo, Z. M.; Jovel, E. M. & Pardo-de-Santayana, M. 2011. "Plantas con madre": Plants that teach and guide in the shamanic initiation process in the East-Central Peruvian Amazon. *Journal of Ethnopharmacology* 134(3): 739-752.
- [12] Kronenfeld, J. J. (Ed.) 2009. *Chronic care, health care systems and services integration*. Bingley, Emerald Group Publishing Limited.
- [13] Lewis, S. E. 2008. Ayahuasca and Spiritual Crisis: Liminality as Space for Personal Growth. *Anthropology of Consciousness* 19(2): 109-133.
- [14] Liester, M. B. & Prickett, J. I. 2012. Hypotheses regarding the mechanisms of ayahuasca in the treatment of addictions. *Journal of Psychoactive Drugs* 44(3): 200-8.
- [15] Lietz, C. A. & Hodge, D. R. 2012. Incorporating Spirituality Into Substance Abuse Counseling: Examining the Perspectives of Service Recipients and Providers. *Journal of Social Service* 38: 1-13.
- [16] Mabit, J. 2007. Ayahuasca in the treatment of Addictions. In: Robert, T. B. & Winkelman, M. J. *New Evidence for Hallucinogenic Substances as Treatments*. *Psychedelic Medicine* 2: 87-103. USA: Praeger Ed.
- [17] McKenna, D. J. 2004. Clinical investigations of the therapeutic potential of ayahuasca: rationale and regulatory challenges. *Pharmacology & Therapeutics* 102(2): 111-129. Mackenzie, R. 2011. The Neuroethics of Pleasure and Addiction in Public Health Strategies Moving Beyond Harm Reduction: Funding the Creation of Non-Addictive Drugs and Taxonomies of Pleasure. *Neuroethics* 4(2): 103-117.
- [18] Orlando, M; Wenzel, S. L.; Ebener, P.; Edwards, M. C.; Mandell, W.; Becker, K. 2006. The dimensions of change in therapeutic community treatment instrument. *Psych Assess* 18(1): 118-122.
- [19] Pérez Del Río, F. 2012. En qué cambian los pacientes drogodependientes a los seis meses de tratamiento en la comunidad terapéutica. *Revista de la Asociación Española de Neuropsiquiatría* 32(114): 287-303.
- [20] Rawson, R. A.; Shoptaw, S. J.; Obert, J. L.; McCann, M. J.; Hasson, A. L.; Marinelli-Casey, P. J.; Brethen, P. R. & Ling, W. 1995. An intensive outpatient approach for cocaine abuse treatment. The Matrix model. *Journal of Substance Abuse Treatment* 12(2): 117-127.
- [21] Silverman, K.; DeFulio, A. & Sigurdsson, SO. 2012. Maintenance of reinforcement to address the chronic nature of drug addiction. *Preventive Medicine* 55(1): 46-53.
- [22] Shannon, B. 2003. *The Antipodes of the Mind: Charting the Phenomenology of the Ayahuasca Experience*. Oxford University Press, USA.

# SUPERVISION IN SOCIAL WORK WITH STUDENTS AND MODELS FOR ITS IMPLEMENTATION

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**Abstract** – The article presents a study, related to the problem of using the potential of supervision in the practical training of students in social work and the inclusion of certain models in its implementation. The study is carried out on the basis of a methodology that allows the analysis of the content and functional characteristics of the supervision with students in social work, the results of some research in an European context, the inclusion of models of supervision in the practical training in the "social activities" specialty, as well as the standpoint of students, lecturers and social workers on the researched issue. The results and conclusions thereof reveal the need to create an environment under the conditions of supervision which contributes to the acquisition of values, knowledge, skills and experience, to integrate theory and practice, to show reflexivity, to create and develop professional competence and identity. The essential role of supervision stands out when it comes to deeper analysis of problems and situations, active learning in practical conditions and gaining important experience, which in its synthesis contribute to improving the quality and effectiveness of the supervision, used in the training practice and the educational training in the specialty.

**Keywords** - supervision, supervision with students, practical training of students, models of supervision, integration of theory and practice, reflexivity

## I. INTRODUCTION

Supervision is an important component of social work and is an integral part of supporting the client. It is a continuous process, accompanying the daily practice, by which not only the practicing social workers but also social work students gain knowledge, skills and experience, receive advice and support to face the challenges of the business environment and achieve change and development in themselves and the client. Supervision enables them to explore and analyze the problems and feelings of the client, as well as their own problems and feelings, and to cope with them in accordance with the professional and ethical requirements. Furthermore, it is a useful exchange of knowledge, skills, ideas, models of professional conduct and good experience that allows the supervised to implement and manage their activities in the best interest of the client and its quality service. Typical for the supervision is its implementation as a shared responsibility of a supervisor and a supervised, providing efficient support and encouraging competent, responsible, and mandated anti-discrimination practice. Its use during the training of social

work students is essential for their early professional formation and development. Acquired under the conditions of supervision knowledge, skills, experience and related feelings and emotions during this period have a significant impact on the professional competence, values orientation, identity, confidence and good practice of the social worker. Presenting the supervision as an important component of the practical training in social work and an important factor for quality customer service requires considering the question for outlining its importance in the practical training of students in social work at the university [2; 6; 15; 20].

## II. METHODOLOGY

In connection with the need to include an appropriate model of supervision with students in practical training in social work, a short study has been conducted, directed to:

- Outlining the specific content and functional characteristics of supervision in social work with students in comparison to supervision in professional social work.
- Introducing approved in the educational practice models of supervision of social work students in countries in and outside Europe, and outlining their key characteristics on the basis of a theoretical and applied analysis.
- Ascertaining the standpoint of students, lecturers in charge of the educational practice, lecturers in basic subjects within the social work field and social workers – mentors for educational practice in social services, on the choice of a supervision model, which meets in the highest degree the specifics of the practical training under the planned curriculum for the specialty throughout the training course.

For the purpose of the study, a review of research on issues related to supervision with students in social work, presented in various scientific publications, has been made [21; 22; 23]. Two online questionnaires have been developed by the author - one for students and one for social workers - mentors for educational practice. They are anonymous and completed remotely by a total of 47 students from "Bachelor" and "Master" educational degrees of the "Social Activities" professional field and by 23 social workers active within various types of social services used as a basis for educational

practice. A semi-structured interview has been held with lecturers who guide the training practice and lecturers engaged in teaching basic educational courses within the social work field. The participation of the respondents is voluntary and consistent with the principle of confidentiality. Research has been conducted within four months.

A certain degree of similarity stands out between the findings of the author in the theoretical and applied analysis of supervision models for social work students in terms of good characteristics and options for adaptation to local conditions and the results and conclusions from the online questionnaires for students and social workers and interviews with lecturers.

The results from the research are considered in the statement of Part Three and its sections.

### III. SUPERVISION IN PRACTICAL TRAINING OF SOCIAL WORK STUDENTS

#### A. Content and functional characteristics of supervision in social work with students

The correct analysis requires clarifying whether there are differences between supervision in professional social work and supervision for students under their practical training. In this regard, researchers are explicit on the point that such differences exist. Supervision in practical training of students in social work is considered by researchers in this field in a relatively uniform background, but with emphasis on different points of it, depending on their own position:

- Structured, interactive and collaborative process that is limited in time and includes monitoring, facilitating, training and support of the students, as the main purpose is to provide opportunities and conditions for the student to give a significance to their own practice and their observations on the activities of social workers in a given social service or institution for practice. According to E. Beddoe, the relationship between supervisor and supervised student are the core of their practical training and are far more different than those in therapeutically oriented models and apprenticeship. They focus on teaching and learning with features of reflexivity and facilitation, as thus the development of every student in a supportive and yet challenging environment is ensured [3; 9; 13; 25].
- Learning context in which students realize their goals of integrating theory with the realities of practice and in which they face and feel the impact of contradictions and conflicts of practice [9; 11; 12].
- An important factor that creates conditions for bringing the theory into practice [14; 17; 19; 26].
- Helping students to reflect on their experiences and providing the opportunity to test the acquired by them knowledge and skills, thereby optimizing their learning [26].
- Environment and means for development of professional self of the supervised student [8].

- Interaction between two parties (a supervisor and a supervised student), which contributes to improved relationships with social workers from the office or institution for practice, clients and community organizations, as thus the students are introduced to and learn various aspects and practices of the social work. Linking the working relationship between the supervisor and the supervised student with the tasks assigned is in favor of both parties [10; 16].

Brief overview reveals that compared to the supervision of social workers, the supervision of students in social work is conceptualized primarily as a learning context and supportive environment with goals oriented towards integration of theory and practice and application of own and acquired within the interaction with the basic specialist and the social workers knowledge, skills, activity models and experience in certain practical conditions. Its important components comprise teaching and learning with features of reflexivity and facilitation, considered as a means for the formation of professional identity and professional development. The environment, in which the practical training of students and related supervision are conducted, is real and is characterized by specific dynamics, difficulties and contradictions in the implementation of professional activities. This enables them not only to get a real idea of the workload and responsibility of the profession, but also to seek the support of a supervisor. The specific in the supervision of students is that in many cases, depending on the adopted concept and model of work, the function and role of the supervisor coincide with those of the controlling and evaluating person in the face of the social worker – mentor and the university lecturer responsible for the training practice. To some extent this creates tension and anxiety and stands in the way of building relationships of trust and confidence.

Many authors draw attention to the benefits of the experience gained by students in the conditions of supervision in their practical training [4; 22]. Specialists who supervise students during their training practice should comply not only with the training needs, but also with their own and the models of behavior and learning of the students. In this regard, their activities should be in compliance with the following requirements:

- To form supervising working relationship, taking into account the authority positions of the involved parties.
- To achieve a reasonable balance between the capacity to take care of and to support the student in the process of mastering the basics of the profession, on the one hand, and functions of control and evaluation of students' results, including also joint evaluation by certain authority positions (social worker – mentor and university lecturer, responsible for the practical training) on the other.
- Assisting students in making independent decisions.
- Giving focus (direction) and content of the work meeting for supervision of students.

- Assisting students in exploring, analyzing in depth and assessing objectively specific issues and events, planned and implemented activities, as well as achieving personal progress and development.
- Organizing work meetings on a regular basis for supervision of students, thus carrying into effect a process of continuous learning and complying with the requirements of the methods and standards of social work, as well as building on learning through informal contacts and interaction.

Research results have revealed that an important role in the supervision of students has their active participation in the evaluation of their own activity, as in this direction there is a high level of correlation between competence and ability to self-analysis and self-criticism of the student [24]. This allows the evaluation to be formed as a joint product of the activities of the student and the supervisor, standing away from the traditional asymmetric relationships of positions of authority between subject and object of evaluation. When the functions and roles of the supervisor and social worker – mentor or university lecturer in practice coincide in the evaluation, the negative effect of this overlap is considerably reduced if the students are aware that they have an active role in the self-assessment. Under such circumstances, the inclusion of the student in the process of evaluation of the results of supervision is an important part of the experience gained in terms of practical training.

The structure of the supervision in the practical training of social work students is determined by the following factors which find expression in:

- Creating a learning environment and atmosphere for conducting work meetings that foster cognitive activity, collaboration and reflection.
- Using a system of methods of supervision, consistent with its purpose, specific orientation, environment for implementation and level of practical training of the supervised.
- Planned implementation, ensuring continuity of the process and contributing to an operative feedback.
- Ensuring an adequate response to the educational needs of the students in the context of their level of development, the need to integrate theory and practice and two-way transfer of knowledge and skills from the theoretical and practical areas.
- Achieving a cognitive value change stimulating cognitive activity, reflexivity in knowledge and self-knowledge and pursuit of development and self-improvement.
- Boosting professional personal development, integration to the values of the social workers community and development of professional identity.

Under the practical training of the social work students the supervisor conducts educational interventions, thus providing not only guidance and support, but also encouraging and

mobilizing the students to carry out the assigned tasks with high level of responsibility, to explore in details the problems encountered and cope with the challenges thereof. Supervision of social work students, as a useful exchange of information, enables both parties in the relationship to establish their level of progress in terms of acquisition of knowledge, skills and practical experience and to better manage the processes of learning, adoption of good practices and integration to the values of the profession.

#### *B. Some research within the field of supervision in practical training of social work students*

The supervision in the training of students in social work is an insufficiently studied problem. The first thorough and related with this theme research in Europe is conducted in seven universities in countries with different experience and traditions (the Netherlands, Germany, Sweden, Spain, Belgium, Croatia, Slovenia) in 2010 under the project initiative of the network Supervision in Social Work Education in Europe (SSWEE) [1; 5; 15]. It takes up the position that the supervision conducted in the practical training of students in social work is regarded as a method of training and is denoted by the term “student supervision”. According to the researchers on the project it has an “academic orientation” and differs from the term “supervision in social work” (in particular educational supervision) relating to professional social work [18]. The research is oriented towards the search for answers to questions that are related to the reasonable inclusion of supervision in the curricula and educational programs and addressing organizational and methodological issues in the implementation of supervision in the practical training of students in social work. The results from the research show that most university bachelor programs in social work in Europe offer supervision to support students in their practical training. Nevertheless, supervision in social work with students is interpreted in a different way. Discrepancies relate mainly to the planning, organization and the way it is included in the curricula and educational programs. Despite the outlined situation, the academic teams in all universities are unanimous that it is necessary and useful for the practical and comprehensive training of students and the results that must be achieved by its use.

#### *C. Models of supervision in practical training of social work students*

The experience of the developed European and some other countries, and partly in our country, demonstrates that the educational practice is implemented with increasing intensity and volume of hours whose share increases towards the upper courses. Its purpose is to enable students to learn the basics of the professional activities in various social work fields and to reach a certain level of independence. This process is organized, managed, guided and supported by a social worker - mentor from the respective social service, institution or office and by a university lecturer, in charge of the educational practice, who create professional and appropriate educational environment and conditions and use a system of training methods and supervision. Depending on the agreement between the university and the basis for conducting practical training, the functions of the supervisor can be performed by

one of the specified specialists or by an independent supervisor [15], as well as jointly by the basic social worker and university lecturer (co-supervision of students) [7]. The summarized information of the different experience review in the envisaged direction allows the following models of supervision in social work with students to be outlined:

- Complex model of supervision in social work with students - here the student, the social worker - basic specialist and the university lecturer in social work have a common aim to improve the process of practical training. The supervisor function is carried out by the university lecturer through regular meetings, which are held in the university or the bases for practical training depending on the specifics of the discussed problems;
- Model of the external supervisor - it is characterized by attracting an external supervisor by the university for the needs of practical training. The supervisor has the necessary training and license, keeps in contact with the university lecturer in charge of the educational practice, does not attend the base for educational practice and conducts the meetings with the students in their own practice of supervision, which is different from the university. It is believed that this model avoids overlapping of roles of the person assessing the educational practice and the person conducting supervision in the face of the university supervisor or the social worker - mentor specialist, and provides opportunities and space for reflection.
- Model of the internal supervisor - the supervision in social work with students is provided by the social worker - mentor specialist. It is believed that they can best fulfill the function as a supervisor, as they will supervise the student for the activity performed under their mentoring and which activity they are very familiar with. Social workers - mentor specialists, acting as supervisors, interact with the university lecturer in charge of the educational practice and the university includes them in the supervision training. Evaluating the results of the practical training of the students is carried out jointly by the social worker - mentor specialist / supervisor and the university lecturer in social work. Of essential importance here is the balance of the roles and functions of the supervising, training and evaluating person.
- Co-supervision of social work with students - in this model the supervision is provided jointly by a social worker - mentor of the given social service, institution or office, and by a university lecturer in charge of the educational practice. Conceptually and technologically, this supervision is characterized by the provision of a wide foundation for student support and grounds on a comprehensive framework for supervision resource allocation by sharing responsibility for the quality and effectiveness of the practical training by several parties - the student in social work; the base for practice (social service, institution or office) and its social worker - mentor, acting as a co-supervisor; the university and the respective lecturer, responsible for

the educational practice and engaged as a co-supervisor; the client / user of the social service. Researchers describe it as a specific system with many channels for clear, constructive and critical communication, providing the students with a range of relationships with several parties. The student benefits from the opportunities of both the contacts with the different parties involved in this model and the system of relations existing between them. The activity of each of the parties is transparent and visible to the other parties, which allows them to have a clear idea for the process of co-supervision and to cooperate successfully [7].

- Supervision in a group of equal (intervision) - it is used by educational institutions and offices or institutions of social work with limited experience in the supervision of social work students and in the presence of supervisors who are not adequately prepared to carry out supervision. Students have the opportunity to discuss their experience in intervention groups, seeking joint solutions and mutual support in difficult situations. They work and learn to work in intervention groups, studying modules, through which they acquire certain skills. The social worker - specialist mentor or the university lecturer in charge of the educational practice (depending on the distribution of functions) monitors the progress and development of the intervention groups and evaluates their activities. The use of this model is related to contradictions and questions the successful fulfillment of the purpose and tasks of supervision in social work with students.

Typical for the presented models of supervision of social work students is that they are associated with: giving an appropriate response to the educational needs of students and creating conditions for cognitive and practical professional formation and development; using reflection and accumulation of reflexive experience; creating conditions for professional and personal development of the future social work specialist; defining a clear and well-structured time frame in relation to the number of regular meetings with a specific purpose and for a given time period.

In organizational and structural aspect the supervision in social work with students in the reviewed models includes the following steps:

- Initial stage, which consists in introducing the student / students with the base for practice and its staff, the social worker, acting as a supervisor and the group for supervision.
- Main stage that represents the real part of the process of practical training and the supervising of the students in accordance with the adopted model and organizational framework.
- Final stage, which is expressed in the completion of the training in a given practical field for a certain period of time and conducting of an individual and group supervision in order to identify main problematic issues, to analyze an implemented activity in terms of

achievements and shortcomings and to outline future measures to cope with them, as well as to work on the implementation of a smooth transition from the given field of educational practice to the next in the training for the semester or the academic year.

#### IV. RESULTS AND CONCLUSIONS

The summarized results of the online questionnaire for students on the contained fields and items therein show the following average values - 92% positive evaluations, 5% neutral and 3% negative evaluations. The following items with positive evaluations have the highest proportional share: regular use of supervision in the practical training; supervision is an interactive environment contributing to learning skills and gaining knowledge and experience and for integrating theory and practice; implementation of a two-way transfer of knowledge and skills from theoretical and practical fields; implementation of cooperation and mutual exchange of ideas and solutions, supporting students for the more successful management of the learning processes, utilization of best practices and adherence to the values of the profession; possibilities for the analysis of problems and situations, their research and dealing with challenges posed by them; raising awareness on thoughts, feelings, experience, actions and behavior of their own and their clients; stimulating introspection and critical thinking of the supervised person; promoting the values and cognitive development of the supervised person; facilitating professional identification; creating a positive attitude and motivation for sustainable use of supervision; forming an unbiased evaluation of their educational and practical activities and constructive attitude to the training and the professional activity, determination in making adjustments.

The summarized results of the online questionnaire for social workers - mentors who at the same time perform the function of supervisors of students in certain fields and items show the following average value – 94 % positive evaluations, 5% neutral and only 1% negative evaluations. The following items with positive evaluations have the highest proportional share: need for planned, organized and responsible provision of supervision; the social worker-supervisor should be well aware of the nature, functions, content, forms and methods of the supervision of students; contribution of the supervision to improvement of the quality and effectiveness of the training and the work with clients; supporting function of the supervision for students in order to facilitate their adaptation to changes in the activity and difficulties and problems of customers; stimulating introspection (reflection) of students; development of critical thinking; the importance of the long experience and good practice of the social worker-supervisor for the provision of quality supervision; creating conditions for cooperation and exchange of ideas and solutions; discussion with students of their own expectations of their joint activities, the related difficulties and explanation of the importance of supervision as an important component of the social service; using of a style of communication, which is sensitive to distinctions of the client and the student (eg., culture, gender, age, disability, sexual orientation, etc.); maintaining constructive and regular feedback with the supervised persons; developing the students' attitude to supervision as a necessary

component of the supporting activity with important significance of the quality of the customer service and learning; basing the style of interaction with students on the good understanding of the problems and needs and the prospects in their development; motivational impact of the specialized training and previous participation in supervision during the training of the social worker- mentor on their work as a supervisor of students; connection between the theoretical study of supervision and its practical use. This group of respondents identifies the model of co-supervision as suitable for use.

The results of the semi-structured interview with the lecturers, in charge of the educational practice and conducting the training courses in basic subjects in the social work field, show completely positive evaluations to the implementation of supervision with students during their practical training. They believe that depending on the adopted organization of educational practice, the supervision with students can be best implemented after the model of co-supervision, by determining the proportion of the individual and group supervision and the interim summary conferences. The activities on the educational practice and the related supervision need to be recorded in a journal which includes self-analysis (reflexive component) in order to motivate the students to manage independently and in accordance with their resources their own learning process. They stick to the position that the supervision with students should be implemented through individual and group form, as the balance between them should be sought. They consider the group supervision carried out in a group of 3 to 5 students, as optimal and creating the right environment and conditions for effective activity, productive learning based on comparing different positions and mutual support. The lecturers share the belief that the process of supervision in small groups, which includes reflection and learning, allows the supervisor to easier include all participants, to actively use a dialog form of communication, and the students - to present their own experience or unresolved problems, to hear the positions and experience of their colleagues and to become well acquainted with and acquire greater knowledge of social work. The social workers acting as mentors and supervisors consider the model of co-supervision, combining the efforts of all parties, as the most suitable for the needs of practical training of students.

The supervision and the models for its implementation enable the students to conduct a productive interchange of knowledge, skills and practical experience, reflexivity in knowledge and transfer of resources from different areas. Using the models of supervision, in compliance with the concept of the specialty, the resources of the faculty and staff at the bases of practice, is an important factor for improving the quality and effectiveness of the education training of the students in social activities.

#### REFERENCES

- [1] Ajduković, M., Cajvert, L. (2003). "The Development of Social Work Supervision in Countries in Transition: Reflections from Croatia and Bosnia – Hercegovina." *Social Work in Europe*, 10(2), 2003, pp.11-22.
- [2] Australian Learning and Teaching Council (2010). *A guide to supervision in social workfield education*. (Revised edition). Strawberry Hills, NSW: Australian Learning and Teaching Council.

- [3] Beddoe, E. (2000). "The supervisory relationship." In, eds L. Cooper, L. and Briggs, L (eds). *Fieldwork in the Human Services*. New South Wales: Allen and Unwin, pp. 41-42.
- [4] Brown, A., Bourne, I. (1996). "The Social Work Supervisor." Buckingham: Open University Press.
- [5] Cajvert, L., Branković, D., Grbo, I. (2007). "Guide for postgraduate master studies, Supervision and Management in Social Work." Banja Luka – Sarajevo.
- [6] Cleak, H., & Smith, D. (2012). "Student satisfaction with models of field placement supervision. *Australian Social Work*", 65(2), pp. 243-258.
- [7] Coulton, P., & Krimmer, L. (2005). "Co-supervision of social work students: A model for meeting the future needs of the profession." *Australian Social Work*, 58(2), pp. 154-166.
- [8] Crockett, K. (2007). "Counselling supervision and the production of professional selves." *Counselling and Psychotherapy Research*, 7(1), pp. 19-25.
- [9] Davys, A., Beddoe, L. (2009) "The Reflective Learning Model: Supervision of Social Work Students", *Social Work Education*, 28(8), pp. 919-933.
- [10] Davys, A. (2007). "Active participation in supervision: A supervisee's guide." In D. Wepa (Ed.), *Clinical supervision in Aotearoa/New Zealand: a health perspective*. Auckland, New Zealand: Pearson Education New Zealand.
- [11] Davys, A., Beddoe, L. (2000). "Supervision of students: a map and a model for the decade to come." *Social Work Education*, 19 (5), pp. 437-449.
- [12] Edmond, T., Megivern, D., Williams, C., Rochman, E., & Howard, M. (2006). "Integrating evidence based practice and social work field education." *Journal of Social Work Education*, 42(2), pp. 377-396.
- [13] Ellis, G. (2000). "Reflective learning and supervision." In L. Cooper & L. Briggs (Eds.), *Fieldwork in the human services: Theory and practice for field educators, practice teachers and supervisors*. St. Leonards, Australia: Allen & Unwin.
- [14] Fortune, A. E., McCarthy, M., & Abramson, J. S. (2001). "Student learning processes in field education: Relationship of learning activities to quality of field instruction, satisfaction, and performance among MSW students." *Journal of Social Work Education*, 37(1), pp. 111-124.
- [15] Hees, G. van, & Geißler Piltz, B. (Eds.). "Supervision meets Education. Supervision in the bachelor of Social Work in Europe." Maastricht: CESRT Research Centre Social Integration, Faculty of Social Work, Zuyd University, 2010.
- [16] Holmes, B. and Bryant, R. (1977). "Fieldwork Teaching in Community Work." In Briscoe, C. And Thomas, D. (eds.) *Community Work: Learning and Supervision*. National Institute. Social Service Library No. 32. London. George Allen and Unwin.
- [17] Jones, M. (2004). "Supervision, learning and transformative practices." In N. Gould & M. Baldwin (Eds.), *Social work, critical reflection and the learning organization*. Aldershot, England: Ashgate.
- [18] Kadushin, A., & Harkness, D. (2002). "Supervision in Social Work." New York: Columbia University Press.
- [19] Ledwith, M. (2007). "Reclaiming the radical agenda: a critical approach to community development." *Concept*, 17(2), pp. 8-12.
- [20] Noble, C. (2011). "Field education: supervision, curricula and teaching methods." In C. Noble & M. Henrickson (Eds.), *Social work field education and supervision across Asia Pacific* (pp. 3-22). Sydney, Australia: Sydney University Press.
- [21] Nunev, S. "Attitudes of social workers to the conduct of supervision in social activity." *Scientific papers of the University of Ruse*, 2014, Volume 53, Series 8.1. (in print)
- [22] Nunev, S. "Supervision practical training problems with social work students." *Trakia J. of Sciences*. Vol. 12, 2014, N 4, Series Social Science. (in print).
- [23] Nunev, S.T. "Opportunities for development of culturally-competent supervision in social work." *Science and Education: III International research and practice conference*, Vol. II, Munich, 2013 / publishing office Vela Verlag Waldkraiburg – Munich – Germany, 2013, pp. 383 – 386.
- [24] Salmon, H. (1997). "Evaluating and Assessing Community Work Students." In Briscoe, C. and Thomas, D (eds.) *Community Work: Learning and Supervision*. National Institute Social Service Library, No. 32. London. George Allen and Unwin.
- [25] Tierney, H (2011) "Mapping Fieldwork and Supervision Practice: Part 1." *Youth Studies Ireland*, 6(1). pp. 18-33
- [26] Webber, R. (1999) "Is there a difference between bungee jumping and field supervision?" Paper presented to the HERDSA Annual Conference, Melbourne, 12-15 July 1999.

# A new view on Social Adaptation of The Military, Discharged from Military Service in Bulgaria

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**Abstract-**This article reviews the social adaptation of the military as a social process. There is an overview of adaptation concepts adopted in science and practice. There is an attempt to classify the types of adaptation based on the nature of the interaction, the type of adaptive environments, adaptive environment structural components and based on the psychological content. Social adaptation process is presented in the following major stages: preparatory stage, stage of psychological tension before discharge; stage of acute mental reactions to entry into „civilian life”; stage of acute mental reactions to exit out of „military life” and stage of re-adaptation.

**Keywords-** Social Work, Social Management, Social Adaptation of Military

## I. INTRODUCTION:

Social work is a relatively young, gaining distinction nowadays as a rapidly growing branch of knowledge and practical work, whose development has not been completed yet. Having emerged as a social phenomenon and a special area of human activity, it has been on a more frequent basis attracting the attention of those engaged in the field of research and becoming subject of special scientific studies. This means that the studies of leading specialists dedicated to social work are based on methodological approaches, aggregations of methods and technologies, generalized practical work experience applicable to most Social Sciences and Humanities. [1-5, 8]

The concept of Social work is inherently polysemantic. Presently, there are several approaches to its understanding amongst which more significant are the following:

- the area of scientific knowledge about laws governing the utilization of internal and external resources of an individual, a family or a community being in difficult situations of inadequate social functioning;
- specific type professional activity, manifestation of which is evident in rendering governmental and non-governmental assistance to people in order to provide cultural, social and well circumstanced level of life, providing personal assistance to an individual, a family or group of persons;
- rendering assistance within in the context off an of immediate interaction with individuals and families to resolve problems in their mental life, interpersonal relations, social and economic problems;

- helping an individual placed in a difficult life situation, encouraging him to become socially self-sufficient, socially developed and socially active member of society;
- type of activity of individuals and organizations providing assistance to various segments of population.

These definitions indicate that the social work is a particular type of activity of people aiming at providing help or assistance to various strata of society being in difficult life situation, also at creating conditions instrumental for the restoration or betterment of people’s ability to social functioning.

The term „social work” in scientific and academic literature is most frequently defined as professional activity aimed at helping individuals, groups, communities to enhance or restore their capacity for social functioning and creating social conditions facilitating the implementation of this goal. Social work is also seen as a kind of social activity featuring specific levels of accomplishment conditioning its functions, forms and methods.

In the widespread R.Baker’s Social Work dictionary in the list are included: individual social work, team social work, community organization, administrative social work, research, social policy, planning, immediate clinical practice, family and marital practices and other micro practices and also this, what is called the common practice of social work.

The amalgam of technology, research and practical procedures, mode of operation by means of which social work is carried out represents the methods of social work.

Methodology of social work is based on a system of well-substantiated knowledge gained through research and evaluation of practical activities. The theory of social work accounts for the complexity of interactions between individuals and their encirclement and recognizes people’s ability both to be influenced and to alter the effect of multiple factors acting on them.

Theoretical and methodological analysis of social work is based on the historical approach and identification of sources for the emergence of a phenomenon in the past.

Historians track down roots of compassionate attitude towards a fellowman still in the customs and habits of the Early Slavs. S. M. Solovyov notes that unlike the warlike Germans and Lithuanians, ridding of „needless, weak and infirm”

countrymen and killing captives, our distant ancestors used to exhibit mercifulness to old and little tribesmen, also to captives, who, after a certain period of time could return to their homeland or „to remain living with the Slavs as free people or friends”. Providing shelter and affection for strangers, they are conspicuous for their rare hospitality.

Against the background of that what was stated above, scientific understanding of social work in Bulgaria begins with the manifestation of social role of the phenomenon of charity in public life, as well as with the attempts various philosophical, psychological, psychotherapeutic, sociological and medical approaches to be applied for the purposes of scientific justification of social protection of people, helping the needy.

Nowadays, theoretical justification of social work is developing in three main directions. First, the place of social work as a branch of knowledge amongst disciplines such as Social Philosophy, Social History, Political Science, Sociology, Social Psychology, Cultural Studies is determined. Second, an own theoretical constant of social work as a specific object of study is sought; and third, its interaction with other human and society science is shown. Taking into account that the social work is based on human factor understood as an individual, team and team members' relationships based on the awareness, the social nature of prime priority of its activity conditions the necessity of knowing the general and specific factors. As to general factors, attention should be given to general culture, special functional culture, factors of motivation, while the specific factors are associated with the manner of management decisions making, managerial intercourse and management responsibility.

Sticking to the logics of the study, our research is focused on a specific area of social work, such is the social adaptation of servicemen at the end of their career and making them ready for positions in the public and private sector of economics [Human resource management concept of the MD, BA and structures directly subordinate to the Minister of Defence, S., 2006; Armed Forces Human Resources Management Doctrine (NP-1), an Ordinance of the Minister of Defence of the Republic of Bulgaria №OX-179 dated 06.03.2013] as a criterion for motivation and increasing the activity of the human factor in the field of security and Defence. Moreover, in contrast to previous studies, refracted through the prism of military department social policy, this study is aimed at offering the social and scientific knowledge a new perception of social adaptation of servicemen leaving the ranks of the Armed Forces and Bulgarian Army in accordance with the scientific understanding of the social work.

## II. FEATURES OF SOCIAL WORK WITH SERVICEMEN AT THE END OF THEIR CAREER

A baseline of our research served the specificity of social work with servicemen discharged from military service. The need for transparency and equal treatment of users of social services, paying respect to dignity of military brings out the role of social work with them [10, 11, 13, 14]

Hundreds of professionals moved from the army in the civil sector are able to make a substantial contribution to the reconstruction of Bulgarian society and to add value. Things

are different in real life, where their experience and skills often give the impression that they are unnecessary. People who devoted their youth to the colors, as a rule are difficult to adapt to conditions of civilian life. Such a situation is not only immoral but also socially dangerous. People with special military-applied skills and knowledge actually form a new „risk group”, especially when they fall come to the attention of criminal world. Very indicative on this issue are the various reports and analyzes of the Ministry of Labor and Social Policy and the Ministry of Defence.

The data are indicative that a third of them have „finding a job” offers in the security services to various private organizations, banks and/or specialized licensed private security units.

The established practice shows that some of career service officers are experiencing serious difficulties finding a civil profession. Although highly qualified, many of them cannot find a job months in a row, lose the continuity of their working carrier or get deskilled. Working out the causes is based on an analysis of sociological and psychological studies materials enabling us to define the specifics of their self- and personal adaptation. Accordingly, the age groups of leaving the ranks of the AF and BA servicemen, social adaptation of who finds its manifestation in different ways.

### A. *Differentiation based on age criteria:*

#### a) *Servicemen up to 30 years old*

In a rapidly changing security environment it is difficult to provide precise framing of causes leading to discharging from the army. Observations show that a young officer decided to leave service if he feels unable to fully realize his potential in military service, comparing his life journey and achievements with the way existence he has have and how successful their coevals in „civilian life” are, or if he has chosen this profession by accident. This is the most mobile part of reserve officers. Discharged under honorable conditions or released members are not eligible for pension and for some time they have to face financial difficulties, especially those of them who have a family. They need such training, that would provide them quick and tangible revenue and growth in their professional career. This is the most successful part of the servicemen in the context of retraining/acquiring additional qualification in civilian occupational specialty.

#### b) *Servicemen aged 30-40*

Many of them are forced to leave the ranks of AF and BA due to staff reduction and structural reforms. This does not always coincide with their personal plans. This category leaves resentful, prone to negatively evaluate their perspectives, quite often with aggressive attitude to others. The combination of pecuniary burdens and substandard living conditions leads to crisis states of mind and personality. Despite the difficulties, the members of this category are trying to maintain emotional and mental flexibility, actively seeking new forms of behavior.

If the representatives of this group of military are provided appropriate positive solution to overcome the crisis, the probability for them to enter into a period of high productivity in a variety of areas of activity will increase. This is that part of

discharged servicemen who need a thorough and adequate counseling, professional advice, social and legal support.

*c) Servicemen older than 40:*

This is the group of military who have served their time and achieved maximum self-actualization within the army service. They have certain privileges and material welfare. They strain after activities enabling to keep the attributes of their past power and former social status, however, without striving for particularly complex types of business due to the fact that such an endeavor requires procedures of acquiring a new major, knowledge and skills. The process of serious training for them is unattractive, they tend to offices in the administrative and economic control departments of the state and public administration and to various activities /control and security/ in municipal administrations in the field of education and financial bodies. When choosing their further life path they find it easy to turn to various organizations.

In considering the main problems of socialization and adaptation of servicemen leaving the military service and their transition to civilian life environment resulting from their economic, age, psychological and social characteristics and their social status in modern conditions, the importance of social work targeting this category should be taken into account. This necessitates further development of already existing and newly developed forms of social work. Moreover, the servicemen social protection system has historically become a part of the national policy of a state. As such it should be further developed by actively interacting with all executive bodies and sectors of life in a country. In this context, attention should be given to appropriate best practices and their adaptation to our environment, accordingly.

### III. FOREIGN AND OUR EXPERIENCE IN THE FIELD OF SOCIAL ADAPTATION OF THE MILITARY

In organizing the work on career development and social work with servicemen putting an end to their military career, regardless of reasons, as well as the work with their family members at national level, taking into account international experience is of significant importance. Undoubtedly, it is at least nonsense to believe that this experience can be transferred to our terms unalloyed, directly. In order to be used in the work of our social services, its bringing in conformity with Bulgarian specifics is a requirement.

Almost hundred years' experience in the development of social work not only determines the modernization of the classical social thought paradigm, but also provides scientific foundation for new trends in the social reconstruction of society[6, 7].

Theoretical growth of scientific knowledge in the field of social work in many countries of the world has been developing mainly in two directions. The first trend relates to promoting the importance of behavioral approach in the system of psychological explanation based on the theory of knowledge, on the domination of cognitive orientations. The second aspect is related to enhancing the interest in social work theoretical approaches.

In the long run, systematic concepts of social protection, social guarantees, and social services aimed at rendering assistance and support to people finding themselves in complicated life situations have been formed in the knowledge of social work. At that, orientation towards an overall approach to theory of social work, to the establishment of a legal foundation of social technologies is promoted.

Comparative analysis of international practice in the system of conversion training and social adaptation of servicemen who undergo transition to civilian life has provoked us to look for an answer to the following questions:

- what military personnel classes leaving the ranks of AF and BA are covered by this system;
- how the financing of military staff's preparation for the transition to civilian is arranged and who is irresponsible for the core measures in this process;
- who is carrying out the process of social adaptation and what structures and organizations within and beyond the competences of the Department of Defence are involved;
- what is the technology of organization of the process of professional reorientation, conversion training and assistance in finding the servicemen discharged from military duty a job;
- what is the time span for carrying out the work on conversion and social adaptation of military before and after their discharge from military service;
- how the availability of practical skills and competences acquired in the course of regular duty by those discharged from military service is reported;
- what is the ratio of discharged servicemen intending to undergo retraining in one civilian occupational specialty or another and those intending to turn to one business or another in such civilian and educational field at a later stage?

In pursuing an answers to these key questions, we turn to the best practices in the field of conversion training and adaptation of the military personnel discharged from service and the members of their families. And it is quite understandably for us, as a member state of NATO, to focus on the practices and experience of the USA and many EU member states of this structures in this area.

In the U.S., in the late 80s of XX century, the Pentagon, the ministries of the Armed Forces, many military organizations (Associations of the US Army, Air Force, Navy, Officers, Seniority, Sergeants, Reserve Officers) assisting those who left military service created a special office aimed at providing employment services.

Employees of this department have developed and implemented a special program for „linking” military and civilian fields, where the individual willing to find a job can obtain information about business sectors he/she would be appropriate for and where specialists in the particular field are needed. Close cooperation between the Department

management and companies, corporations, government and private labor offices is essential for achieving this is of exceptional significance. Very useful in boosting and simplifying the job finding process are the published handbooks containing variety of information: starting from tips for servicemen moving from active duty to reserves to requirements for completing the necessary questionnaires, data to be entered by using the modern computer technology. Today, these handbooks are available in almost all libraries of the U.S. military units.

Care for soldiers upon termination of military service in the U.S. by legislation is a duty of the state authorities. Moreover, the enlisted men and N.C.O. who do not receive pensions are eligible for unemployment benefit paid from a fund financed only from the budget of the Ministry of Defence. Military reservists have priority in employment for positions at government offices, more particularly, certain categories of veterans are given priority in employment at government organizations. What is the question about is that in accordance with the legislation of the U.S. (Servicemen's Readjustment Act of 1944, Veterans' Education and Employment Assistance Act of 1976 and Civil Service Reform Act of 1978) hiring priority in employment at governmental organizations enjoy the participants in combats and having received government awards or disability during service. Moreover, for those enrolled in the army after September 7, 1980 there is a requirement for them to have served in the regular armed forces for at least two years (this condition does not apply to people with disabilities).

No less noteworthy is the attempt to solve the social problems of servicemen in the United Kingdom and Northern Ireland. All British military are serving under contracts. According to The Queen's regulations and orders for the army commanders are responsible for ensuring access to information and advice on all aspects of adaptation to civilian life for all soldiers in all ranks and in every period of their career.

Specific features of the British practice in solving the problems of adaptation of soldiers passed in stock are the following:

- all measures are carried out at the expense of the state and not at the expense of employers or military;
- the Ministry of Defence provides servicemen advising on these issues two or two and a half years prior to the termination of military service and one year after;
- servicemen are eligible to retraining after five years of service, at that two or two and a half years retraining for the regular is mandatory, while for the officers-voluntary;
- servicemen are entitled to receive a grant of 534 pounds sterling (the amount has not been changed for a number of years) for retraining courses outside the system of the Ministry of Defence (as against our practice established where the amount allocated for retraining of discharged servicemen is cut at regular intervals - currently 350 BGN for a discharged serviceman);

25,000 servicemen are being released every year; partial support is provided to all military and full - to 50% of the discharged; in addition, the Ministry of Defence reimburses the servicemen travel and accommodation expenses during the conversion retraining; duration of conversion training depends on years of service: four weeks - upon completed five years of service, five weeks- upon eight years, six weeks- upon twelve years; seven weeks- sixteen years of service.

Support of the military in the UK takes place on three levels. This includes: general consulting at the unit conducted by the officers responsible for the employment of released officers, the level of support provided by the respective commanding using respective-consultants ( in Navy- 8 people; in the Air respective- 11, LF -22 people); the structure, in which along with the Ministry of Defence participates a private company (the structure includes the Ministry of Defence, Veterans Jobseeking Office, Coutts Consulting Group and the Bureau of Vocational rehabilitation).

A distinctive feature of French policy in the field of social adaptation of the military is the established complex „assembly- training- retraining” taken as a whole and offering possibility for the servicemen not only to successfully carry out their service in the army, but to succeed when they return to civil society within the frameworks of their second career.

Since 22 February 1996, immediately valid and effective as at the date and time of its announcement by the President of the French Republic, the decision to move the army into a professional, the policy for retraining of the military staff is an integral part of the personnel management policy. This makes it necessary to provide for such a career that allows for a serviceman to serve within that specialty at a particular point in time and that can be used at a later stage- in the civil service. This also justifies the necessity of validation of military diplomas in accordance with scale of state diplomas issued in the education system by the administrative committee with the Ministry of Labor. Coordination of the procedure for recognition of military diplomas military is carried out by the Department of occupational mobility.

Yet another feature of the French policy in this area is the significant differentiation in social work care provided to particular military personnel classes (Navy, Air Forces, Land Forces). Thus, a structure designated as Mobility in the Navy was established in the Navy, encompassing five retraining departments. Coordination of each of these departments is carried out by an officer-consultant in charge for the region. Their staff is looking for employment opportunities in direct contact with companies (more than 4,000 different companies use the services of Mobility in the Navy structure).

Existing legislative basis for conversion training includes:

A common normative instrument for military personnel (a Law of 13 July 1972) with amendments introduced with the Law on measures to help military within the frames of transition to a professional army of 19 December 1996. According to this act, career regulars and servicemen on contract are entitled to twelve months of leave for training, allowing them to pass training tailored to their career project. Moreover, during the first six months of retraining they receive

100% of their salary and over the next six months - a salary, but without payment of premium and bonuses. They also have the right to work (internship) at an enterprise and to get remuneration there, though it can reduce the military salary.

Three decree adopted in May 1997, regulating the conditions for granting leave for retraining (the leave is granted by personnel departments).

A common regulation of 22 April 1998 of the General Secretariat of the Executive Office to the MD and the General staffs of different military defines the principles underlying the new policy for retraining of personnel.

There is a Council on personal retraining operating to the Ministry of Defence, researching and dealing with the whole range of problems, drawing conclusions and recommendations on projects of the Ministry of Defence.

The panel of the Council, chaired by the Minister of Defence, consists of twelve representatives of staffs and controls, seven members appointed by the CSFM, the president of the Association of Social Adaptation of Officers (ARCO), representatives of various associations of ex- servicemen, a representative of the Ministry of labor and representative of the Ministry of National Education .

Responsibility for the retraining of personnel is assigned to the Department of occupational mobility (MMP -Mission pour la Mobilité Professionnelle) founded in 1982, that develops and defines together with the various armed forces a policy for retraining of personnel under the leadership of the management of military and civilian personnel (DFP).

The first interview for reorientation is in the competences of the Department of Defence. Depending on situation, it provides the applicant an opportunity to refer to the officer-consultant at a training center (CIR) or ARCO.

In Germany the organization of retraining process, professional orientation of military personnel on duty and after leaving is the competences of the administrative and economic management of the Bundeswehr (its units within the Federal provinces). Under the command of Administrative and Economic Office VI in Bavaria there are 21 000 people, 17 units (district military administration). A distinctive feature of the German experience is that professional orientation and retraining at the end of the service is part of a general policy for training of the military carried throughout the service. Funding for these activities is charged to the budget of the Defence Department.

During the late 1960s a resolution was adopted according to which every officer of the Bundeswehr is required to have higher education. To this end, the officer either goes into the army after having completed university education, or obtained it during the service. In a related move two military universities have been established (in Hamburg and Munich). Eligible for these universities were military servicing on re-engagement who have served not less than four years and wishing to become officers- professionals.

Courses at these universities are conducted on a more intensive basis than at ordinary civil universities. The total period of training is significantly reduced (3-4 years) by

organizing training trimesters (i.e. a calendar year training lasts three semesters, hence the name „trimesters“). Students receive a salary, wear civilian clothes. Once a week they have only military training. Specialties in which the training is conducted is determined according to the needs of the Armed Forces.

During the service, through the mediation of the Career Development Office to the Bundeswehr, training in civil disciplines and professions and further qualification of contract servicemen in the military- vocational training is conducted.

Upskilling takes place in a special school to the Bundeswehr at the end of military service. There general training and special courses in majors leading to awarding of professions as economist, tutor, engineering technician or electrician are taught.

Upon completing the service, assisted by the Career Development Office to the Bundeswehr, the officers receive special education and financial aid at a particular office with allowance for length of service, compensating jobseeking and relocation expenses incurred.

It is noteworthy that in the Bundeswehr considerable resources are spent on advertising military service. In support of this was the large-scale campaign was conducted in 1996, on organization of which almost half of the budget allocated to attract recruits (about 11 million) was spent.

The analysis shows that military service under contract in Germany is a temporary job. Civil future of servicemen is protected by the Social security of former Bundeswehr officers act providing insurance for years of service (monetary compensation for the interim period and cash assistance for the transitional period) and professional qualification.

The practices of developed countries in Europe (the UK, France, Germany, etc.) confirm that servicemen discharged from military service prepare for civilian life prior to their releasing from the Armed Forces and the organization of this process is a responsibility of the ministries of Defence, and of course, subject to financial support from the state.

Adoption of foreign experience in social protection of servicemen requires taking into account the complex of domestic and foreign policy factors influencing the processes taking place in a particular state. The existing models for social protection of servicemen worldwide can be divided into institutional, partially institutional and extrainstitutional.

The institutional model is typical for the countries with developed legal systems, industrial or post industrial economy, democratic state system. There are clearly defined conditions of operation of the armed forces, a comprehensive civil control is carried out there, a functioning contract-based service system and an established legal framework for protection of the honor and dignity of the military. A well-developed system for material and social security of servicemen and members of their families allows the state to provide them with living standards higher than the national average. Institutional model defines the high prestige of military service in the public mind and its attractiveness for a significant part of the younger generation.

In countries where a social security institution is just beginning to form and the system of guarantees, compensations and benefits for servicemen sometimes has a casual and fragmentary character a partially institutional model is formed. There, the peculiarity of the legal status of the armed forces and the military represents an opportunity to involve them in extrinsic functions implementation. In some cases, such decisions of the military and political leadership of a country could be taken in concurrence with the legislative authorities. Living standard of the military in partially institutional system is comparable to the average standard of living of the population. The prestige of the military service is substantially lower than in terms of the institutional model; military service in the public perception is ambiguous. There are certain difficulties with the provisioning of the armed forces. The choice of the military profession is often driven by the more favorable socio-economic conditions of life outside the army.

Extraintitutional model is formed in countries where the military are an independent political force, being in power (or having unlimited influence on it). There, the military actually participate in political decisions and, if necessary, use firearms. They act under the wartime laws and conduct military dictatorship. Army members get considerably higher socio-economic benefits than civilians. The military cause fear and tension.

Social protection of servicemen in Bulgaria for the present is of partially institutional nature, and sometimes, in a number of signs is reduced to extraintitutional model. The way ahead in its further development depends on the specific policies applied. More preferable is the way of strengthening the legal basis for the social protection of servicemen and provisioning plenty of the socio-economic and socio-cultural mechanisms, which means a move towards institutional model.

The analysis of the legal regulation concerning social protection of servicemen applied by the member countries Euro-Atlantic structures allows to highlight a number of specificities. Attention, in our view, should be given to the following:

First, they regulate the status of the military both as a citizen, and as a special subject of public relations;

Second, the underlying principle of legal regulation of the servicemen social protection system is the principle of compensation for specific burdens and hardships of the military service;

Third, the special status of the military, the complex of their rights and privileges is constitutionally entrenched.

Fourth, the effectiveness of military legislation is conditioned by its systematization.

A distinctive feature of the legal regulation concerning social protection of foreign armies servicemen is the establishment and effective functioning of special structures to the state administrative bodies within the immediate jurisdiction of which is the settlement of the said issues.

European practice gives evidence that parliamentary scrutiny is the basis for a broad and developed system of civil control over the armed forces and the entire military. In

Bulgaria, there are still many gaps in the implementation of parliamentary scrutiny, although there have been certain changes in this direction. However, a number of questions concerning armed forces activities that have significant social importance remain outside the regulating effect of the National Assembly. Speaking of this very day in our country, it is far from complete implementation of the possibilities inherent in the foundations of parliamentarism.

The existence of a network of public organizations at different levels is typical of the established in the Western countries social protection systems; there is a steady tendency to boost their role. Thus, the French experts consider it necessary to establish within the military organization special institutional frameworks for open discussion and early detection of problems at regiment (ship) level.

Notwithstanding undoubted success of the military social protection system development of foreign countries, they also have a number of unresolved issues. This is primarily the problem of housing. For example, many U.S. military garrisons have no living conditions for the families provided and they are categorized as units where family reunification is not allowed. Family separation creates many financial, psychological and social difficulties. Servicemen arriving at the place of service with a family are paid travel expenses for 60 days. In practice, it often turns out that this money is not enough. Quite often the soldier is unable to find accommodation for his family.

In Germany, with all that there are sufficient lodgment opportunities, they often do not meet the modern requirements, or inappropriate in terms of location. All this creates difficulties for the families of soldiers when it comes to children going to school, finding jobs for women and the loss of previous social environment with all associated negatives in general.

In all armies of states, subject of this study, without exception, the social protection of servicemen families is a topic of the day. In the U.S., the total income of an officer's family is often lower than the family income of civil servants in the federal administrative bodies. Soldiers and their families are sometimes concerned about that to what extent they will do until the next monetary allowance. Family's dissatisfaction with the lifestyle of servicemen is pointed out as a major barrier in the way of continuing the military service contract.

Social and psychological adaptation of soldiers passed in stock remains a problem of the day. They are changing the profession in advanced age, when others have made a career in civilian profession. As a result, on the background of tense situation, special difficulties are faced on the labor market, being exacerbated by the fact that in many countries, in Germany in particular, there is no protection against unemployment for ex-servicemen under contract.

Experts in the field of innovative military education in Bulgaria believe that indiscriminated borrowing of foreign practice is extremely dangerous. Meanwhile, others believe that the specifics of Bulgarian lifestyle, ideological heritage, mentality of the population should not be exaggerated, since during the transition period they have not been so much significant factors of social development, as could be expected. Much greater impact has the state of economy, which crucially

affects social processes, limitates the choice of orientations and scales of social and political events, rising sometimes insurmountable barriers in the way to implementation of social policy.

Thus utilization of foreign practice and experience should be seen as a guideline to form a system and mechanisms for social protection of servicemen. With all steadiness of the historical and national circumstances, they also undergo certain changes. Representative in this respect is our legal system, in the development of which the role of the state determinative. Such a role for the state gives the Bulgarian legal system that unique character that sets it apart from the legal systems of other European countries. This means that when taking certain legal concepts, models, and rules of the law, we must recognize the specific nature of our legal system that can radically transform foreign ideas and models. In this vein, we consider it necessary to trace our country-specific practice for social adaptation servicemen, discharged from military service.

#### IV. PROCEDURE FOR SOCIAL ADAPTATION OF SERVICEMEN IN BULGARIA

Solving the complex task of creating a system of social protection of servicemen, as a rule, affects all aspects of the life of society. Fundamentally new questions appear to economic, social, intellectual and other spheres. Solving a similar problem in Bulgaria is complicated by the significant reduction of the army, its reforming by applying professional principle of completion. Taking into account the international experience, it can be assumed that similar changes at home can cause new set of difficult and complex problems. In this case, attracting foreign partners and adopting joint training programs of soldiers moving into stock would be useful. Measures and actions in this area should be directed towards the implementation of programs and projects for motivation, training and retraining, job placement, starting own business and conversion of military property. Feasibility of the study of the labor market determines the need for professional orientation. This requires involvement of the military in training courses, providing learning opportunities at higher educational institutions awarding majors sought by employers, making them ready to start their own business, helping them with job placement. Accordingly, provided funding for training courses should be in proportion military budget- serviceman (70:30). Such an approach shall promote the aspiration for development of those servicemen who are subject to retirement or otherwise leaving the ranks of the Army and prepare them for self-actualization in civilian life. Training courses should be tailored to the requirements of the labor market [12]

In accordance with the above, the main types of social services can be classified as follows:

- professional orientation;
- assistance in professional retraining;
- jobseeking assistance;
- legal assistance;
- social and psychological support;

- assistance in setting up, small business enterprises;
- information and consulting services;
- work with the families of servicemen who died while performing their military duty.

Professional orientation and the choice of civil profession is the first step in preparing for the transition to stock.

Assistance with professional retraining includes career choice and direction to professional retraining at educational units or professional training centers.

As to the jobseeking, it consists in rendering assistance on the part of specialists-professionals when choosing a future profession, and seeking suitable placement.

Legal assistance consists in information-consulting sessions with young officers on the mortgage system of housing of soldiers, providing legal advising to soldiers who have been wounded and more.

Social and psychological support includes psychological diagnosis and psychological help using modern methods and also psychological support to servicemen found themselves in a difficult life situation.

Assistance in the establishment of small business enterprises among servicemen discharged from military service is provided during information meetings on development of entrepreneurial activity among retired military personnel and their family members and others.

Information, consulting and methodological support include: disseminating information about the social protection services provided to servicemen, to those discharged from military service and their families (Labor Office, Social Assistance Directorates, etc.); creation of information-analytical data base on social adaptation issues; working out, publishing and distribution of guiding and reference literature; organizing information interaction with the media, with departments and organizations dealing with social protection of servicemen moving into reserve and their family members; working out, publishing and distribution of methodological instruments in relation to organization and carrying out military social work.

An important point is that the process of social adaptation initiates at the very military formation, before a serviceman is discharged from military service. To this effect, group and individual motivational talks are held, with the participation of experts from the National Employment Agency, and its territorial divisions, when possible. Motivation lectures within groups are organized by commanders and coordinators within the formation, being helped and assisted by consultants in adaptation from the District and Regional Military Departments to the Central Office of Military Districts /CMD/. This means that before being released, a serviceman acquires an initial notion of the process of social adaptation and the possibilities for self-actualization in civil society.

It is noteworthy that the legislative basis (Article 162, item 2, Art.164 and Art.169 of the Act on Defence and Armed Forces of the Republic of Bulgaria) is indicative that upon

release from military service, including due to unfitness while performing or in connection with the performance of his duties, the military are entitled to a single training course with a duration of up to six months. For the duration of the training they are provided with additional paid leave.

The choice or refusal of the military to enjoy their rights to participate in the activities of social adaptation is certified at the time of serving of the notice or service termination order, and to this end they personally complete a Registration card №1 in the established form, that is attached and stored in the personnel file.

Adaptation coordinators in formations are those, who conduct individual talk with the individual released from military service and perform its registration in special log. They provide the registered serviceman a copy of his Registration card No.1 and inform him of the time and place of his first visit to respective Military District (Regional/ Central Military Department or Division). Registered soldiers are issued to a recommendation (personal profile) by the human resources (personnel) office, signed by the commander (chief) of the formation.

Cooperation in conducting the process of adaptation of soldiers moving to civilian life is rendered by the Central Office of Military Districts and subordinate Military Departments, Regional and District Military Offices.

Servicemen discharged from military service willing to participate in the social adaptation activities in their first visit to the structure of CDM submit the package of documents required (a copy of Registration form №1 or an expert decision issued by the Central Military Medical Commission to those discharged due to unfitness, a recommendation) profile by the commanding officer (chief) of the military unit).

Adaptation consultants to the structures of CMD are responsible for the proper and timely delivery of information on the military documents for registration and filing up of documents requirements, employment and training projects, programs and measures carried out by the national, regional and local structures of Employment Agency and other employers and training organizations or job vacancies, relevant requirements, application procedures and information of employers.

During the first visit, a serviceman, assisted by the Military Office- Regional, District or Central Military Department adaptation consultant should complete Registration Card No. 2m as per the established form, thus being registered in a special log. Every visit of the officer to the CMD structure is recorded in the logbook.

Each registered serviceman is being elaborated to an individual plan defining procedures for social adaptation activities and a schedule for subsequent visits to the CMD structure. The individual plan is drawn up by the adaptation consultant together with the freed army member who follows the implementation of the plan and the recommendations of the consultant.

Professional orientation of the military discharged from military service requires information on occupations and

activities, employability requirements, training organizations and institutions, forms of study, documents issued upon completing the study, employment opportunities in the labor market. The choice of solution for civil profession/specialty and referral to a related appropriate training is assisted by adaptation consultants to CMD structures. They are the ones who carry out individual or group (a group of at least three soldiers) motivational talks aimed at adapting the participants to the market environment in civil society. Within the scope of consultancy are included problems such: identification of knowledge, skills and experience gained during military service; formulation of social adaptation objectives and development of an individual plan; working out strategies for effective job searching and applying; getting acquainted with trends in the labor market, the sources of information on job vacancies; analysis of jobs adds and choice of jobs for application; application documents preparation: CV, recommendation/ profile letters and forms; interview with the employer; job offer assessment etc.

There is a possibility for a single return trip on account of formation at the place of residence to the place where motivational talk is held in the case that motivational training takes place at the CMD structures outside the place in which the serviceman lives. In these cases, subsistence and accommodation expenses are paid by the serviceman.

Further consulting to soldiers and/or their family members, self- seeking psychological assistance related to effects of change resulting from the transition from military to civilian profession and lifestyle is provided by medical teams consisting of appropriate professionals. The military, released from military service is granted the right to choose a qualification course and training institution. They furnish the commander (chief) and the consultant of respective military unit a document issued by the training institution evidencing his inclusion in a training course not later than three days prior to the course. This is the ground for him additional paid leave for the duration of the course to be granted. To this end, the certifying document from the training organization shall contain the following information: personal data of the serviceman discharged from military service; place of employment; the name of the course; training period; number of classes for the training period; the price (tuition fee); a licence/certificate- training qualification document.

Regular attendance is required by course-enrolled servicemen and successful passing the exams at the end of the training. In case a serviceman quits the course, on his own initiative including, he should immediately inform the commander (chief) of formation and the head at the CDM. Having completed the course, the military is obliged in a 5 days-term to present to the CMD all the documents issued by the training organization certifying completion of the course: an original invoice and a cash receipt, a copy of the license/ certificated issued by the training institution .

Financial provision for participation in courses is ensured by the Ministry of Defence. On the basis of supporting documents evidencing successful completion of the training course soldiers are paid 70% of the training cost, but not more than the maximum amount of funds amounting to BGN 350.00.

Consultants to CMD assist the registered military discharged from service in seeking job, providing information and directing them to the regional employment services, labor offices and other employers' organizations to be successful in the labor market. More particularly, they provide them information about: suitable jobs, including at another location in the country or in other countries; involvement in projects, programs and measures for employment and training carried out by other institutions and organizations; directing injured during or while performing their duties to programs and projects that support their social integration; including and increasing their employability and employment; preparation and participation in employment and information exchanges; meetings with employers and other forms of employment opportunities, organized in collaboration with the structures of the Employment Agency and other institutions and organizations.

Those willing to start their own business are assisted by the adaptation consultant, who advises them and refers them to training courses providing entrepreneurial, managerial and business skills; furnishes them with promotional and information materials to start their own business; inform about regional, national and European programs aimed at supporting entrepreneurs, crediting sources and other relevant information about starting their own business.

Preparation for starting own business is directed at promoting activity and adaptability of the military discharged from active service, with the clear idea, desire and attitude to provide career development through self-employment and to start their own business. The relevant governing documents in relation to social adaptation activities implementation have been provided for at the CMD (the Act on Defence and Armed Forces of the Republic of Bulgaria; Ordinance №H-29/12.11.2010, the SG, item 95/03.12.2010 on conditions and terms of adaptation of servicemen of the Ministry of Defence, the structures directly subordinate to the Minister of Defence and the Bulgarian army upon discharging from military service and the amendments thereto in the Ordinance promulgated in the SG, 41/01.06.2012; Cooperation Agreement between the Ministry of Defence and Employment Agency to the Ministry of Labor and Social Policy of 07.06.2011; Joint Regulations of the Ministry of Defence and Employment Agency 2011; Instructions of the Director of Human Resources Agency- MD on social adaptation activities within CDM, Military Offices and Regional military departments; CDM concept for improving the model for social adaptation of servicemen released by the Ministry of Defence, the structures directly subordinate to the Minister of Defence and the Bulgarian Army; Instructions №03/05.07.2012 of the Head of CDM concerning organization of activities aimed at adaptation of servicemen to the Ministry of Defence, structures directly subordinate to the Minister of Defence and the Bulgarian Army upon releasing from military service [9]

It is noteworthy that our country has gained experience and methodological basis for the social and adaptation of the military honorably discharged from active service. Based on best practices- own and these of the member states of the Euro-Atlantic structures we considered appropriate to state the right

direction to increasing the efficiency of social adaptation of servicemen released from military service.

**Main Directions for Optimization of Social Work with the Military, released from Military Service**

Much of the servicemen released from military service have a good education and sufficient social status. After moving in reserve, they are left alone with their problems and often become absolutely defenseless in the modern world of exchange relations.

It is necessary for former military to be involved in the entrepreneurship in order to create additional employment opportunities. Besides social and economic problems, the military that have moved into reserves and their family members also face difficulties in finding job, housing problems, family wealth impairment, little accessibility to health and recreational activities. All this is due to the fact that there is no an effective social policy to support such families. According to the representatives of all the departments main cause, giving rise to this problem, is economic.

Studies allow to conclude that the establishment of a system for social adaptation of the military released from military service presently refers to the modern stage the most important directions in the social policy.

Nowadays, the need for further development of social work and various social technologies, giving significance to contemporary experience in the sphere of social services, becomes even more relevant.

An elaborated approach aimed at establishing a network of social service agencies, at creating a truly effective and necessary social protection system should be applied. Professionalism and morality should be regarded as personal qualities that every single social services specialist must be in possession of. Coordination between various administrative departments for social protection of the population, education, health, employment, etc. should be also enhanced- to meet the needs of the population in general.

The main obstacles to increasing the effectiveness of social work with servicemen passing to the reserve are:

- unregulated legislation on the functions of social protection in the armed forces and the mechanisms for their implementation;
- inadequacy and fragmentarily of the legal basis relating to issues of social and economic security of military personnel ;
- inadequate modern working conditions and retirement indemnity for servicemen;
- the absence of action programs for social adaptation of servicemen subject passing in stock;
- delayed arrangement of housing problems;
- imperfection of medical care system applicable to servicemen released from military service and to their family members;

- weak legal basis of the social security system;
- limited financial resources available at the disposal of government authorities at national and regional level, the deficit of funds in local government;
- lack of coordination between the ministries and agencies in the field of social services;
- shortage of staff who have professional training in social work;
- low social status and inadequate wages of workers engaged in social services.

It is obvious that here, in Bulgaria, it is necessary to develop licensed activity services /delegated social service/ in the area of social adaptation of the military released from military service, to ensure monitoring of the social service compliance with the state standards. It is important for normative and legal basis for the organization and functioning of the social welfare services to be developed, personnel support to social offices providing services to a particular category of citizens.

In recent years a number of measures have been adopted to improve the legal basis for social protection of servicemen released from military service and members of their families, given the changed social and economic conditions. Sociological studies conducted in Bulgaria and results analysis of annual monitoring of socio-economic and legal status of the military taken all round mark positive dynamics of the process of social adaptation of soldiers discharged from military service in recent years.

This process has a systematic and complex character and is performed by many social institutions and specialized agencies concerned with the organization of the social adaptation of the military released from military service and the members of their families. Arguably, the process of adaptation began acquiring institutional traits. However, inconsistencies in the implementation of programs for adaptation lead to serious regional disparity.

Against the background of the declining level of confidence in the bodies of legislative and executive power on the part of population the rating of the armed forces in other state and public institutions remains relatively high, though the military themselves do not value the military service prestige in modern Bulgarian society. And this is directly related to dissatisfaction with the level of concern of the state for their families, underestimation of the place and role they play in the protection of the state, etc. This controversial circumstance shows hidden reserves to improve social policy and social work in social adaptation of soldiers released from military service and members of their families.

Social protection of servicemen released from military service and their families is a wide range of legislative, organizational, professional, financial, psychological and other aspects relating to both everyday life and the inner realm of a man.

The main tasks of the system for social protection of population in providing social support to the military, the

honorably released part of their staff and their families can be specified as follow:

- identifying the most topical issues of adaptation and social protection of servicemen released from military service;
- support in providing medical, social, psychological, socio-economic, legal and other assistance;
- Interaction with the state and public organizations in search of servicemen released from military service due to illness or disability /people with fewer opportunities/;
- support to the families of servicemen in need of social assistance;
- analysis of conditions and prospects for social security and services to participants in warfare, to the military released from military service and members of their families;
- raising the living standards of the military and their families providing each of them the maximum possible under particular conditions social protection in accordance with the legislation of Bulgaria.

Based on the analysis performed we consider it appropriate to offer some recommendations to improve the system for social protection of servicemen released from military service.

Above all, it is necessary to establish the legal foundations of social protection of servicemen, also the social adaptation of the military released from military service and the members of their families. These are socio-economic, political and personal rights and freedoms, which cannot be modified, canceled or restricted by other normative and legal acts of lower level force. In other words, no legal regulation can contravene constitutional rights and freedoms of citizens.

In carrying out the reform of the military, length of service also has to be taken into account when providing for the pension insurance.

A detailed and realistic military service contract is optative in order to provide for equal responsibility of servicemen to the state and, vice versa, of the state to servicemen. It is necessary to strengthen control over the legality of orders issued by commanders and superiors regarding the allocation/distribution of material and household goods among employees, imposing disciplinary actions, as well as regarding compliance of their practical work with the principle of social justice in the formations they are being entrusted to. Most full effect here can be achieved by establishing Institute of delegated representation of the bodies of state power within the formations in the form of special agents (on the model of the army in Germany) who would come into the system from bodies engaged in social and legal activity.

It is desirable to improve the system for continuous qualification advancement of the military, including at civilian universities, making them ready for the conditions of „civilian” life, providing opportunities for members of their families to

receive superior quality education, which in turn shall ensure their competitiveness in the labor market.

It is necessary to set up sufficiently effective social-state structures to implement the support of the servicemen after their release from military service and transition into the stock.

We need to continue work on implementation of existing programs for social adaptation and social work with citizens released from military service and their families and to ensure privileges prescribed under the law. It is practicable to actively use the possibilities of social activity which involves such mechanisms as professional retraining of military personnel in the basics of entrepreneurship and small business, psychological consulting, legal services and other activities.

In this regard we consider beneficiary using new employment opportunities related to computers and new technologies. These types of activities, having high rehabilitation potential, contribute to self-assertion and can provide them with conditions for self- insurance. Complex development of the social protection of servicemen released from the ranks of the armed forces system in our view calls for:

- further development and legislative endorsement of new basic social standards and norms for the quality of life for servicemen and those passing in stock;
- defining mechanisms for their up-dating, development of medium and long-term social protection programs, providing social services and social benefits system reformation;
- completing the legislative package with regulations governing the social protection issues that have not been reflected in national legislation so far;
- adoption of urgent measures aimed at improving the retirement insurance;
- development of a long-term program for economic security, adapted to modern economic relations, at that maintaining a focus on the participants in hostilities, war invalids, on family members of servicemen who have lost people providing for them;
- supporting purchasing power of each family of military personnel within the conditions of continuing rise in prices and the going up cost of living through systematic readjustment/ indexation and compensation payments;
- defining the mechanisms for recovery of the lost link between the amount of pension and monetary support of servicemen;
- providing a radical solution to the housing problem in the Armed Forces.

Very recent creation of an effective, dynamic system of social adaptation of soldiers has succeeded to operatively and flexibly reorganize their structural divisions in order best to implement social policy of the state in life through a network of local state social service local government, public organizations.

In accordance with this requirement, a specialist of the given sphere need to:

- have good professional training, knowledge in various areas of psychology, pedagogy, sociology, laws, economics and organization of production, computing, mathematical statistics and many other general professional and special disciplines;
- have sufficient general and professional culture, to be deeply versed that presumes good knowledge in the humanities;
- be informed about contemporary political, social and economic processes in society and widely aware of the standard of living and problems of different social groups;
- foresee the consequences of his actions and firmly pursue his position in life;
- be in possession of certain social adaptability in relation to diversity of population needing advices of the social activity specialist;
- skillfully communicate and predispose the „difficult” growing ups, orphans, deserted women, people with limited opportunities, elderly, people in vindication etc.;
- to possess professional skills and experience, to be able to provoke sympathy and trust, to keep professional confidentiality, to show sense of delicacy in all matters concerning intimate aspects of human life, to have emotional stability, to be ready for mental loads, to avoid neurotic deviations in their own judgments and actions despite possible failures (not pertinent reactions, refusals, etc.);
- be able to conscientiously perform own duty, remaining calm, benevolent and attentive to the ward;
- be able to take appropriate decision in extreme situations, to formulate his thoughts, literate and understandable to set them forth.

In summary of above fragments of the social adaptation of the military released from military service and passing in stock we believe that it should be regarded as part of a comprehensive system for social work and protection of intellectual capital in our country that is in possession of value adding knowledge and skills. As soldiers are part of this capital, of the quality of social work carried out for adaptation to civilian life, possibilities for their smooth adaptation to civilian life and effective use of their skills and competencies carrying value and competitive advantage are determined. We make no claim to comprehensiveness of problems considered in our study but we purport to contribute to scientific knowledge in the field of social adaptation of servicemen leaving the ranks of the Armed Forces and the Bulgarian Army providing our view on this such a topical issue in the conditions of strengthening budget deficit and dynamic changes in security environment. And the effectiveness of the implementation of a cost- based system of social adaptation

and protection is directly related to compliance with the principles of legality, integrity, impartiality, accountability, professionalism, competence, positivity, accessibility, humanity, transparency, equal treatment of social services users and the dignity of the military and civilian personnel along with all other members of our society.

#### REFERENCES

- [1] Belov, A.Y. Socio-psychological adaptation of servicemen, dismissed in stock // Materials Scientific and Technical Conference "Science and education Trends and perspectives their development." Tver, 2013. [Белова, А. Ю. Социально-психологическая адаптация военнослужащих, уволенных в запас // Материалы Всероссийской научно-методической конференции „Наука и образование: тенденции и перспективы их развития“. Тверь, 2013].
- [2] Brovkin, V. Social providing servicemen UK // Foreign Military Review. - 1991, - № 2. [Бровкин, В. Социальное обеспечение военнослужащих Великобритании //Зарубежное военное обозрение. – 1991, - № 2].
- [3] Burda, S. M. The prestige of military service // Sociological Research. 1999. - № 2. [Бурда, С.М. Престиж военной службы //Социологические исследования. 1999. - № 2].
- [4] Buyanov, V. I. Psychological adjustment difficulties of social and psychological adaptation to the conditions molodih ofitserob sluzhbi in voynskoy parts: the Dissertation of the candidate of psychological sciences. - М.: Dzerzhinsky Military Academy, 1986. [Буянов, В.И. Психологическая коррекция затруднений социально психологической адаптации молодых офицеров к условиям службы в войсковой части: Диссертация кандидата психологических наук. – М.: Военная академия им Дзержинского, 1986].
- [5] Terziev, V. Opportunities for increasing the efficiency of social adaptation of servicemen released from military service, 2014. [Терзиев, В. Възможности за повишаване на ефективността на социалната адаптация на военнослужещи, освободени от военна служба, 2014].
- [6] Asenov, A. and Hadziev, K., 2011. Individual, team leaders. Sofia: Lyuren.
- [7] Dimitrova, S., 2013. Management of resources in a dynamically changing security environment. Veliko Tarnovo: Vasil Levski National Military University, pp.326-335.
- [8] Dimitrova, S., 2011. Resource Management defense in the security sector. Veliko Tarnovo: National Military University , pp.11,23,455,158-159].
- [9] Ministry of Defence of the Republic Bulgaria, 2006. Concept of human resource management in the Ministry of Defence, armed forces and structures directly subordinate to the Minister of Defence [Концепция за управление на човешките ресурси в Министерство на отбраната, Българската Армия и структурите на пряко подчинение на министъра на отбраната]. Sofia: Ministry of Defence of the Republic Bulgaria
- [10] Terziev, V. and Dimitrova, S., 2013a. Rethinking the social adaptation of the military, exempted from military service [Нов поглед на социалната адаптация на военнослужещите, освободени от военна служба], The Journal New Knowledge of UARD, 3, pp.33-45.
- [11] Terziev, V. and Dimitrova, S., 2013b. Social adaptation as a social process in the adaptation of servicemen [Социалната адаптация като социален процес, при адаптацията на военнослужещите]. The Journal New Knowledge of UARD, 3, pp.89-99
- [12] Terziev, V. and Dimitrova, S., 2013c. Theoretical studies for the realization of practical model of the process of social adaptation of former soldiers and their families [Теоретично изследване за осъществяване на практически модел на процеса на социална адаптация на бивши военнослужещи и членове на техните семейства]. The Journal New Knowledge of UARD, 3, pp.46-54
- [13] Terziev, V. and Dimitrova, S., 2014a. Organizational and pedagogical foundations of the activities of social adaptation of former servicemen and their family members in vocational training centers [Организационно-педагогически основи на дейността на социална адаптация на бившите военнослужещи и членовете на техните семейства в центровете за професионално обучение] In: VII International Scientific Conference „Innovations in Technology and Education” (KuzGTU), Belovo, Russia, 28-29 March 2014, pp.312-320.
- [14] Terziev, V. and Dimitrova, S., 2014b. Theoretical studies for the realization of practical model of the process of social adaptation of former servicemen and members of their families [Теоретично изследване за осъществяване на практически модел на процеса на социална адаптация на бивши военнослужещи и членове на техните семейства]. In: VII International Scientific Conference „Innovations in Technology and Education” (KuzGTU), Belovo, Russia, 28-29 March 2014, pp.298-312.

# CORPORATE IMAGE IN DIGITAL SERVICE ENCOUNTERS

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**Abstract** — Today, the use of social media is huge among customers and therefore it is essential for companies to know how to use them and how to create the same atmosphere of caring and trust as in face to face encounters. Especially on tourism field, where customer experience is uttermost important, it is worth knowing what happens in the digital service situation and what kind of aspects should be taken into consideration while determining how successful the encounter has been. Thus, the research problem is “How to build a corporate image in a service situation in digital media?” and the answers are found with quantitative and qualitative methods.

**Keywords** – corporate image, social media, service encounter

## I. INTRODUCTION

Managing the corporate image – especially in service encounters - and creating images consciously and according to a plan is not at all self evident among tourism companies (eg. Day 1990; Möller & Anttila 1987; Carson et al 1995; Johannisson 1996; Grönroos 2001; Gummesson 2002). Many times strategic management and operative planning is lacking or it is just done occasionally, when it is really needed (see e.g. Juutilainen 2001). Especially when social media is discussed, they are often considered as extensions of the traditional marketing communication and platforms that must be used, but not taken care of (Heinonen 2011).

In this research use of social media and its impact to corporate reputation is studied among Finnish tourism companies. A special emphasis is laid on the customer service encounters in social media and if companies understand how the corporate image is communicated through their social media actions. The basic research question in this paper is “How to build a corporate image and company reputation in a service situation in digital media?” This can be opened up by answering if customers’ and companies’ ideas of good service in digital media meet and how companies’ should behave in digital media in order to make customers feel overwhelmed by good service and make them tell about it to the others.

Since tourism is mostly service business, the theoretical framework of this study covers the service management perspective, i.e. ways to create a good service, customer loyalty and satisfaction in social media, on the other side. On the other side, tourism has a lot to do with images and reputations, which affect the outcome of the service situations. Therefore the other side of the theoretical framework is management of corporate

images, corporate identity and brands and special insights for the role of social media are presented.

## II. SOCIAL MEDIA

According to Hanson, social media focuses on online social gatherings where the communication is multidirectional and repeated (Hanson 2000, 295). The uses of social media are various and refer to sight, hearing, verbal and non-verbal communication, feelings, views and opinions (Solis 2009)

People are used to the internet and it makes an important part of people’s lives today. People expect to get information and service from companies in internet and therefore social media is an excellent opportunity for companies to make themselves seen. However, the biggest challenge is how this fulfillment of needs is done and how it should be done to work as a tool for helping customers and creating feeling of belonging without false implications of the human interaction. Fletcher et al. (2004, 133) summarizes these problems in words:

*The Internet can facilitate this [efficient and continually evolving communication between the various members of the network; because of the instantaneous way it communicates over both geographical and psychic distances. However, although the Internet does allow freer and easier flow of communication, it does not replace the need for personal relationship building (...). (Fletcher, Bell & McNaughton 2004, 133).*

Social media comprises of activities that involve socializing and networking online through words, pictures and videos. Social media is redefining how we relate to each other as humans and how we as humans relate to the organizations that serve us. It is about dialog two way discussions bringing people together to discover and share information (Solis 2008).

A social media website interacts with its users while sending them requested information and invites people to interact with the site and other visitors. (Kaplan – Haenlein 2010, 60; OECD 2007.) Marketing in virtual platforms and in social media can be defined as “network-enhanced word of mouth” (Jurvetson 1.5.2000) or as “a piece of content so good that people want to pass it on” (Bonello 2006, 38). Customers’ opinions are highly affected by communal experiences given by their network in social media. Communal experiences are becoming even more important than personal ones. (Jacobs 2009) The uses of social media are various and refer to sight, hearing, verbal and non-verbal communication, feelings, views and opinions. (Solis 2009; Kaplan – Haenlein 2010, 61).

Social media are basically about social interaction and dialogue by different tools and different channels in the Internet and that each time, when a customer is in contact with the company, is a moment of truth in terms of image building, marketing and customer service (Dutta 2010, 2; Black 2010, 206).

All this means companies can't concentrate on one channel strategy anymore. By planning social media actions carefully and by measuring the success, companies can gain good results, reach many potential customers and create widely known image with quite small financial effort. However, because of its active and lively nature social media require time from the company and its employees. (Evans 2008, 3-5.)

### III. CORPORATE IMAGE MANAGEMENT

There are plenty of definitions for corporate image management and to corporate image as such. With corporate image one usually means the holistic view how stakeholders and customers experience the company. This experience is created by many things like communication, personnel, architecture, premises etc. (Poikolainen 1994, 26-29; Grönroos 2007; Keller – Richey 2006; Aula – Mantere 2008.) This image is depending in the values and opinions the receiver has that affect how they interpret the message a company sends and the features and visual effects in it. Because of this, the image a company aims to give can be very different from the one customers understand. (Kotler et al 1999, 160; Kiriakidou and Millward 2000; He & Balmer 2007). However, the sent corporate image created by a company has its effects on the received image and vice versa. (Keller – Richey 2006.)

Brand is the consumer's mental picture of the offering, the product or the service and it is often defined as the reasoned or emotional perceptions consumers attach to specific brands. Brand image is the consumer's mental picture of the offering, the product or the service and it is often defined as the reasoned or emotional perceptions consumers attach to specific brands (Glynn 2009, 276). It is quite often perceived as a trademark or a logo, even though it is a bigger entity. At its best a brand creates deep emotions among customers and creates loyalty. (Gad 2001; Keller – Richey 2006; Aaker 1996.)

Identity can be defined as a company's soul (Gulmann 1988, 127). By this soul is meant the reality and the basis on which the corporate image is built. It should be the real and special feature that separates a company from its competitors. It consists the values, people, products and services as well as the negative elements in a company. The vision of a company should also be built on the identity if a company wants to be gain sustainable success (Kiriakidou and Millward 2000; He & Balmer 2007).

Reputation of a company can be defined as an opinion about that entity, typically as result of social evaluation on a set of criteria. Reputation is thus a dynamic concept and through it, the firm's past record, current observations and future prospects are linked together and it is created by customer's own experiences, word-of-mouth and hearsay. (Aula – Mantere 2008.) Understanding the meaning of the e-reputation is important because internet is very influential nowadays. To build a reputation on internet – or because of internet – is an element in current business life. To manage the e-reputation is

easier, if company itself starts the buzz, i.e. an interaction of consumers and users of a product or service which serves to amplify the original marketing message. (Kaplan 11.5.2010)

As a conclusion one can state that all these definitions around corporate image have to do with corporate image management, which is part of a strategic management and thus competitiveness of a company. It can be defined as keeping up a way to handle things in a company (Gullman 1988) or creating a desire to buy something based on images (Keller – Richey 2006). In order to create a competitive image, one must start by identifying and defining the corporate identity. This is the only way to create steady building blocks for image that has its grounds in the core competences and core values. By defining an identity strategy a corporate can grow to the direction where it meets customer expectations better. (Markkanen 1998)

After definition of identity strategy a company can start the building process of a corporate image (Fig.1). First part is the identity creation. Here a company defines and analyses the current state of the affairs based on which, it creates a reliable and trustworthy profile to be communicated to customers and stakeholders. Image is then the picture and impression customers create of the company based on profile, their own opinions and values and word-of-mouth, media and hearsay. (Poikolainen 1994, 26-29).

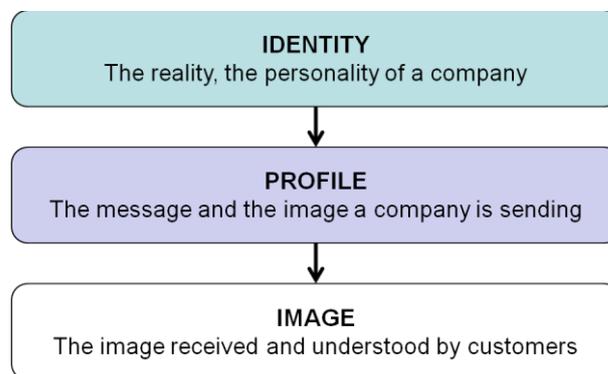


Figure 1. Corporate image creation Poikolainen 1994, 27.

### IV. SERVICE MANAGEMENT IN SOCIAL MEDIA

Service is usually defined as an immaterial act or series of acts that are consumed while they are produced and in which customers are in interaction with the producer and where customers are also involved in producing, i.e. service can be seen as a process. (e.g. Kotler 1999, 23; Grönroos 1998,52; Gummesson 2002, 287; Grönroos 2001, 229; Zeithaml – Bitner 2000, 3). Service can also be defined as a process that is longer than a momentarily encounter. Therefore an appropriate definition could be an extended service offering, which includes accessibility of service, communication (the encounter) with service organization and customer's participation in a service process (Grönroos 2001, 299).

According to Grönroos (1998, 483) many things affect the customer encounter. All these things have their own contribution in the creation of service quality, which can be defined with five variables: tangibles, reliability, responsiveness, assurance and empathy (Zeithaml – Bitner

2000, 82 – 85; Parasuraman et al. 1988; Berry et al. 1993). Quality depends on how customer’s experiences are equivalent to customer’s expectations. Therefore a customer is always the one who decides whether the service is good or bad and this judgment can vary from a customer to another. (Grönroos 1998; Zeithaml – Bitner 2000; Parasuraman et al. 1985.) External marketing and marketing communication are the main elements that affect the expected quality among customers. Also corporate image, mouth-to-mouth communication and personal needs of a customer have distinct meanings in expectations. It can be concluded that the main issue in producing qualitative services is to fulfill customer’s expectations or even exceed them. (Grönroos 1998, 65-66, 311.)

The essential things affecting all the other dimensions are the corporate image as well as the word-of-mouth reputation among customers. They affect the employee (customer service person) and his actions as well as the customer and his expectations. Image and reputation also affect the general success of a company. Image can be seen both in internal marketing as well as the promotional efforts. This also means that corporate image concerning services and customer encounters should be clearly stated in the corporate strategy. (Grönroos 1998, 483.)

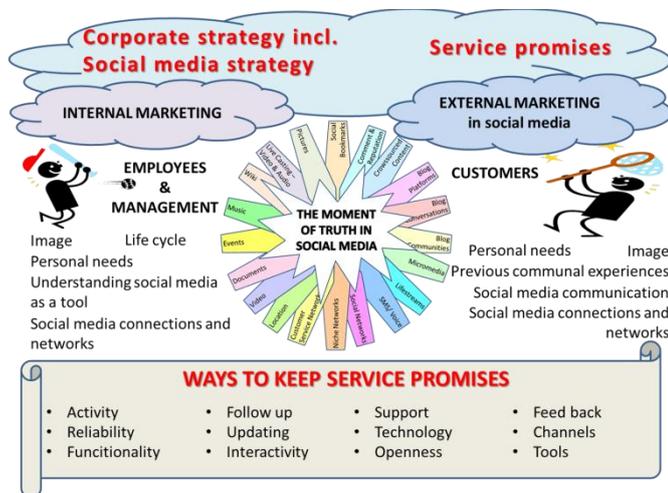


Figure 2. Moment of truth model by Grönroos (1998) adapted to social media environment (Heinonen 2011)

In order to be successful in social media a company must understand the special requirements of social media environment presented in chapter II. Because of the special nature of social media, moment of truth does not require the presence of the employee or manager anymore. Still, personnel and management have important role, since they are responsible for that the contents on social media platforms contribute in achieving the company’s goals. They are also responsible for following up the social media actions and the overall success of social media strategy. This means that they have to understand the social media as a tool and have a wide network on different social media platforms. To make all these things functional and representative is an essential part of creating corporate image in social media. (See e.g. Evans 2008). Figure 2 describes this central area of the research.

Customers in social media are active in the moment of truth and they rely more on the communal experiences than the individual ones. Their expectations are created by the traditional media as well as the word of mouth in social media environment. They are eager to tell each other about their experiences and they rely on this internet reputation of a company. (Jurvetson 1.5.2000)

Also, in order to guarantee a successful service in social media, a company must pay attention to the functionality of the platform, the contents there, reliability, interactivity, openness. It is also important to have a working follow up system, clear measurements and gather actively feedback from the users.

According to Grönroos (2001) image management and creating a service brand are the essentials for successful service management. The profile, the message a company communicates to the customers and stakeholders creates expectations. If a company advertised more than it can give in a service situation, creates this disappointments and bad service quality. Most often these disappointments happen in customer encounters, in “moment of truths” and they can be caused by customer’s own, wrong expectations or employee’s own motivation, lack of information or bad management. Therefore it is important to take care of the internal quality as well as the identity or customers. (Grönroos 2007). These ideas support the ideas how corporate image is built as we can see in Fig 3.

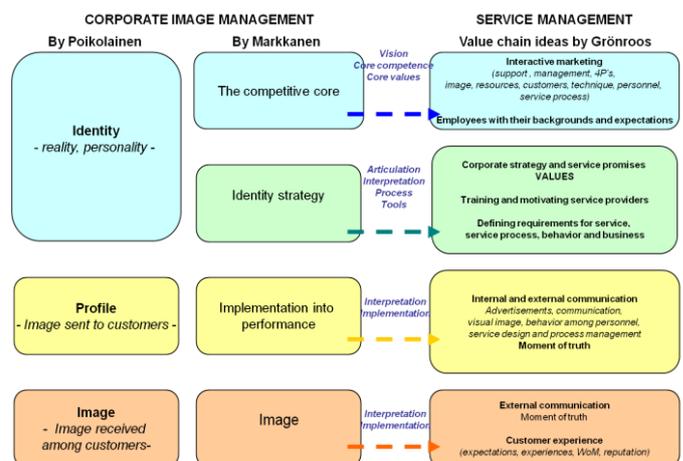


Figure 3. Corporate image management applied to service management

In the era of social media, people tend to open up and share the experiences publicly. This concerns as well customers as employees. The bad word-of-mouth and bad experiences spread fast and create bad reputation and in the end bad corporate image, which has its effects in a company’s competitiveness and success. Therefore it is important to know, how different parties in service encounters behave and think in order to create a trustworthy identity and corporate image. This is the area to which the empirical part tries to give some enlightenment.

Image itself – the way customers see companies, is created in moment of truth based on customers’ own opinions and experiences as well as word-of-mouth and reputation. In social media this is important, since it is quite easy to share ones ideas and create a reputation for a company among customers. These

reviews are considered very trustworthy and used many times for purchasing decisions. Therefore it is important for a company to follow-up and measure carefully its social media reputation and customers' opinions.

## V. RESEARCH APPROACH AND METHOD

The initial idea of this research is to identify how tourism companies could use social media successfully, so that the customer satisfaction would become attainable and the use of social media would enhance their reputation and corporate image. This research offers a practical view of the differences that customers and companies have in tourism sector. The study uses quantitative methods to create a general view of the tourism industry and how social media are used in tourism and couple of qualitative interviews to get the deeper view.

Two different target groups were studied: tourism companies and their customers. In order to reach both target groups an online survey was chosen, as it distributed the questionnaire to a large sample effectively and economically.

The questionnaire was based on the theoretical background of studies in social media, tourism and service encounters and elements around these in four sections Background questions, Use of social media in the company, Follow-up of the social media and Measurement of social media- The question types used in the questionnaires varied from selection and multiple choice questions to Likert scale from 1 to 5 in order to achieve a view as wide as possible. Also open-ended questions were used when necessary to give depth to the answers. No information about the respondents, their whereabouts etc. was gathered which ensured that the respondents remained anonymous.

The quantitative research was carried out during February 2011. The questionnaire was distributed to tourism companies in Finland by email via local tourist offices. It was distributed to private persons via different channels in Social Media (Facebook, Twitter, LinkedIn, tourism related discussion forums and groups etc.).

The total number of company respondents was 595, which is 2,5 % of all the Finnish tourism companies. Most of the respondents (76 %) used social media in some form and almost half of those who did not had thought it as a possibility.

The number of private respondents, i.e. customers' representatives, was 406. All the companies divided among all different business fields and all the regions in Finland. Among private respondents there were 62 % males, all age groups between 20 – 70 years were represented and the division into different areas in Finland was quite equivalent to companies' division.

The reliability of this research is based on several grounds. One is the anonymity of the responses; the respondents could answer freely about their practices and hopes. The amount of respondents was critical: in both groups the aim was to gather at least 300 responses to ensure the statistical reliability. One of the goals was to get responses from companies of different regions, business fields and different sizes. Customers' profiles showed both genders, different regions and different age groups. The questions were tested beforehand, so that there

weren't any ambiguities or mistakes. The online-questionnaire and its functioning were also tested beforehand.

After analysis of quantitative research was done and based on the answers, questions were created to get in-depth knowledge of the opinions. Questions were stated about the meaning of social media and customers' expectations for companies, and customers' impressions of social media usage among companies. Four tourism companies from different fields, different parts of Finland and different sizes were interviewed as well as 4 individual in different ages and different backgrounds. In the following answers of the both research are presented together.

## VI. DISCUSSION OF RESULTS

In the following the central results concerning corporate image building are presented based on the quantitative research as well as the qualitative interviews. The parts covered here discuss identity, profile and image and participation in a service process – the parts found to be important in literature review (Grönroos 2001, 299).

### A. Identity

When asked why companies and customers are using social media, interesting points were revealed. One fourth of companies considered giving information as the most important purpose in their social media strategies. Also giving information of offers (18 %) and answering questions (16 %) was considered valuable. Customers think mostly the same way as companies, but they also value reading blogs and getting information of shopping opportunities besides the plain marketing information.

In interviews it was quite clear that companies were using social media, because it was something they had to do. They had not thought of its meaning in their communication strategies nor the influence to their corporate image. Channels were chosen based on the popularity of them, not because certain channels would strengthen their image or reach customer better. Messages were not given lots of thought, some companies satisfied with wishing nice weekend, some telling about their offers.

Thus, it can be stated that companies just considered social media as one way of communication among others and the use of different platforms weren't really planned or organized nor were the messages. This was also seen among customers, of which only 46 % thought that social media use among companies was planned and organized.

Usually resources for social media were very limited in companies and it was stated that time management is the biggest issue. Most of the users had not had any training for social media marketing nor had they named a person to concentrate on just social media. This was also noticed by customers.

*“Companies should understand that social media is something they must done continuously. They should hire someone to follow social media and customers' opinions and post instead of doing this job just besides the regular tasks” (Customer1)*

### B. Profile

One of the interview questions was also what kind of image companies wanted to communicate in social media and what was the central message in their social media efforts. The most common, first answer was “good” to both questions. Companies wanted to give a good image of them and wanted to tell that they were a good alternative, if not the best.

Even though the quantitative research showed that image (average importance 4,22, when highest value was 5) and atmosphere (4,05) were important to companies, the way of creating them was still quite traditional according to customers.

*“Companies try to create a modern image of themselves, but one can easily see that they do not have slightest clue of what they are doing.... They should try to create a dialogue with a customer. It is just not enough to create a fan page in Facebook and fill it with offers and advertisements” (Customer1)*

*“Many companies think that it is just fine to be involved in social media, but if the contents are limited to only advertisements or there is no content, I won't be interested. ...It also seems that many times companies just want to get fans or followers without thinking if they can offer something to these or if they have some benefits of having these customers as their fans. If the fans are right kind, they do the marketing for company and create the contents. (Customer3)*

This traditional view of social media as a extension to traditional marketing communication can also be seen when asked who creates contents in social media (Figure 4).

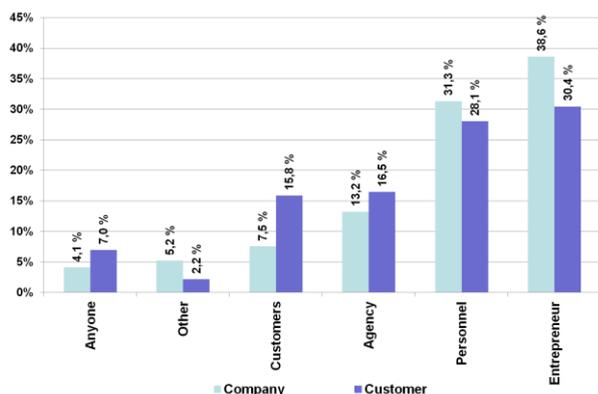


Figure 4. Creator of contents

In interviews it was really clear that companies were afraid of the negative feedback in their social media. They tried to stop it by restricting – or totally forbidding – customers’ rights to write to their social media channels.

*“I don't want everybody to see when customers we don't even want to have write negative things about us” (Company1)*

Companies had also different ideas of the implementation of social media communication and updating frequency. 65 % of the customers wanted companies to update their social media sites at least couple of times in a week and 50 % of the companies announced themselves doing that. However, even 10 % of the companies told that they update their information more seldom than once a month.

### C. Image

In order to be successful in corporate image management it is also important to know and follow the impact of communication efforts. In the case of social media only 53 % of the companies followed and measured their social media actions. When asked if companies knew what their customers thought of them, even 65 % of the respondents answered no. It seems that measuring is concentrated on clicks and visits – the hard, numeric data – instead of soft data like opinions, values and feedback. When asked from the customers in interviews if companies had ever asked them for feedback, the typical answer was “occasionally”.

*“I feel very unsecure if a company asks my feedback in social media. The first question is what they want this time?” (Customer2)*

As mentioned earlier many customers wanted to be involved in the contents and create that one and they criticized the way companies limited their access. They were also were eager to share their experiences – good and bad – in social media and also relied on the experiences from others.

*“I do not travel anywhere without checking the destination, accommodation and restaurants in Tripadvisor. That is part of my everyday life. I have even sometimes sent mail to some persons who have given their comments and asked them for further details.” (Customer1)*

Many of the companies did not follow their social media reputation or the evaluations given of them. This was due to time issues, lack of resources, but also simple carelessness.

*“People are always talking, why should we care about that. There will always be negative feedback and if someone decides not to visit us based on that, then they maybe are the wrong customers for us.” (Company1)*

## VII. CONCLUSIONS AND RECOMMENDATIONS

Based on the results we can consider that there are significant gaps between management perceptions and the actual situation in corporate image management in social media. Most of this is due to the fact that companies have not understood the specific nature of social media nor have they enough resources, knowledge or skills for implementation. Somehow it even seems like companies would not consider social media important as communication channel, since they are not measuring it very well or following up customers’ opinions or their social media reputations.

While trying to use the traditional way of marketing communication companies are actually doing harm to themselves. Mere advertising once a week or more seldom, in considered negatively among customers, who want to be involved, want to create content of their own and get some benefits (financial or spiritual) of following social media actions of a company.

These results show clearly that companies do not have enough knowledge of their customers and their wishes in order to produce social media services and image customers expect nor do they have enough internal competence to manage their corporate image in social media. Companies are really interested in social media as their marketing tool and that the

media are considered as a good addition to the traditional marketing tools. Still, it is difficult for companies to realize the differences between traditional marketing channels and social media. Social media are seen as a channel to distribute information and strengthen corporate image; the way companies use traditional media for advertising.

It is not understood that social media require engagement and time from the company and the company must have a plan as much as in other media. The biggest difference and the greatest challenge in social media is the customer impact. By giving customers free hands and letting them make their voice heard, a company can gain much in forms of publicity, customer loyalty, brand creation and finally, profits. By getting involved with social media, a company gives a clear sign to its stakeholders that it is interested in its customers and customers' opinions and it wants to share daily actions in the company with them.

The most important issues and ways to improve corporate image management in social media would be the increase of user impact and a more efficient and planned follow up. The first one would help to enhance the encounters with customers in the moment of truth in social media and the latter one would help in improving the media, its use and product development. Many of these problems could also be easily solved, if companies would have a person or a two, with necessary skills and resources to take care of social media visibility and to follow up what is happening there. Even negative feedback could be turned into positive image, if it is handled fast, well and taken seriously instead of trying "to sweep it under a carpet" by companies.

#### REFERENCES

- [1] Aaker, D. 1996. Building Strong Brands. Great Britain: The Bath Press.
- [2] Ahopelto, J. 2002. Design Management as a Strategic Instrument. Acta Wasaensia 99. Industrial Management 4. Vaasa: University of Vaasa. Dissertation.
- [3] Aula, P. & Mantere, S. 2008 Strategic Reputation Management. New York: Routledge.
- [4] Black, J. 2010. Strategic Enrolment Management. Canada: Academica Group.
- [5] Bonello, D. 2006. Explore the online options. Marketing 2006. Pages 37-38.
- [6] Dutta, S. 2010. What's Your Personal Social Media Strategy? Harvard Business Review. November 2010. Pages 1 – 5.
- [7] Evans, D. 2008. Social Media Marketing: An Hour a Day. Indianapolis:Wiley Publishing.
- [8] Fletcher, R., Bell, J. and McNaughton, R. 2004. International e-Business Marketing. Padstow, Cornwall:Thomson Learning.
- [9] Gad, T. 2000. 4-D Branding: Cracking the Corporate Code of the Network Economy. Sweden: Bookhouse Publishing.
- [10] Gorb, P. 1990. What is Design Management. Article in Design Management. A Key to Success. Design as Corporate Strategy. A publication by School of Arts, Design and Architecture in Helsinki. Publication series from MGMT'89 conference 1990. Lönnberg Oy.
- [11] Glynn, M 2009. Business-to-business Brand management:Theory, research and executive case study exercises . UK: Emerald Group .
- [12] Grönroos, C. 1998. Nyt kilpailaan palveluilla. Porvoo:WSOY.
- [13] Grönroos, C. 2001. Palveluiden johtaminen ja markkinointi. Porvoo: WS Bookwell Oy.
- [14] Grönroos, C. 2007. Service Management and Marketing. Customer Management in Service Competition. Chichester, UK: John Wiley & Co.
- [15] Gullman, S. 1988. Yrityskuvan johtaminen. Article in a Design Management, hallittu yritysokuva. 1988. Edited by Design Forum & Journal Muoto from the Danish original Design Management in Practice (Danish Design Council). Rakennuskirja Oy. Hanko: Hangon Kirjapaino Oy .
- [16] Gummesson, E. 2002. Total relationship marketing. Marketing management, relationship strategy and CRM approaches for the network economy. 2nd ed. Oxford:Butterworth-Heineman.
- [17] Hanson, W. 2000. Principles of internet marketing. USA: West Publishing.
- [18] He, H-W. and Balmer, J.M.T. 2007. Identity studies: multiple perspectives and implications for corporate-level marketing. European Journal of Marketing. Vol. 41. No. 7/ 8. Pp. 765-785.
- [19] Heinonen, J. 2011. Social media perception on Finnish tourism sector. Article published in Interdisciplinary Studies Journal Vol 1. No 3. 2011
- [20] Jacobs, M. 2009. Take One – or Three – for the Team: Consumerism as Play. Article in Breaking New Ground: Innovation in Games, Play, Practice and Theory: Proceedings of the 2009 Digital Games Research Association Conference
- [21] Jurvetson, S. 1.5.2000. What is Viral Marketing? Draper Fisher Jurvetson. Available in URL: [http://www.dfj.com/news/article\\_25.shtml](http://www.dfj.com/news/article_25.shtml). Quoted 13.4.2013
- [22] Juutilainen, A. 2001. Entrepreneurs' perceptions of strategy and success in small firms of the tourism and hospitality industry. Lappeenranta : Lappeenrannan teknillinen korkeakoulu, 2001
- [23] Kaplan, A. M. and Haenlein, M. 2010. Users of the world, unite! The challenges and opprtunities of Social Media. Business Horizons. Vol 53. Pages 59 – 68.
- [24] Kaplan, L. 11.5.2010. e-Réputation des marques et des entreprises. A slideshare show creted by the director of Mediatrium, a social media agency in Paris, France. URL: <http://www.slideshare.net/lionelkaplan/erputation-des-marques-et-des-entreprises>. Quoted 13.4.2013.
- [25] Keller, K. L. and Richey, K. 2006. The importance of corporate brand personality traits to a successful 21st century business. Journal of Brand Management. Vol. 14 No. ½. pp. 74-81
- [26] Kiriakidou, O. and Millward, L. J. 2000. Corporate identity: External reality or internal fit? Corporate communications, Vol. 5 No. 1, pp.49 - 58
- [27] Kotler, P. 1999. Kotler on Marketing: How to Create, Win, and Dominate Markets. New York:The Free Press.
- [28] Markkanen, T-R. 1998. Corporate identity: A process of strategic interpretation in an MNC. Acta Universitatis Oeconomicae Helisingiensis. A145. Helsinki School of Economics and Business Administration.
- [29] Poikolainen, L. (ed.) 1994. Design management, yrityskuvasta kilpailuvaltti. Keuruu: Kustannusosakeyhtiö Otavan painolaitokset.
- [30] Solis, B. 2008. The Essential Guide to Social Media. Available in url <http://www.scribd.com/doc/3283966/The-Essential-Guide-to-Social-Media>. Publication read 13.4.2013
- [31] Solis, B. 2009. Evolution of Interactive Media. A sampling of award-winning work and industry milestones from the past fifteen years. Communication Arts Magazine. 2009 May/June Interactive Annual 15
- [32] Storbacka, K. & Lehtinen, J. 2001. Customer relationship management: creating competitive advantage through win-win relationship strategies. Singapore: McGraw-Hill Companies.
- [33] Zeithaml, V. and Bitner M. J. 2000. Services Marketing – Integrating Customer Focus Across the Firm. McGraw-Hill. 2. edition.

# The significance of attitudes towards mathematics as determinants for the identification of girls' mathematical talent

## A pilot-study

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**Abstract** — In proportion, girls often are decidedly underrepresented in support programs that aim at mathematically talented primary school children. Thus, it is of interest to ascertain aspects that might make possible a more differentiated identification and support. In the following article, a pilot-study will be presented which can make a contribution to clarify the significance of attitudes towards mathematics as determinants for the identification of mathematical talent. Its results indicate that both boys and girls who were identified to be mathematically talented as well as boys who were not show more advantageous attitudes towards mathematics compared to girls who were not identified to be mathematically talented.

**Keywords** – mathematical giftedness, mathematical talent, attitudes, motivation, gender, sex

### I. INTRODUCTION

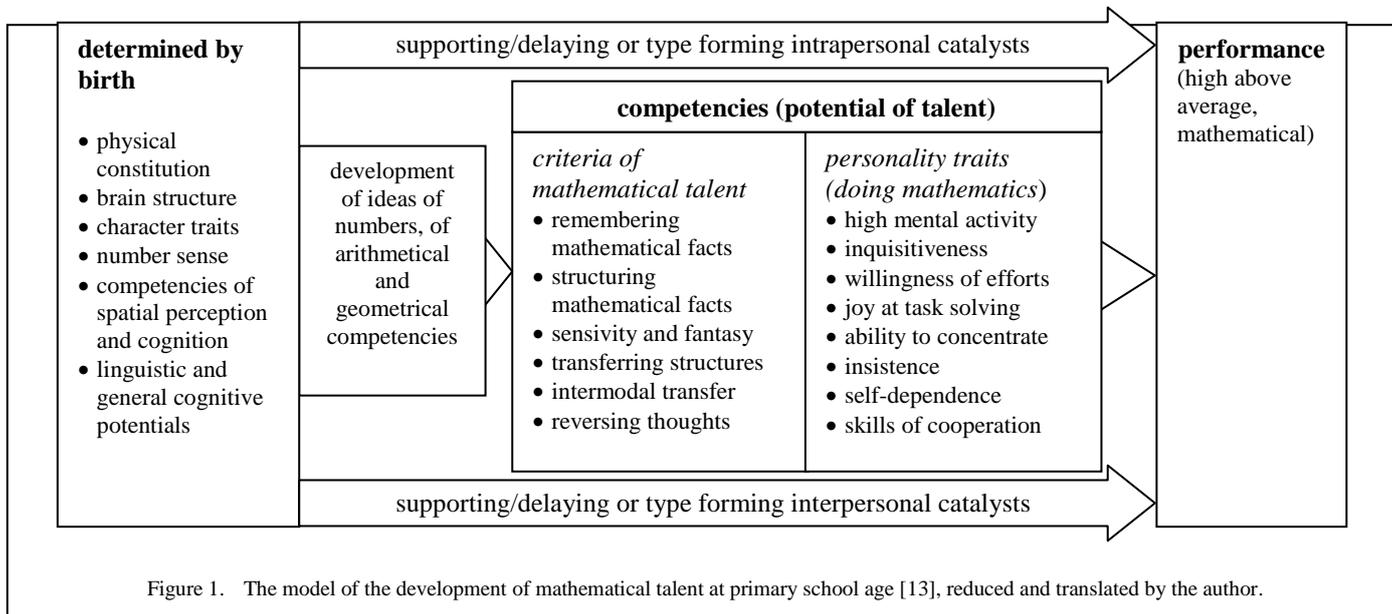
In many western and northern European countries or in North America, in contrast to, for instance, eastern European countries or some Arabian countries, girls are in proportion decidedly underrepresented in programs that foster mathematical talent [1]. This phenomenon contradicts the consensus on the fact that both sexes do not differ in cognitive abilities across all academic domains [2]. When it comes to primary school children, aspects like gender-specific typifications of mathematical occupational fields or biographical decisions cannot act as possible explanations, especially because there cannot be found any gender-specific differences in mathematical competencies at this age [3]. Furthermore, studies have indicated a decline of such differences at subsequent ages for many years [4]. This is why it is of interest to look for aspects that improve the identification of girls' mathematical talent. With a holistic approach on diagnostics considering both cognitive and co-cognitive parameters "motivation" seems to play an important role in this context: For instance, girls and boys who were identified to be mathematically talented (subsequently referred to by the acronym "imt") as well as boys who were not ("n-imt") often show more advantageous mathematical "self-concepts" and "attributions" compared to n-imt girls [5]. Even though these results already imply the hypothesis that similar characteristics might apply to attitudes towards mathematics, too, research in this field seems to be a desideratum. In this

article, the significance of attitudes towards mathematics as determinants for the identification of mathematical talent at primary school age will be examined by a quantitative pilot-study. In this context, a short standardized questionnaire will be tested that was constructed as a simple tool to measure attitudes towards mathematics with young children. At first, a theoretical conception that describes the emergence of mathematical talent and that provides a base for the identification of mathematically talented children by long-term process-diagnostics will be presented. Afterwards, the design of the pilot-study will be reported. Its aim is to look for boys' and girls' frequent characteristics of attitudes towards mathematics by a comparison of four groups: imt boys and girls as well as n-imt boys and girls. Based on a survey of essential theoretical findings, hypotheses on characteristics of the regarded groups' attitudes will be deduced that constitute the questions of the study. Finally, the results will be summarized and discussed.

In addition, the pilot-study adds to several studies in the field of research on the significance of motivational factors as determinants for the identification of mathematical talent (e.g. [1]; [5]) and it ought to be a pre-arrangement for subsequent studies. If the attitude scale that was constructed within the context of the subsequently reported pilot-study is adequate, it will be put together with tested scales on other motivational factors from previous studies to get a tool which is appropriate to measure children's motivation as a long-term objective.

### II. THEORETICAL CONCEPTION OF "MATHEMATICAL TALENT"

The phenomenon of exceeding mathematical abilities and achievements has to be seen as a relatively imprecise construct that demands a constitutive theoretical positioning [6]. In the course of the last century, a large quantity of terms and definitions has been enunciated. Therefore, Lucito suggested at an early stage a classification into types of ex-post-facto, IQ, social respectively talented, percentage or creativity definitions [7]. Models that try to describe the phenomenon from a psychological or educational perspective are mostly based on the types of IQ or talented definitions. Such models can be grouped into those that consider the phenomenon either as an individual's observable exceeding achievements (e.g. [8]) or as



his or her potential in order to reach exceeding achievements (e.g. [9]). Mostly, models that focus on the first perspective refer to the term of “giftedness” regarding cross-domain skills while models that focus on the second perspective refer to the term of “talent” regarding domain-specific skills. Concurrent approaches indicate a scientific consensus on the following aspects that at least models which try to explain the emergence of “talent” should express [10]: First, the phenomenon is complex, and it demands the consideration of both cognitive and co-cognitive intra- and interpersonal determinants (see also [11]). Second, it occurs domain-specifically – for instance, particular criteria of “mathematical talent” have been emphasized (e.g. [11]; [12]). Finally, “talented” children should be identified and fostered as early as possible to support the development of their potentials. As a consequence, “talent” has to be seen as a dynamic phenomenon that demands a holistic view on individual personalities and, therefore, complex long-term process-diagnostics. The mentioned aspects are synthesized within the approach of Fuchs and Käpnick, who provided a model that describes the development of mathematical talents at primary school age shown in fig. 1 [13]. In its center, it includes Käpnick’s system of criteria that operationalizes mathematical talent with children of the third and fourth grade [11]. Simultaneously, this approach is a representative example of similar models (cf., for instance, [14]). Therefore, according to the approach of Fuchs and Käpnick, in this article, “mathematical talent” is seen as an above-average potential as to the criteria of Käpnick. This potential is characterized by individual determinants and a dynamic development depending on inter- and intrapersonal influences in interdependence with personality traits supporting the emergence of talent.

In the pilot-study, children who are assessed as “mathematically talented” take part in a project that fosters mathematically talented children at the university of Münster called “math for small pundits” (for its conception see [15]). Corresponding to the above-outlined view on “mathematical talent”, they were chosen by long-term process-diagnostics: As a first step, at the beginning of the third grade, teachers of

schools in the city of Münster elect children corresponding to Käpnick’s criteria and suggest a participation in the project. In a second step, children can visit the project to get to know its organization and atmosphere. In a third step, they have to fill in a half-standardized introductory test (organized as a competition) containing tasks that operationalize Käpnick’s criteria. Simultaneously, the process-diagnostics begin and continue as long as the children take part in the project considering both cognitive and co-cognitive parameters. Therefore, both (half-) standardized tools like tests that are similar to the introductory one and IQ-tests as well as non-standardized tools like observations on children’s task solving or guided interviews are applied. In this manner, an impression of the children’s individual talents gradually emerges.

### III. ATTITUDES: THEORETICAL FRAMEWORK

The term of “attitudes” has to be seen as a central construct of the social psychology. Its conception focuses on an evaluation of objects which an individual imagines or perceives in his or her environment. Attitudes can be explicitly and consciously accessed or they can emerge implicitly and spontaneously influencing an individual’s behavior in both cases [16]. Even though the consistency of attitudes and behavior in general can vary [17], attitudes are appropriate to a prognosis of behavior, in particular if they refer to a specific object [18]. As to functions of attitudes, there have to be emphasized (a) cognitive parameters, that lead to a fast evaluation of an object and, thus, to efficient behavior control and information processing, (b) instrumental components which might beyond other things lead to an avoidance of failures, (c) aspects of a personal or value-related identification with an object, and (d) determinants of keeping up an advantageous self perception by focusing on objects that an individual evaluates in a positive way [19]. Therefore, attitudes towards mathematics (as a focused object) might play an important role in the context of emphasizing possible reasons of the rare identification of mathematical talent with girls, because disadvantageous attitudes towards mathematics, e.g., might cause that girls evaluate mathematics in a negative way and, thus, avoid a stronger engagement in mathematics, and

turn to objects that are more appropriate to their self-perception. When it comes to the theoretical conception of attitudes, we follow the classical operationalization that describes attitudes as a construct consisting of (1) cognitive components which depend on rational convictions that help an individual to decide whether an engagement into something is positive or not, (2) affective components that are value-related and, e.g., seem to be a consequence of conditioning processes, and (3) behavior-related components that, e.g., might lead to an appropriation or avoidance of an object [20].

Research on attitudes towards mathematics is mostly either focused on children at middle school age, or focused on possible gender-specific differences without regarding specific aspects of giftedness respectively talent (furthermore, some of the existing studies are relatively old). In addition, studies which investigated attitudes towards mathematics in the context of exceeding mathematical abilities mostly refer to terms of giftedness (similar to the psychological view) and, thus, they are not in line with the holistic view on the development of mathematical talent that provides the framework of the subsequently presented pilot-study. The findings collectively show, however, the significance of attitudes as determinants for the identification of girls' mathematical potentials. Therefore, they are suited to provide a basis for the intended hypotheses.

As to the *cognitive aspect* of attitudes towards mathematics, studies primarily focus on individuals' assessments of usefulness and difficulty of mathematics. While there seem to be no gender- or giftedness- respectively talent-specific differences between imt and n-imt children regarding usefulness [1], some studies indicate that imt boys and girls as well as n-imt boys ascribe mathematics a lower level of difficulty compared to n-imt girls [21].

Concerning the *affective aspect* of attitudes towards mathematics, results on gender- or giftedness- respectively talent-specific differences of individuals' intrinsic values (like enjoying mathematical task solving) seem to play the most important role: Similar to characteristics of the assessment of mathematics' difficulty, some studies show that imt boys and girls as well as n-imt boys show a higher intrinsic value doing mathematics compared to n-imt girls [21; 22], while other studies indicate that boys ascribe mathematics a higher intrinsic value than girls in general [23; 24].

In regard to the *behavior-related aspect* of attitudes towards mathematics, boys seem to engage themselves in mathematics beyond mathematical school lessons more often than girls [25].

Beyond the reported findings on the different aspects of attitudes towards mathematics, there can, e.g., be found aspects which seem to be less important in the context of research on primary school children, since research concentrates on older students – like gender-specific typifications of mathematics (see [26]) –, or which focus on dimensions that have not been explored by scientific approaches for a long time, maybe because of changes in teaching atmosphere or the like – for instance, fear of mathematics (see [27]). Thus, aspects that can be assigned to one of these perspectives will not be part of the subsequently reported pilot-study.

#### IV. DESIGN AND RESULTS OF THE QUANTITATIVE STUDY

##### A. Question

The following hypothesis has been deduced from the summarized theoretical findings: Imt girls and boys as well as n-imt boys show more advantageous attitudes towards mathematics than n-imt girls (as a conclusion from cognitive, affective and behavior-related aspects).

##### B. Design, sample and procedure

In order to measure attitudes, a short questionnaire was composed that is appropriate for children regarding the theoretical framework. The presented pilot-study that used this tool is explorative of course, because established tools were not applied. Moreover, the sample is not representative and the subsamples are unbalanced: It contains N=120 children of the third and fourth grade (42 girls, 78 boys). The subsample of imt children is n=55 (15 girls, 40 boys). Children who are assessed as "imt" have taken part in the project "math for small pundits" for at least nine months. The sample contains n=65 n-imt primary school children (27 girls, 38 boys) from common classes. The probands were questioned during the school year of 2013/2014. All procedures of questioning were consistent: The children were told how to fill in the questionnaire, and they completed it on their own without any time limit. No one took more than ten minutes, and no one refused to fill in the questionnaire.

##### C. Method

Apart from declaring sex, the questionnaire was anonymized. In order to measure attitudes by cognitive, affective and behavior-related aspects, the following instruction was given (the original phrasing of the subsequently presented items was formulated in German and follows styles of [28] and [29]): "Mark with a cross a statement that is proper to you: (1) Mathematical tasks are sometimes too difficult. [cognitive aspect] (2) I enjoy learning mathematics. [affective aspect] (3) I actually enjoy doing mathematics beyond mathematical school lessons. [behavior-related aspect]" To evaluate these items, in each case a five-step scale was offered ("I don't know", "that's not correct", "that's almost not correct", "that's almost correct", "that's correct").

##### D. Evaluation

Statements about both the affective and the behavior-related item were translated into numbers from 0 ("I don't know") to 4 ("that's correct"). In contrast, statements about the cognitive item were translated into numbers from 0 to 4, too, but the assignment was turned around: For instance, "that's not correct" was translated into 4 and "that's correct" was translated into 1, because statements that focus on a low level of mathematical tasks' difficulty seem to reflect advantageous characteristics of attitudes. The coefficient of correlation as defined by Pearson between the included items moves in a range from .267 to .562 (with  $p < .01$  in each case) and the internal consistency is only just acceptable (Cronbachs  $\alpha = .669$ ). Therefore, the items have been combined to one scale with mean values. Data have been evaluated by an analysis of variance with the two factors "talent" and "sex" to find significant differences between the four groups. In addition to that,  $\eta^2$ -values have been calculated to see the possible

importance of both the factors and their interaction by their effect size:  $\eta^2 < .06$  means a small effect,  $\eta^2 < .14$  a medium effect and  $\eta^2 \geq .14$  a large effect [30].

The requirements of the used statistical procedure need the independence of subsamples and a normal distribution of the regarded trait within the groups amongst homogeneity of variance. The subsamples are obviously independent because of the distinction between sex and talent-identification. As a consequence of a graphical analysis of the distributions-histograms and the corresponding quantile-quantile-plots, the data are leptokurtic, but sufficiently similar to normal distributions (for this procedure see [31]). The requirement of homogeneity of variance is statistically firm as a result of a Levene-testing. Furthermore, the statistical procedure reacts robustly with e.g. nonexistence of homogeneity of variance (even if there is no normal distribution), if the number of subsamples is sufficient, i.e. each subsample contains at least ten probands [32].

### E. Results

TABLE I. MEAN VALUES (STANDARD DEVIATIONS) OF STATEMENTS ABOUT ATTITUDES TOWARDS MATHEMATICS

	boys	girls
imt children	3.30 (.69) n=40	2.87 (.95) n=15
n-imt children	2.98 (.78) n=38	2,09 (.89) n=27

The mean values of imt boys, imt girls and n-imt boys are quite similar, even though the value of imt boys is slightly larger than the values of imt girls and n-imt boys. The mean value of n-imt girls is clearly lower in comparison to all other groups (tab. 1). There are significant main effects on both talent ( $F(1,116)=11.991$ ,  $p=.001$ ,  $\eta^2=.094$ ) and sex ( $F(1,116)=17.618$ ,  $p<.001$ ,  $\eta^2=.132$ ). In contrast, there is no significant effect of interaction ( $F(1,116)=2.097$ ,  $p=.150$ ,  $\eta^2=.018$ ). As indicated by  $\eta^2$ -values, sex (medium effect of 13.2%) and talent (small effect of 9,4%) play a similar role to explain variance. Therefore, the statistical evaluation confirms the hypothesis that was deduced from the survey of essential theoretical findings.

### V. DISCUSSION

As a result of the statistical procedures, significant differences on attitudes towards mathematics between the regarded groups have been found. The groups of imt children and n-imt boys took quite similar stances on average that indicate advantageous characteristics of attitudes towards mathematics as a conclusion from cognitive, affective and behavior-related aspects in each case. In contrast, n-imt girls show lower mean values by their statements compared to all other groups regarding the applied operationalization of attitudes, and, thus, the results indicate that disadvantageous characteristics of attitudes towards mathematics can be found more often within this group. This might be interpreted as an affirmation of the hypothesis that was deduced from the theoretical findings. Of course, this assumption has to be assured by further studies focusing on an expansion and equal distribution of the regarded samples.

The results of the reported pilot-study indicate that advantageous attitudes towards mathematics can be found – independently of the identification of talent – more often with boys, while girls who have been identified to be mathematically talented are very similar to these groups. If this observation could be assured, it would be in line with research results on other motivational factors (see [5]). Observable more advantageous attitudes towards mathematics might cause more efficient diagnostics of boys' talent, because teachers might perceive their mathematical potentials primarily. By contrast, more disadvantageous attitudes towards mathematics might lead to the fact that children do not develop a stronger preoccupation with mathematics and turn to different interests. This might also apply to children who have a huge potential that might be more difficult to identify. This might especially apply to girls, because they on average have a larger spectrum of interests compared to boys [5]. In that way the findings imply the thesis that attitudes towards mathematics seem to be one factor that causes a more infrequent identification of huge mathematical potentials with girls; instead, they might either turn to different interests or their mathematical interest is prone to be obscured by other interests. Finally, attitudes towards mathematics have to be seen in a strong interdependence with other motivational factors like self-concepts, attributions or interest in mathematics as well as with influences of socialization or preferences that boys and girls show while solving mathematical tasks (for a survey see [1]).

As to practical consequences, the development of advantageous attitudes towards mathematics seems to play an important role for girls in order to foster their identification with mathematics and to support their potentials to emerge. In this context, e.g. task-fields that are composed especially to foster the mathematical talent and interest of girls under an enrichment perspective might be useful (e.g. [33]).

The study has obvious limitations, since it has to be seen as an explorative one which generates further hypotheses: Regarding the subsample of imt girls, the imbalance in comparison to the other samples is problematic. Because of the rare identification of mathematical talent with girls, it takes a long time to compose suitable subsamples. The sample, especially the subsample of imt children, is nothing more than an insufficient image of population, and its representativeness has to be seen as limited. In principle, the short questionnaire was adequate to the aims of the study: It is suited for a pragmatic use in classrooms because its design is appropriate for children, and it can be completed in a really short time. However, attitudes are strongly reduced in their conception, even though aspects of cognitive, affective and behavior-related determinants have been integrated, and the evaluation depends on very simple measurements. In addition, the external validity of the findings cannot be judged because established tools that regard criteria of quality were not applied. Nevertheless, as a result of testing the short questionnaire, the internal consistency of the regarded attitude-scale is at least sufficient. Therefore, it seems to be appropriate for a use within subsequent (explorative) studies. Moreover, such studies might focus on other motivational factors like interest in mathematics, self-efficacy or on the entire complex of motivation, preferably using established tools.

## REFERENCES

- [1] R. Benölken, *Mathematisch begabte Mädchen*. Münster: WTM, 2011.
- [2] M. Endepohls-Ulpe, "Begabte Mädchen und Frauen", in *Mädchen und Frauen in MINT, Bedingungen von Geschlechtsunterschieden und Interventionsmöglichkeiten*, H. Stöger, A. Ziegler and M. Heilemann, Eds. Berlin: Lit, 2012, pp. 103–132.
- [3] S. M. Lindberg, J. S. Hyde, J. L. Petersen and M. C. Linn, "New trends in gender and mathematics performance: A meta-analysis", *Psychological Bulletin*, vol. 136, 2010, pp. 1123–1135.
- [4] J. S. Hyde, S. M. Lindberg, M. C. Linn, A. B. Ellis and C. C. Williams, "Gender similarities characterize math performance", *Science*, vol. 321, 2008, pp. 494–495.
- [5] R. Benölken, "Begabung, Geschlecht und Motivation, Erkenntnisse zur Bedeutung von Selbstkonzept, Attribution und Interessen als Bedingungsfaktoren für die Identifikation mathematischer Begabungen", *Journal für Mathematik-Didaktik*, vol. 35, no. 1, 2014, pp. 129–158.
- [6] H. Bauersfeld, "Die prinzipielle Unschärfe unserer Begriffe", in *Mathematische Begabungen, Denksätze zu einem komplexen Themenfeld aus verschiedenen Perspektiven*, T. Fritzlär and F. Käpnick, Eds. Münster: WTM, 2013, pp. 105–129.
- [7] L. J. Lucito, "Gifted Children", in *Exceptional children in the schools*, L. M. Dunn, Ed. New York et al.: Holt, Rinehart and Winston, 1964, pp. 179–238.
- [8] J. S. Renzulli, "What makes giftedness? Reexamining a definition", *Phi Delta Kappan*, vol. 60, no. 3, 1978, pp. 180–184.
- [9] F. Gagné, "Understanding the complex choreography of talent development through DMGT-based analysis", in *International handbook of giftedness and talent*, 2nd ed., K. A. Heller, F. J. Mönks, R. J. Sternberg and R. F. Subotnik, Eds. Amsterdam et al.: Elsevier, 2000, pp. 67–79.
- [10] F. Käpnick, "Theorieansätze zur Kennzeichnung des Konstruktes 'Mathematische Begabung' im Wandel der Zeit", in *Mathematische Begabungen, Denksätze zu einem komplexen Themenfeld aus verschiedenen Perspektiven*, T. Fritzlär and F. Käpnick, Eds. Münster: WTM, 2013, pp. 9–39.
- [11] F. Käpnick, *Mathematisch begabte Kinder*. Frankfurt a.M. et al.: Peter Lang, 1998.
- [12] K. Kießwetter, "Die Förderung von mathematisch besonders begabten und interessierten Schülern – ein bislang vernachlässigtes sonderpädagogisches Problem", *Mathematisch-naturwissenschaftlicher Unterricht*, vol. 39, no. 5, 1985, pp. 300–306.
- [13] M. Fuchs and F. Käpnick, *Mathe für kleine Asse, Empfehlungen zur Förderung mathematisch interessierter und begabter Kinder im 3. und 4. Schuljahr*, vol. 2. Berlin: Cornelsen, 2009.
- [14] M. Nolte, "Challenging math problems for mathematically gifted children" in *Proceedings of the 7<sup>th</sup> Mathematical Creativity and Giftedness International Conference in Busan, Republic of Korea*, Group for mathematical creativity and giftedness, Ed., 2012, pp. 27–45.
- [15] F. Käpnick, "'Mathe für kleine Asse', Das Münsteraner Konzept zur Förderung mathematisch begabter Kinder", in *Mathematisch begabte Kinder*, M. Fuchs and F. Käpnick, Eds. Berlin: Lit, 2008, pp. 138–148.
- [16] G. Bohner, "Einstellungen", in *Sozialpsychologie, Eine Einführung*, 4th ed., W. Stroebe, K. Jonas and M. Hewstone, Eds. Berlin et al.: Springer, 2003, pp. 265–315.
- [17] A. W. Wicker, "Attitudes versus actions: The relationship of verbal and overt behavioral responses to attitude object", *Journal of Social Issues*, vol. 25, no. 4, 1969, pp. 41–78.
- [18] G. Bierbrauer, *Sozialpsychologie*. Stuttgart et al.: Kohlhammer, 1996.
- [19] S. Shavitt, "Operationalizing functional theories of attitude", in *Attitude structure and function, the third Ohio State University volume on attitudes and persuasion*, A. R. Pratkanis, S. J. Breckler and A. G. Greenwald, Eds. Hillsdale et al.: Lawrence Erlbaum, 1989, pp. 311–337.
- [20] E. Aronson, T. D. Wilson and R. M. Akert, *Sozialpsychologie*, 4<sup>th</sup> ed. München et al.: Pearson Studium, 2004.
- [21] W. Wiczerkowski and J. Jansen, "Mädchen und Mathematik: Geschlechtsunterschiede in Leistung und Wahlverhalten", in *Hochbegabte Mädchen*, W. Wiczerkowski and T. M. Prado, Eds. Bad Honnef: K. H. Bock, 1990, pp. 134–151.
- [22] F. Hellmich, *Interessen, Selbstkonzepte und Kompetenzen, Untersuchungen zum Lernen von Mathematik bei Grundschulkindern*. Oldenburg: Didaktisches Zentrum Carl von Ossietzky Universität Oldenburg, 2006.
- [23] W. Bos, H. Wendt, O. Köller and C. Selzer, Eds., *TIMSS 2011, Mathematische und naturwissenschaftliche Kompetenzen von Grundschulkindern in Deutschland im internationalen Vergleich*. Münster: Waxmann, 2012.
- [24] S. Ivanov, "Mathematische Kompetenz und Einstellungen zum Mathematikunterricht", in *ESS 10/11 – Kompetenzen und Einstellungen von Schülerinnen und Schülern an Hamburger Schulen am Ende der Sekundarstufe I und zu Beginn der gymnasialen Oberstufe*, U. Vielut, S. Ivanov and R. Nokilova, Eds. Münster: Waxmann, 2011, pp. 75–120.
- [25] A. Schiepe-Tiska and S. Schmidtner, "Mathematikbezogene emotionale und motivationale Orientierungen, Einstellungen und Verhaltensweisen von Jugendlichen in PISA 2012", in *PISA 2012, Fortschritte und Herausforderungen in Deutschland*, M. Prenzel, C. Sälzer, E. Klieme and O. Köller, Eds. Münster: Waxmann, 2013, pp. 99–122.
- [26] C. Keller, *Geschlechterdifferenzen in der Mathematik: Prüfung von Erklärungsansätzen, Eine mehrbenenanalytische Untersuchung im Rahmen der 'Third International Mathematics and Science Study'*. Zürich: Zentralstelle der Studentenschaft, 1998.
- [27] H. R. Reyes, "Affective variables and mathematics education", *The Elementary School Journal*, vol. 84, no. 5, 1984, pp. 558–581.
- [28] OECD [Organisation for Economic Cooperation and Development]. (2014, october, 12). *Internationaler Schülerfragebogen PISA 2012*. Available at: [https://www.bifie.at/system/files/dl/pisa12\\_internationaler\\_nationaler\\_schuelerfragebogen.pdf](https://www.bifie.at/system/files/dl/pisa12_internationaler_nationaler_schuelerfragebogen.pdf)
- [29] Bifie [Bildungsforschung, Innovation und Entwicklung des österreichischen Schulwesens]. (2014, october, 13). *PIRLS & TIMSS 2011, Schülerfragebogen*. Available at: <https://www.bifie.at/system/files/dl/Sch%C3%BClerfragebogen.pdf>
- [30] J. Cohen, *Statistical power for the behavioral sciences*, 2<sup>nd</sup> ed. Hillsdale: Lawrence Erlbaum, 1988.
- [31] R. Hatzinger and H. Nagel, *PASW Statistics, Statistische Methoden und Fallbeispiele*. München et al.: Pearson Studium, 2009.
- [32] J. Bortz, *Statistik für Human- und Sozialwissenschaftler*, 6th ed. Heidelberg: Springer Medizin, 2005.
- [33] R. Benölken, "Begabte Mädchen finden und fördern, Erfahrungen aus dem Projekt 'Mathe für kleine Asse'", *Grundschule*, no. 11, 2013, pp. 20–22.

# LANGUAGE AND CULTURE: AN EVERLASTING BINOMIAL

(Didactic unit on the culture of Italian language)

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**Abstract – The purpose of this research is to present a model of a didactic unit regarding the study and acknowledgment of the foreign language culture, respectively the Italian one, for a new language cannot be learnt without knowing its culture, and because this means lack of information on the country of the target language, it brings misunderstandings, prejudice and lack of cultural relativism.**

Moreover, learning a new language without knowing its cultural aspect is a truncated, incomplete, theoretical, abstract study itself, not pragmatic and communicative at all. Besides everything, modern methods and approaches greatly highlight the study of a language for communication purposes, because, in the end, language is a communication tool, and if communication is not working and becomes incomprehensible due to lack of knowledge on forms, expressions, implications or connotations language wins during communication, it means failure of communication, up to cultural shock[1]and in the most extreme cases, abandoning the communication.

When dealing with communication, it is clear that there are included all communication types and ways through which we interact with others: speaking, gestures [2], clothes, personal space, [3], etc., that are part of those linguistic and extra linguistic competences a student should possess, if we want him to fulfil the complete framework of his linguistic education.

**Keywords: culture, foreign language, binomial, study, approach**

## I. INTRODUCTION

As a concept, culture often seems to present difficulties in determining a clear definition. When we asked students what they understand with the term culture, their definitions have been a little chaotic and not clear, due to the fact that culture includes a very wide gamma of a nation’s life events, and, as such, is intertwined in every phase.

With regards to the study of a foreign language, the concept of culture should be anthropologic [4],so what should be presented to students are different, authentic, concrete and real cultural patterns of daily life, from family, kitchen, religion, fashion, television, etc. This means that the student will receive general knowledge, through which the teacher has to correct the cultural aspect [5],, which makes it possible for the student to know not just the foreign country and its culture, but also be able to make comparisons to the native language culture, for

the purpose of a fair evaluation and fair values each one of them conveys[6].

As teachers of foreign language, it is our duty, besides teaching the language, to transmit and provide students with the most correct cultural information related to the language, and we should do this not for simply knowing the target language and the country it originates from, but, what is most important, for a complete education of the student on language use and the country’s culture, because learning about its culture, means being part of its life and mentality, psychology, living, its progress.

Therefore, in our research below, we have tried to bring forth a pattern of Italian culture, the Carnivals. Actually, carnivals are a very widespread cultural pattern, but every country has its own specialty, and in this aspect, Italy as a nation has developed it many times ago, and is a dignified representative in the world arena, so we find it of great interest to present this model of didactic unit, which would make it possible for the Italian language students to get familiar with this aspect of Italian culture.

## II. DIDACTIC UNIT

TABLE I. CARNIVALS

<b>Target assignee</b>	14-16 year old
<b>Level</b>	A2- B1
<b>Duration</b>	5 -6 hours
<b>Linguistic objectives</b>	<ul style="list-style-type: none"> <li>• Introduction to lexicon related to carnivals, masks</li> <li>• Introduce and use the future tense in demonstrative modality and revise the tenses learnt so far</li> <li>• Introduce and use the present tense of conditional modality</li> <li>• Introduce the characteristic of doggerel text</li> <li>• Introduce some rhetorical figures of speech, such as alliteration</li> </ul>
<b>Communication objectives</b>	<ul style="list-style-type: none"> <li>• Talk about future plans, imagination and fantasies</li> </ul>

	<ul style="list-style-type: none"> <li>• Arranged or dreamt trips</li> <li>• Future projection, concept of future self, of the world we live in</li> <li>• Desires and expectations, chances of achievement</li> </ul>	
<b>Cultural objectives</b>	<ol style="list-style-type: none"> <li>1. Introduction of Carnivals in Italy</li> <li>2. Introduction to the costumes and masks</li> <li>3. Comparison between Italian and Albanian culture on this widespread cultural aspect</li> <li>4. Research on other countries' Carnivals</li> <li>5. Visit at the masks' workshop in Shkoder, Albania</li> <li>6. Virtual exploring visit in Italy: Venezia , Napoli, Sardegna</li> <li>7. Virtual visit in museums of famous masks</li> </ol>	
<b>Emotional-affective objectives</b>	<p>Activities related to the emotional-affective objectives</p> <p>The organization of a mini carnival for the purpose of:</p> <ul style="list-style-type: none"> <li>➤ Entertaining the students</li> <li>➤ Providing a nice festive atmosphere</li> <li>➤ Providing a positive atmosphere of work group</li> <li>➤ Creating masks by the students themselves</li> <li>➤ Increasing self evaluation</li> </ul>	<p><b>Brainstorming</b></p> <ol style="list-style-type: none"> <li>1. Watch one or two videos and discuss on them</li> <li>2. <a href="http://www.youtube.com/watch?v=0WhzJLvbGn8">http://www.youtube.com/watch?v=0WhzJLvbGn8</a> (Il carnevale italiano)</li> <li>3. <a href="http://www.youtube.com/watch?v=EQNwIoYNc2o">http://www.youtube.com/watch?v=EQNwIoYNc2o</a> (Costumi di Carnevale Sfilata Veneziano il Carnevale Italiano Parte II.mpg)</li> <li>4. <a href="http://www.youtube.com/watch?v=oCEU9DfYSyU">http://www.youtube.com/watch?v=oCEU9DfYSyU</a> (Carnevale di Venezia le maschere piu' belle - Venice Carnival the most beautiful masks [hd])</li> <li>5. <a href="http://www.youtube.com/watch?v=YI_U4YnBW64">http://www.youtube.com/watch?v=YI_U4YnBW64</a> (Carnevali a Venezia)</li> <li>6. <a href="http://www.youtube.com/watch?v=PEtBmqJa1b8">http://www.youtube.com/watch?v=PEtBmqJa1b8</a> (Carnevale in Sardegna)</li> </ol> <p>In the beginning, the video shows only images, without sounds</p> <p style="text-align: center;">PHASE 1</p> <p>-After showing the images, the teacher asks:</p> <ol style="list-style-type: none"> <li>1. What did you understand?</li> <li>2. What is it talking about?</li> <li>3. Do you recognize the masks?</li> <li>4. Where does the movie take place, etc.?</li> </ol> <p style="text-align: center;">PHASE 2</p> <p>-The video is played again, this time with sounds, and together with the teacher, students check whether they have understood what is being shown</p> <p style="text-align: center;">PHASE 3</p> <p>-Teacher distributes photocopies of the video transcript, in order for the student to read the provided information even in written form</p> <p style="text-align: center;">ACTIVITY 2</p> <p>-Watch the documentary</p> <p><a href="http://blog.ilcarnevale.com/tag/documentario-carnevale/">http://blog.ilcarnevale.com/tag/documentario-carnevale/</a></p> <p>Open, plenary discussion on the documentary</p> <p style="text-align: center;">ACTIVITY 3</p> <p>-Listen and watch the song accompanied by subtitles "<i>Mi sale a Carnevale</i>" Tiziano Cocco</p> <p><a href="http://www.youtube.com/watch?v=_tyZR4hC_EU">http://www.youtube.com/watch?v=_tyZR4hC_EU</a></p> <p>Teacher asks general questions on the song.</p> <p>We go through the text general to understand its content and continue with global reading, skimming</p>
<b>Materials</b>	<p>Images, movies, documentaries on carnivals and masks</p> <p>Movie " <i>Karnevalet e Korces</i>" (Korça's Carnivals)</p> <p>Movie <i>Il carnevale di Venezia</i>, (Venezia's Carnivals) 1939, G. Adami, G. Gentiluomo</p> <p>Documents on carnivals in Sardegna</p> <p><a href="http://travel.fanpage.it/sartiglia-di-oristano-cavaliere-e-maschere-per-il-carnevale-sardo/">http://travel.fanpage.it/sartiglia-di-oristano-cavaliere-e-maschere-per-il-carnevale-sardo/</a></p>	
<b>Glotto-technologies</b>	Videos, computer	
<b>Methodologies</b>	Deductive, different types of games	
<b>First phase</b>	Questions on carnivals, costumes, masks	
<b>Motivation</b>	Teacher brings in classroom different carnival masks and asks whether students know them and what they symbolize. Teacher talks about them and asks:	
<b>Globalization</b>	<ul style="list-style-type: none"> <li>• If students have taken part in any carnivals</li> <li>• What was their experience</li> <li>• What costumes or masks they wore</li> <li>• If they have tried to make a costume or a mask by themselves</li> </ul>	

	<ul style="list-style-type: none"> <li>• Homework. Find materials on Italian carnivals and the most famous masks</li> <li>• Find songs, poems or doggerels in Italian, as well as Albanian</li> </ul>		<p>alliteration</p>
<p><b>Analysis</b></p>	<p style="text-align: center;">ACTIVITIES</p> <p>Teacher can use one of the above texts. We have provided a poem and will work on it.</p> <p>Read the poem “Scherzi di Carnevale” (Carnival tricks)[ 7], intensive reading, skimming, scanning:</p> <p style="text-align: center;"><u>Carnevale,</u> <u>ogni scherzo vale.</u></p> <p style="text-align: center;"><i>Mi metterò una maschera da Pulcinella e dirò che ho inventato la mozzarella</i></p> <p style="text-align: center;"><i>Mi metterò una maschera da Pantallone, dirò che ogni mio sternuto vale un milione.</i></p> <p style="text-align: center;"><i>Mi metterò una maschera da Pagliaccio per far credere a tutti che il sole è di ghiaccio</i></p> <p style="text-align: center;"><i>Mi metterò una maschera da Imperatore, avrò un impero per un paio d’ore</i></p> <p style="text-align: center;"><i>per volere mio dovranno levarsi la maschera quelli che lo portano ogni giorno dell’anno...</i></p> <p style="text-align: center;"><i>E sarà il carnevale più divertente veder la faccia vera di tanta gente</i></p> <ol style="list-style-type: none"> <li>1. Exercises on the text comprehensibility (multiple choice, close questions)</li> <li>2. Questions on the text</li> <li>3. Characteristic of the doggerel text</li> <li>4. Exercises on the lexicon used</li> <li>5. Exercises on the modalities and forms of the used verbs</li> <li>6. Find rhetorical figures, such as</li> </ol>	<p><b>Games</b></p> <p><b>Game1. Acrostic</b></p> <p>Method : In groups</p> <p>Development: Students receive papers, which contain sentences related to carnivals and are asked to find the word which comes up from their combinations.</p> <p>For example:</p> <p>Carnevale(carnival) Amare le feste (loving parties) Restare in piazza (stay in the square) Nessuno rimane a casa (no one stays home) Essere mascherato (wear a mask) Voglia di divertirsi (wants to be entertained) Andare a vedere gli spettacoli (go to see the show) Lasciarsi andare (let go) Eviva il Carnevale(Viva the carnival)</p> <p>The winner is the group with more sentences</p> <p>Development: This activity has been designed to be carried through cooperative learning.</p> <p>The teacher divides the class in 2-3-4 groups, according to the number of students.</p> <p>Each group must show to the other one a carnival mask, which they need to identify by saying its name and the distinguishing characteristic.</p> <p>The group which finds more is the winner.</p> <p><u>The most famous masks in Italy</u> (<a href="http://crescerecreativamente.blogspot.com/">http://crescerecreativamente.blogspot.com/</a>)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Colombina</p> </div> <div style="text-align: center;">  <p>Arlecchino</p> </div> <div style="text-align: center;">  <p>Pulcinella</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="text-align: center;">  <p>Pierrot</p> </div> <div style="text-align: center;">  <p>Pantalone</p> </div> <div style="text-align: center;">  <p>Dott. Balanzone</p> </div> </div>	

<p><b>Game 3 Set theory</b></p>	 <p>Stenterello      Rugantino      Meneghino</p> <p>Brighella      Gianduja</p> <p>3Find and list verbs that are in the future indicative ( insiemistica)</p> <p>Va, andrò, prenderai, smettere, spegneremo, vivete, cadrete, scaperanno, farai, faremmo, lavoreresti, sarei, etc.</p>
<p><b>Third phase Summary and reflection</b></p>	<p>Perform a supposed carnival, where every group builds a mask. The group will talk about its history, its origin, what it represents and how is it distributed.</p> <p>Moreover, each group must find a similar Albanian carnival character, and present its similarities and differences and talk about its history.</p>
<p><b>For the teacher</b></p>	<p>Necessary information, didactic material with details on the most famous Italian masks.</p> <p><a href="http://www.slideshare.net/Lapappadolce/materia-le-didattico-per-il-carnevale">http://www.slideshare.net/Lapappadolce/materia-le-didattico-per-il-carnevale</a>  <a href="http://www.crescerecreativamente.org/2010/01/unita-didattica-il-carnevale-tra.html">http://www.crescerecreativamente.org/2010/01/unita-didattica-il-carnevale-tra.html</a></p>

### III. CONCLUSION

Teaching a new language to other people is a difficult duty, but teaching them its culture is even more complicated, for the teacher encounters challenges he has to handle with success. Therefore, he needs to know and carefully select the materials he needs to present [8]. These materials should be authentic,

interesting and diversified, attract attention and excite the students [9]. Accordingly, the teacher must be very careful with the way he presents cultural models and how he transmits them. It depends from the teacher whether he engages or not students in a specific activity during the class. Additionally, the teacher should know how to present the cultural values of the target language with care, intelligence, flexibility and prudence, without denigrating or overestimating it. He should know how to clearly explain the students on stereotypes or general definition on it or the country, language and culture.

The study of a language culture also provides variety, interest and wish to know more, for like this, there also comes a deeper knowledge of language and what it represents [10], . Therefore, it is our duty as language teachers to try our best to offer to our students the possibility to know the world that surrounds us, the possibility for culture and cultural education, to form more open-minded and vigilant generations, because only in this way we can lower the barriers that separate our countries.

### REFERENCES

- [1] Celentin P, Serragiotto G., Il fattore culturale nell'insegnamento della lingua, [http://venus.unive.it/aliasve/index.php?name=EZCMS&page\\_id=433](http://venus.unive.it/aliasve/index.php?name=EZCMS&page_id=433)
- [2] GjinaliA., ProdaniA., La comiciación gestual en las clases de la lengua axtranjera, Revista Mediterraneo, nr 2, 2010, Roma, p 67.
- [3] Mezzadri M., (2013), I Ferri del mestiere, Guerra edizioni, Perugia, p. 238
- [4] Balboni E., P (1994), Didattica dell'italiano a stranieri, Bonacci Editore, Roma, p120.
- [5] Balboni E., P (1994), Didattica dell'italiano a stranieri, Bonacci Editore, Roma, p 92
- [6] Pavan E. (2005), Aspetti interculturali dell'insegnamento/apprendimento dell'italiano LS nelle università straniere, at Il lettore di italiano all'estero, cured by Pavan E, Bonacci editore, Roma, p 96
- [7] Rodari G., (1996) , "Scherzi di carnevale",Il secondo libro di filastrocche,Edizioni , Firenze
- [8] GjinaliA., ProdaniA, (2012), Foreign language teacher a bridge between two cultures (translate) Mësuesi i gjuhës së huaj urë lidhëse ndërmjet dy kulturash, Revista pedagogjike, e IZHA, Kristalina –KH, dicember, Tirana.
- [9] Pavan E. ( 2000), La cultura e civiltà italiane e il loro insegnamento in una prospettiva interculturale, at La formazione di base del docente di italiano a stranieri, cured by Dolci R., Celentin P., Bonacci Editore, Roma, p.86.
- [10] GjinaliA., ProdaniA, (2012), Foreign language teacher a bridge between two cultures (translate) Mësuesi i gjuhës së huaj urë lidhëse ndërmjet dy kulturash, Revista pedagogjike, e IZHA, Kristalina –KH, dicember, Tirana.

# Pedagogical narrative for a significant learning in positive conflict management

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**Abstract-** This paper presents an innovation project in the degree of Education of University of Barcelona, concretely, in the course of Mediation and Conflict. This project is ongoing and aims experiential and meaningful learning of students in their training as mediators of quality teaching through pedagogical narratives. This project involves 120 students with the finality to have a significant, analytical and experiential learning in conflict management.

**Key words-** Innovation, pedagogical narratives, mediation, conflict resolution, high education.

## I. INTRODUCTION

It presents a teaching innovation project that aims to improve the teaching-learning process in key skills in mediation of the students of Education Grade at the University of Barcelona through the narrative as a teaching methodology on analysis and positive management of conflict.

The training of mediators and mediation for conflict resolution is a real need and necessary in today's society. For over 20 years, Catalonia (Spain) opted for mediation. Currently, the Law 15/2009, of 22 July, mediation in private law in Catalonia and the Royal Decree-Law 5/2012, of 5 March, of Mediation in Civil and Commercial Affairs, highlights the importance of mediation, providing a professional profile for the students of the Faculty of Education.

For this reason, teachers in mediation of Department of Methods of Research and Diagnosis in Education was established in the 2010-2011 academic year teaching mediation team consisting of teachers of the subjects of mediation. Furthermore, as an added value to the project presented, this teaching team also is formed by professionals in the field of active mediation; This aspect gives the project a much more practical nature, near and actual work area. The goal of this team is to make teaching methodologies that promote meaningful learning in students to develop their mediation skills. The technical characteristics of this alternative dispute resolution (mediation) implies that it is a practical-applied; therefore, it is necessary and essential to make a meaningful learning-teaching process from "know-how" and "know how to be."

Last year 2012-13, as shown in the background section, this teaching group conducted another innovative project in which it was found necessary to train students in key of mediation skills. Students acquire the knowledge to be taken to carry out

mediation; however, over 90% say they do not feel qualified to deal with mediation because they lack training in mediation skills.

It is, therefore, our aim as a team and responsible for teaching mediation matters in this field taught in our faculty detected respond to this need by encouraging experiential methodology that accompanies the process of teaching and learning from an analytical perspective and significance. This is speaking from the beginning of the course a real conflict situation experiential and group level. Students must write a case that one of their group members have experienced. From there I start the process of narrative: it is a mode of inquiry and action-oriented teaching reconstruct and interpret meanings that students produced and put into play when writing, reading, reflection and discussion with colleagues relation to their own educational experience and conflict initially drafted [1] and [2]. This methodology aims to be an educational practice (very common among teachers in schools to reflect on their teaching practice) that aims to generate dynamic and productive readings on the experiences and pedagogical relations that take place in situations of conflict. So their devices work focuses on the development of individual and collective bargaining pedagogical stories and interpretative texts by teachers and students [4]. All texts and narratives that occur in these areas of work collaborative oriented to develop and test new ways to consider in pedagogical terms "what happens" in areas of conflict and "what happens" to actors involved in its management. Thus, from a live analyzes and constructs individually and collective bargaining from the reflection gives meaning to positive mediation and conflict management.

## II. BACKGROUND

The training of mediators and mediation for conflict resolution is a real need and necessary in today's society. For over 20 years Catalonia commitment to mediation. Currently, the new Law on Mediation in private law in 2009 highlights the importance of mediation, providing a professional profile for the students of the Faculty of Education.

In this sense the University of Barcelona has also committed to training our students in mediation; implementation of the EHEA has been an opportunity; obligatory creation of this subject and other optional specialization.

Last academic year 2012-13 we conducted a teaching innovation project based on the need for a participatory

process-training students in the same subjects mediation. Parallel workshops were conducted with students participating. The process generated a significant learning, but linear, and although it was not the end, led to the publication of a teaching text (accompanied by an audiovisual support) published by Editions and Publications of the University of Barcelona being useful, both for students and for teachers to teach this academic year 2013-14: Luna, E. (coord.). Blasco, C.; Lozano, P.; Mas, S. and Panchón, C. (2013). *Conflict mediation community, educational, employment and juvenile justice*. Barcelona: Publicacions i Edicions UB [3].

Simultaneously, this process was accompanied by an initial, processual and final assessment. The evaluation was very positive when compared to students who had not participated in this process of teaching and learning. The publication of this ongoing work is being useful for teaching in this field; students a very positive approach to the reality in the classroom; analyzes of conflicts and mediation. However, the conclusions drawn from the previous project, demonstrated the challenge of developing strategies, skills, etc. as mediators and mediators. It was analytical, but very linear. For this reason, this year we have undertaken the extension of the learning process meaningful to all students and from a more dynamic and reflective: pedagogical narratives.

### III. PARTICIPANTS

The participants of the innovation project are part of the teaching and research and it is an interdepartmental team (Methods of Research and Diagnosis in Education and Didactic and Educational Organisation). Meanwhile, the majority are also working professionals in the field of mediation.

As for the application context, pedagogical narratives are carried out within the framework of the obligatory subject in Education degree: Mediation and Conflict (4<sup>th</sup> course). The students who have participated are from two groups (morning and afternoon class) with a total of 120 students.

### IV. AIMS

The objectives of this innovation to respond primarily to one of the main areas for innovation in our university: new active methodologies and proposals for improving learning. In this sense, the objectives pursued relate to improving students' learning:

1. To promote meaningful learning and reflective of students in positive management of conflicts.
2. Develop analytical skills in conflict management.
3. Build a process of change and transformation from the construction joint analysis of the conflict.

To achieve these goals, we had five main phases present (dynamic and reflexive) in the project:

1. Introduction in pedagogical narratives in the teaching mediation team.
2. Constitution of the team (maximum 4 students per group) and drafting of conflict experienced. At this stage every teacher start to work with each class group.

3. Share reading experience and promote reflective process from generating questions for the reconstruction and analysis of written text. This process is done for several sessions and stop by the criterion of saturation.
4. Final redaction of the experience has been an educational practice learning analysis and conflict management.
5. This process is repeated with the writing of another conflict experienced by another student group.

### V. RESULTS

This educational innovation has started the new academic year 2014-15. Therefore, since September the students have started pedagogical narratives as training methodology. Therefore, the results obtained are being process outcomes.

We believe that, as university teachers are responsible for the education of students in the Faculty of Education and must respond to social demands in order to form professionals quality mediation. This is why you need to emphasize the acquisition of meaningful learning. This project, involving not only the achievement of improved learning, but also the achievement of the following more specific skills:

- a) Being able to analyze conflict situations from a broad comprehensive approach allowing neutral respect the feelings of each party.
- b) Being able to establish communication paths between the parties in order to unlock situations of isolation away from their interests.
- c) Be able to provide new perspectives on the conflict situation in order to complement the various parts of speech, and generate possibilities approach in finding a solution.
- d) Be able to design agreements that may lead to the acceptance and satisfaction of the parties in conflict.
- e) Being able to ask specific programs and take part in different areas of management conflicts.
- f) Be able to design alternative arrangements that may lead to the acceptance and satisfaction of the parties in conflict.

Therefore, assuming an impact is to the extent that students participating in the project to develop these skills, which is allowing comprehensive training as mediators/s.

Moreover, the results obtained from the data analysis of different techniques for gathering information, refer to:

- Significant improvement of students' learning in terms of meaningful learning and experiential (connects theory and practice from experience), greater mastery of content (mediation and conflict), more motivation and interest mediation, acquisition specific skills and greater analysis capability.
- Establishment of the key elements that are making this possible improvement that relate to learning: a

teaching-learning meaningful and true experience-based, tracking the training process with the students, the format of the sessions (seminar group work) and reflective practice sessions generated.

This has been possible as:

- The student relates the theoretical learned with each session with his own experience, thus improve their professional teaching practice.
- The student is the key actor in the teaching-learning process, which helps to improve learning [5].
- It promotes reflection, being an essential tool through which students acquire knowledge and skills [6].

## REFERENCES

- [1] D. Suárez, *Gestión del currículum, documentación de experiencias pedagógicas y narrativa docente*, Observatorio Latinoamericano de Políticas Educativas del LPP-UERJ, 2003.
- [2] D. Suárez, L. Ochoa, *La documentación narrativa de experiencias pedagógicas. Una estrategia para la formación de docentes*, Buenos Aires: MECyT / OEA, 2005.
- [3] E. Luna (coord.), C. Blasco, P. Lozano, S. Mas, C. Panchón, *Conflict mediation community, educational, employment and juvenile justice*, Barcelona: Publicacions i Edicions UB, 2013.
- [4] F. Connelly, D. Clandinin, *Narrative inquiry. Experience and story in qualitative research*, San Francisco: Jossey-Bass, 2000.
- [5] J. Trilla, A. Novella, "Participación, democracia y formación para la ciudadanía. Los consejos de infancia," in *Revista de Educación*. 356, 2011, pp. 23-43.
- [6] B. Holland, "A Comprehensive Model for Assessing Service-Learning and Community-University Partnerships," in *New Directions for Higher Education*, 114, 2011, pp. 51-60.

# Educational Policy and Social Welfare: Discourse about Rights

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**Abstract—** The present paper is concerned about the provision of educational rights to broader population groups with emphasis on individuals with special educational needs. In this respect, the structure and content of special education have been reformed to meet individual needs and interests. As a result, social exclusion is shrunk as individuals are faced with more opportunities to collaborate among each other. Emphasis is placed on new models of education addressed to all people and forming the conditions for economic development and social prosperity.

**Keywords-** *educable, equality, social self, society of knowledge*

## I. SPECIAL EDUCATION AS POLITICAL RIGHT

Educating students who belong to special categories is the representation of the policy of rights which was shaped on a national and international level as the outcome of social struggles and requests stemming from the citizens' societies. It is a dynamic field of actions shaped on the basis of the requests which were formulated and vindicated by the political movements [1] [2]. They modeled the citizens' needs – proposals into a political discourse of standpoints [3] which conceptualized broader views about political subjects' equality and brought the conversation back to democratic principles [4] and state structures towards citizens' protection. Political movements are observed world wide to express the weak or marginalized citizens whom they brought into the forefront as they became visible and were perceived by the citizens' society and the political system.

Equality was tied to the provision of rights in education among broader population groups. The concept of progress and prosperity of a nation was given meaning in accordance with the population's education which, in individual terms, would enable social mobility. This way social inequality would be blunted and, in political and cultural terms, it would create prerequisites of prosperity and co-existence in a political environment in which people would co-operate and provide for the social whole.

Education for the lower social strata and special population groups was integrated into the broader category of social rights. In this respect and in political terms there seemed to have been a fulfillment of the democratic principle of equality in opportunities, if not the one of equality, in an open system in which people would not be marginalized by the political system and citizens would not be divided into superior and inferior. Education would be the equalizing means [5] [6] by

which the educational capital would supplement any deficiencies in any other forms of capital which were obtained within a model of inequality.

Based on the perspective of individual progress and social prosperity, a system of special education was formulated for individuals that should acquire knowledge and skills in order to integrate into the social whole [7]. Therefore, reference is made to a policy which theoretically increases groups' categories accessing education. Especially in the case of these individuals, the concept of "educable" and the educational content are redefined. The concept of "educable" includes individuals with special skills, which should be utilized by the educational system in an educational environment allowing people to feel equal to other people being educated [8]. In this sense, the difference will not be regarded as a deficit. On the contrary, emphasis will be placed on a conversation about differences which unite people and broaden students' perception.

The aim was the implementation of a welfare policy for educational provisions so that individuals feel satisfied through knowledge acquisition and creation. It is about the implementation of a functional, educational policy which is orientated towards the generation of special educational and training programs. The starting point is individuals' deficits or different skills. As a result, supplementary programs will be in line to the content of cognitive units of the curriculum [9].

This particular educational policy includes programs for special population groups. In utilitarian terms, it seems that this policy is concerned about people who will be integrated into society by the aid of education. At this point there is recognition of formed structures conducive to utilizing parts of the population so that the human force is "enriched", through otherness or through the difference formed by people having started from various cognitive levels or skills. Thus, social exclusion [10] [11] is limited when this policy is implemented and people utilize the possibilities given by the educational system in order to form their preferences and desires [12] which they will fulfill. As a result, they will get a sense of creativity [13].

## II. CONSIDERATIONS ABOUT THE STRUCTURE AND CONTENT OF SPECIAL EDUCATION

It is well-understood that when reference is made to teaching methods and curricula for students with special needs, it should be taken into account that these people have their own

personalities, special needs and interests. All carriers, structures and means are particularly meaningful as they have to be aligned to special students' demands.

Therefore, the organization of an educational system for them is based on the utilization of modern pedagogical principles and means in order to fulfill the complex educational aim about the acquisition of knowledge, the individual's satisfaction and its integration into society. Dyslexic or autistic individuals form a multiplicity, challenging the educational system to study and introduce a social multiplicity in which the individuals will communicate and act, primarily in the school environment and afterwards in supplementary environments.

In the school network, these groups of students should feel safe, equal and free to express themselves without exclusions in a democratic educational system. The educational community should concentrate on dissimilarities and social differences. Thus, it will be given the possibility to explore the audience, creative role, attitudes and behaviors allowing these individuals to communicate and act with the rest of the student audience.

All students' communication, collaboration and co-existence sensitizes people, aligns their intentions and diversity is understood with emphasis on the audience. Thus, social co-existence is redefined through a broadened spiral relation formed in the collaboration and communication networks which have been developed among various students. Thus, the school environment defines and forms gradually the aspects of social, economic and political life into different grades. The educational system is part of the broader development of structures and relations which enhance the institution of democracy conducive to the modeling of "intangible plans". The ideas, emotions and attitudes which are contained in them are expressed among citizens while participatory schemata and humanistic values are emerging.

Special education for dyslexic and autistic children does not mean that they are differentiated from the rest of the student population as "non-regular" [14] and that education does not interfere as a form of certain authority of regulation. In other words, the educational system does not function as a monitoring system which would exercise authority towards regulation with the implementation of specific methods and policies. On the contrary, it acknowledges "difference" as being creative and integration practices are implemented, so that all students acquire knowledge in a collaborative manner. This will be achieved in an environment in which being ethical presupposes the acknowledgement of the other and co-existence with others, instead of exclusions.

The educational community is part of the "intangible work [15] [16]". This means that, as an educational force, it contributes to the generation of intangible products like knowledge, communication, social relations and emotional states. Therefore, within the educational process, the manner of teaching various cognitive units, everyday problem solving, symbolic and analytical works, and communication codes through texts and pictures, form emotions. Especially for this group of students, prerequisites of relaxation, happiness and satisfaction are created so that emotional impact and

intellectual functioning inevitably co-run within the educational environment.

School environment, focused on the provision of knowledge and the creation of positive feelings, is tied to the formation of the social self. In this sense, each individual will be able to collaborate with other individuals as long as they have common points of reference. In other words, through collaborative instruction and research methods school environment contributes to people's liberation and emancipation. As a result, they think and act in a climate of mutuality which is defined by equality and freedom.

Educating dyslexic and autistic children includes, at the same time, the formation of abstract and specific identities allowing these individuals to communicate through the recognition of institutions and values. Within this pattern, the concepts of emancipation, protection of "different" individuals are elevated through their being acknowledged by the majority as carriers of rights [17] [18]. Education is highlighted as the carrier of implementing the policy of rights to equality, through the redistribution of knowledge and the generation of opportunities structures [19].

### III. CONCLUSIONS

In the era of rapid changes in all fields, education should be aligned to the new situation and form a system of basic education for dyslexic and autistic individuals in which cognitive units and structures will be re-adjusted on the basis of new scientific findings of Medicine and Psychology. As a result, cognitive domains and educational means will be incorporated to meet the functional needs or skills and capabilities of these people. At the same time, the educational system should utilize the progress which is observed in special educational fields and in technology. This way, it will reject old educational means and rapidly re-adjust its educational structures through the redefinition of priorities and the formation of educational planning. Nowadays, the concept of time is crucial to these individuals' benefiting from cognitive domains which will lead them to the "society of knowledge" and create prerequisites for a harmonious integration into the social arena.

In the changing economic and social conditions and periods of economic and ethical crisis [20] [21] [22], education should function as a means of economic development and social prosperity. Both aims are tied to knowledge, emotional fulfillment and humanistic education. Utilizing the student force is a necessity. In economic terms, trained individuals having knowledge and skills will contribute to innovative economic choices [23] conducive to the economic development which entails integration into work and the consuming society. Social prosperity is secured through the individuals' participation in social life. Therefore, knowledge itself functions as "instrumental [24] [25], humanistic and emancipating knowledge".

Special education, especially during a crisis period, should be of special concern to the educational carriers in order to unfold educational plans towards the creation of opportunities to individuals through the development of knowledge and technology which are tied to democracy and the individual's

fulfillment. Forming teaching programs is tied to the provision of a higher quality education to the special groups of students. This way, their attendance will be prolonged [26] as long as their interest is enhanced, their creativity is unfolded and their education will be reinforced by them and their families. Today education is challenged to create hope on the basis of the universal values of justice [27] and democracy.

Arguably, special education should be part of normative claims in order to “make readable the high value of progress” and transfer views, interpretations and arguments into a broader reflection about the role of education. In this respect, humanism will not be cancelled by modernization. Meanwhile, emphasis is placed on education, as a public good, which conceptualizes progress, in ethical terms [28], from the beginning and beyond the globalized financial system in which “progress is decayed in an irresponsible and stripped-of-values strategy of speculative accumulation and flamboyant consumption” [29].

#### REFERENCES

- [1] J. Smith, “Social Movements for Global Democracy,” Baltimore: The Johns Hopkins University Press, 2007.
- [2] B. Moyer, J. McAllister, M.L. Finley and S. Soifer, “Doing Democracy: The MAP Model for Organizing Social Movements,” Canada: New Society Publishers, 2001.
- [3] M. Pinard, “Motivational Dimensions in Social Movements and Contentious Collective Action,” Canada: University Press, 2011.
- [4] T. Meyer and L. Hinchman, “The Theory of Social Democracy,” Cambridge: Polity Press, 2007.
- [5] Gurbachan “Equality and Education,” United Kingdom: Albrighton Publications, 1993.
- [6] K. Lynch, “Equality in Education,” Ireland: Gill & Macmillan, 1999.
- [7] M. Farrell, “New Perspectives in Special Education: Contemporary philosophical debates,” London: Routledge, 2012.
- [8] D.D. Smith, and N.C. Tyler, “Introduction to Special Education: Making A Difference,” London: Pearson, 2009.
- [9] T. Skrtic, “Disability and Democracy: Reconstructing (Special) Education for Postmodernity,” New York: Teachers College Press, 1995.
- [10] E. Pierru, “Guerre aux chomeurs ou guerre au chômage,” Paris: Du Croquant, 2005.
- [11] E. Goffman, “Stigmaté: Les usages sociaux des handicaps,” Transl. D. Makriniotis, Athens: Alexandria, 2001,
- [12] G. Molyvas, “Pleasures, preferences and needs,” Athens: Polis, 2010.
- [13] R. Sennet, “The Technician,” Athens: Nisides, 2011.
- [14] M. Foucault, “The non-regulars. Teaching at the College in France, 1974-1975,” Athens: Estia, 2010.
- [15] M. Hardt and A. Negri, “Crowd, war and democracy in the era of the Empire,” Athens: Alexandria, 2011.
- [16] C. Vercellone, “Sommes- nous sortis du capitalisme industriel?” Paris: La Dispute, 2003.
- [17] E. Balibar, “Les Frontières de la démocratie,” Paris: La Découverte, 1992.
- [18] M. Gauchet, “La Révolution des droits de l’ homme,” Paris: Gallimard, 1989.
- [19] P. Savidan, “Opportunities equality,” Athens: Polis, 2011.
- [20] A. Hemerijck, B. Knapen and E. Van Doorne, “After the earthquake, economic crisis and institutional choices,” Athens: Papazisi, 2010.
- [21] N. Karamouzis and G. Chourdouvelis (eds.) “From the international crisis to the crisis of Eurozone and Greece,” Athens: Livanis, 2011.
- [22] J. Pisani- Ferry, “La crise de l’ euro et comment nous en sortir,” Paris: Fayard, 2011.
- [23] P. Brown, A. Hesketh, and S. Williams, “The Mismanagement of Talent: Employability and Jobs in the Knowledge Economy,” Oxford: University Press, 2004.
- [24] D. Bell, “The Coming of Post- industrial Society,” London: Basic books, 1973.
- [25] J.F. Lyotar, “The Postmodern situation,” Athens: Gnosi, 1993.
- [26] P. Merle, “La Démocratisation de l’ enseignement,” Paris: La Découverte – Repères, 2002.
- [27] M. Deutsch, “Distributive Justice: A Social- psychological Perspective,” New York :Yale University Press, 1985.
- [28] M. Walzer, “Morale maximale, morale minimale,” (Greek publication, V. Voutsakis), Athens : Polis, 2003.
- [29] M.L. Salvadori, “The idea of progress. Can they live without it?” Athens: Savvalas, 2011.

# The critical components of an online course syllabus

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**Abstract— This paper lays an outline for an extensive and optimal syllabus to be used in an online learning environment. The various components of an online course syllabus are discussed in detail and practical examples are presented. Altogether 12 syllabus components have been identified which constitute to the usefulness of an online course syllabus.**

**Keywords - syllabus, online education, eLearning**

## I. INTRODUCTION

A solid course syllabus is especially essential tool in the online environment where students cannot meet with the instructor face-to-face. The majority of the information online will be available in a written or audio format, and should be at hand throughout the course. Both the students and the instructor can rely on a good and informative course syllabus for the whole duration of the course. It is an important tool for the instructor to which s/he can refer to as questions keep piling up during the first weeks of an online course. If the course syllabus is detailed enough, the instructor's first piece of advice to an information seeking student should and could be something along the lines "Please consult the course syllabus".

## II. SOME THEORETICAL NOTIONS?

When starting to teach a new course, which means starting to create a new online course syllabus, there's always a certain level of uncertainty in the air. The group dynamic is new and you as the instructor find yourself facing new challenges. When starting to draft a course syllabus for an online course, the mnemonic "T.R.E.E." is helpful: tone, rules, expectations, engagement. The way how well you will be able to establish these principles already at the syllabus writing stage will define the rest of your course.

- Tone – in an online learning environment, punctuality still matters. Your course syllabus must show to the students that you value readiness to learn. You can establish the principle of punctuality online by having everything ready to go on your course website from the first moment the students see it [1]. This means that the course syllabus must be finished well before the course starts!
- Rules – a trip around the syllabus with the students at the start of your course is crucial to make sure that you have stated its provisions for the record [1]. However, you need to collect feedback in how well (or not) the students actually have understood the course syllabus, too. You cannot start changing the course syllabus in the middle of the course but you can revise it by next

time you teach the same course, and learn from your own mistakes in setting the rules before the course start. What's not in the course syllabus, doesn't exist...

- Expectations – the course syllabus sets up the student expectations of what they will learn on the course, how you will teach the course, what are the course requirements, and so forth. Besides creating student expectations, syllabus is the place to present yours! One of the expectations might be that the students familiarize themselves with the course syllabus... You could apply the Bloom's Taxonomy to develop expectations for the students [2]. The students who are deserving of an A would be capable of doing all of the below mentioned ones while a student doing B work is able to product about 80 percent of the listed expectations, and so forth.
  - Knowledge / Memorization: student recalls methods, procedures, abstractions, principles, theories, facts, conventions, definitions, jargon, classifications, criteria
  - Comprehension / Understanding: student understands and grasp the meaning of knowledge and articulates connections between different items of knowledge
  - Application / Using: student uses abstract ideas in concrete situation
  - Analysis / Taking apart: student breaks down complex problems and solves each part using principles and theories common to his/her discipline
  - Synthesis / Putting together: student puts parts together to make a whole new entity of concepts
  - Evaluation / Judging: student makes judgment about a solution, design, report, material by using internal and/or external criteria [partially adapted from 2]
- Engagement – a good online course syllabus is engaging. You might want to build your first course activity so that the students have no need to rely on the course text (1) as some of them may not have access to it for the first course week or so. This is likely to increase the level of student engagement as the student won't be able deny themselves from the online participation due to the missing course text...

Creating a good syllabus isn't just about describing the outcome but it's also about combining the course goals and learning objectives to the course activities. It is important that already when planning the online course syllabus, the instructor tries to find alternatives to lectures. The validity and reliability [3] of the chosen course activities can be measured and defined as in research. When drafting the course syllabus, the instructor should address the following questions in his/her mind:

- Validity – does the activity actually have the students do what the learning outcome describes?
- Reliability – are the instructions sufficiently clear that different students will still follow them the same way? [3]

Activities, on the other hand, need to be connected to the assessment. When drafting the course syllabus, the instructor should address the following questions in his/her mind:

- Are the assessments in a similar format to the activities?
- Are there rubrics for grading the assessment that match the criteria of the outcomes? [3]

Kirkpatrick (1994) has defined the four levels of assessment, which could be used when creating an online course syllabus. Two of the four levels in the Kirkpatrick's model are applicable to college-level instruction but also the two others can be used as part of instructional processes [4].

- Reactions – *“The first level of assessment can be accomplished at the end of the course through student evaluations but that only addresses the completed course.”*
- Learning – *“The assessment activities for learning need to be aligned to the same cognitive domains as the instructional event. Tests and assignments are used.”*
- Transfer – *“Assessing how well instruction has transferred is often done through employer surveys regarding graduates.”*
- Results – *“Perhaps the most difficult kind of assessment is impact on the bottom line. For educators, simulations again provide an opportunity to play out these “What if?” scenarios with our students, before they join the workforce. The more valid the simulation is, the better it is at predicting possible on the job results.”* (adapted from 4).

### III. THE ONLINE COURSE SYLLABUS COMPONENTS

A good online course syllabus, sometimes also referred to as course outline, introduces at least the following topics in sufficient detail:

- Basic course information
- Course materials
- Course description
- Course goals
- Learning objectives

- Additional information
- Academic dishonesty
- Study methods
- Disability disclosure
- Assessment
- Grading standards
- Course schedule

#### A. Basic course information

The basic course information introduces the course by name. It contains specific information on the dates of when the course is being taught as well as the term. Instructor's name and contact information (email, phone, office hours) are also part of the so-called basic course information. A short instructor bio might also be added here if it is not already presented on the course website. You might want to present here also the eLearning management system (such as Blackboard, Canvas, Moodle or other).

#### B. Course materials

The course materials might comprise of books, articles, videos and many others. It is important to list here not just the required course materials but also the suggested supplemental readings. Please use the current APA style for listing materials. In fact, you might want to include the current APA Manual in the required course materials at least in all the Master's level courses. Including website addresses here for quick review of a book or an article is often perceived helpful by the students. For books, also include the ISBN number and specified edition. This is probably more important that one might think at first. The textbooks often come in many different editions such as the American, International and European ones. Different editions contain different case studies and the page numbering of course varies from an edition to an edition. Including a picture of the book cover might not be such a bad idea either. In any special software or media is required in class, do mention it here, too.

For example: American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

ISBN: 978-1-4338-0561-5

(APA website: <http://www.apastyle.org/manual/index.aspx>)

#### C. Course description

Usually you can copy directly from current, approved course outline from the course catalog(s), so called catalog description, sometimes supplemented with a description of how the course fits within the curriculum. Since the learning objectives and course goals will be addressed in detail next, it is not necessary to include them here. Instead, use this course description as a 3-4 sentence introduction to the course content and topic in general. Any prerequisite(s) should be mentioned here, too.

For example (adapted from 5):

“Emphasis is placed on the importance to management of business research and its role in the decision-making process.

Analysis and communication of data gained through the research endeavor is stressed. Students are introduced to the art and science of solving business research problems and becoming better users of research. Topics include research design, the scientific method and other research methodologies, problem formulation, operational definition, measurement and its impact on error and design, classification and modeling. Although research methods are generally the same between academic disciplines, specific concentration in this course is on application of current business research methods. The course focuses on student synthesis of the qualitative, quantitative and mixed methods research methodologies, identification of appropriate sources of information, and the use of valid steps in collecting and analyzing data. *Prerequisite:* Analytical Decision Making in Business I (BMDS 3370), or a comparable course, completed within the last 5 years.”

#### D. Course goals

Similarly to the course description, the course goals are not normally set by individual instructors but are to be copied from the approved course catalog. The course developers ensure that the online course is built content and otherwise to follow the set course goals. Course goals are specific goals describing what should a student expect to have learned / attained competencies in s/he completes the course. The possible research-supportive implementation plan to diagram an in-class activity for critiquing research that has been performed by others and for developing one’s own research on a topic of students choosing in an attempt to explain a phenomenon of his or her interest should be presented here.

For example (adapted from 6):

“Upon successful completion of this module, a student will be able to:

1. Understand and apply sound and appropriate business practices, policy, procedures, regulations, ethics, concepts and skills
2. Apply effective research skills and techniques such as, problem identification, defining the research question(s), and determining methodology, to business projects
3. Apply sound and appropriate communication skills and techniques in the presentation of business problems or projects
4. Identify the major steps involved in conducting a Capstone Project, within the context of a current industry or management-related problem
5. Complete a written Graduate Capstone Project proposal (Chapters 1, 2 & 3) designed to investigate an appropriate industry or management-related topic. The proposal and presentation must reflect the degree of professionalism expected of a graduate student. An acceptable proposal must be completed to receive credit for the course.”

#### E. Learning objectives

Learning objectives refers to a specific list of objectives, which are to be presented in this section of the course syllabus.

It is of an utmost importance to link the course goals to the learning objectives, and *vice versa*. Usually the number of learning outcomes listed here is relatively small, something between 3-5 or even less.

For example (adapted from 7):

Learning objectives (outcomes) are

1. Demonstrate inquiry-based learning.
2. Create an inquiry-based research activity (lesson plan) that can be implemented in an instructional setting (face-to-face, blended, or online)

This is also the place to present the more informal learning objectives and expectations. For example, it may be important to point out for the students that they are expected to work along with the textbook for their own benefit, not just because the assignments might be collected for grading purposes. If you have tutorials available on your online course, please ask the students to get familiar with them before attempting to complete the given homework. Most of the questions student ask occur because the tutorials, or the course syllabus for that matter, were not properly viewed.

The online courses rarely are self-paced, and they most certainly are not open-ended. Students are to be asked to follow the beginning and ending dates for each course, as well as for each module (week of study) within the given course. There will be assigned deadlines for homework, readings, quizzes, and online discussions. You might want to encourage presenting open-ended questions and also invite the students to ask questions and raise points for discussion at any time. In order to maintain integrity of the learning process, the students should be advised to present course related questions online (perhaps you have a specific discussion area designated for this, such as your own Online Office or Student Lounge or similar). On the other hand, questions and concerns regarding grades and other personal matters should be sent via email directly to the instructor.

This is also the place to remind the students of for example how many times a week they are expected to interact online (e.g. submit work, retrieve assignments, read lectures, participate in posted group discussion). The online participation is critical to students’ successful completion of the online course.

#### F. Additional information

Please include to this section of the syllabus any additional information you think the students need in order to successfully complete the course keeping in mind that what has not been clearly spoken beforehand might work against you while teaching the course. For example, if you have a specific late assignment policy in use, you might want to refer to it here (and under the grading criteria and the assignments).

I you have any additional websites in mind that offer current information on the course topic(s), you might want to list those here, too. The Internet offers both historic and current information that might be relevant to the content of the course you are teaching but it is important to guide the students towards the right direction. You do not want them to end up

using only Wikipedia, do you, but rather have them using rich sources of relevant and credible information.

If the students have an online library in use, presenting it here might be a good idea. At least include the library website address here but in addition, information on the available online databases and so forth could be provided here. The more accurate contact information (for example, how to reach the IT Helpdesk in technical issues or how to contact the Librarian online) you give to the students, the less they will be asking unrelated questions from you. Libraries can offer, for example, research tool(s) included with the library databases having guidance in how to collect and use references, write a paper, and create a bibliography.

#### G. Academic dishonesty

It is important to point out for the students in the course syllabus that your affiliation is strongly committed to the nurturing of academic excellence. You expect the students to pursue and maintain honesty and personal integrity in all their academic work. If you have a website available where students can access your affiliation's academic integrity policy, please include it in here. It is your responsibility as an online instructor to prevent violations of academic integrity and take corrective action when they occur. List here what are the sanctions. You want the students to be aware of the exact sanctions rather sooner than later. The sanctions might include even a dismissal from the university. Also, describe here what constitutes on academic violation:

1. Plagiarism: includes use of any source to complete academic assignments without proper acknowledgement of the source
2. Cheating: includes but is not limited to a) Giving or receiving help from unauthorized persons or materials during examinations b) The unauthorized communication of examination questions prior to, during, or following administration of the examination c) Collaboration on examinations or assignments expected to be, or presented as, individual work d) Fraud and deceit, that include knowingly furnishing false or misleading information or failing to furnish appropriate information when requested, such as when applying for admission to the university (definitions adapted directly from the ERAU-W's academic integrity policy)

If you have any form of digital method for checking plagiarism in use, do describe it in here. You as the instructor might also reserve the right here to use any method available or electronic system to check for possible violations of academic integrity. For example, you might say that all the papers submitted for grading in your course will be submitted to safeassign.com or urkund.com where the text of the paper is compared against the information contained in the safeassign.com database. If the student papers are included in the database (for example safeassign.com) and they become source documents for the purpose of detecting plagiarism, do let the students know about that in this section of your online course syllabus.

#### H. Study methods

Study methods also online comprise of many different ways of enhancing learning: homework, assignments, lectures/lecturettes, discussion exercises, webinars, and many more. If you wish the students to turn in their written assignments online, perhaps via dropbox or other designated area available on your course website, please indicate it here. Remember to be specific about the deadlines and when everything is due. If you want the students to complete and turn in all the course activities in order to pass the course, do not forget to mention that here as well. A gentle reminder of the sanctions for failing to submit the assignments in a timely manner might be in order here, too. If the students foresee a problem, or have trouble with the software, are in need of assistance, or other, please remind them to notify you, the instructor, as soon as possible and definitely before the assignment due date. Surely you as the instructor will be mindful of everybody's hectic lives and understand that late homework assignments may happen, yet you need to make it clear that the students must advance on the course and should pay a special attention of not getting behind with the course work.

The students might appreciate you reminding them about the assignments reflecting their abilities to articulate their thoughts in writing and be a reflection of their level of professionalism. Students should be encouraged to be mindful of their spelling, presentation and organizational skills when writing. Remind the students that "talking" online is not the same as talking on the telephone or talking in person when verbal expression, intonation, vision and body language can be used to get the message across more efficiently. Students could be asked to respect the feelings of others at all times which on the other hand is not to say that they couldn't or should not disagree or express their opinions.

If you have lectures in your online course, give the students a timeframe here when the lectures will be posted and where (on the course website). Also, the students might benefit of you letting them know in this section of the course syllabus how to find the weekly assignments (on the course website).

The participation in the online discussion exercises needs to be clearly advised: how many postings are needed, when is the first weekly discussion posting due, are the students allowed to open up their own discussion topics or not, what constitutes a sufficient discussion posting contentwise, are the students allowed to start posting under the forthcoming discussion topics, and so forth. For example, each student might be expected to research, read, and share facts or their opinions online depending on the nature of the discussion topics. The first postings might be due for example by Thursday each week. Please remember to be specific of the time zone used when timing the student postings. The students could be required to post meaningful responses to at least two other students' postings. You might want to explain the students that simply answering the given discussion question does not constitute discussion which is more about taking part in a give and take to learn different points of view. If you are going to penalize students for making all the threaded discussion postings on one single day or on the last day of the study week / Module, remember to let them know what the sanction is (e.g.

85% of the max. amount of points or 30% deducted from the max number of points). If discussion comprises the biggest part of the students' overall, final course grade, it is important to point it out here. Also, remember to write down when the discussion closes each week.

For example: "Discussion closes for any given week at 5pm Central on Sunday."

For example (adapted from 8): "I ask for only 3 meaningful comments from you each week. Each comment should be approximately two paragraphs in length (100 – 150 words). The first comment should be in response to the question(s) I pose for the week. The next two will be to a fellow classmate's comments in the discussion. With this method we can get a very good dialogue for the week. I will keep track of your discussion participation, your follow-up to other comments and the insightfulness you use in the discussion. Remember, the first posting is due by Wednesday of a given week. I strongly encourage the use of outside materials and examples in our discussions. Prompt posting, by Wednesday, of your initial response will provide everyone the opportunity to respond and it gives us time to fully explore the topic. Please remember to use APA style also for your discussion postings, when appropriate."

#### I. Disability disclosure

Your affiliation is most likely committed to the success of all students and thus has a policy to provide reasonable accommodations to students with disabilities and special needs who qualify for services. Explain in the syllabus how in practice a student can request accommodations due to a physical, mental, or learning disability by providing the contact information (phone, email) in here.

#### J. Assessment

This section of the syllabus includes information on how the instructor assesses student outcomes (tests/quizzes, group work, written assignments and papers, other). Remember to present the assessment criteria per assignment in detail! (for example how many pages per paper is required, what font size, how many percentage of the paper should be allocated towards which kind of content, how many postings, how many quiz answers are required for passing, and so forth). On a general level, you might remind the students here what is needed to achieve the grade they want. For example, success in your course might call for in-depth study of each module as assigned, timely completion of assignments, and regular participation in the threaded discussions. If you don't accept late work, remind the students yet again that late work should be the exception and not the rule and may be downgraded at your discretion. If you haven't pointed this out already earlier in the course syllabus, remind the students also about the fact that unless all work is submitted, the student could receive a failing grade for the course.

Although you yourself keep of course electronic copies for all the materials students submitted, you could recommend in the course syllabus that also the students keep electronic copies of all materials submitted as assignments, discussion board posts and emails, until after the end of the term and final grade is received.

#### For example (adapted from 6):

"The students will need to critically evaluate the researcher's work by identifying strengths, weaknesses, areas to improve, and possible extensions of the research. Students will also need to utilize their research skills by locating them using either the library database or the Internet. The paper must follow current APA standards and include tables labeled properly as necessary. In the Appendix, a student may want to include graphs used to evaluate normal distribution. A discussion of the results of such analysis should be included in the results section of the paper. In order to demonstrate a completion of the given written assignment on a *mastery* level, a student:

- Discusses research methods used. Describes how authors justify methods selection. Determines other methods that could have been used. Provides more than one reason why other methods would have been applicable (grading item: content 40%)
- Develops ideas cogently, organizes them logically with paragraphs and connects them with effective transitions. Clear and specific introduction and conclusion (grading item: logic and organization 20%)
- Explores ideas vigorously, supports points fully using a balance of subjective and objective evidence, reasons effectively making useful distinctions (grading item: development of ideas 20%)
- Employs words with fluency, develops concise standard English sentences, and balances a variety of sentence structures effectively (grading item: language 10%)
- Sentence structure and grammar are excellent; correct use of punctuation; minimal to no spelling errors; no run-on sentences or comma splices (grading item: grammar, spelling, and punctuation 5%)
- Running header, page numbers, section headings, citations, and reference list conform to APA style (grading item: APA compliance 5%)"

#### K. Grading standards

Explain here the grading criteria and scale. This means presenting the major assignments in the course here yet again which will be the basis for evaluation according to the grading scale you show here. The grading scale is of course determined by your affiliation but generally speaking, the following guidelines could be applied [9]:

- A and A- indicates a superior grasp of the subject matter of the course, initiative and originality in attacking problems, and ability to relate knowledge to new situations.
- B+, B, and B- indicates better than average grasp of the subject matter of the course and ability to apply principles with intelligence.
- C+ and C indicates an acceptable grasp of the essentials of the course.

- D+, D, and D- indicates less than average performance in the course.
- F indicates failure to master the minimum essentials of the course. The course must be repeated.[9]

In many cases, particularly on the Graduate level online courses, just full letter grades of A, B and C are in use - three Cs leading to a dismissal. A refers to receiving 90 percent or more of the top score available for completing an online course, B to 80 percent and C to 70 percent. It is important to describe each evaluation item in detail and to include a chart of evaluation items in the online course syllabus.

#### L. Course schedule

Course schedule is presented in a table format and it contains information on weekly basis on the required readings, assignments, due dates, and so forth. A good course schedule links the course activities to the course goals and learning objectives.

### IV. CONCLUSIONS

If you are a new faculty member in the university where you teach your online course(s), you must consult their faculty academic orientation manuals first. Particularly, get familiar with the overall concept of the course as it is defined in the pre-set course outline / catalog. Make sure that you yourself as the instructor have access to the course text and glance it through before starting to write the course syllabus.[10].

Review the course description and ensure that the one you provide in the course syllabus matches the description in the current course catalog. Review also the possible course guides to ensure that the course goals and expected student outcomes are the same you present in the online course syllabus than what has been written in the course guide. [10].

In order to develop your own personal concept of the course, review the current course topic related literature. Then, move on identifying max. 10 major topics to be used as a broad outline for developing your own concept of the course. Once finalized, synchronize yours with the course outline and objectives. [10].

As part of writing a course syllabus, you need to determine how you will assess attainment of the learning outcomes. You

may need assistance from the academic directors to do this especially if you a new faculty member. You could, for example, sample course syllabus by another colleague and sample course handouts. You need to develop assessment measures for the course as a whole, meaning all the different course activities must be covered such as quizzes, exams, papers, discussions, group projects, and others. [10].

Now you are ready to lay out a plan listing Modules (timing, content, etc.), assignments, teaching methods and timing. You must also arrange the objectives and course activities to fit the overall course schedule. Creating a table for correlating all the different materials, ideas and aids for your course might help. Add the locally required administrative requirements and you all ready and set to finalize your draft online course syllabus. [10].

### REFERENCES

- [1] R. West and L. Turner, *Introducing communication theory: Analysis and application*, 2nd ed. Boston: McGraw-Hill. 2004.
- [2] The Bloom's Taxonomy (2008). Presented in the online instructor orientation material by the University of the Incarnate Word – Universe Online as an example of how Bloom's Taxonomy is used to develop expectations for students in an engineering program Available: <http://www.che.wsu.edu/~millerc/bloom.html>
- [3] Active learning techniques that align with learning outcomes. Presented in the online instructor orientation material by the Embry-Riddle Aeronautical University – Worldwide. Unpublished.
- [4] D. Kirkpatrick, *Evaluating training programs: The four levels*. San Francisco: Berrett-Koehler. 1994.
- [5] Online course syllabus for BMDS 6340 Business Research Methods as taught in Fall I 2012. The University of the Incarnate Word.
- [6] Learner exercise on Research-Supportive Implementation Plan. Completed in the Embry-Riddle Aeronautical University FACD 802 Igniting research in your course continuing education. 2013.
- [7] Online course syllabus for FCAD 802 Igniting research in your course as taught in Spring 2014. The Embry-Riddle Aeronautical University.
- [8] Online course syllabus for BINT 6311 International Business Management as taught in Summer 2010. The University of the Incarnate Word.
- [9] Online course syllabus for MGT 614 Global and Transnational Marketing Management Spring as taught in Term 2005. The Tiffin University – Tiffin Global.
- [10] Checklist for Syllabus Construction. The Embry-Riddle Aeronautical University. 2014. Unpublished.

# Testing Pre-service Primary Education Teachers in Quadrilaterals

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**Abstract** — In the process of improving the quality of graduate teachers in primary education it is needed to continuously increase their expertise in key subjects. Mathematics undoubtedly is one of them. Foreign research studies show problems with geometric conceptions and misconceptions in students. Research studies done on Slovak primary education students suggest that the level of knowledge in geometry is comparable to students abroad. This paper describes partial results of the Slovak research on the topic of quadrilaterals. Our results are compared to similar foreign studies with the same focus. The goal of research was to detect misconceptions in students about quadrilaterals, especially how they distinguish different classes of quadrilaterals and how they understand relations among classes of quadrilaterals.

**Keywords**- *conceptions, misconceptions, quadrilaterals, teacher training, primary education*

## I. INTRODUCTION

In recent years, Slovakia has not been very successful in measuring mathematical literacy in 15-year-old students. The results have showed that the knowledge of our students are below the OECD average (Šiškovič and Toman, 2014). There are many reasons for this, but one of the parameters which has been examined is the training of teachers of mathematics. We believe that teachers have to create better conditions for students, so the students can succeed in mathematics. Professional and knowledgeable teachers of mathematics are a must. Organized mathematical teaching begins at the primary level, so the primary education teachers should have sufficient expertise and didactics. Elementary knowledge of geometry is part of mathematical education. Long-term preparation of the future primary education teachers shows that students do not have sufficient knowledge of geometry. Students have difficulties identifying and defining 2D shapes and their properties. Many students do not understand the inclusive relationship among some classes of shapes. Published theoretical and empirical studies have suggested that the problem is not local. Slovak pre-service primary education students have comparable geometry knowledge like students in other countries. However, some parameters can be compared only with some degree of tolerance because the measurement may also be affected by various cultural differences, social influences and by vocational and linguistic terminology. It also has been confirmed by the authors Gunčaga, Kopáčová and Duatepe Paksu (2013) of comparative study, which states that for example "The differences in the answers of Slovak and Turkish groups come from the different school traditions in

their countries". Nevertheless, the contribution will present some analogies and comparison levels of knowledge about quadrilaterals in Slovak and other foreign students of primary education.

## II. THEORETICAL BASIS

### A. *Maintaining the Integrity of the Specifications (use style Heading 2)*

We have noticed problems associated with the formation of ideas about different types of quadrilaterals and their properties in students who are getting ready to become primary education teachers. Some foreign research studies indicate the same. (eg. Marchis, 2012; Çontay and Duatepe Paksu, 2012; Fujita and Jones, 2006).

The aim of the research study Marchis (2012) was to assess the level of knowledge of the quadrilaterals in pre-service primary education teachers, highlight the problematic areas in understanding definitions of each quadrilateral class and find out how misconceptions are created. We can conclude, based on studies of other authors (Mayberry, 1983, Clements and Battista, 1992; Feza and Webb, 2005), that many students have problems to recognize different geometric shapes in non-standard positions, respectively, they are unable to understand class inclusions of shapes. Even Marchis (2012, 2008) states that many students have problems to see some shapes as an inclusion of another class of shapes (for example, do not see that squares are subset of rectangles).

Marchis (2012) in his study reports that two-thirds of students in the selected research group using the Van Hiele geometric levels of cognition are only at the analysis and description level (level 1). The reasons are:

- "They can not recognize the geometrical shape; they do not know the correct properties of the shapes;
- they know the properties of the shapes, but they repeat some properties in the definition;
- they know the properties of the shapes, but they miss some properties from the definition" (Marchis, 2012, p. 38).

A different study by Çontay and Duatepe Paksu (2012) from Turkey had similar research objective. The authors wanted to find out knowledge of mathematics in students studying to become teachers in Turkey and their understanding of relationships and connections between kite class and square

class. Also, their aim was to determine the knowledge level of the selected students using the Van Hiele levels. They found that students did not understand class inclusion relations and could not define kite in terms of its components.

Study by Fujita and Jones (2006) analyzes the level of knowledge of pre-service primary education teachers and it focuses on their ability to define and classify quadrilaterals. Within the framework of justification of the research objective, both authors describe the current situation in terms of geometry placement in English and Scottish national curricula, but the authors also refer to preliminary analysis of data obtained in wider study which had been carried out in England.

Table I shows the results for the selected group of students. The authors did not hide their disappointment about the results and they state that one of the possible reasons may be incorrect personal figural concepts of students. It turned out that the selected students did not have good knowledge of hierarchical relationships among selected classes quadrilaterals.

TABLE I. RESEARCH FINDINGS ON THE RELATIONSHIP BETWEEN QUADRILATERALS(FUJITA AND JONES, 2006)

Arrows	Correct answer (%, n=60)
square -> rectangle	65 %
square -> rhombus	40 %
rectangle -> parallelogram	70 %
rhombus -> parallelogram	16,7 %
parallelogram -> trapezium	48,3 %
trapezium -> quadrilateral	40 %
kite -> quadrilateral	28,3 %

### III. RESEARCH

#### A. Research Design

The aim of the research was to determine the level of knowledge of pre-service primary school teachers about quadrilaterals and their properties. The research was conducted in 2011 – 2013. The sample included 159 students of bachelor study program who majored in teaching for primary education at the Comenius University, Pedagogical faculty of education in Bratislava, Slovakia. Research tool was a knowledge test. Students select and labeled correct answers. The test was based on basic study materials about quadrilaterals at the basic knowledge level in primary education school students. There were 14 tasks on the test, but some tasks had more sub-tasks. There were 32 scored items. In this study, we will analyze the results of the tasks (Table. II), focusing on the relationship between the quadrilaterals, just like the study by Fujita and Jones (2006) did.

TABLE II. SELECTION OF TASKS ABOUT QUADRILATERALS

P_1	Quadrilateral is _____ a trapezoid.	a. always b. sometimes c. never
P_2	Is kite always a quadrilateral?	a. yes b. no
P_3	Is a rectangle always a parallelogram?	a. yes b. no

P_5	Which words describe the shape? 	a. rhombus b. quadrilateral c. parallelogram d. rectangle
P_6	Parallelogram is _____ a rectangle.	a. always b. sometimes c. never
P_9	Square is _____ a parallelogram.	a. always b. sometimes c. never
P_10	Rhombus is _____ a square.	a. always b. sometimes c. never
P_12	Is parallelogram always a rhombus?	a. yes b. no

#### B. Results and discussion

The data were evaluated quantitatively and through implicative analysis. Table III shows the overall results and success rate in each task.

TABLE III. THE RESULTS OF RESEARCH ON INCLUSIVE RELATIONS BETWEEN QUADRILATERALS (ŽILKOVÁ, 2013). NB COL : 32, NB LIG : 159

Question (verified the relationship)	Occurrence	Average	Standard deviations
P_5d (square / rectangle)	114	0.72	0.45
P_10 (square / rhombus)	24	0.15	0.36
P_3 (rectangle / parallelogram)	70	0.44	0.50
P_6 (oblong / parallelogram)	113	0.71	0.45
P_12 (rhombus / parallelogram)	115	0.72	0.45
P_9 (square / parallelogram)	138	0.87	0.34
P_1 (trapezium / quadrilateral)	110	0.69	0.46
P_2 (kite / quadrilateral)	72	0.45	0.50

Overall, it seems that our students have problems with understanding the concept of a kite. It is similar to Fujita and Jones (2006) study. Ideas of Slovak students about kite concepts are qualitatively different compare to other convex quadrilaterals, such as the parallelograms or squares. We believe that the main reason for this is low representation rate and few exercises in Slovak math textbooks. The consequence is that the basic inclusive relationship between **kites -> quadrilaterals** is problematic for students.

In contrast, compared with the term kite, concepts of terms like square and parallelogram are relatively stable. The **relationship between class of squares and parallelograms is not problematic**. The fact that the ideas about the mentioned concepts are stable does not mean that they are completely correct. The correct answers are largely tied to the items in which the parallelogram examples were shown in a standard position (horizontally). It has been shown that figures which show parallelograms in non-standard positions are more difficult for students to understand.

Despite the fact that students' responses in understanding of rectangles are similar (according to the terminology of statistical implicative analysis), success rate in solving rectangle exercises was not as high as we had expected. It has

been shown that to categorize squares as rectangles (P5d, 72%) is not as a big problem for the students as to categorize rectangles as parallelograms (P3, 44%). **The relationship square -> parallelogram (P\_9, 87%) was easier for students than the relationship rectangle -> parallelogram (P3, 44%).** The results and observations show that **the term rectangle is problematic** for our students. These students may have not imagined just a rectangle or a square. It happens quite often that students imagine under the term rectangle also a right triangle or trapezoid with one right angle. These results are different than the ones in the Scottish study where 70% of students correctly identified the relationship rectangle -> parallelogram. We assume that the reasons for differences are linguistically-professional and terminological. There is a special term in Slovak terminology for a shape which is a rectangle but which is not a square („obdĺžnik” = a rectangle that is not a square, oblong). A square is defined as a regular quadrilateral, and a rectangle that is not a square (oblong) is defined as a parallelogram, which has all internal angles right and which is not a square (Medek al., 1975). This means that there dominates such an educational approach in which the class of squares and rectangles that are not squares (oblongs) are disjoint classes and have a common name rectangles (fig. 1). This approach is slightly different from the approaches abroad and it can cause problems in understanding inclusive relationships.

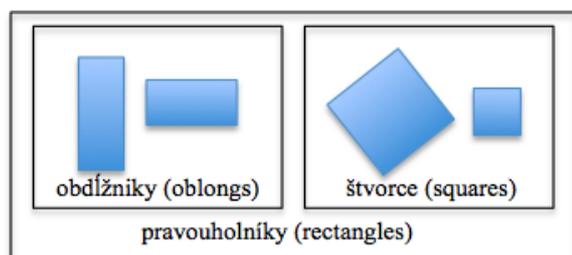


Figure 1. Rectangles in the Slovak terminology

The research results show that our students do not see the relationships between the rhombus class and the class of squares. We assume that the problem is also related to the definition of terms in Slovak terminology.

#### IV. CONCLUSIONS

After summarizing the research results, in terms of recognition of convex quadrilaterals in relation to inclusive relations among the classes, we can conclude that the most problematic relations for Slovak students were as follows: deltoid -> quadrilateral, rectangle -> parallelogram and square -> rhombus.

The research results indicate that **the formulation of the task** has a great impact on the success of the student responses. It does not depend only whether the tasks are with pictures or without pictures, but also it depends on which way is the inclusive relationship verified. It would be good to create such a test, which could verify properties of the shapes and the relationships among them in both directions, for example: "Is a rhombus always a square?" And also: "Is a square always a rhombus?" It has been shown in some tasks that if the students correctly identified some of the properties and the relationships among rectangles and then the same task was rephrased it caused considerable difficulties.

#### ACKNOWLEDGMENT

This study was supported by Slovak GAPF project no. 01/27/2014 "Geometrical conceptions and misconceptions of pre-school age and early school age children."

#### REFERENCES

- [1] D. H. Clements and M. T. Battista, "Geometry and spatial reasoning", in: D. A. Grouws (Ed.), *Handbook on mathematics teaching and learning*. New York: Macmillan, 1992, pp. 420-464.
- [2] E. G. Çontay and A. Duatepe Paksu, "Preservice Mathematics Teachers' Understandings of The Class Inclusion Between Kite and Square," in *Procedia – Social and Behavioral Sciences* 55, 2012, vol. 55, pp. 782-788.
- [3] N. Feza, and P. Webb, "Assessment standards, Van Hiele levels, and grade seven learners' understanding of geometry". *Pythagoras* 62, 2005, pp. 36-47.
- [4] T. Fujita and K. Jones, "Primary Trainee Teachers' Understanding of Basic Geometrical Figures in Scotland", in *Proceedings 30th Conference of the International Group for the Psychology of Mathematics Education*. Prague : PME, 2006, vol. 3, pp. 129-136.
- [5] J. Gunčaga, J. Kopáčová, and A. Duatepe Paksu, "A comparative Study: Turkish and Slovak Preservice Primary Mathematics Teachers' Skills about Symmetry," *Proceedings–Tasks and tools in elementary mathematics*, Prague: Charles University, 2013, pp. 99-107.
- [6] I. Marchis, "Preservice Primary School Teachers' Elementary Geometry Knowledge." *Acta Didactica Napocensia*, vol. 5, number 2, 2012, pp. 33 - 40.
- [7] I. Marchis, "Geometry in primary school Mathematics". *Educatia* 21, vol. 6, 2008, pp. 131-139.
- [8] J. W. Mayberry, "The van Hiele levels of geometric thought in undergraduate preservice teachers". *Journal for Research in Mathematics Education*, vol. 14, num. 1, 1983, pp. 58-69.
- [9] V. Medek and composite authors, *Mathematical terminology*. Bratislava: Slovak Academic Publishing, 1975.
- [10] M. Šiškovič and J. Toman (2014, oct. 1). "PISA 2012: Výsledky Slovenska v kocke", Available at: <https://www.minedu.sk/data/att/6077.pdf>
- [11] K. Žilková, *Teória a prax geometrických manipulácií v primárnom vzdelávaní*. Prague: Powerprint, 2013.

# Clinical and Social Aspects of the Parental Alienation Syndrome

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**Abstract** – This paper looks at the clinical and social aspects of the Parental Alienation Syndrome (PAS). PAS is a set of strategies that the custodian parent uses to interfere with a child's relationship with his/ her other parent. All children want and need to maintain healthy and strong relationships with both of their parents, and to be shielded from the parents' conflicts. Some parents, however, make children take sides. There is no specific set of behaviors that constitutes PAS but research has revealed a core set of alienation strategies, including talking bad about the other parent, limiting contact with that parent, erasing the other parent from the life and mind of the child, forcing the child to reject the other parent, creating the impression that the other parent is dangerous, forcing the child to choose and limit contact with the extended family of the targeted (non-custodian) parent.

**Keywords** - divorce, separation, parental alienation syndrome

*"There are two primary ways to lie: to conceal and to falsify. In concealing, the liar withholds some information without actually saying anything untrue. In falsifying, an additional step is taken. Not only does the liar withhold true information, but he presents false information as if it were true." - Paul Ekman*

## I. INTRODUCTION

There is an increasing number of couples (married or not) who are unable to get along. Separated couples often share not only common property and memories, but also their children who were born as a result of love and passion. Unfortunately, in most of the cases children become victims of a misfortune for which they have no fault. The death of a child is at number one and separation and divorce - at number two on the list of the most psycho traumatic life events. Statistics show that in a relatively peaceful separation, family members need three to five years to overcome the crisis. If there are serious conflicts divorce trauma can last a lifetime.

Between 5 and 10% of children of separated parents suffer from the so-called "Parental Alienation Syndrome" (PAS). Although PAS is a familiar term, there is still a great deal of confusion and lack of clarity about its nature, dimensions, and, therefore, its detection. Its presence, however, is unmistakable. This paper describes in details this syndrome, its symptoms as well as possible ways to handle it.

## II. PARENTAL ALIENATION SYNDROME

The parental alienation syndrome (PAS) has been first described in 1984 by the American child psychiatrist and court expert Richard Gardner, MD [2]. He focused on the psychopathology of the child's behavior in the severe form of the syndrome. In PAS there is a disruption of the parent - child relationship as a result of manipulation from the parent with whom the child lives after the separation (or who has been appointed as a legal custodian). Under this syndrome there is an existence of a separate (single) relationship between the child and one of the parents while the other parent has been alienated. The fully alienated child does not want to have any contact with one of the parents and has just negative feelings for him/her and only positive feelings for the other parent. This child does not have a realistic idea about his feelings for both parents. The permanent nature of the conflict, combined with its increasing seriousness, damages the mental health of the parents and the child's psychological development.

The child is emotionally and psychologically connected with both parents during the complex divorce process. When the conflict is very serious in order to protect his own need for inner balance, the child uses a subconscious system to exclude himself from the conflict [3]. As a result, the child can choose the side of one of the parents and thus to alleviate his suffering. The child feels threatened by abandonment and in order to ensure this will not happen to him, he refuses to stay in touch with the other parent. However, before all this happens, the child may be subjected to pressure and persuasion from the parent who wants the custody. There are many divorces in which there is no permanent alienation of a child from a parent, despite the manipulations of adults. Also there can be alienation of a child from a parent due to physical abuse, which is evident at a later age (usually in adolescence).

In PAS the parent who gradually alienated the child from the other parent is called alienator and the counterparty – target. As a result of the divorce, the alienator has deep feelings and emotions and in order to handle them he/she involves the child.

In PAS the child takes the side of one of the parents (the better, the beloved one) and has bad attitude towards the other parent (the worse, the hated one). This often happens in the context of conflict over custody and the rights of the parents to communicate with the children. So it is important to emphasize

that PAS is related to the children and their deviant behavior, because of parental discord.

*PAS symptoms:*

1. *Attempt of repulsion and understatement of the parent who does not have custody of the child.* How does this happen? At the beginning of the breakup the family communication may or may not function well. The parent who does not have custody sees the child just several times a month. Suddenly, however, there are communication problems. The child is usually sick during visitation hours of the non-custodian parent. As a result many of the meetings do not take place and for a variety of reasons there are no make-up meetings. These problems gradually endanger the durability of the relationship with the non-custodian parent and there appear to be serious barriers to communication. The custodian parent tends to make attractive offers and tries to fulfill the children's desires exactly on the visitation days of the other parent. Children fall into conflict. They identify their needs with those of the person they live with and there is an increasing fear of losing that parent. Eventually the non-custodian parent becomes responsible for the child's problems in school, for the physical and neurotic symptoms which are considered to be a result of the separation. It is often argued that the child has enuresis, nightmares, etc., after seeing the non-custodian parent. There is an almost complete fading of the previous good memories and common experiences with the rejected parent as if this part of the child's life has never existed. Rejection puts tremendous pressure on the child. Usually during questioning in court the child cannot say anything specific and hides behind the undeniable "It is what it is. This is what I know."
2. *Absurd rationalization:* children create irrational and absurd explanations for their hostile attitude. They do not accept the clarifications of the events and the corrections of the wrong information that has been already provided by the parent – alienator. The absurd rationalizations often take the form of accusations of mental or physical harassment and it is difficult to be recognized by medical professionals because the child tends to be extremely convincing.
3. *The lack of normal ambivalence.* Each and every human relationship is ambivalent – you can love someone and at the same time you can be mad at him/her. The parent-child relationship is not an exception. In PAS children do not have such duality of feelings - one of the parents is good while the other one is bad. There is complete amnesia of the good memories before the divorce or separation of the parents. The symptom of the lack of ambivalence is important in diagnosing the child's condition during an exam by an expert – a psychiatrist (or a child psychiatrist), a psychologist or a social worker.
4. *Automatically taking sides.* Children automatically support the parent-alienator during court hearings regardless of what this parent is saying.

5. *Spreading the hostility towards the whole family.* All close and distant relatives of the parent-target as well as all of his friends are aggressively rejected by using the same absurd rationalizations.
6. *The personal opinion phenomenon.* The child always points out that this is his opinion and he is convinced that nobody has pressured him in the formation of that opinion. The child always emphasizes his independence and the custodian parent is always proud of the child's independent thinking.

Rejection of the father or mother without any reason is opposed to the needs of every child. Children need both parents in order to attain healthy mental and physical development. It is common knowledge that all children (even children with PAS) love both of their parents and want to be able to love them [5].

The consequences of PAS on children's behavior are aggression, impulsivity, hatred and anger towards others and the self. The victims of this syndrome have a high risk of joining groups of peers with antisocial behavior. As a way to handle family conflict these children tend to run from school and/or use drugs and alcohol [4].

### III. HANDLING PAS

#### *Working with targeted parents*

Specialists counseling parents who are facing parental alienation need to offer support, education, and guidance. The primary role of the professional is to help the client become educated about parental alienation (what are primary behaviors that turn a child against the other parent) and PAS (what are the behavioral manifestations of an alienated child) so the parent can determine whether this is in fact the problem. These parents should be encouraged to look at themselves and their relationship with their children prior to blaming the other parent for their difficulties [6].

If parental alienation is indeed present, the targeted parent should be taught a series of responses to parental alienation that can let him/her maintain the high road while not becoming overly passive or reactive. Such parents need ongoing validation and support in dealing with the pain and suffering associated with parental alienation.

#### *Working with alienated children*

Professionals who handle alienated children should be careful not to ally with the child against the targeted parent. A second concern is avoiding intimidation or manipulation by the alienating parent. The child should be helped to develop critical thinking skills in order to enhance his/her ability to resist the pressure to choose sides. The targeted parent and the child's relationship with that parent must be validated for the child. The professional should be a role model who values and respects the targeted parent in order to counter the ongoing message that this parent is inadequate [1].

#### IV. CONCLUSION

In severe forms of PAS experience has shown that the transfer of custody to the rejected parent after a short period of time has led to the normalization of the parent – child relationship as well as the formation of healthy interaction with the previous custodian (alienating) parent.

Since October 1, 2009 there has been a new Family law in Bulgaria which introduced the term "Parental Alienation Syndrome" in order to protect the child in the presence of this syndrome. This makes it even more important for professionals (doctors, psychologists, social workers) to be able to recognize PAS and help the child suffering from this condition.

#### REFERENCES

- [1] Clawar SS, Rivlin BV. Children Held Hostage: Dealing with Programmed and Brainwashed Children, A.B.A. (1991).
- [2] Gardner R. The parental alienation syndrome and the corruptive power of anger. The international handbook of parental alienation syndrome. ( edited by Richard A. Gardner, S. Richard Sauber). Demosthenes Lorandos – U.S.A., 2006. – p. 33-49.
- [3] Klener V. A scenario for alienation in the process of parent separation. Accessed on September 1, 2014 from [http://cwsp.bg/upload/docs/Scenarios\\_Klener.pdf](http://cwsp.bg/upload/docs/Scenarios_Klener.pdf). Text is in Bulgarian
- [4] Kubratova G. The problems of the children and parents in the parental alienation syndrome. Accessed on September 1, 2014 from [http://cwsp.bg/upload/docs/PAS\\_brief.pdf](http://cwsp.bg/upload/docs/PAS_brief.pdf). Text is in Bulgarian
- [5] Rand DC. The Spectrum of Parental Alienation Syndrome. Forensic Psychol. No. 3 (1997).
- [6] Walsh M, Bone JM. Parental Alienation Syndrome: An Age-Old Custody Problem, 71 Fla. B.J. 93 (June 1997).

# ANTI-TG IN SUBJECTS SUSPECTED FOR THE PRESENCE OF THE AUTOIMMUNE THYROID DYSFUNCTION

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**Abstract-** disorders of thyroid gland are frequently caused by autoimmune reactions, resulting in production of autoantibodies. Thyroglobulin (Tg) is a glycoprotein in two subunits. It is produced in thyroid gland and it is a main component in lumen of thyroid follicle. The main role of Tg is the storage and synthesis of thyroid hormone T<sub>3</sub>/T<sub>4</sub>

Anti-Tg are often found in patients with autoimmune thyroid disease, Hashimoto's thyroiditis and Graves' disease. Anti-Tg is associated with cases of hypothyroidism or hyperthyroidism and are frequently found in patients with other autoimmune diseases such as Rheumatoid arthritis, etc.

To rule out other disease we have been measuring CRP and ERS and the MCV (mean corpuscular volume)

**Key words-** ATG anticorpi antityroglobulin, CRP c-reactive protein, ERS erythro sediment ratio. MCV (mean corpuscular volume)

## I. SUMMARY

The diagnosis of dysfunction of the thyroid are frequent in the clinic practice. Hypothyreosis is one of them which mean the incapability of the synthesis of the hormones synthesized by the thyroid gland. The thyroid gland is butterfly-shaped localized in the front part of the trachea consisting of two lobes connected with the isthmus. The elaboration of iodine by the thyroid gland is associated with the T<sub>3</sub>/T<sub>4</sub> synthesis hormones which are self-controlled with feedback mechanism by the hypophysis through the TSH, which is self-controlled by the hypothalamus through TRH

## II. THE EPIDEMIOLOGY

Hypothyroidism is pathology with high incidence throughout the world especially in the regions where taking of dietetic iodine is not rightly solved. It is more frequently noticed in females but it is not rare in children. Due to the participation of the thyroid hormones in the mechanisms of control of metabolism and development of intelligence failure of correct and timely diagnosis may have consequences.

## III CAUSES OF HYPOTHYREOSIS

Failure to take the due dose of iodine through diet

-use of medicaments with iodine content (amiodarone, cordarone for arrhythmia treatments)

-thyroidectomy for malign or benign tumorous causes

-exposure against high levels of radioactive iodine for different reasons

- infiltrative or infectious pathology, sarcoidosis, amyloidosis, multiple sclerosis,

-patient with compromised immune system

The autoimmune interaction is associated with the consequence of the synthesis of the respective antibodies which is one of the other probabilities for the development of Hypothyreosis. Thyroglobulin is a glycoprotein consisting of two moieties which is produced by the thyroid gland and is localized with plenty in the follicular lumen. Its main function is to serve as a store and meanwhile to contribute in the synthesis of the T<sub>3</sub>/T<sub>4</sub> thyroid hormones, responsible for the metabolism of the organism, in mental development and growth process etc.

The use of thyroglobulin as a tumorous marker in the malign processes of the thyroid is well known and applicable in the clinic practice.

Normally the organism synthesizes antibodies which help in the resorbing and healing processes of organism.

For reasons not always known, in some individuals are formed antibodies which "fight" the cells of the organism, such as the anti-Tg, which often belong to the IgG family and rarely to the IgM, which attacks and destroys the thyroid cells

Anti-TG is found in patients with thyroid dysfunction of autoimmune nature and Grave's, Sjogren's syndrome, Rheumatoid arthritis, pernicious anemia.

In females with fertility problems there are studies which refer that the anti-Tg along with anti-TPO interfere in the embryo implantation what explains to a certain extent the spontaneous abortions.

One situation which to our opinion has not the due attention of the gynecologists is post-partum hypothyreosis which means thyroid dysfunction in the first year after birth at females who

have had preserved function of it. Based on the "Guidelines of the American Thyroid Association for the Diagnosis and Management of Thyroid Disease During and postpartum Pregnancy" about 25% of females have had clear clinic data of post-partum thyroid which means hyperthyreosis phase associated with hyperthyreosis and a in part of them the function of the thyroid is normalized spontaneously.

**The clinical manifestations** of hyperthyreosis are explained with the reduction of metabolism and they consist on:

*General manifestations:* generalized oedema, weariness, drowse, intolerance against cold, increase in weight, oedema of legs. Face is pale without expression of mimics and it has a yellow hue. We have hair fall which is also dry and is easily broken, the voice is slow and lower. The skin is dry and scaled, the nails are easily broken, the skin of the hands is cold and dry.

*Neurological and psychological manifestations:* headache, dizziness, numbness, Carpal tunnel syndrome, tendonitis reflexology delay, tremor, nystagmus, depression and absence of memory to the Myxedema coma.

### III. MANIFESTATIONS GASTROINTESTINAL TRACT

Loss of appetite, constipation, distention, Achlorhydria, probability of the presence of pernicious anemia.

*Cardiovascular system:* decrease of heart beats and the volume of its pouring, increase in peripheral resistance, heart enlargement and are often noticed Pericardial effusions. The old patients with coronary pathology may develop more often angina pectoris, Acute Myocardial Infarction, ventricular arrhythmia, cardiac insufficiency.

*Respiratory system:* the patients often present Dyspnea, frequent respiratory infections, pleural effusions.

*The muscular and skeletal system:* the patients often present muscular petrification, weakness, cramp, myalgia, arthralgia, articular liquids, and in children we have delay of bone growth.

*Reproductive system:* females have irregular menstrual cycle, lack of ovulation, incapability of fertility. Males may be presented with gonadal dysfunction, whereas the children may be presented with premature puberty.

*Renal system:* is presented with decrease of the urine volume, electrolyte changes in potassium, Na values etc., proteinuria, increase of creatinine value.

*Hematopoietic system:* is presented with moderated anemia, wemay have leukopenia, *haemostatic disorders*

The determining and measuring of anti-Tg and anti-TPO antibodies raises the sensibility in the identification of thyroid pathologies of autoimmune nature. Finding the presence in pathologic values of antibodies despite the fact that the values of TSH may be normal or slightly altered attracts our attention because the case should be monitored in order to prevent the probability of development of final hyperthyreosis.

The probability of the child being born with thyroid problem, from a mother with presence of antithyroid antibodies

is greater therefore it demands care in their identification before and during pregnancy because the cases we have found we emphasize that they are post – menopausal which is a delayed diagnosis.

The simultaneous presence of other pathologies of autoimmune nature (rheumatoid arthritis, pernicious anemia) may at some extent make it difficult the diagnosis and the differential diagnosis.

In order to exclude these other diagnoses we have taken in consideration the correlation between Anti-Tg and CR Protein, ERS (eritrosedimentation) and MCV(mean corpuscular volume).

### IV. METHOD:

*anti-TG* uses a two-step chain sandwich enzyme with final explosion of the enzyme-linked fluorescent assay (ELFA)

Normal value <18 IU/ml

The principle of the *determination of CRP protein:* Ab interaction and forming of complexes in a soluble solution and the nephelometric determination of the acquired turbulence

Normal value <5 mg/dl

*ERS:* classic determination through perception along 1<sup>h</sup>

Normal value <10 mm/hour

*-MCV*, volume of the red blood cells (Mean Corpuscular Volume) if it is greater than 97µ/mm<sup>3</sup> we think of the presence of the deficiency of intrinsic factor in or lack of B12 vitamin. The Hemogram test is performed through Cell-Counter ABX Micros CRP of Horiba company which applies the independence technique.

### V. OBJECTIVE:

Determination of Anti-Tg and CRP, ERS, MCV values. For this we have estimated 76 cases, in order to circumstantially select from who 70 are females and 6 are males who are being determined the Anti-Tg, CRP, ERS, MCV value

**The results:** we have ascertained that in 64 females Anti-Tg was high in 6 cases it was normal

-in males 5 of them had high values of Anti-Tg and one of them was normal

In all the cases the CRP, ERS values were normal in males MCV 4 of them MCV was high (explained with lifestyle, alcohol consuming), whereas females MCV was noticed in 14 cases to be high

In parallel the patient were being determined the TSH where result from 76 patients 45 of them have resulted with normal values of it where the norm is 0.4-4.2 uIU/ml 16 of them result with increased values of TSH and 15 of them are found with lowered TSH. At the same time in parallel is determined the value of antithyroid antibodies peroxidase anti-TPO where all the patients have resulted emphatic positive (normal value of anti-TPO is <35 U/ml). These examinations are realized through the chemiluminescence technique

TABLE I. RESULTS

Examination	Total nr.	Females	Males	Normal Value	Result high	Result low
TSH	76	70	6	45	16	15
Anti-TG	76	70	6	7	69	
Anti- TPO	76	70	6		76	
CRProtein	76	70	6	76		
ERS	76	70	6	76		
MCV	76	70	6	58	18	

The patients were visited by the endocrinologist who has performed the clinical data collection and at the same time he has performed the echographic examination



Figure 1. Hypothyroidism where is observed the replacement of the thyroid tissue with fibrotic tissue, hypoechoic

**Medicamentous treatment:** when the values of TSH are high the medicamentous treatment with hormonal replacement is clear. As far as concerning cases with TSH with normal values there are two “currents” followed by the clinician doctors, they who recommend compensatory medication and those who confine themselves with monitoring. We think that finding during the early period of pregnancy should be taken replacement therapy as the needs increase and this way we can prevent a subsequent possible problem.

#### VI. THE CONCLUSION:

By evaluating that through the determination of the CRP, ERS values, we exclude the nature of dysfunction of thyroid of bacterial nature or association with other autoimmune diseases (rheumatoid arthritis, pernicious anemia), the high values of Anti-Tg suggest the possibility for suspecting the patient with thyroid dysfunction of autoimmune nature of the type Hashimoto, Grave's

Finding the MCV in hemogram test in high values should orient us for looking and association with other autoimmune pathologies where among them the thyroid ones

We think that we must raise the attention in the early identification of cases with the risk of developing permanent hypothyroidism and judge that the gynecologists could give an excellent contribution if in the protocol of the examination of the first months of pregnancy, in addition to TORCH and the general biochemical and anemia evaluation, should dedicate greater attention to thyroid functioning where minimally would be the determining of TSH, anti-TG and anti-TPO

From literature the value high anti Tg have a high false – positive influence in the value of Tg when this last one is applied as a tumor marker

#### REFERENCES

- [1] Brucato A, Frassi M, Franceschini F, et al. Risk of congenital complete heart block in newborns of mothers with anti-Ro/SSA antibodies detected by counterimmunoelectrophoresis: a prospective study of 100 women. *Arthritis Rheum* 2001;44:1832-5.
- [2] Spence D, Hornberger L, Hamilton R, Silverman ED. Increased risk of complete congenital heart block in infants born to women with hypothyroidism and anti-Ro and/or anti-La antibodies. *J Rheumatol* 2006;33:167-70. E-pub ahead of print.]
- [3] .STEPHEN J.McPHEE,MAXINE A.PAPADAKIS *Current Medical diagnosis and treatment* 2007
- [4] Hollo well JG, Staehling N W, Flanders WD, et al. Serum TSH, T4, and thyroid antibodies in the United States population (1988 to 1994): National Health and Nutrition Examination Survey (NHANES III). *J Clin Endocrinol Metab* 2002;87:489-99.
- [5] D'Arbonneau F, Ansart S, Le Berre R, Dueymes M, Youinou P, Pennec Y-L. Thyroid dysfunction in primary Sjögren's syndrome: A long-term followup study. *Arthritis Rheum* 2003;49:804-9.
- [6] Izembart M: anticorps antithyroglubuline paris 2003 encyclo med
- [7] Fulla Y : autoanticorps des maladies auto-immunes de la thyroïde(anti Tg,anti-TPO,anti-mikrozome,anti-recepteur de la TSH) paris 2003
- [8] JACQUE WALLACH *Interpretation of Diagnostic tests*, seventh edition 22,63,576-577.

# CBCT as diagnosis tool in measuring tooth sizes

## CBCT measuring tooth sizes

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**Abstract**— The introduction of cone beam computed tomography or CBCT in orthodontics has been a breakthrough in orthodontic diagnosis. The CBCT allows us to obtain information on the three planes of space. **Objectives:** To assess the reliability and reproducibility of tooth size between a Three Dimensional Method (CBCT) and a digital one. **Material and Methods:** The sample consisted of 50 patients who underwent a CBCT as part of orthodontic diagnosis. The CBCT used was Picasso Master 3D ®. The images were sent in DICOM format to secure the company's Web InVivoDental (Anatomage, San Jose, California) to obtain three-dimensional images of the models. To make comparative studies were made of plaster study models these patients, digitizing them with a conventional scanner for digital models. Once the images obtained by both methods were ready, mesiodistal tooth size were measured. **Results:** The results of our study do not show significant differences between measurements made with the two methods, so we can say that they are identical. **Conclusions:** The results of mesiodistal tooth sizes measured with Method Digital and Three Dimensional Method (CBCT) are very similar showing slight differences clinically significant.

**Keywords-** CBCT, cone beam, diagnosis, orthodontics.

### I. INTRODUCTION

In the field of orthodontics, CBCT allows us to perform the more accurate diagnosis and provides information of the orofacial structures in the three planes of space. Similarly, we can obtain three-dimensional images of the teeth, so we can make measurements on it instead of traditional plaster model and digital model. Furthermore, it provides greater spatial resolution of high quality images, through shorter scans and with less radiation than conventional computed tomography [1,2].

The reliability and reproducibility of CBCT for dental measurements have previously proven with prototypes. In 2008, Lagravere et al. [3] and Ballrick et al. [4] evaluated the accuracy of CBCT in jaw prototype, finding errors below 1mm. Subsequently, Baumgaertel et al [5] in 2009 performed an analysis on skulls, analyzing dental measurements in 30 jaws, finding CBCT's measurements are slightly lower than with the caliper so that the error will be significant if we add several measures, for example to measure arch discrepancy in which we add several diameters teeth.

The only study in the literature analyzed dental measurements with CBCT and a digital method, in this case the OrthoCad, is the Kau et al. [7] study. They analyzed Little

index, overjet and overbite and no differences were found in the results between the two methods or between observers.

Therefore, the objectives of our study are to evaluate the reliability and reproducibility of the mesiodistal tooth sizes between a Three Dimensional Method (CBCT) and a Digital Method. orthodontics has been a breakthrough in orthodontic diagnosis. The CBCT allows us to obtain information on the three planes of space.

### II. MATERIAL AND METHOD

50 patients (27 women and 23 men) of the Department of Orthodontics and Surgery, of the University of Valencia, with a mean age of 30.22 years were selected. Of these, both digital models obtained from plaster models digitized study as obtained from CBCT were obtained.

Inclusion criteria were:

- Permanent dentition
- Absence of abnormalities in tooth number and shape.
- Less than 6 mm (positive or negative) osseodental discrepancy.
- Good quality plaster study models.
- Absence of large occlusal restorations or prostheses.

The first method used was Digital Ortodig method designed by a working group of the University of Valencia, whose reliability and reproducibility had been previously tested [8.9]. This method performs a Digital scanning of plaster study models obtained from alginate impressions. Once digitized models, images are stored and analyzed by Ortodig program. Second, the CBCT used in this study was the Dental Picasso Master 3D ® (EWO technology, Republic of Korea., 2005), Faculty of Medicine and Dentistry, University of Valencia. This CBCT has two modes: field of view (FOV) standard and wide. The scanning angle covers 360 and generates a number of images of cuts that also depends on the mode: 592 for the wide FOV of 200x190 mm. and 496 for the standard FOV of 200x150mm. The voxel size is generally 0.4 mm.

The computer program to analyze images of CBCT was InVivoDental (Anatomage, San Jose, California). The CBCT images were sent in Dicom format securely to the company Web InVivoDental to be segmented to obtain three-dimensional images of the models. Once the sample is obtained, we proceed to measure tooth sizes of each of the

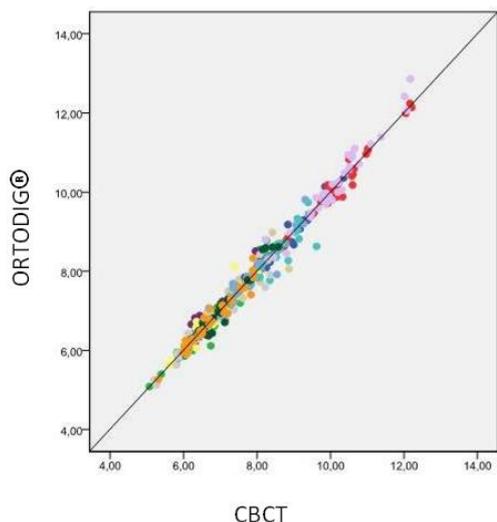


Figure 1. Dispersion diagram of all the data; ordinates (Digital Method) versus abscissae [cone beam computed tomography(CBCT)].

patients selected for the two measurement methods. The tooth sizes correspond to the maximum distance between the contact points in their proximal surfaces. The second and third molars were excluded.

The statistical tests were applied to compare means of paired measurements and the study of correlation between variables, through the analysis of regression lines and correlation coefficients.

### III. RESULTS

Figure 1 show Linear regression graphs for tooth size in the abscissa shows the results with Digital method and the ordinate the Three Dimensional Method (CBCT). Coefficient r-Pearson correlation is 0.996 and 0.998 for respectively upper and lower arch.

### IV. DISCUSSION

So far, measurements of tooth sizes, were conducted on both plaster study models and digitalized models. Currently, with CBCT, there is a new alternative for these measurements [10].

When analyzing the mesiodistal sizes between the two methods, the Digital Method and Three Dimensional Method (CBCT), we observed that all values lie on the straight lines near the bisector fit, so we can say that both methods are comparable, as well the correlation coefficient r-Pearson is

0.996 and 0.998 for the upper and lower arch respectively. However, there are some differences between the two methods for certain teeth such as the second premolar, first molar, lateral incisor, first premolar and first molar, although these differences are not clinically significant.

All these data indicate that dental measurements with Three Dimensional Method (CBCT) are accurate and reproducible. Our results agree with those of Kau et al. [7] who analyzed 30 models with OrthoCAD® and InVivoDental program, like our study, found no differences in outcomes between measures and between observers.

### V. CONCLUSIONS

Based on the results of our study, we can establish that the results of the mesiodistal size measured with Digital Method and Method Three-dimensional (CBCT) are very similar presenting light no clinically significant differences.

### REFERENCES

- [1] Farman A.G; Scarfe W.C. Development of imaging selection criteria and procedures should precede cephalometric assessment with cone-beam computed tomography. *Am J Orthod Dentofacial Orthop.*2006;130(2):257-65.
- [2] Mischkowski R.A; Pulsfort R; Ritter L; Neugebauer J; Brochhagen H.G; Keeve E; Zöller J.E. Geometric accuracy of a newly developed cone-beam device for maxillofacial imaging. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2007; 104(4):551-9.
- [3] Lagraverre, M.O; Carey, J; Toogood, R.W; Major, P.W. Three-dimensional accuracy of measurements made with software on cone-beam computed tomography images. *Am J Orthod Dento Orthop* 2008; 134:112-16.
- [4] Ballrick, J.W; Martin Palomo, J; Ruch, E; Amberman, B.D; Hans, M.G. Image distortion and spatial resolution of a commercially available cone-beam computed tomography machine. *American J Orthod Dento Orthop* 2008; 134:573-82.
- [5] Baumgaertel S, Martin Palomo J, Palomo L, Hans MG. Reliability and accuracy of cone-beam computed tomography dental measurements. *Am J Orthod Dentofacial Orthop*; 2009; 136:19-28.
- [6] Damstra, J; Fourie, Z; Huddleston Slater, J.J; Slater; Ren, Y. Accuracy of linear measurements from conebeam computed tomography-derived surface models of different voxel sizes. *American J Orthod Dento Orthop* 2010; 137(1):16.e1-16.e6.
- [7] Kau CH, Littlefield J, Rayny N, Nguyen J, Creed B. Evaluation of CBCT Digital models and traditional models using the Little's Index. *Angle Orthod* 2010; 80: 435-9.
- [8] Paredes V, Gandia JL, Cibrian R. Determination of Bolton tooth-size ratios by digitization, and comparison with the traditional method *Eur J Orthod* 2006; 28:120-5.
- [9] Paredes, V; Gandia, J.L; Cibrian, R. Método de medición del índice de Bolton mediante digitalización de la arcada dentaria. *Ortod Esp* 2003; 43: 75-84.
- [10] Tarazona B, Llamas JM, Cibrian R, Gandia JL, Paredes V. A comparison between dental measurements taken from CBCT models and those taken from a Digital Method. *Eur J Orthod.* 2013 Oct;35(5):715-6.

# Forensic Imaging in Anthropology

## Use of a simple forensic camera for IR and UV anthropologic photography

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**Abstract** — Obtaining a dedicated infrared or ultraviolet forensic camera can prove to be a great problem for a researcher with limited funds. This paper illustrates how to modify a standard reflex digital camera to function like a forensic camera, using filters and light. This modified camera can be used to carry out detailed analysis of bones excavated on an archaeological dig using infrared and ultraviolet photography. This technique could be extended into other fields of study with little additional cost.

**Keywords** - anthropology, forensic camera, infrared, forensic imaging

### I. INTRODUCTION

One important function of photography is to extend the range of spectral visualization of the human eye to capture the "invisible" spectra. Both infrared and ultraviolet photography act as an investigative tool capable of discovering previously 'invisible' facts about the subject. In some fields of investigation, extensive work has been reported on the use of invisible radiation photography. Other areas of application, however, remain unexplored and await the attention of the research-oriented photographer<sup>[6]</sup>.

In the field of forensic imaging, full-spectrum cameras are used to emphasize non-visible materials that have diverse reflective properties in the ultraviolet and infrared radiation bands. This spectrum (figure 1) and other visible light is used to find non-visible inks marking valuable items (both by UV and IR imaging), disturbed soil (UV and IR), ancient paint, body fluids, fibres, as well as the alteration in the healing or development of bones<sup>[3]</sup>.

Visible light forms part of the electromagnetic spectrum and is comprised of electromagnetic waves that are made visible by our ocular retina. These waves have a frequency band that falls between 400 and 760nm (1nm is one billionth of meter of length).

At 400nm violet has the shortest wavelength or frequency followed by blue, cyan, green, yellow and orange, finally reaching red with a wavelength of 760nm. Non-visible frequencies fall outside of visible light, which consists of ultraviolet electromagnetic (UV) radiation (which falls before violet on the spectrum); radiation over 760nm is called infrared radiation (IR). As the length of the wave increases, the radiation initially becomes thermal waves followed by radio waves.

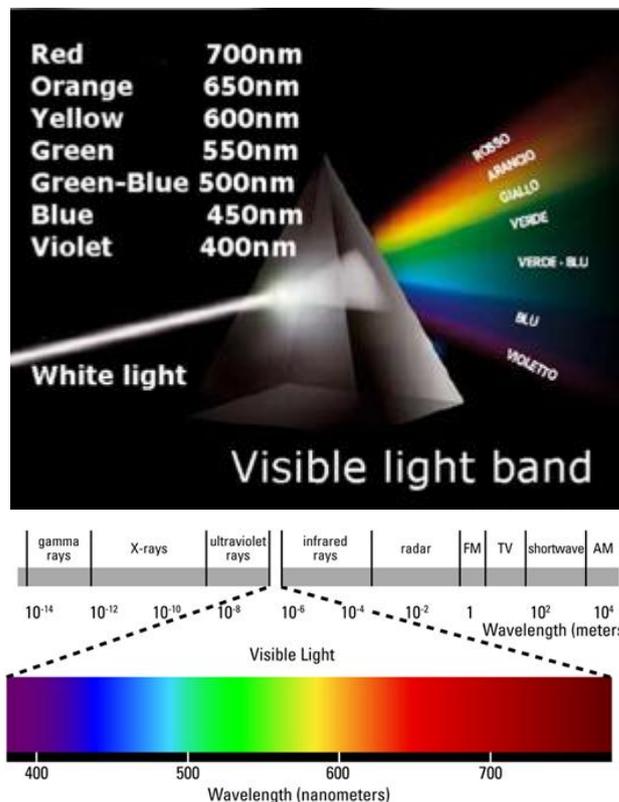


Figure 1. Spectrum of visible and invisible light

Full-spectrum cameras are being developed in other fields, for example to enhance photographic recordings of archaeological findings. Remote sensing has for a number of years made use of satellite images to identify different features on the ground; satellites equipped with a multispectral sensor captures light in a different way to that of a digital camera (which usually captures visible red, green and blue light). A multispectral sensor such as those found on board Landsat

<sup>1</sup> (\*) Note. SB Research Group (SBRG) is an international and interdisciplinary project team of researchers (Italian, Croatian, Serbian, English and Finnish members) connected with the University of Trieste (Italy) and researching in anthropology and in archaeoacoustics in Europe (www.sbresearchgoup.eu ).

satellites, detects both visible light and infrared. However unlike a digital camera that stores light information in a single file, the information for each specific wavelength is stored as a separate image file, commonly known as a band. Landsat images have seven such spectral bands; three made up of visible light (red, green, blue) and four infrared (near infrared (NIR), two mid infrared bands and thermal. When viewed individually each band looks like a black and white image. Colour images are generated by using the red, green and blue light guns of a computer screen to illuminate the other bands, dedicated software such as Environmental Systems Research Institute's (ESRI) Arc GIS needs to be used to select which three of the seven bands should be displayed.

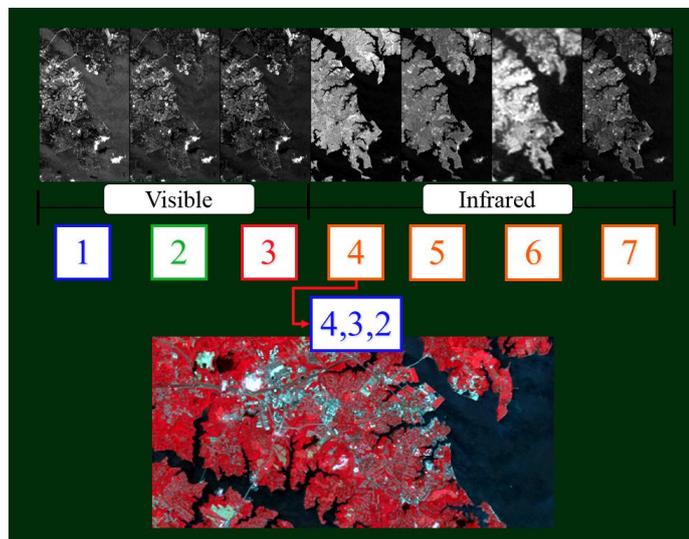


Figure 2. Landsat imagery (courtesy of NASA Goddard Space Flight Center and U.S. Geological Survey<sup>[7]</sup>)

This technique has been used in archaeology<sup>8</sup> since satellite images became freely available in the 1970's. In agriculture and forestry remote sensing is used to monitor the presence and condition of vegetation and forest. There are several common band combinations that are used as composites to highlight different land features, for example vegetation in the NIR band is highly reflective due to chlorophyll, therefore a NIR composite (bands 4,3,2) vividly shows vegetation in various shades of red (figure 2).

Our eyes are unable to receive all the reflective information from both organic and inorganic materials, however the sensor of a forensic digital camera has the possibility to capture both UV and IR onto dedicated films. For example an IR forensic camera is sensitive to wavelengths beyond 1200nm, whereas standard infrared film captures light between 700nm and 860nm, registering all types of infrared reflections, even those that are very weak.

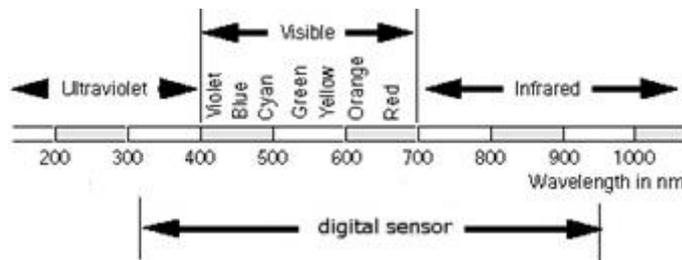


Figure 3. At either end of the visible spectrum lie two "invisible" spectra: theultraviolet which extends from x-rays to the violet end of the visible spectrum, and the infrared which extends beyond the red and into heat<sup>[6]</sup>. Below it is possible to see the extension of a standard sensor for digital camera.

## II. MATERIALS AND METHODS

As a forensic camera is equipped with a full-spectrum sensor, selective filters need to be used. For example, with IR imaging two expansive filters can be used; one which cuts out all the light below 720nm (leaving a small quantity of visible light) or one below 900nm (pure infrared light).

The cameras software transforms this radiation into a greyscale visible to the human eye. Our eyes see 16 different levels of greys, whereas a computer sees 256 levels. It is therefore important to treat the captured images, colourising them using special computer imaging software. The same is also true for UV imaging, however in addition when photographing an object with radiation between 100nm and 400nm, a dedicated lamp needs to be used. Ultraviolet light is divided in three levels<sup>[3]</sup>:

UVA 400-315nm (Wood light)

UVB315- 280nm

UVC280-100nm

UVC lamps are used for sterilization because of the high amount of energy available, UVB is used in graphic art; both are dangerous to health.

UVA utilises the fluorescence phenomenon within the forensic environment of legal medicine to find organic fluids<sup>[2]</sup>. As ultraviolet radiation emits a beam of energy, electrons in some materials respond to UV radiation by releasing more energy, which then enables them to be seen in visible light. Through the use of a wood lamp (UVA), is possible to understand the bone pathology if incremental lines are present inside a human skull at the level of sutures. Exposing objects to IR light or to a UV lamp does not cause any damage, which makes this a useful non-invasive technique; further it is already used in archaeology to identify a number of finds including ceramics, paintings, icons, glass (composition) and ancient fibres.

In this experiment, a modified Canon EOS 1100D digital camera was used, the anti-aliasing filter (positioned close to the digital sensor) was removed to eliminate infrared light. All modern photographic digital sensors by default can see infrared and ultraviolet light. During normal use however, UV and IR frequencies are usually blocked so as to avoid distortions in the resulting image coming from unnatural light. Once this filter is removed, the sensor can detect everything in its original

spectrum, the depth of which is determined by the sensitivity of the sensor. In removing the anti-aliasing filter from the sensor and using filters or special lights, the scientific photographer can explore the UV (ultraviolet) and IR (infrared) photographic bands with achieving results similar to more expensive dedicated forensic cameras. The only restriction being once the camera has been modified, it cannot then be used to take normal photos. Our camera was modified in Canon's factory in Italy (to maintain the warranty) at a cost of 200 euro. In fact any new camera can be modified in this way, however Nikon, Sony and Olympus cameras can only be modified by a private technician automatically invalidating the warranty. The Canon EOS 1100D came with a standard 50mm lens and cost 350 euro. The IR pass-band filters (720nm and 900nm) cost almost 250 euro, the UVA lights and IR light were bought for a few euro (For improved macro images, a macro lens can be purchased at additional cost.). For less than 900 euro a complete IR and UV anthropological imaging laboratory can be obtained, which makes it more accessible respect a dedicated system for example *360 Crime Scene Photography Kit* sold in USA with base accessories from \$2,749 to \$5,749 for a full accessories solution.

### III. RESULTS

This method compares images taken under different lighting conditions to obtain the best results.

All the images below were taken with the modified Canon 1100D forensic camera fitted with the standard lens (Cannon Zoom Lens 18-55mm F/3.5-5.6). The highly magnified images were taken with a macro optic (Tamron Macro 90mm F/2.8 Ultrasonic Silent Drive).

Figures 4-7 show it is possible to obtain a good set of detailed images using non-invasive methods.



Figure 5. Skull taken under normal neon lighting



Figure 6. Skull taken under IR lighting



Figure 4. Skull taken under white lighting



Figure 7. Skull taken under UV lighting (Wood lamp)

Figure 8 and 9 were taken using UV and IR imaging techniques, they show organic evidence that this skull was

removed by hand, and therefore had most probably been removed from its original position. Upon closer examination, it is possible to identify a fingerprint on top of the cranium.



Figure 8. Example of biological evidence in UV imaging



Figure 9. Example of biological evidence in IR imaging



Figure 10. Absence of the evidence under normal neon lighting

It is possible to see the same evidence using IR imaging techniques (figure 9), but not when taken under normal light (figure 10).

Another interesting application concerns the temporal artery in the interior of the skull and the extroversion of the meninx (figure 11).

Under different lighting, the impression of the route of Temporal Artery and the best effect can be examined through UV imaging (figure 14), in contrast IR imaging deletes the organic evidence located close to the artery (figure 13).

Using a UV light in the dark is adequate enough for the sensor and therefore under these conditions, filters do not need to be placed over the camera lens. If however only the IR spectrum is to be photographed, then an IR light fitted with a filter (to cut visible light emitted from the IR lamp) needs to be used (without a need to photograph in the dark). IR lamps can be problematic for anthropologic use; as IR emissions are by their very nature close to the thermic band, IR lamps cannot be left switched on for long periods or placed too close to the bone as it is somewhat prone to damage under the heat.



Figure 11. macro-photograph Normal light



Figure 12. macro-photograph White light

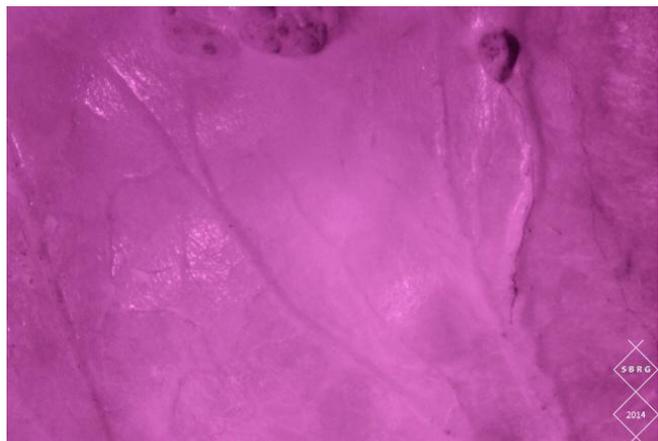


Figure 13. macro-photograph IR imaging

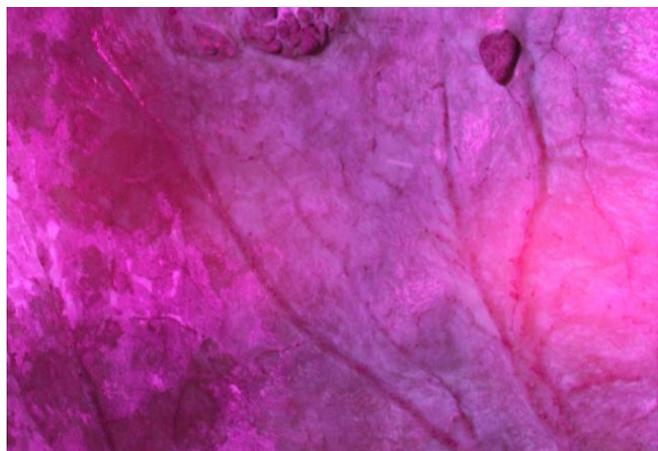


Figure 14. macro-photograph UV imaging

For analysing the skull suture, UV imaging is the optimal method as it most clearly identifies the incremental lines of bone; this gives a good indication of the age and if present a cranial pathology (Figures 15 and 16). This is best taken with a macro lens (Figures 17 and 18).



Figure 15. under white light Sagittal suture



Figure 16. under UV light Sagittal suture



Figure 17. Cross suture between Sagittal and Occipital suture under normal neon lighting



Figure 20. Sagittal suture at great magnification under UV imaging



Figure 18. Cross suture between Sagittal and Occipital suture under UV light



Figure 21. Sagittal suture at great magnification under IR imaging

UV imaging provides a good method to photograph details at normal distance, IR imaging takes the best pictures of the skull suture at greater magnification with an optimum depth of field (Figures 19, 20 and 21).



Figure 19. Sagittal suture at great magnification under white light

#### IV. DISCUSSION

It is sometimes very difficult to interpret infrared or ultraviolet images, for this reason it is important to always include a control photograph taken under visible conditions so that an exact comparison of the subject can be made. Clinicians and scientists often have an incomplete understanding of the value of infrared and ultraviolet techniques. The competent photographer however, will always be alert to the possible application of these techniques, and may well need to correct misunderstandings about their use. It is evident that every subject should be photographed in the same position, using a range of methods to broaden the researcher's perspective. Both IR and UV cameras do a great job of bringing to our attention an incredible 'invisible world'; comparing different images allows for a greater understanding of what remains invisible to the naked eye. A good example is the fingerprint, on the human skull, which only becomes visible when the IR or UV method is used (figure 8). This evidence provides a strong indication the skull had been removed from its original location at some point. Additionally, the visible difference in the development of the sutures could provide important information regarding the state of health of the subject prior to death.

## V. CONCLUSION

In medical research and anthropology, there is no one photographic method suitable to analyse every situation (IR, UV, or white light). However this report shows that any such investigation benefits from a multi-spectral approach. To undertake a detailed analysis, any serious investigation should apply all available photographic techniques. The fact that forensic camera equipment is available at a reasonable price, puts the anthropologist in a good position to gain greater understanding of some of the questions posed at archaeological sites.

## ACKNOWLEDGMENT

SBRG are grateful to the Department of Medical Sciences, University of Trieste (Italy) for supporting this research and in particular to the Director, professor Roberto Di Lenarda.

We are particularly grateful to associate professor Marina Zweyer for her support in our research. A sincere thank you to our assistant, Chiara Chiandotto, for her help in realizing the photos of this paper.

## REFERENCES

- [1] P. Debertolis, N. Bisconti, "Archaeological Dentistry and its Relationship with Oral Pathology", Proceedings of XX National Congress of Board of Dentistry Teachers, Roma, April 18-20, 2013.
- [2] A. Richards, "Reflected Ultraviolet Imaging for Forensics Applications", Santa Barbara, 2010.
- [3] M. Roncati, "La luce ultravioletta," Sandit Ed, Bergamo, 2008.
- [4] J. H. Wagner, "Applications of UV-visible spectral imaging in forensic science", University of Auckland, 2008.
- [5] G.W. Weber, "Another link between archaeology and anthropology: Virtual Anthropology," Digital Applications in Archaeology and Cultural Heritage, Vol. 1, pp. 3-11, 2013
- [6] R. Williams, G. Williams: "Ultraviolet, Infrared & Fluorescence Photography," Medical and Scientific Photography, 2005
- [7] NASA 'More than a Pretty Picture: How Landsat Images Are Made' National Aeronautics and Space Administration <http://landsat.gsfc.nasa.gov/?p=5139> [accessed 12.10.14]
- [8] Marco J. Giardino. A history of NASA remote sensing contributions to archaeology. Author/Corresponding Author: Affiliation: NASA, Stennis Space Center. 2010

# Stylistic Trends in Chair Design at the Start of the 21st Century: Tradition and Modernity

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**Abstract** - The paper explores the creative output in seating furniture represented by works of prominent contemporary European and American designers. A comparative analysis of works created by such designers after 2000 and examples from the 20th century reveals the common and the different between the two. The active following and creative use of the familiar stylistic trends of the near past are cleverly combined with the possibilities offered by the new industrial methods and technologies of production.

The interdisciplinary approach of research (a combination of engineering and artistic analysis) helps reveal the changes in the “language” of furniture design: the materials, construction, outline, colours, etc. and its organic link with the stylistics of the material world of the Postmodern time.

**Keywords:** chair, material, construction, production technologies and techniques, stylistic trends

## I. INTRODUCTION

In terms of creative orientation, the furniture designers of the present have at their disposal a broad range of artistic features of their creations, including in the area of seating furniture (chairs). The new materials and technologies get successfully and seamlessly combined with the rich artistic heritage recognized long ago in this wide area of contemporary design.

After World War Two the processes of interchange, mutual influence and interaction underway among designers gradually led to the diffusion of the regional and national characteristics. In this context the new “toolbox”: digital technologies and the Internet, used most actively by the international designer community, stands out with particular strength in terms of importance and meaning in the course of the past two decades.

The aim of the present work is to identify in most general terms the key artistic features of the chairs created at the present moment, from the point of view of the use and interpretation of the styles that were typical for the past century.

What artistic trends are being used in contemporary design work?

How are they modified and adapted by the individual designers?

What are the reasons for the changes in the artistic language used thereby?

## II. EXPOSITION

French designer Philippe Starck (b. 1949) is one of the most prominent artists of his generation. Starck studied at the École Nissin de Camondo in Paris where he showed an interest in the living space. He started his career with furniture design [5]. An active and prolific artist, Starck designed lighting pieces, door handles, vases, utensils, vehicles, public interiors, night clubs, stores, private homes, etc., and came to be recognized as a prominent architect in Europe and beyond [5]. Starck set up his own design company and started to work with the biggest industrial manufacturers in the world. His works can be seen in the most prestigious museums and galleries in Europe and the United States.

Guided by the idea for an environmentally friendly, democratic and humane design, Starck seeks to improve the quality of life of as many people as possible. The three guiding principles in his artistic work are ethics, and good design for the client and also for the final user [1].

Starck's work is characterized by diversity, skilful selection of traditional and modern artistic styles, artistry, sense of humour, irony, playfulness. All this is skilfully combined with the priority use of new materials and technologies.

Starck designed the *Objet Perdu* chair in 2004 (fig.1.a). It can be perceived as a modern version of the famous *Superleggera Chair* (No.699) of prominent Italian architect and designer Gio Ponti (b. 1891, d. 1979) designed in 1957 [8]. The difference between the two chairs is in the bearing structure (the number of bars under the seat) and in the material that is used. The resemblance in the Starck chair is programmatic and exemplifies the designer's affinity towards democratic design, and towards the traditional, practical and commonly used furniture of the past, having a clear, simple and elegant appearance.



Figure 1. a) *Objet Perdu*, designed by Philippe Starck, 2004, [Driade](#);  
b) The *Superleggera Chair* designed by Gio Ponti, Cassina, 1957 [8]

Placed side by side, Starck's Mr. Impossible Chair (fig. 2.a) of 2007 and Carl Jacobs' chair of 1950 carry the typical features of organic design and in particular the work of American designers George Nelson (b. 1907, d. 1986), Paul Goldman (b. 1912) and others of their generation. The splayed legs and the shape of the upper part of the Starck chair direct the viewer to another such piece of furniture, the chair model C2 by Danish designer Carl Jacobs (fig.2.b).



Figure 2. a) Mr. Impossible designed by Philippe Starck [2007, Kartell](#); b) Jason chairs, model C2, designed by Carl Jacobs in 1950

Starck's Min Ming (fig.3.a) chair was inspired by both the work of prominent Scandinavian designer Hans J. Wegner (b. 1914, d. 2007), as well as by the traditional Chinese art of the Ming period, which the artist interpreted. The new aspect in Starck is the use of the polycarbonate polymer in combination with armrests in aluminium, solid wood or polymer. In the minimalist spirit Starck simplified and visually lightened the structure.



Figure 3. : a) Min Ming designed by Philippe Starck, [2008, XO](#); b) Chinese chair designed by Hans J. Wegner, 1944, Fritz Hansen

The Masters Chair (fig.4.a), as its name suggests, combines stylistic features of the Scandinavian design and of works by American designer Charles Eames (b. 1907, d. 1978), the DSW chair of 1948. The back of Starck's chair combines the typical features of the 3107 chair of 1955 by Danish designer Arne Jacobsen (b. 1902, d. 1971) and of Finnish-born American designer Eero Saarinen (b. 1910, d. 1961). The new thing in the



Figure 4. a) Masters designed by Philippe Starck 2009, KARTELL; b) 3107 chair designed by Arne Jacobsen, 1955; the DSW Chair designed by Charles Eames, 1948; Tulip chair, Eero Saarinen, 1957

Starck chair is the use of modern production methods (injection moulding) and materials: polymers.

Another artist from this generation is Italian architect and designer Matteo Thun (b. 1952) who studied architecture in the University of Florence, sculpture in the Salzburg Academy under the supervision of Oskar Kokoschka, and in the University of California, Los Angeles [3]. Later Thun started to work with Ettore Sottsass and became a member of the Memphis Group. In 1980–1984 he designed a number of projects in the characteristic style of the Group. In 1983–2000 Thun taught in the University of Applied Arts, Vienna (Hochschule für Angewandte Kunst, Wien), and in 1984 founded his own studio in Milan where he worked on projects for big manufacturers.

In 2001 Thun's cooperation with Luca Colombo, Herbert Rathmaier and Antonio Rodriguez led to the creation of Matteo Thun & Partners which does architectural projects and interior and product design. Thun's work has earned the artist many awards, including the prestigious ADI Compasso d'Oro Award for design excellence which he won three times.

Thun's works are characterized by an extensive creative "register" (interior design products with diverse functions) and stylistic trends: Postmodernism, including Italian radical design, etc.

Fig. 5 shows the Slide chair of 2005–2006 designed in co-authorship with Antonio Rodriguez. The execution directs to the DCM chair of Charles and Ray Eames of 1945. The differences in structural terms are insignificant. The material of the Thun chair is transparent polycarbonate, similar to the chair in Fig. 3. An impression similar to that of glass is created, made possible thanks to the possibilities of the new materials.

The resemblance of Thun's Isu chair (2005–2006), in all



Figure 5. a) Slide chair, design by Matteo Thun and Antonio Rodriguez, 2005–2006, Segis; b) DCM designed by Charles and Ray Eames, 1945

likelihood inspired by the Shadows chair of Rene Herbst (1928–1929), is in the outline and in the material used (fig.6.a.b.). The difference in the Thun chair is the use of recyclable aluminium and the seat and back done in the same material. The stylistic features of the newer chair recreate the traditions of a number of schools prominent in the 20th century: Bauhaus, Modernism, High-tech, and Minimalism. The Isu chair won Thun the 2007 New Classic Award, Schöner Wohnen.



Figure 6. a) Isu chair, design by Matteo Thun and Antonio Rodriguez, 2005–2006, Driade; b) Shadows chair designed by Rene Herbst, 1928-29 [8]

French designer Christophe Pillet (b. 1959) graduated from the Arts Décoratifs college in Nice in 1985 and then studied in the Domus Academy in Milan. Pillet then worked in Italy and France (together with Philippe Starck). He was interested in furniture, interior and product design, and architecture. Pillet worked in collaboration with prominent Italian and other manufacturers. His style is characterized by delicate, clean lines and mellow shapes.

The form-formation of Pillet's Stream chair (fig.7) fits in the tradition of the organic design which was widely spread in Europe and the United States in the time after World War Two. The chair bears obvious similarity to the 1988 S chair of British designer Tom Dixon (fig.7.b). The works of both artists are distinguished for their artistry, elegance, laconic expression (similar items such as the sign in graphic design), anthropomorphism.



Figure 7. a) Stream chair designed by Christophe Pillet; b) S chair designed by Tom Dixon, 1988

The Meridiana chair of 2007 is executed in transparent colour polycarbonate shell (seat, back and armrests) and metal base, while Saarinen's Tulip armchair of 1958 is made of polymers only, which was typical for the 1950s and the 1960s. Irrespective of the differences in structure and materials, the outline of the two chairs suggests the impact of the organic design.

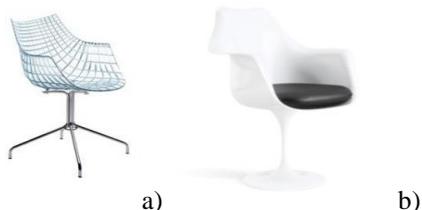


Figure 8. a) Meridiana designed by Christophe Pillet, 2007, Driade; b) Tulip Armchair designed by Eero Saarinen 1953-58, Knoll

Jasper Morrison (b. 1959) is a British product and furniture designer who studied in the Kingston Polytechnic Design School, the Royal College of Art, London, and the Berlin University of the Arts (formerly the Hochschule für Bildende Künste).

Morrison is famous for his experimental furniture pieces and the installations he did for many exhibitions. Morrison worked in collaboration with prominent designers of his generation (Konstantin Grcic, Hella Jongerius, Ronan& Erwan Bouroullec, among others) and created many works of industrial design.

The chairs in Fig. 9 have identical structural solutions and materials: a metal base, and seat and back from moulded plywood. In harmony with the existing British tradition of form-formation of that time, the design is simple, and such that saves materials (a reduced number of structural elements) and space, as the chairs are stackable.



Figure 9. a) Tate Chair designed by Jasper Morrison, 2000, Produced by Cappellini; b) Q-Rod chairs designed by Robin Day, 1953 for Hille

In 2008 Jasper Morrison designed the Pipe chair (fig.10.a), in all likelihood inspired by the famous furniture maker of the 19th century Michael Thonet (b. 1796, d. 1871), whose factories (in Europe and in the United States) manufactured many classical serial furniture items with universal functions and use which continue to be in fashion to this day.



Figure 10. a) Pipe chair designed by Jasper Morrison, 2008, produced by Magis; b) Chair Model 14, Michael Thonet

Karim Rashid is an artist working in industrial and interior design, architecture, brand identity and packaging. Rashid was born in Egypt, studied in Canada and founded his own studio in New York in 1993. He works in more than 40 countries. Rashid has participated in many prestigious exhibitions, published several monographs, and won more than 300 awards.

The seating furniture designed by Rashid is in two main directions: organic and geometric design. Rashid's furniture items are recognized by the skilful use of new technologies and materials, the bright, lively colours and the marked physical and visual comfort.

The Steek Chair shown in Fig. 11 incorporates many characteristics: from the style of Frank Lloyd Wright (b. 1867, d. 1959), to the characteristic of Postmodernism, e.g. Frank O. Gehry (b. 1930). Here one discovers essential features of the work of artists of the Bauhaus school, along with elements of the organic design. The latter are easily discernible in Karim Rashid's Kat chair of 2012, which borrowed the shape of a 1950 chair by Scandinavian designer Olavi Kettunen.



Figure 11. a) Steek Chair designed by Karim Rashid, 2011, Artec by Artisan, Bosnia; b) Chair, Easy Edges Collection, designed by Frank O. Gehry, 1972

Finnish designer Eero Aarnio (b. 1932) (with diverse appearances in interior and industrial design, photography and graphic design) [5] inspired Rashid for the Koop Chair of 2010 (fig.12.a). In the 1960s the Pop Art conquered all spheres of contemporary art and design. Rashid's Koop Chair followed closely Aarnio's piece, using the materials preferred by the by Pop Art (polymers), minimalist structural elements, clean, laconic shapes and bright contrasting colours.



Figure 12. a) Koop Chair designed by Karim Rashid, 2010 MARTELA, FINLAND; b) Ball or Globe chair, designed by Eero Aarnio, 1963-65; Sessle Oval Eye Ball Chair, designed by Eero Aarnio

Considered one of the most talented contemporary designer, Spanish artist Patricia Urquiola (b. 1961) studied in the University of Architecture at Madrid Polytechnic and Milan Polytechnic, and later taught in prestigious universities such as the Milan Polytechnic and the E.N.S.C.I. in Paris, working together with the famous Achille Castiglioni and Eugenio Bettinelli. At the moment Urquiola works in her studio in Milan doing architectural works, space design, etc. She is a winner of a number of international design awards, including New York MOMA USA, AFI-FAD Spain, Wallpaper International, A&W Designer of the Year and Design Prize Cologne, etc. Urquiola designs furniture for leading international furniture companies. Her work is characterized by a distinct individuality and an experimental approach in materials, shapes, as well as by adherence to the traditional woman's home creativity.

The items from the Glove series of seating furniture (fig.13.a) designed in 2005 are made with a single structural piece (metal sheet), curved and fully upholstered. The warm colours, the soft, rounded and smooth shapes seem to remind of fluffy toys which produce a felling of comfort and security. Such an outlook and mood is also induced by the 1965 Djinn chair of French designer Oliver Morgue.



Figure 13. a) Glove Seats designed by Patricia Urquiola for Molteni & Co., 2005; b) Oliver Morgue, Djinn chair and stool 1965

The chair from Urquiola's M'afrique collection shown in Fig. 14 invites similar associations like the impressions created by the chairs in Fig. 13 (children's toys – fun, challenging, provocative), complemented by the features of the Surrealism art. The human eye motif is a landmark one for Surrealism and can be found in the Le Temoin (The Witness) of 1971 of famous Dadaist and Surrealist Man Ray.

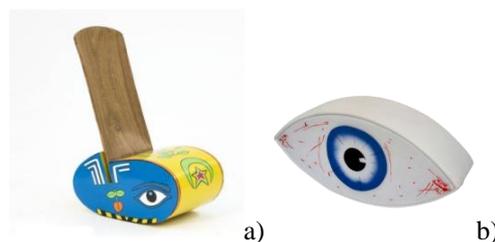


Figure 14 . a) A chair from the M'afrique Collection, design by Patricia Urquiola and Ayse Birsal and Bibi Seck for Moroso; b) Man Ray, Le Temoin (The Witness) chair for Gavina, 1971 [5]

Born in 1965, Konstantin Grcic studied in London (the Royal College of Art), and continued his designer work in Munich (Germany). Grcic works in product design, furniture design and lighting, etc., doing projects for many leading companies. Grcic earned public recognition by winning a number of awards, among them the prestigious Compasso d'Oro. The experts note his inclination towards industrial aesthetics and experimental approach. Added to this are the designer's extensive knowledge of the history of architecture and design, of new materials and technologies, his creative minimalist approach .

Grcic's DAHLEM chair of 2014 (fig.15.a) reproduces classical models of the aesthetics of Minimalism, present already with the masters of the Vienna Secession, Joseph Maria Olbrich (b. 1867, d. 1908), Koloman Moser (b. 1868, d. 1918), Josef Hoffmann (b. 1870, d. 1956). The same aesthetic guidelines were revived by the artists of the German Bauhaus, such as in the excellent example shown in Fig. 15, designed by Erich Dieckmann in 1926.



Figure 15. a) DAHLEM CHAIR design by Konstantin Grcic for ARFLEX JAPAN, Project assistant: Charlotte Talbot (KGID), 2014; b) Armchair for the furniture workshop at the Staatliche Bauhochschule in Weimarm, design by Erich Dieckmann (b. 1896, d. 1944), c.1926 [5]

GRIC'S MYTO CHAIR (fig.16.a) OF 2008 WAS MOST PROBABLY inspired by the 1927 landmark chair of German designer Heinz Rasch, called The Spirit-of-Sitting Chair (fig.16.b). Made from plywood (?), Rasch's chair is a classical example of a cantilever chair and early biomorphism. Grcic's chair follows the shapes and outlines of form-formation recreated using the means of design of the 21st century. The innovative feature here is the material used, Ultradur® High Speed, which makes it possible to manufacture the chair in a single piece using monoblock plastic injection moulding. The material allows the creation of elegant shapes. The base is a bearing frame, while the seat and back are perforated.



Figure 16 . a) MYTO Chair, design by Konstantin Grcic, Project assistant: Alexander Löhr (KGID), Commissioned by: BASF, Producer: Plank, 2008; b) Sitzgeiststuhl (The Spirit-of-Sitting Chair, 1927), Heinz Rasch

### III. CONCLUSION

On the whole, the brief survey of the product designs created after 2000 highlights their fitting into the stylistics of Postmodernism. Two major trends are observed: in the first the

artists modify the stylistic features borrowed from the past; in the second we have a kind of “quoting” that has been programmatically laid down by the artists themselves. Another significant trend is the use of materials with improved characteristics (production technology, care for the environment, low cost, etc.). These materials allow visual lightening in the spirit of Minimalism (thanks to transparent, lace-like patterns the artists can, as it were, de-materialize the products; small thickness of the parts used in the structure; simplified constructs, including such made from a single piece or with a small number of components). The organic design appears to be the preferred trend taken from the 20th century.

The chair – this trivial product of design, reflects the R&D achievements of the end of the 20th century and beginning of the 21st century, as well as the entire range of trends in design and art that rapidly changed the outlook of the modern product environment.

### IV. ACKNOWLEDGMENTS

This document was supported by grant No. BG051PO001-3.3.06-0056, financed by the Operational Programme Human Resources Development (2007 – 2013) and co-financed by the European Social Fund of the European Union and the Bulgarian Ministry of Education and Science.

### REFERENCES

- [1] Beard, A., Life's Work: Philippe Starck, Harvard Business Review, (2013, April). Available at: <http://hbr.org/2013/04/philippe-starck/ar/1>.
- [2] Beazley, M., The Elements of Design. Octopus Publishing Group Ltd, 2003. p. 424
- [3] Designer Q & A: 10 Questions for Patricia Urquiola, The Spanish architect and furniture designer on making, and living with, beautiful things, ELLE DECOR. Available at: <http://www.elledecor.com/design-decorate/talent/patricia-urquiola-furniture-designer>
- [4] Farthing, S., R. Cork, Art: The Whole Story. Thames&Hudson. 2010.
- [5] Fiell, C., P. Fiell, Design of the 20th Century. Taschen, 2001. pp. 662-691.
- [6] Fiell, Ch., P. Fiell, Modern Chairs. Taschen, 2002.
- [7] Lozanova, S., Art in Design. European Architecture, Interiors and Product Design after 1830. Grafika 19, 2014. pp. 267-268.
- [8] Miller, J., Miller's 20th Century Design. Octopus Publishing Group Ltd. 2012. p. 78, p. 160

# The Impact of Latin American Political Integration on the Evolution of the OAS

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**Abstract**—One of the political trends of the latest decades in the Western Hemisphere is the emergence of sub-regional projects (UNASUR, ALBA, CELAC) offering multilateral interaction, aimed at meeting the needs of Latin American countries and based on values and ideals, contradicting the traditional Pan-American approach promoted by Washington.

**Appeared on the political scene recently new sub-regional groups have already demonstrated their efficiency in a number of regional cases. But does this fact mean that the OAS can be considered obsolete and untenable institution? Is there any possibility for constructive cooperation within the OAS framework, or sub-regional groups are to be recognized as sufficient?**

**The author's position is that the OAS, still possessing the constructive potential, is a structure of a different order than other sub-regional groups.**

**Keywords**-OAS, Regionalism, Integration, Latin America, USA.

## I. REGIONAL AND SUB-REGIONAL GROUPS

The international organizations like any international actor should evolve and adapt to the changing world. The Organization of American States (OAS) is not an exception. The organization is known as the oldest regional body traced back to the Pan-American Union. The OAS actually came into being in the 1948 after the signing the Charter by 21 country of the Western Hemisphere. Partially the history of the OAS can be discussed in terms of evolution of the idea of “the Americas”. But in the course of time several identities emerged within the region. And the question is – are these sub-regional groups able to become a force capable of reformatting relations in the Western Hemisphere?

## II. INTEGRATION AND REGIONALIZATION

The integration processes in Latin America have been developing for quite long. And the unbiased preconditions for that are common historical heritage and kindred languages. The cultural, economic and political differences and the power asymmetry between North and South Americas have necessitated the consolidation of collective actions on Latin American or South American base.

Generally speaking, the political cooperation in Latin America [For more details on formation of political cooperation in Latin America see, e.g.: 3, 8] originates from the activities of regional and sub-regional parliaments, and also

parliaments made up on basis of ethnic or geographic characteristics. Although the Latin American parliament founded in 1964 didn't have a significant influence in regional politics, it did pass a resolution proposing to set up a Latin American community in 1991 [9, P. 78].

80-s marked a renewal of the system of regional relations in Latin America. That means the constructing of purely Latin American structures for political dialogue and coalition diplomacy. These structures can't be qualified as alternative to the inter-American system, however in many respects they came true in consequence of low-efficient attempts to promote Latin American interests within the OAS [14, P. 141]. This tendency has remained in the beginning of the 21st century.

A number of regional organizations designed to promote economic and political integration. These include blocks originally created to advance trade relations such as the Caribbean Community (CARICOM), the Andean Community of Nations (CAN), and the Common Market of the South (MERCOSUR), as well as organizations with more political orientations such as the leftist Bolivarian Alliance (ALBA), the Union of South American Nations (UNASUR), and the recently formed and the most ambitious Community of Latin American and Caribbean States (CELAC). While these groups vary in size, purpose, and effectiveness, none of them include the United States or Canada [12].

The networked multilateralism has demonstrated a shift towards a promising rebalancing of the relationship between Latin America and the United States. The new regionalism has challenged the U.S. leadership within the region and within the OAS. The new era of Latin American integration evolves under the sign of post-liberal regionalism.

Intensification of integration efforts at the turn of the century is connected with several factors. (1) Geopolitical factors imply the natural urge to resolve security issues. In terms of pragmatism integration provides stability and economic prosperity in the region. Moreover, the interdependence caused by the integration provides some grounds for political partnership aimed at reducing some conflict potential. A strong tendency to limit the U.S. unilateral strategy is also a geopolitical aspect. (2) Economic factors should go next. Economic benefits from regional integration foster the cooperation of the states and bring prosperity, so far as the economic aspects closely connected to the democratic stability. It is important to mention that both, large and small

states are benefited from economic integration. The impact of internal political factors (3) should not be underestimated. Latin American countries seek to solve social and economic problems, therefore the regional integration in that context serves as a means to ensure the international competitiveness of economies and improve living standards. The best example of this is Brazil, whose economic dynamics and international activity has increased significantly thanks to the considerable efforts of the country's political leadership.

The decisive feature of Latin American integration is heterogeneity. The number of blocks and lack of definite distribution of functions disorder the clear vision of the whole regional structure. Thus, MERCOSUR emerged in order to achieve the economic progress in the region, but the economic goals could not be reached without incorporation of political agenda. ALBA came into being as an alternative to the U.S. model of regional economic development. Being oriented to cooperation more than integration, ALBA declaims the Washington Consensus and elevates the social aspects of cooperation. UNASUR was created as an extension of the process of coordination between South American countries that has been taking place since 2000, when the first meeting of the presidents took place in Brazil. CELAC reflects the cooperation needs in the region, the trend towards multipolarity, development and the need to differentiate from the U.S. [1]

### III. THE SUB-REGIONAL GROUPS

The Rio Group until now has been the major political forum in Latin America. A forum created as a result of peace process in Central America in 1980s. It was a forum connected to the new forms of regional cooperation excluding the United States. Established in 1989 by the merger of the Contadora Group (Venezuela, Mexico, Panama, Colombia) and its support group (Argentina, Brazil, Peru, Uruguay), the Rio Group gained authority and succeeded in several cases when other institutions had failed. "During the 1990s the Rio Group supported the agreement achieved at the OAS in 1991 to establish a democracy clause, which later led to the adoption of the Inter-American Democratic Charter in 2001" [5, P.2]. The Rio Group approved the inclusion of Cuba as the organization's 23rd member in 2008. The same year the twentieth summit of the Rio Group enable to reconcile a crisis generated by the Columbian military operation in Ecuador. This mechanism of political consultations resulting in coordination of common policies on the key regional and global issues together with Latin America and Caribbean Summits on Integration and Development (CALC) has become the foundations of aforementioned CELAC.

The regional alternatives to the OAS pose new opportunities and new challenges. A number of governments have suggested that the sub-regional structures should take on some roles that have been traditionally performed by the OAS.

Thus, UNASUR succeeded in crisis resolution in Bolivia (2008), Ecuador (2010) and Paraguay (2012) [See: 2]. UNASUR's South American Defence Council meets regional security commitments, likewise Inter-American Defence Board. UNASUR has proved to be very efficient as with tension between Colombia and Venezuela in 2010. It also

implements electoral observation. Therefore, there are a number of overlaps between UNASUR and the OAS.

Bolivarian Alliance for the Americas (ALBA) created in 2004 has become an alternative to the American project of the Free Trade Area of the Americas (FTAA). It offers a special way of economic development rejecting the neo-liberal model and suggesting the relationships based on free trade, solidarity, cooperation and good and services exchange between economic and ideological allies without the U.S. influence. However the death of Hugo Chavez – main architect of ALBA, the future of this alliance is under debate.

CELAC is discussed as much more promising project. The creation of this structure reflects the need of the Latin American states to build regional cooperation, regardless the economic potential, political influence or ideology, as well as the aspiration of the Latin America to contribute to multipolarity. The main shortcoming of the CELAC is the lack of institutional framework. There is no even a strategic understanding of the mechanisms of interaction at the sub-regional level. In fact, CELAC is based only on the political will of the most active countries in the region, but the lack of uniformity of view, cannot go unnoticed.

### IV. OAS – A CENTRAL ELEMENT OF INTER-AMERICAN SYSTEM

With the signing the OAS Charter the American states set down the unique model of cooperation in the hemisphere. Aimed at working together to improve peace, security, democracy, human rights and etc., the American states wanted to find legal and peace solutions to the controversies that arise among them. "Good faith shall govern the relations between States," – says the OAS Charter. And this is the very essence of the organization – the political will of its member states. Despite the hopes and desires of the member states the OAS for a certain period exercised the U.S. dominance or at times was ignored by the U.S.A.

Working together toward more political unity among the Latin American states result in improving political cooperation outside the OAS. Nonetheless, states remain active members of the OAS and force its evolution.

The OAS has proven itself capable to reform. Over the years the OAS has shown the ability to update its charter in accordance with impartial regional needs and the ability to incorporate new dimensions. Democracy promotion and electoral observation are to be major political success of the organization. The Department for Electoral Cooperation and Observation (DECO) is situated today as a world leader in the creation of international standards for quality certification in the electoral arena. DECO's leadership today has put the OAS on the cutting edge of election issues, expanding its prestige beyond Western hemisphere to the entire world [11, P. 16].

Working with local governments and national legislatures is the priority of the OAS democracy-strengthening dimension. The OAS fights against corruption as a major regional problem and encourages the rule of law. Using the mechanisms established by the inter-American system the OAS supports its member states in the prevention, management, and settlement of conflicts. The OAS missions have given tangible

contribution to continuing peaceful dispute resolutions. The OAS Mission to Support the Peace Process in Columbia (MAPP/OEA) is a good example.

As it emphasized by the OAS, respect for human rights goes to the very heart of democracy [7]. So far as the Inter-American Human Rights System (SIDH) has been commonly criticized, the OAS in 2011 decided to form a Special Working Group to Reflect on the Workings of the Inter-American Commission on Human Rights (IACHR) with a view to Strengthening the SIDH. Emilio Rabasa Gamboa – the Permanent Representative of Mexico – points out that the process for strengthening IACHR and the Inter-American Court of Human Rights has improved the authority of that two bodies. The Commission has achieved great credibility thanks to the autonomy and impartiality. However, not all Member States have signed the convention adopted within the SIDH. And also the enormous financial constraints affect its performance [6, P. 79].

In terms cooperation OAS has made a considerable progress. The post-Cold War era has provided grounds for the expansion the security concept, engaging non-traditional security threats. The issues such as democracy, environment, social equality, and etc. have been of nominal concern to Latin American countries for many years, but until the collapse of Soviet Union they were not considered genuine security issues. After years of discussion regional integration has become one of the most effective tools ensuring regional goals. In addition, the organization and its members have displayed a remarkable ability to interact with region hegemon and not become subservient to U.S. interests.

Programs sponsored by the OAS have brought a better life to many peoples in Latin America – from security to democracy, human rights and health care. The OAS has been the major coordinator in the removal of land mines and has provided help with natural disasters. Its technical assistance and its ability to partner with other organizations have benefited the peoples of the Americas [4, P. 109].

#### V. THE U.S.A. SEMI-DOMINANCE

The role of the U.S.A. is reported to be the most debatable issue of the OAS activities. The United States remains one of the most powerful nations in the world. The U.S.A. is a party to the most authorized and well-known global institutions. The United States is the largest financial contributor within the OAS. The U.S. contribution in the 2012 was \$67.5 million (almost 43%) of the total budget of the OAS [12]. And it was the United States who has been trying to dictate its will to the neighbor countries for years using both bilateral and multilateral channels. But the times have changed. Recent events within the region and within the OAS promise that the new pattern is emerging. Some American congressmen from time to time even suggest suspending the funding of the OAS.

Although the U.S.A. is willing to act multilateral only when it is controlling the rules of the game, it has to take into consideration the changing regional political spectrum. Today we are witnessing the incapable shift: Washington is not able to define the organization's priorities unilaterally any more. Therefore, poverty and economic development, which

preoccupied the vast majority of OAS members, are becoming higher priority, then the U.S. focus on terrorism and drugs. The recent 44th OAS General Assembly was devoted to development issues. Even the perception of drug problem has changed due to growth of political independence of Latin American countries. Latin America has taken significant steps towards decriminalizing drugs in contravention of U.S. "war on drugs".

Latin American countries demonstrate more independence inside the OAS. During the Venezuelan crisis of 2002-2004 the U.S.A. failed to evoke response suggested by Washington. Moreover, the OAS verified the democratic elections of President Hugo Chávez of Venezuela in 2004, despite the opposition of U.S. President George W. Bush. And recent Venezuelan crisis of 2014 result in firm Latin American repulse to the U.S. scenario of actions. Another example was the refusal of the General Assembly to elect Rafael E. Martinez, the U.S. candidate, to a seat on the seven-member Inter-American Commission of Human Rights in 2003. It was the first time in its existence that the IACHR has been without the U.S. representative [4, P. 108]. Then the election of José Miguel Insulza to the office of secretary-general in 2005 was the first time when the American-backed candidate, Francisco Flores, failed to win the office. And the most outstanding diplomatic victory of Latin American states was the lifting Cuba's suspension from the OAS in 2009.

In terms of its current role within the OAS and in consideration of its current position within the region the United States faces apparent dilemma: its political and ideological position doesn't allow to act unilaterally in the post-Cold War era. At the same time its status; psychological and political pretensions make the U.S. administration to remain its hegemonic foreign policy manner, instead of reinforcing the positive and credible image within the Hemisphere.

Facing the weakening of ties and interest of the U.S. administration Latin America stands for multilateralism in international relations and gives further impetus to establish firm relations with global actors.

#### VI. LATIN AMERICAN MULTILATERALISM

The active political cooperation among Latin American nation is another expression of multilateralism. While the experts outline the fact that regional organizations can play important role, they also recognize a number of its weaknesses. There is considerable variation among the regional organizations; however, most lack strong, independent, and well-financed secretariats capable of receiving mandates and carrying out programs. Instead, they often rely on high-level diplomacy and presidential summits [12].

The risk of this situation is that former Chilean president Sebastián Piñera put in the following way: "UNASUR summit, Mercosur summit, Iberoamerican summit, OAS summit, we have many institutions, but lack real will to integrate our continent. . . . We have much bureaucracy in the region, and we need a true will to integrate without fear." [13]

## VII. SOME CONCLUSIONS

Plural architecture within the region is a positive development enhancing the ability of countries to coordinate policies and to promote dialogue on the issues required international cooperation and norms. The sub-regional structures are important spaces for debate and elaboration of policies regarding the relations among Latin American countries. The introduction of themes discussed within the OAS or global forums can in some instances be easier in Latin American context, or even in South American or Central American context. But on the other hand, many different cooperation models and projects oversupplied within the region hinder Latin America to consolidate and reduce its ability to put up a united front.

However the OAS, as an organization composed of 35 diverse nations, is often slow to arrive at decision due to regional ideological polarization. Nevertheless, even when member states are incapable of establishing consensus on a given issue, the OAS continues to carry out a variety of activities to advance the organization's broad objectives: democracy promotion, human rights protection, economic and social development, and regional security cooperation [12]. The OAS has a strong organizational and diplomatic structure in Washington, as well as various cooperation mechanisms, which are flexible enough to adapt to regional and global dynamics.

Thomas Legler emphasizes that the autonomy won by many countries in Latin America through regional integration and political cooperation puts them in a privileged position to obtain a much higher profile in international affairs [10, P.46]. The same is correct with regard to the regional level. Therefore the regional asymmetry improves, shaping the relations within OAS that is to "Latin-Americanize" to a certain extent, shifting the OAS's activities away from the purely U.S. interest to the issues of Latin American concerns.

## REFERENCES

- [1] B. Panagiota, Latin-American Integration: MERCOSUR, CELAC and EU-CELAC partnership as a new form of inter-regionalism. Institute of International Economic Relations: Athens, May 2013.
- [2] B. Pothuraju, Backgrounder. UNASUR and Security in South America. Available at: <http://idsa.in/backgrounder/UNASURandSecurityinSouthAmerica>
- [3] B.F. Martynov, Istoriya mejdunarodnyh otnosheniy stran Latinskoy Ameriki. M.: Navona, 2008.
- [4] B.L. Bloom, The Organization of American States. Global Organizations. Chelsea House Publishers, 2008.
- [5] C. Portales, CELAC: a voice for Latin America and the Caribbean? NOREF Report, February 2012.
- [6] E.G. Rabasa, La nueva visión estratégica de la OEA. Retos y oportunidades para México // Foreign Affairs Latinoamérica. 2014. Vol. 14, núm. 2.
- [7] Human Rights // OAS. Available at: [http://www.oas.org/en/topics/human\\_rights.asp](http://www.oas.org/en/topics/human_rights.asp)
- [8] Latinskaya Amerika v sovremennoy mirovoy politike / otv.red. V.M. Davydov. M.: Nauka, 2009.
- [9] M. Herz, The Organization of American States. Global governance away from the media. – Routledge Global Institutions, 2011.
- [10] Multilateralismo vs. soberanía: La construcción de la Comunidad de Estados Latinoamericanos y Caribeños / Ed. Francisco Rojas Aravena. Buenos Aires: Teseo and Facultad Latinoamericana de Ciencias Sociales, 2011.
- [11] OAS: 50 years observing election in the Americas. – OAS, 2012.
- [12] P.J. Meyer, Organization of American States: Background and Issues for Congress. Washington DC : Congressional Research Service, January 23, 2014.
- [13] Piñera dice que en América Latina sobran cumbres y falta una integración 'rápida y eficaz'. Available at: <http://www.elmundo.es/america/2011/10/28/noticias/1319821204.html>
- [14] V.P. Sudarev, Mejamericanskaya sistema: genesis i evolucia. M.: MGIMO-Universitet, 2008.

# Flash Fiction – Literary fast food or a metamodern (sub)genre with potential?

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**Abstract**—In today’s fast-moving digital age, everything is in flux. This observation also holds true for, on the one hand, authors, literary forms and genres and, on the other hand, the consumers, the readership. This essay looks at a rather young kind of (sub-)genre, namely *flash fiction*. It focuses on the origins and development of *flash fiction*, its place in today’s literary culture and link to the new media in order to show and elaborate on its usefulness not only as to genre questions but also as to didactic questions by highlighting both potential qualifications and (didactic) possibilities.

**Keywords** -- *flash fiction, epigrams, fables, genre, short short stories, readership, didactics, internet, new media*

## I. INTRODUCTION

From the late 1990s to today, the relations and correlations between literature and the internet as literary space (with special focus on social networks such as *Twitter* and *facebook* as well as on the new media in general) have become a topic of major interest and increasing importance. Especially in the English-speaking world, the internet, social networks and the new media are highly frequented and used. According to the market research company Mintel, Great Britain is doubtlessly “a nation of *facebook* addicts” and *Twitter*, too, counts among the fastest growing websites in the UK [1]. Just like video games, the internet and social networks create “imagined spaces”/ “imagined communities” [2], which can act as platforms for literary interaction: many authors like, e.g., Bernardine Evaristo (who claimed to be a “*facebook* addict” [3]) use the networks both as private persons and as authors in order to promote and discuss their writings and other literary activities.

The internet and social networks have had a huge influence on literature in general and on the short story or storytelling in particular: Asked after his attitude towards the internet and its possibilities, Paolo Coelho answered that due to the internet “[t]oday everybody can tell a story. That is magical because everybody can express themselves” [4]. One area of storytelling, in which the “democratisation of communication” [5], which is made possible by the internet and the new media, has led to fundamental changes, is the further development of the (sub)genre of *flash fiction* (German: “Kürzestgeschichten”): very short stories (mostly 300 words or less), which are not fragmentary, but complete in and for themselves and, therefore, possess all features of ‘traditional’ short stories: protagonist, conflict, obstacles or complications and resolution. Unlike with traditional short stories though, some of these elements

may need to be merely hinted at or implied in the written story. Although this genre is anything but new (compare [short] short stories by Ernest Hemingway, Jorge Luis Borges, Richard Brautigan, Lydia Davis or Raymond Carver, to name but a few), it has experienced a new significant upturn and propagation via the internet and new media. As a consequence, there are various different labels (e.g. *short short fiction*, *nanofiction*, *micro fiction*, *hint fiction*, *sudden fiction*, *skinny fiction*, *minute fiction*, *drabble fiction*, *ficlet*), various different definitions and also magazines and e-zines (online services in the style of magazines), which dedicate themselves invariably to *flash fiction* per se (e.g. *Flash: The International Short-Short Story Magazine*; nanoficton.org). Moreover, developments such as the English *National Flash-Fiction Day* and other writing competitions such as (amongst many others) the *Lightship One-Page Prize*, the *Lightship Flash-Fiction Prize* or the *Fish Flash Fiction Prize* merely add to the obviously growing importance.

This article aims at a closer circumscription of the emergence of *flash fiction*. In doing so, topics such as genre definition, its development, its producers and consumers will be broached and, finally, its potential qualifications and (didactic) possibilities will be focussed.

## II. DEVELOPMENT

Short pieces of (prose) literature have enjoyed great popularity especially from the birth of the short story in the 19<sup>th</sup> century till today; today, it seems, the genre of short fiction even has an impressive revival – just compare last year’s Nobel Prize-winner Alice Munro, whose oeuvre consists of short stories exclusively. However, the required density of (short) short fiction blurs the generic lines: thus, *flash fiction* – or *short short fiction* – can also well be analysed and interpreted in terms of (prose) poetry. This approach highlights the correlation between this rather “new” (sub)genre and its predecessors, which go as far back as to Greek and Roman antiquity. Thus, Aesop’s (~600 BC) and Phaedrus’s (~15 BC-AD 60) fables or Catull’s (~84-54 BC) and Martial’s (~AD 40-104) epigrams can legitimately be seen as forerunners of today’s *flash fiction*. One example that combines the style of an invective and generic criticism is one of Martial’s epigrams (Mart. 110):

*Scribere me quereris, Velox, epigrammata longa.  
Ipse nihil scribis: tu breviora facis.*

(You bemoan the fact, Velox, that I write [too] long epigrams. You do not write anything yourself: you [in fact] create shorter ones.)

On a metalevel, this epigram picks as its central theme brevity as one generic feature; however, at the same time, there is a turning point: the lyrical I does not directly deny the criticism aimed at the length of its epigrams, but questions the authority of the person who voices this criticism. Thus, the attack is turned upside down, and the attacker is disarmed and unmasked by way of a short, concise and stylistically flawless piece of writing. Just as *flash fiction*, this epigram possesses all features of a typical short story: protagonists (the lyrical I and Velox), conflict (Velox's criticism on the lyrical I's literary skills), complication (Velox himself does not write epigrams), resolution (ironic/ sarcastic remark directed at Velox).

The same can be seen when looking at the probably best-known piece of early *flash fiction* written in English, namely the *six word-story*: "For sale: Baby shoes, never worn", purportedly written by Ernest Hemingway. These six words have had such an immense impact that its origin has taken on mythic features: allegedly, in a restaurant or pub, Hemingway bet his friends ten dollars each that he can craft an entire story in six words. After writing down the six words on a napkin (*sudden fiction*), he collected his winnings. These examples show that the genre of *flash fiction* itself is part of a dynamic genre development, or, as Lee Rourke aptly states, "hardly a new phenomenon, but the vehicle that facilitates it today – the internet – is" [6]. This statement pinpoints the grounds of renewed interest in this particular (sub)genre and its development.

### III. THE INFLUENCE OF THE NEW MEDIA

The internet and, especially, its "democratisation" [5], i.e. its detachment from a sheer academic/ governmental context and its concomitant entry into both the public sphere and the private household from the late 1980s onwards, has opened new vistas for the dissemination of literature and a completely new and broad, heterogeneous readership [7]. This major change in accessing literature has shown a decisive effect on how literature is read or consumed and which kind of literature is popular. As a consequence, *flash fiction* has found an internet loophole: by way of new digital devices such as smart phones, e-book readers or social networks such as *Twitter* or *facebook*, short and concise fictional texts pave the way for experiencing 'literature to go', literature that can be read, consumed and enjoyed within a very short time span (e.g. when waiting for the train or when sitting at the doctor's), and still fulfil the traditional three main aims of literature: *delectare, docere/prodesse, movere* [8]. Thus, the scope of potential literary forms and readers is broadened and accelerated. In the meantime, the genre's development shows that the generic term *flash fiction* can be seen as an umbrella term for other subgenres such as *postcard/ palm-sized fiction* (fiction that takes no more room than is given on a postcard or the palm, respectively) [9], *smoke-long fiction* (i.e. texts that can be read within the time that it takes to smoke one cigarette) [10] or even *Twitterature* (i.e. texts that are no longer than a *Tweet* allows [140 characters]), a term made popular by Alexander Aciman and Emmett Rensin [11]. By way of comments,

hyperlinks and 'hashtags' (e.g. #140 novel), the authors and readers can directly start an exchange of ideas or even contribute to one and the same piece of writing that then develops into a short story or even novel, so that the genre distinctions are deliberately blurred. Moreover, typical literary theories are challenged and brought to another level: since the readership's reactions, criticism or ideas can instantly be expressed and transmitted, a dialogue, an imagined community, develops between sender and addressee leading to a new critical reader-response model in a virtual third space or hybrid place of negotiation [12]. This leads to an essentially different understanding and practical implementation of today's feedback culture. Of course, concomitant critical questions must also be posed and examined: In how far does this democratisation of literature lead to 'literary fast food' [13]? If each and every body can write, publish and read 'literature' (for free), does this lead to a deterioration and an (unhealthy) overconsumption of literature?

### IV. METAMODERN LITERARY CULTURE

Obviously, both authors and critics of *short short fiction/ flash fiction* feel the need to somehow contribute and control the vast field that is made accessible by the internet and the new media. Therefore, an urge to somehow participate and, at the same time, lend some quality to this field can be felt. As a consequence, on the one hand there is all the world and the public domain, on the other hand, there are diverse long-standing and highly acknowledged professional writers, but also literary theorists and scholars who feel attracted by this new and utterly versatile metamodern (sub)genre: Margaret Atwood, Elleke Boehmer, Helen Fielding, David Gaffney, Ihab Hassan, James Kelman, David Lodge, Joyce Carol Oates, Ian Rankin and Ali Smith – to name but a few.

Metamodernism, a term and concept promoted by Timotheus Vermeulen and Robin van den Akker, is defined as an approach that does not oppose either modernism or postmodernism, but that oscillates between them and reacts on "material events like climate change, financial crises, terror attacks, and digital revolutions" [14] with a neoromantic turn. Moreover, Vermeulen and Akker claim that "architects and artists increasingly abandon the aesthetic precepts of deconstruction, parataxis, and pastiche in favor of aesthetical notions of reconstruction, myth, and metaxis" [15]. All these elements figure prominently in *flash fiction* that can easily be found on the internet. Here are some examples that belong to the subgenre *six-word stories*:

"Apple?" "No." "Taste!" "ADAM?" Oh God. (David Lodge)

"Megan's baby: John's surname, Jim's eyes." (Simon Armitage)

"The Earth? We ate it yesterday." (Yann Martel) [16]

"Longed for him. Got him. Shit." (Margaret Atwood) [17]

Often, as in the examples above, writers and professional authors are encouraged to write *flash fiction* by literary sections of newspapers and scholarly magazines such as *Flash* [18], or they are asked to sit as tutor or judge in one of the numerous (online) *flash fiction* writing classes that present clear guide lines for interested laymen and students of literature [19] or

*flash fiction* competitions [20]. In addition, the above mentioned constant reader-response feedback framework and its mechanisms automatically lead to some kind of critical regulation. One prime example of a literary magazine that promotes *flash fiction* both in print, but also on the internet and the social media is the above mentioned magazine *Flash*, a biannual literary magazine that publishes “quality flash fiction and reviews of up to 360 words” [18]. Interestingly, the publishers attach importance to the fact that, although they appear on both *facebook*, *Twitter* (@shortstorymag) and *Tumblr*, the magazine is not an e-zine so that copies are only available in print, which might be ascribed to just another kind of quality control and print tradition.

## V. CONCLUSION: (DIDACTIC) POSSIBILITIES

Tying the thoughts above together, *flash fiction* is a highly versatile and productive metamodern (sub)genre of the digital age. Its positive (and negative) characteristics and concomitant phenomena are not only of major importance from an academic point of view, but can also be constructively adduced in the (foreign) language classroom. Combining literary theory (*short story – short short story – flash fiction – six word stories*), literary criticism, critical media skills (digital literature), critical language awareness (language and cultural skills) and creative performance, *flash fiction* is highly productive and fertile when introduced to the curiosity of (young) language learners. One component of the German curriculum for English Sek I (5<sup>th</sup> to 10<sup>th</sup> grade) is the genre *short story*. According to the competence-focused core curriculum, children that attend the ninth grade at secondary schools are supposed to be able to apply basic analytical skills in order to ascertain the effect, impact and value of an authentic text (especially short stories) with its intentional literary (language) techniques and artistic/generic arrangements; additionally, the performative side is stressed: pupils must be able to reshape given texts (e.g. turning a narrative into a dialogue) and to create new endings or their very own texts. Having discussed the genre *short story* in class, the (sub)genre of *flash fiction* can be consulted in order to deepen and broaden the pupils’ feeling and understanding of this literary approach. The advantages are that the pupils can work with short texts that – in their literary technique – are known to them (from the *short story*), but that open new vistas, especially on a linguistic, performative and digital level. One way of introducing *flash fiction* (some further examples are given in the appendix) into the (foreign) language classroom is by promoting explorative learning: by merely presenting, for instance, a *six-word story* to the class (after having introduced the criteria of *short stories*) and by having the pupils investigate and analyse whether or not these six words actually make up a short story, the theoretical skills and language efficiency are deepened and broadened. Moreover, an interdisciplinary approach can be consulted here by using the knowledge the pupils gained in, for instance, their Latin classes when having read and analysed fables (or even epigrams) [21]. Here, the findings of the pupils are of high interest since both answers to the question (“Yes, they are a short story.” and “No, they are not.”) are – due to the dynamic genre development – valid and open for discussion. As a next step, the teacher can ask the pupils to write their own *six-word stories* considering the literary theory that lies behind them, the power of words,

stylistics and emotions – idiosyncrasies that bring the *short short stories* close to poems (prose poetry). In order to broach and introduce the critical role the new media play as to the (sub)genre of *flash fiction*, the online *Smith magazine* (www.smithmag.net) offers a fruitful approach. This magazine promotes *six-word stories* and their pragmatic significance in an educational context. Here, the pupils can upload their (peer-reviewed) self-made stories and get some feedback outside the classroom. If their *six-word stories* are evaluated as worthy and rich in content, the magazine even offers the possibility of including well-done stories in a print edition – literature in real life performance.

## REFERENCES

- [1] Charles Arthur (2012/05/15), *Twitter now has 10m users in the UK*. Available at: *The Guardian online*, www.guardian.com: “UK is the fourth-largest country for *Twitter* users in the world, with 80% accessing it with mobile phones.”
- [2] Benedict Anderson, *Imagined Communities – Reflections on the origin and spread of nationalism*, London: Verso, 1983.
- [3] Bernardine Evaristo in a talk delivered at GNEL (now GAPS) Muenster, 2009/05/21.
- [4] Paolo Coelho interviewed by Paul Willis (2008/ 08/ 18), *Six of the Best – CNN readers tell us their stories*. Available at *CNN.com International*, www.cnn.com.
- [5] Peter Ferdinand, “The internet, democracy and democratization”, in *The internet, democracy and democratization*, Peter Ferdinand, Ed. London: Routledge, 2004, p. 1.
- [6] Lee Rourke, *A brief history of fables – From Aesop to Flash Fiction*, London: Hesperus, 2011, p. 9.
- [7] Jeff Jarvis, *Public Parts*, New York: Simon & Schuster, 2011.
- [8] Hor. ars 333f.: *aut prodesse volunt aut delectare poetae / aut simul et iucunda et idonea dicere vitae*. (Poets aim at giving either profit or delight, or, they aim at talking about both delectable and proper things of life simultaneously.) and Cic. de orat. 2,115.
- [9] *Postcard Shorts: Stories that fit on a postcard* (no editor name given, 2014/11/04). Available at <http://www.postcardshorts.com/>.
- [10] Tara Laskowski and Nancy Stebbins (2014/11/04). *SmokeLong Quarterly*. Available at <http://www.smokelong.com/>.
- [11] Alexander Aciman and Emmett Rensin, *Twitterature – The world’s greatest books retold by Twitter*, London: Penguin, 2009.
- [12] Homi K. Bhabha, “The commitment to theory”, in *The location of culture*, London: Routledge, 1994, pp. 28-56 and Chamari Edirisinghe (2014/11/04), “Exploring the spatiality of networked social media as the Third Space.” IEEE Computer Society 2011. Available at <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6113182>.
- [13] Jeremy Gable interviewed by Joshua Sessoms (2010/ 01/ 29), *Philly Playwright sets stage for Twitter – Jeremy Gamble pushes the limits of social media*. Available at: <http://www.jeremygable.com/nbcphilly.htm>: “99 percent of *Twitter* is insignificant. [...] But there’s that rare moment when it becomes profound.”
- [14] Timotheus Vermeulen and Robin van den Akker, “Notes on the Metamodern”, in *Journal of Aesthetics & Culture* 2.2010, DOI: 10.3402/jac.v1i0.5677.
- [15] Timotheus Vermeulen and Robin van den Akker (2014/11/04), “What is Metamodernism?”. Available at: <http://www.metamodernism.com/2010/07/15/what-is-metamodernism/>.
- [16] The six-word stories by Lodge, Armitage and Martel can be found in a list published as “To cut a long story short” (2007/03/24). Available at: <http://www.theguardian.com/books/2007/mar/24/fiction.originalwriting>.
- [17] *Wired* 14.11 (November 2006), *Very Short Stories – 33 Writers, 5 Designers, 6-word Science Fiction*. Available at: <http://archive.wired.com/wired/archive/14.11/sixwords.html>.

- [18] Peter Blair and Ashley Chantler (2014/11/04). *Flash – The International Short-Short Story Magazine* of the University of Chester (since 2008). Available at [www.chester.ac.uk/flash\\_magazine](http://www.chester.ac.uk/flash_magazine).
- [19] Compare, for instance, Story Scavenger's online *flash fiction*-workshop (2014/11/04). Available at: <http://www.evolutionarts.org.uk/flash-fiction-workshop>.
- [20] See, for instance, the *National Flash Fiction Day* (2014/11/04). Available at: <http://nationalflashfictionday.co.uk/>.
- [21] In German secondary schools, Phaedrus' fables often are introduced in the 8th or 9th grade. In order to intensify this experience, the anthology by Robin D. Laws, Ed., *The Lion and the Aardvark: Aesop's modern fables*, London: Stone Skin Press, 2013 might be adduced.
- [22] Steve Cushman, "Penguin Pigeon", in *Flash* 5.1 (Apr. 2012).
- [23] The *six-word stories* are either published on [sixwordstories.net](http://sixwordstories.net) or included in the list available at <http://www.theguardian.com/books/2007/mar/24/fiction.originalwriting>.

#### FURTHER READING (SELECTION)

- Gendolla, Peter and Jürgen Schäfer (eds). *The aesthetics of net literature – Writing, reading and playing in programmable media*. Media Upheavals 16. Bielefeld: transcript, 2007.
- Greenspan, Brian. "The new place of reading: Locative media and the future of narrative." *Digital Humanities Quarterly* (DHQ) 5.3 (2011). Available at: <http://digitalhumanities.org/dhq/>.
- Hayles, Katherine N. "Electronic literature: What is it?" *The Electronic Literature Organisation* 1.0 (January 2007). Available at: <http://eliterature.org/pad/elp.html>.
- Howitt-Dring, Holly. "Making micro meanings: Reading and writing microfiction." *Short Fiction in Theory and Practice* 1.1 (2011) 47–58.
- Kerr, Calum and Valerie O'Riordan (eds). *Jawbreakers – A collection of Flash-Fictions*. Completely novel.com 2012.
- Muse, John H. "140 characters in search of a theater – Twitter Plays." *Theater* 42.2 (2012).
- Raguseo, Carla. "Twitter Fiction: Social networking and microfiction in 140 characters." *Teaching English as a Second of Foreign Language* (Electronic Journal) 13.4 (March 2010).

- Rajan, Amol and Jack Sidders, "Why Britain is suddenly all a-Twitter." *The Independent*. 23/01/ 2009.
- Rudin, Michael. "From Hemingway to Twitterature: The short and shorter of it." *Journal of Electronic Publishing* 14.2 (2011).
- Simanowski, Roberto, Jürgen Schäfer and Peter Gendolla (eds). *Reading moving letters – Digital literature in research and teaching. A Handbook*. Media Upheavals 40. Bielefeld: transcript, 2010.

#### APPENDIX

##### A. Further sample of flash fiction

###### Penguin Pigeon

by Steve Cushman

Driving beneath the flyover I spotted a grey bird and said penguin. My wife laughed and said pigeon, repeating it, pigeon, as if speaking to an idiot. She sighed and turned to the window, staring at something I could not see. I considered saying it was a mistake, a simple slip of the tongue, of course I knew the difference between a penguin and pigeon, but the time for stating my case seemed to have already passed. [22]

##### B. Further samples of six-word stories [23]

Mother's Day came, doubling Oedipus' pleasure.

[Bruce Benderson]

Found true love. Married someone else.

[Dave Eggers]

In the end, everything simply began.

[Ali Smith]

"Mind what gap?" ... ..

[Hilary Mantel]

# ASPECTS OF THE CONCEPT OF ETERNITY OF THE SOUL IN THE VIEW OF PLOTINUS ACCORDING TO GRIGORE TAUSAN

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**Abstract:** In the thinking of Plotinus we find a development of the concept of immortality of the soul, a concept taken over from his predecessors. In his thinking, Plotinus shows that the soul forms and leads the human body, but the soul is different from the body. He believes that a real location of the soul cannot be admitted, because the body is composed and divided and each division contains the full virtuality of the soul. The soul is considered immortal, in Plotinus' thinking, because what gives life to the body may not have in it the seed of death.

**Keywords:** body, soul, concept of immortality of the soul.

## I. INTRODUCTION

This stud [1] intends to present a few specific aspects of the doctrine of the immortality of the soul in the concept of the philosopher Plotinus. We note that, in his view, we also find the philosophical concept of differentiation of the soul from the body and the quality of the soul to be immortal. Here are a few reasons that Plotinus brings to support his thesis:

## II. THE DIFFERENTIATION OF THE SOUL FROM THE BODY

Plotinus proves that the soul forms and leads the human body, but this is different from the body. Here are some of his ideas and considerations:

Plotinus fights the idea that the soul would be located somewhere in the body, sitting into the physical space: „It must not be admitted that neither a part of the soul nor the entire soul is in the body as in a place, *en topo*. Indeed, the place is able to contain something, to contain a body, but where everything is shared, it's impossible for everything to be in every part; but the soul is not a body, and it more contains the body than it is included by this.” [2] From this passage we see the Plotinian conception, that it cannot be admitted a real location of the soul, because the body is composed and divided and each division contains the full virtuality of the soul.

Plotinus says: "the soul is not like in a pot, because in this case the body would be lifeless ..."<sup>1</sup> The relationship between the soul and the body cannot be conceived as the one between the soul and a pot, because then the body (the flesh) in comparison with the pot would remain dead, because it is

impossible to mix the pot's substance with the substance of the pot's content.

Plotinus in his thinking also fights the Aristotelian hypothesis, according to which the soul is a function. The soul will not be in the body as a quality in a subject, such as the arbitrator of a subject is a mere affection. Aristotle asserted that the soul cannot be a virtue, but an essential substance [3]. Plotinus said that: „the soul cannot be in the body as part of the whole, for the soul is not a part of the body. Will it be said that it is a part of the living whole? It will remain, however, to be determined how it is into the whole, because it can not be like the wine is in an amphora, or, like a pot is inside another pot...”<sup>2</sup> Plotinus says that the soul: "will not be able to be a body as a whole into parts: it would be ridiculous to consider the soul as a whole and the body, the parts of this whole."<sup>3</sup>

The same Plotinus says that the soul: „cannot be a body, not even as a material form, because the form included into this matter cannot be separated. It should, however, the matter to exist before the form comes to attach itself; but it is the soul itself which produces the material form; it is, therefore, something special. Maybe, it will be answered that the soul is not the shape closed into the matter, that it is a shape which can be separated. It remains then to explain the existence of that shape in the body, because the soul is separated from the body.”<sup>4</sup>

According to Plotinus thinking the soul is not a bodily function, because we perceive intellectual life as something totally different from the physical bodily life. If the soul would be a shape, then the struggle between reason and passion wouldn't be possible.

Plotinus also fights against the pythagorean philosophers, who considered that the soul is a number which moves in itself, as Xenocrates<sup>5</sup> stated, or the soul is a harmony as Philolaus

<sup>2</sup> See [2], Plotin, „Enneade”, IV, c.III,20, (t.gr.), vol II, p 32; t.II., (tr.fr.) p 303. In Grigore Tausan, *Filosofia lui Plotin*, Iași : Ed. “Agora” S.R.L, 1993, p.194.

<sup>3</sup> See [2], Plotin, „Enneade”, IV, c.III,20, (t.gr.), vol II, p 32; t.II., (tr.fr.) p 303. In Grigore Tausan, *Filosofia lui Plotin*, Iași : Ed. “Agora” S.R.L, 1993, p.194.

<sup>4</sup> See [2], Plotin, „Enneade”, IV, c.III,20, (t.gr.), vol II, p 32; t.II., (tr.fr.) p 303. In Grigore Tausan, *Filosofia lui Plotin*, Iași : Ed. “Agora” S.R.L, 1993, p.194.

<sup>5</sup> See [2], IV, c.III,20, (t.gr.), vol II, p 32; t.II., (tr.fr.) p 303. In Grigore Tausan, *Filosofia lui Plotin*, Iași : Ed. “Agora” S.R.L, 1993, p.196.

<sup>1</sup> See [2], IV, c.III,20, (t.gr.), vol. II, p. 32; t.II., (tr.fr.) p. 303. In Grigore Tausan, *Filosofia lui Plotin*, Iași : Ed. “Agora” S.R.L, 1993, p. 193

said: „the soul is embedded into the body, adapting itself by the work of the number and by the agreement of an immortal harmony.”[4]

Plotinus believes that the soul possesses the body and this means that it is something else than a simple harmony, a simple echo, an effect, a result of the body: „because the soul is not corporeal, its own nature must be determined. Should we admit that it is something different from the body, but still dependent on it, a harmony, for example? Pythagoras ... he believed that the harmony of the body would be something similar with a lyre's harmony<sup>6</sup>. If the soul is compared with the musical harmony, which is the result of certain movements of the instrument, then where is the true Performer or Author who moved the vibrating strings of our soul and who is the Artist who produces in us the harmony of the soul? If that would be the case, then the soul itself would need a driving force.

If the soul were corporeal, as the materialists believed, then how it could be explained that the smallest part of the soul contains the entire power of the whole? It is not conceivable that a part of the soul would be missing one of the properties of the entire soul, for in such a situation that part would no longer be a soul.

The perception of the outside world proves that the real nature of the soul is totally different from the real corporeal nature<sup>7</sup>.

Matter cannot enter into the movement without the intervention of an immaterial factor, of a force. And the corporeal, bodily matter cannot make exception from the universal matter conditions. The corporeal matter is moved by an immaterial principle, and this principle is the soul. „If the active powers would be corporeal, then it should have a mass proportional to their force or weakness: but there are large masses that are equipped with weak forces and small masses that have stronger forces, this indicates that the power does not depend on expansion, that it must be assigned to a substance without expansion.”<sup>8</sup>

The highest human ideas are devoid of any extensive note. Who could measure virtue, beauty, justice, kindness by delimiting their expansion? Due to this fact, the thesis of the identity of the soul with the body cannot be admitted, because these ideas represent the highest efflorescence of the human soul<sup>9</sup>.

Stoic philosophers regarded the soul as a mixture with the body. Plotinus responds to this view with the fact that in any mixture, the mixed things lose their qualities, which is not the case of the alleged mixture of body and soul.

Plotinus believes that not the body contains the soul, but vice versa, the soul contains the body: "The soul is not into the

<sup>6</sup> See [2], Plotin, „Enneade”, IV, c.VII, 8, vol. II, (t.gr.), p. 133; t.II. (tr.fr.), p. 460. In Grigore Tausan, op. cit., p. 196.

<sup>7</sup> See [2], VI, c.VII, 5, vol. II, (t.gr.), p. 126; t.II. (tr.fr.), pp. 445-446. In Grigore Tausan, op. cit., p. 197.

<sup>8</sup> See [2], IV, c.VII, 8, vol. II, (t.gr.), p. 133; t.II. (tr.fr.), p.455. In Grigore Tausan, op. cit., p. 198, footnote nr. 29.

<sup>9</sup> See [2], IV, c.VII, 8, vol. II, (t.gr.), p. 129; t.II. (tr.fr.), pp. 452-453. In Grigore Tausan, op. cit., p. 198.

body, that ... the accessory is mainly placed, the content in (the pot) what contains it, what flows in what does not flow.”<sup>10</sup> Plotinus states that: „The soul is present for the body as the light is present for the air.”<sup>11</sup>

According to Plotinus, the soul cannot be imagined as a development of the corporeality, as the Atomists consider it, nor as a part of a whole or altogether consisting of material parts, nor as a complementary and indivisible principle of one and the same body, as the Peripatetics considered it, nor as a harmony of the fleshly activity, as the Pythagoreans believed, but the soul – according to Plotinus, is a nature absolutely different from the material nature of the body. If the two natures are radically different, then it means that the evolution of nature cannot depend on a relationship of dependency with the evolution of the other nature. Thus the body may die and perish forever, while the soul can live forever<sup>12</sup>.

### III. THE SOUL IS IMMORTAL IN THE CONCEPT OF PLOTINUS

The soul, in Plotinus' thinking, is considered immortal because what gives life to the body cannot contain the seed of death.

“The perception of the external world forms variability forces the intelligence to admit the existence of a permanent principle, which cannot be other than the soul itself.”<sup>13</sup> Because: „It is absolutely necessary to exist a special kind of bodies, possessing completely, by itself, the real existence, which can neither be born nor perish: otherwise everything would annihilate. The soul gives life to the bodies which it animates, but it possesses life in itself, without ever being exposed to lose it, because it has it by itself... There is a nature before the existence of any other living creature, with an incorruptible and immortal necessity, because it is the principle of life in general.”<sup>14</sup>

The moral consciousness, according to Plotinus, reveals the existence of the eternal soul. When a person commits a wrongdoing, he feels like being another person, being humiliated. He doubts that the soul lives beyond the grave in which the body is placed, the only one which has not felt the value of good and unselfish love in life. „The soul has affinity with the divine and eternal nature, which is obvious... Wisdom and true virtue, being divine things, could not reside in a living mortal substance; the existence that receives them is necessarily divine... If all people, or at least many of them,

<sup>10</sup> See [2], IV, c.III, 20, vol. II, (t.gr.), p. 34; t.II. (tr.fr.), p. 456. In Grigore Tausan, op. cit., p. 199.

<sup>11</sup> See [2], IV, c.III, 22, vol. II, (t.gr.), p. 35; t.II. (tr.fr.), p. 307. In Grigore Tausan, op. cit., p. 199.

<sup>12</sup> Grigore Tausan, *Filosofia lui Plotin, Iași* : Ed. “Agora” S.R.L., 1993, p. 200.

<sup>13</sup> See [3], *Ibidem*, p. 201.

<sup>14</sup> Plotin, *Enneade*, IV, c.VII, 9, vol. II, (t.gr.), p. 136; t.II. (tr.fr.), p. 466. In Grigore Tausan, op. cit., p. 196. See footnote nr. 35.

would have their soul in this spirit, no one would be so skeptical not to believe that the soul is immortal.”<sup>15</sup>

„But whatever the evolution (more formal) of Plotinus' theories, we must admit that the fundamental issue of the immortality of the soul is discussed by him with uncontested methodical originality. All of his great predecessors' views are weighed and compared, analyzed and discussed, so that, with Plotinus help, we can know the historical changes undergone by the issue of immortality until him. If philosophy owes the foundation of the < spiritualism > and the logic clarifying of the faith in < immortality > to Plato, to Plotinus it should be recognized the merit that he the first introduced the comparative and critical method of this great issue in a metaphysical style.”<sup>16</sup>

We cannot discuss the immortality of the soul, without thinking of that religion which makes from this metaphysical thesis its entire essence. The Christian theologian nearest to the pagan philosophers is Augustine, who is different from Plotinus by means of a psychological analysis more refined than his. He concludes that the soul is different from the body, and therefore immortal, taking into account this reasons: soul consciousness is qualitative distinguished from the body; soul consciousness is unmediated, while the body's consciousness is intermediated; in memory are stored imagies without expansion<sup>17</sup>.

#### IV. THE METHOD OF IMMORTALITY OR ETERNITY OF THE SOUL FOR PLOTINUS

The thesis of immortality „is distinguished from that of eternity, and you can believe in one without being constrained to admit the other one. Thus, most Christian writers admitted the immortality of the soul, and denied, at the same time, his eternal life; whereas pagan philosophers claimed the perfect eternity. But admitting the spiritual life eternity – implicitly the pre-existence of the generic soul up against the individual and evanescent body – attracts the corollary: souls pass from one body to another. In this way, the hypothesis of eternity produces the other hypothesis: metempsychosis or metempsychosis, in Olympiodorus terminology. And as eternity opens the issue of pre-existence, in the same way, after various interpretations that can be given to the latter, it derives a sum of metaphysical assumptions, for the soul can be admitted - previous to the body – under the form of the so called *pneuma*, (an ethereal and half material body, united with the same body), but existing independently and prior to that body, as well as it can be assumed, for example, a pure spirit, prior to the body, as Plato or Porphyry asserted. Also, immortality, apart from the hypothesis of pre-existence, can be explained in various ways. Thus, the soul unites his purified body, after his apparent death, as Christianity claim; or, the eternal union of the soul with the material body can be

<sup>15</sup> See [2], IV, c.VII, 10, vol. II, (t.gr.), p. 139; t.II. (tr.fr.), p. 469. In Grigore Tausan, op. cit., p. 202.

<sup>16</sup> Grigore Tausan, *Filosofia lui Plotin*, Iași : Ed. “Agora” S.R.L, 1993, p. 204.

<sup>17</sup> See [3], footnote nr. 39.

assumed, whatever would be that body, as the Pythagoreans believed.”<sup>18</sup>

In Plotinus' view, the soul's condition adopts the following ways:

#### V. THE SOUL HAS BENEFITED OF A PREVIOUS LIFE BEFORE BEING IN THE BODY

God is considered to be the eternal universal creator principle, manifested in its attributions in the three phases: the Good, the Wisdom and the Soul. The soul is considered to be a divine hypostasis, procreator, either as a universal soul, or as an individual one. If it is confirmed that souls create the body, then they logically have to pre-exist the body, otherwise they could not follow out the creative faculty. The essence of Plotinus' philosophy is the recognition of this metaphysical thesis of the spiritual Principle, as absolute and unique creator. Only the Soul hypostasis is the sole creator. The whole metaphysical theory of the neoplatonism highlights the Spiritual Creator Principle. The souls create bodies by descent. Though it is relevant to know the road between the primordial state, absolutely spiritual of the soul before their descent in the bodies and the materiality of the body.

In order to enter a terrestrial body, “the soul associates or intermingles in an aerial and spritual body, called *pneuma*. Thanks to this association, the soul descends into a nature which is absolutely contrary to him. Plotinus' answer is not as clear as we state it, though in fact we even find a contradiction in this matter. This is what Plotinus says: “There are, for the soul, two different ways of entering a body. First is, when the soul, being in a body, suffers a metempsychosis, meaning that it goes from an aerial body or body of fire in a terrestrial one, migration that is not usually called metempsychosis, for it cannot be seen where the soul comes from; it is different when the soul goes from an intangible state in a random body, and makes contact for the first time with the body.”<sup>19</sup> In this fragment, Plotinus does not speak about the transition of the soul through the intermediary state *pneuma* before entering the terrestrial bodies. Though, in another part in *Enneads*, he states even clearer this thesis: “Descending in the intelligible world, the souls come firstly in heaven, and take a body by means of which they pass in the terrestrial bodies.”<sup>20</sup> This last assertion is clearer and we embraced this one, because it is in the spirit of Plotinus' general conception in this matter. *Pneuma*, the spiritual body or the spiritual material electuary (gr. *ohima pneumatikon*) joins the soul, as long as it animates a body.

As far as the *pneuma* hypothesis is concerned, Iamblichus states that it is of platonist origin, or at least conceived in his school: “asserting that the soul is always in a body, these philosophers, like Erastosthenes, Ptolemy the platonist, and others, believe that the soul passes from subtle bodies to dense ones...” [5] The *pneuma* hypothesis is of oriental origin, where it is accepted and explained. From the oriental world, probably

<sup>18</sup> Grigore Tausan, *Filosofia lui Plotin*, Iași : Ed. “Agora” S.R.L, 1993, pp. 204-205.

<sup>19</sup> Plotin, *Enneade*, IV, c.III, 9, vol. II, (t.gr.), p. 20; t.II. (tr.fr.), p. 282. In Grigore Tausan, op. cit., footnote nr. 40, p. 206.

<sup>20</sup> See [2], IV, c.II, 15, vol. II, (t.gr.), p. 27; t.II. (tr.fr.), p. 294 B. In Grigore Tausan, op. cit., footnote nr. 40, p. 206.

through Philo Judaeus of Alexandria, got to be picked up by Plotinus as well. If we were to compare the Neoplatonic conception in this matter and *Kabbalah*, we would notice an analogy: “When the earthly union is accomplished, the saint, blessed be his name, sends down here a human-like shape...When the souls are ready to leave the heavenly place, each of them appears before the supreme king dressed in a sublime way.” [6]

The dogma of souls` pre-existence was and is one of the most controversial and debated matters from the Christian theology. Origen believed in pre-existence, [7] accepting Plato`s phylosophy completely. Other representatives of patristics would refute it, for example: Tertullian stated that all the souls are an emanation of a single one. Ieronim claimed that the souls are created consecutively for every soul. These would not accept the pre-existence hypothesis, one that is refuted also by Aurelius Augustine. Plotinus, following the Greek phylosophy, accepts the souls pre-existence and as such his eternity. In Christianity the soul`s immortality is admitted, after the death of the body, but not his eternity, in the aspect of his existence before the body. Plotinus is though different from the patristic representatives in terms of the pre-existence doctrine, for he accepted the eternity of the souls, meaning their existence before entering the terrestrial bodies.

#### VI. THE SOUL DESCENDS IN THE BODY BY ITS OWN WILL

If the souls enter, descend in the matter, then this would be a prior existence and reality, as Plato imagined it, or at least simultaneous to the idea. Plotinus tries to handle the situation like this: “If we assume that the Soul enters the universal body and comes to animate it, this is only to explain our thinking in a more clear way; the sequence that we establish between his actions is simply verbal, because there was not a single moment when the universe was not animated, when his body existed without a soul, when the matter existed without a form. But one can separate these things (matter and soul) in thinking, and by language, because a compound object can be decomposed by thinking and talking.”<sup>21</sup>

The concept of soul *descending* is a conventional term of exposition, mostly of a methodical nature and the result of an artificial analysis, because in fact, the soul produced the matter, and this did not exist as a pre-existent element (like in the dualistic systems) for the idealistic and creative principles. The soul appears at Plotinus like being pre-existent to the matter and not vice versa. The soul produced the matter, one in which he descends from time to time and for a finite period of time: “For the Soul needs to expand (to produce in space), it will create a place where it could be welcomed, that means, it will create the body... The Universe has though become a beautiful and varied home which the universal Soul did not impoverish of its presence, without embedding it... This way, by animating it (the Universe), the Soul provides it with its presence, without becoming its property, and owns and possesses it without ever

<sup>21</sup> Plotin, „Enneade”, IV,c.III, 9, vol. II, (t.gr.), p. 20; t.II,(tr.fr.), p. 283. In Grigore Tausan., op. cit., p. 108.

being owned by the Universe. The Universe is indeed in the Soul that contains it, in which it wholly partakes.”<sup>22</sup>

If the soul was urged with the action of descent, one could not speak about the human`s freedom. The soul which descends, in order to vivify the matter, it does it because the law of nature demands that what is superior should produce what is inferior. In this way, by the act of creation, the creator reveals his superiority and his own life manifested by the act of creation done without effort. Plotinus subscribes to Plato, according to whom the faith of the soul in the matter, or on Earth is similar to the condition of the prisoner locked in prison, according to his own choice<sup>23</sup>.

According to Plotinus, the soul descends in the material world to fulfil an impulse of its creative nature, attaining to a moral obligation, not for atoning the mistakes made in his past before the descent: “In this way, even though the soul has a divine essence and it originates from the intelligible world, enters a body. Being an inferior god, it descends down here, by a voluntary inclination, with the aim of developing and adorning what is below him. If he runs fast, from down here he does not regret to have known evil and has known the nature of the vice, nor that it had the chance to manifest his abilities and to show his actions and creations. Indeed, the abilities would be useless if they went numb in their intangible essence, without going to act. The soul itself would ignore what it possesses, if its abilities did not manifest by procession...The variety of the sensitive effects makes one admire the extent of the intelligible principle, whose nature becomes known by the beauty of his creations.”<sup>24</sup>

#### VII. CONCLUSIONS

The freedom of the soul in descent and the kindness of the world are essential doctrines in neoplatonism. Thus, according to the Plotinian perspective, the descent of the soul is not considered to be a degradation, as being the effect of a mistake, as gnostics considered, or serving a term, as philosophers like Empedocles<sup>25</sup>, Pythagoras and the Pythagoreans<sup>26</sup> and Plato, as well, believed<sup>27</sup>. These considered the descent of the soul in the material world as being a punishment, a fall, required by the will of a superior force. Plato states about the soul: “the fact

<sup>22</sup> See [2], VI, c. III, 9, vol. II, (t.gr.), p.20; t.II, (tr.fr.), p. 284. In Grigore Tausan., op. cit., p. 107.

<sup>23</sup> See [2], IV, c. VIII, 5, (t.gr.), vol. II, p. 148; t.II, (tr.fr.), p. 487. In Grigore Tausan., op. cit., p. 208.

<sup>24</sup> See [2], IV, c. VIII, 5, (t.gr.), vol. II, p. 149; t.II, (tr.fr.), pp. 488-489. In Grigore Tausan, op. cit., p. 208.

<sup>25</sup> To Empedocles, Plotinus is special historical source. Here: “Souls are far from God and stray ... they have committed a punishment which they are expiating.” See [2], IV, c VIII, 5, Cons. Zeller, *Filosofia Grecilor*, vol.III, (tr.fr.), pp. 248-249; V.Cousin, *Fragmente filosofice*, t. II, p. 158. In Grigore Tăușan, op. cit., footnote nr. 47, a, p. 209.

<sup>26</sup> Pythagoreans believed that the soul is imprisoned in the body. Cons. V.Cousin, op. cit., t.II, p. 175. In Grigore Tausan, op. cit., footnote nr. 47,b, p.209.

<sup>27</sup> As regards the conception of Plato we have the dialogues *Phaidon* and *Gorgias*. Aeneas of Gaza, stated that: “This philosopher (Plato), by entering in Greece the wisdom of Chaldeans as well as of the Egyptians, and bringing to light the doctrines of Pythagoras, Heraclitus and Empedocles”, *Teofrast*, II, p. 663, trad. Leveque, anex Bouillet. In Grigore Tausan, op. cit., footnote nr. 47, c, p. 209.

that it entered in a human body meant, as a disease, the beginning of his death. That in this life, as long as it lives, it mostly bears difficulties...no matter if it only enters once or several times in a body..."<sup>28</sup> The doctrine of the punished souls, by their urged entrance in the body, was also accepted in the conception of the Orphic mysteries<sup>29</sup>.

"Plotinus` thesis is, though, consequent to the final premises from which the oldest metaphysics start, since, if everything in the world is well organised, if each separate existence and each meaningless movement, contributes to the harmony and perfection of the whole, then the soul, the perfection element and progress, could not enter into the world as a punishment and, as long as it stays, it is not closed without his will. The nature`s finality involves, thus, the voluntary unification of the spiritual principle with the tangible matter. Therefore, the body is not the imperfect cover, the obstacle of every spiritual burst, but, for Plotinus, it is the emanation of a perfect and divine substance."<sup>30</sup> In this way, Plotinus becomes a predecessor of the great thinker Aurelius Augustine.

## REFERENCES

- [1] Rotaru, Ioan-Gheorghe, *Aspecte antropologice în gândirea patristică și a primelor secole creștine*, Cluj-Napoca: Presa Universitară Clujeană, 2005, pp. 284-292.
- [2] Plotin, „Enneade”, IV, c.III,20, (t.gr.), vol II, p 32; t.II., (tr.fr.) p 303. In Grigore Tausan, *Filosofia lui Plotin*, Iași : Ed. “Agora” S.R.L, 1993, pp. 192-193.
- [3] Grigore Tausan, *Filosofia lui Plotin*, Iași : Ed. “Agora” S.R.L, 1993, p. 194.
- [4] Despre Pythagora și pythagorei.Philolaos, București: Paideia, 2001, p. 39; Platon, „Phaidon”, II, 81, e – 82, a., In Platon, *Banchetul și alte dialoguri*, București: Editura Mondero, 2001, p. 195.
- [5] Jamblichos, *Tratatul sufletului*, II, B, p. 469. In Grigore Tausan, *Filosofia lui Plotin*, Iași : Ed. “Agora” S.R.L, 1993, footnote nr. 42, p. 207.
- [6] Franck, *La Kabbale*, pp. 175-176. In Grigore Tausan, *Filosofia lui Plotin*, (Iași : Ed. “Agora” S.R.L, 1993), footnote nr. 43, p. 207.
- [7] Moreschini, Claudio; Norelli, Enrico, *Istoria literaturii creștine vechi grecești și latine. De la Apostolul Pavel până la epoca lui Constantin cel Mare*, Hanibal Stănculescu, Gabriela Sauciuc (trad.), vol. I, București : Polirom, 2001, pp. 314-318.

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<sup>28</sup> Despre Pythagora și pythagorei.Philolaos, București: Paideia, 2001, p. 39; Platon, „Phaidon”, p. III, 95, In Platon, *Banchetul și alte dialoguri*, București: Editura Mondero, 2001, p. 208.

<sup>29</sup> Grigore Tausan, *Filosofia lui Plotin*, Iași : Ed. “Agora” S.R.L, 1993, footnote nr. 47, c, p. 209.

<sup>30</sup> See [3], p. 210.

# The notion of *Logos* in the vision of John the Evangelist

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**Abstract -** The first Christian thinker who uses the term *Logos* is John the Evangelist. Therefore, the Apostle and Evangelist John uses the term *Logos*, thus resuming in his writing a pre-Christian notion current in his time, applying it directly to the person of Jesus Christ, defining Him as the Word incarnated, the Word who took upon himself the human body, using different symbols for it.

Thus the *Logos* is presented as the *light* that illuminates the world through light, or His teachings. He is also presented as being the *bread* respectively the One who cares for the daily bread, but also for the spiritual bread, that is food for the soul, which feeds people's hopes. *The Logos* is the One that has *life* through Himself and no one can take it from Him, but the idea of supreme sacrifice appears at Him because he gives his life from Himself as a sacrifice for the salvation of mankind. *The Logos* also says that whoever believes in Him and stays in this faith will receive, as a gift from Him, the eternal life. *The Logos* refreshes the human soul over and over again, being likened to water for the thirsty soul, because He who is *the water of life* quenches the thirsty human's desires after righteousness and eternal life. He presents himself as the entrance or the only way for the man to enter the kingdom of God. For this purpose Christ *The Logos* also holds the keys of death and He promises the dead that He is the *resurrection* and He will bring them back to life. Like a shepherd who cares for the needs of his flock, Christ *The Logos* takes care of people's needs, calling Himself as *the Good Shepherd* and *the vine* that cares about people's nourishment, giving them a lot of joy. *The Logos*, in the vision of John, is The One that underlies all things, through whom all things were made, being called *the firstborn* and *the only begotten*. Everything that was written in the Gospel of John, according to the writing thereof, has, as a final conclusion, the following role: "but these are written, that ye might believe that Jesus is the Christ, the Son of God; and that believing ye might have life through his name." [1]

**Keywords:** *Word incarnated, logos, light, bread, life, water of life, the entrance, the resurrection, the Good Shepherd, vine, firstborn, only-begotten.*

## I. INTRODUCTION

The concept of the term *Logos* was widely used before Christianity, with a specific movement in the world of Hellenistic culture and Jewish culture. This concept of *Logos* was taken up, however, by some later on Christian thinkers. Through this study [2], we try to expose some of the defining aspects of the thinking of John the Evangelist, as we find them described in his Gospel.

## II. LOGOS IN THE VISION OF JOHN

Thus, the first Christian thinker who uses the term *Logos* is John the Evangelist. The Apostle and Evangelist John uses the term *Logos*, thus resuming in his writing a pre-Christian notion current in his time, applying it directly to the person of Jesus Christ, defining Him as the "Word incarnated". John presents in his Gospel that, in the beginning was the Word (*Logos*), and the Word (*Logos*) was with God, and the Word (*Logos*) was God. Thereby, John states His quality as the creator of all things: "All things were made by him; and without him was not any thing made that was made." [3] The Evangelist John then goes further and presents the incarnation of the Word (*Logos*): "And the Word was made flesh, and dwelt among us, (and we beheld his glory, the glory as of the only begotten of the Father,) full of grace and truth." [1]

The concept of *Logos* in Heraclites' and the Stoics' conception was considered to be the supreme law of the world, that governs the universe and is also present in human reason. Here, it was about an abstraction, not a hypostasis (gr. *ipostasis*). In the Stoic conception, although the *Logos* was placed at the beginning of existence and it was called the soul of the world, it remains an impersonal and pantheistic existence, completely different from the *Logos* of John the Evangelist [4].

We also find the notion of *Logos* in the Platonic conception. Here, the *Logos* is closer to the idea of a real existence, in the sense of Platonic idealism. But even here, the idea of hypostasis does not exist [4]. Moreover, the idea of the incarnation of the *Logos* is unthinkable [5]. Even for the *Logos* of Philo of Alexandria is foreign the incarnation in history and humanity. For Philo, the *Logos* remains an abstract, metaphysical existence, a personified idea, unlike the incarnated *Logos* of John.

## III. LOGOS SYMBOLIZED BY LIGHT

The *Logos*, in John's conception, is not an abstract existence, a personified idea, but a concrete existence that, after incarnation, retains its own personality in its earthly existence. John refers to the *Logos* as a person, even when referring to It in abstract terms. For example, *the light*:

"There was a man sent from God, whose name was John. The same came for a witness, to bear witness of the Light, that all men through him might believe. He was not that Light, but was sent to bear witness of that Light. That was the true Light,

<sup>1</sup> The Gospel according to John 1, 14, p. 121.

which lighteth every man that cometh into the world.”<sup>2</sup> or “Then spake Jesus again unto them, saying, I am the light of the world: he that followeth me shall not walk in darkness, but shall have the light of life”<sup>3</sup>. “In the words, “I am the light of the world,” Jesus declared Himself the Messiah. The aged Simeon, in the temple where Christ was now teaching, had spoken of Him as “a light to lighten the Gentiles, and the glory of Thy people Israel.” Luke 2:32. In these words he was applying to Him a prophecy familiar to all Israel. By the prophet Isaiah, the Holy Spirit had declared, “It is too light a thing that Thou shouldst be My servant to raise up the tribes of Jacob, and to restore the preserved of Israel: I will also give Thee for a light to the Gentiles, that Thou mayest be My salvation unto the end of the earth.” Isa. 49:6, R. V. This prophecy was generally understood as spoken of the Messiah, and when Jesus said, “I am the light of the world,” the people could not fail to recognize His claim to be the Promised One.” [6]

#### IV. LOGOS SYMBOLIZED BY BREAD

Another abstract term is the *bread* that John also uses to refer to the *Logos*: “For the bread of God is he which cometh down from heaven, and giveth life unto the world. Then said they unto him, Lord, evermore give us this bread. And Jesus said unto them, I am the bread of life: he that cometh to me shall never hunger; and he that believeth on me shall never thirst.”<sup>4</sup> “I am that bread of life... This is the bread which cometh down from heaven, that a man may eat thereof, and not die. I am the living bread which came down from heaven: if any man eat of this bread, he shall live for ever: and the bread that I will give is my flesh, which I will give for the life of the world.”<sup>5</sup>

“Our Lord has said, “Except ye eat the flesh of the Son of man, and drink His blood, ye have no life in you. . . . For My flesh is meat indeed, and My blood is drink indeed.” John 6:53-55. This is true of our physical nature. To the death of Christ we owe even this earthly life. The bread we eat is the purchase of His broken body. The water we drink is bought by His spilled blood. Never one, saint or sinner, eats his daily food, but he is nourished by the body and the blood of Christ. The cross of Calvary is stamped on every loaf. It is reflected in every water spring. All this Christ has taught in appointing the emblems of His great sacrifice. The light shining from that Communion service in the upper chamber makes sacred the provisions for our daily life. The family board becomes as the table of the Lord, and every meal a sacrament. And how much more are Christ's words true of our spiritual nature. He declares, “Whoso eateth My flesh, and drinketh My blood, hath eternal life.” It is by receiving the life for us poured out on Calvary's cross, that we can live the life of holiness. And this life we receive by receiving His word, by doing those things which He has commanded. Thus we become one with Him. “He that eateth My flesh,” He says, “and drinketh My blood,

<sup>2</sup> The Holy Bible, Cambridge: Cambridge University Press, The Gospel according to John 1, 6-9, p. 121.

<sup>3</sup> The Gospel according to John 8,12, p. 134.

<sup>4</sup> The Holy Bible, Cambridge: Cambridge University Press, The Gospel according to John 6, 33-35, p. 130.

<sup>5</sup> The Gospel according to John 6, 48.50-51, p. 131.

dwelleth in Me, and I in him. As the living Father hath sent Me, and I live by the Father: so he that eateth Me, even he shall live by Me.” John 6:54, 56, 57. To the holy Communion this scripture in a special sense applies. As faith contemplates our Lord's great sacrifice, the soul assimilates the spiritual life of Christ. That soul will receive spiritual strength from every Communion. The service forms a living connection by which the believer is bound up with Christ, and thus bound up with the Father. In a special sense it forms a connection between dependent human beings and God.”<sup>6</sup>

#### V. LOGOS SYMBOLIZED BY THE ENTRANCE

The *entrance* is another abstract term used by John the Evangelist to designate the *Logos*: “Then said Jesus unto them again, Verily, I say unto you, I am the entrance of the sheep. All that ever came before me are thieves and robbers: but the sheep did not hear them. I am the entrance: by me if any man enter in, he shall be saved, and shall go in and out, and find pasture.”<sup>7</sup>

The entrance represents human's possibility to get out of this world and of the state of sin, to return to God, to pass from this earthly world, through the only way to pass, only through Him, through *Logos*, through Jesus Christ.

“Christ is the entrance to the fold of God. Through this entrance all His children, from the earliest times, have found entrance. In Jesus, as shown in types, as shadowed in symbols, as manifested in the revelation of the prophets, as unveiled in the lessons given to His disciples, and in the miracles wrought for the sons of men, they have beheld “the Lamb of God, which taketh away the sin of the world” (John 1:29), and through Him they are brought within the fold of His grace. Many have come presenting other objects for the faith of the world; ceremonies and systems have been devised by which men hope to receive justification and peace with God, and thus find entrance to His fold. But the only entrance is Christ, and all who have interposed something to take the place of Christ, all who have tried to enter the fold in some other way, are thieves and robbers”<sup>8</sup>.

#### VI. LOGOS SYMBOLIZED BY THE WATER OF LIFE

Another term used for the *Logos* is the *water of life*: Jesus Christ is presented in a discussion with a woman of Samaria, whom He asks for water to drink:

“Then saith the woman of Samaria unto him, How is it that thou, being a Jew, askest drink of me, which am a woman of Samaria? for the Jews have no dealings with the Samaritans. Jesus answered and said unto her, If thou knewest the gift of God, and who it is that saith to thee, Give me to drink; thou wouldest have asked of him, and he would have given thee living water. The woman saith unto him, Sir, thou hast nothing to draw with, and the well is deep: from whence then hast thou that living water? Art thou greater than our father Jacob, which

<sup>6</sup> E.G.White, *Viața lui Isus*, București: Ed. Viață și sănătate, 2001, pp. 629-630.

<sup>7</sup> The Holy Bible, Cambridge: Cambridge University Press, The Gospel according to John 10, 7-9, p. 138.

<sup>8</sup> E.G.White, *Viața lui Isus*, București: Ed. Viață și sănătate, 2001, pp. 458-459.

gave us the well, and drank thereof himself, and his children, and his cattle? Jesus answered and said unto her, Whosoever drinketh of this water shall thirst again: But whosoever drinketh of the water that I shall give him shall never thirst; but the water that I shall give him shall be in him a well of water springing up into everlasting life.”<sup>9</sup>

The woman was surprised that he (Jesus), a Jew, asks her for water to drink, because between them (Jews and Samaritans) there was a conflicting state on a religious background. Thus “The Jews and the Samaritans were bitter enemies, and as far as possible avoided all dealing with each other. To trade with the Samaritans in case of necessity was indeed counted lawful by the rabbis; but all social intercourse with them was condemned. A Jew would not borrow from a Samaritan, nor receive a kindness, not even a morsel of bread or a cup of water. The disciples, in buying food, were acting in harmony with the custom of their nation. But beyond this they did not go. To ask a favor of the Samaritans, or in any way seek to benefit them, did not enter into the thought of even Christ's disciples”<sup>10</sup>.

Jesus answers using the term living water, water that He has, water of eternal life: “Jesus answered, “If thou knewest the gift of God, and who it is that saith to thee, Give Me to drink; thou wouldest have asked of Him, and He would have given thee the living water.” You wonder that I should ask of you even so small a favor as a draught of water from the well at our feet. Had you asked of Me, I would have given you to drink of the water of everlasting life”<sup>11</sup>.

John presents another situation in which Jesus applies the term water of life to Himself: “In the last day, that great day of the feast, Jesus stood and cried, saying, If any man thirst, let him come unto me, and drink. He that believeth on me, as the scripture hath said, out of his belly shall flow rivers of living water”<sup>12</sup>.

## VII. LOGOS SYMBOLIZED BY THE SHEPHERD OR THE GOOD SHEPHERD

Jesus Christ or the *Logos* is called, by the Apostle and Evangelist John in his Gospel, also by the term *Shepherd* or the *Good Shepherd*: “I am the good shepherd: the good shepherd giveth his life for the sheep. But he that is a hireling, and not the shepherd, whose own the sheep are not, seeth the wolf coming, and leaveth the sheep, and fleeth: and the wolf catcheth them, and scattereth the sheep. The hireling fleeth, because he is a hireling, and careth not for the sheep. I am the good shepherd, and know my sheep, and am known of mine. As the Father knoweth me, even so know I the Father: and I lay down my life for the sheep. And other sheep I have, which are

not of this fold: them also I must bring, and they shall hear my voice; and there shall be one fold, and one shepherd”<sup>13</sup>.

“In all ages, philosophers and teachers have been presenting to the world theories by which to satisfy the soul's need. Every heathen nation has had its great teachers and religious systems offering some other means of redemption than Christ, turning the eyes of men away from the Father's face, and filling their hearts with fear of Him who has given them only blessing. The trend of their work is to rob God of that which is His own, both by creation and by redemption. And these false teachers rob man as well. Millions of human beings are bound down under false religions, in the bondage of slavish fear, of stolid indifference, toiling like beasts of burden, bereft of hope or joy or aspiration here, and with only a dull fear of the hereafter. It is the gospel of the grace of God alone that can uplift the soul. The contemplation of the love of God manifested in His Son will stir the heart and arouse the powers of the soul as nothing else can. Christ came that He might recreate the image of God in man; and whoever turns men away from Christ is turning them away from the source of true development; he is defrauding them of the hope and purpose and glory of life. He is a thief and a robber”<sup>14</sup>.

“As an earthly shepherd knows his sheep, so does the divine Shepherd know His flock that are scattered throughout the world. “Ye My flock, the flock of My pasture, are men, and I am your God, saith the Lord God.” Jesus says, “I have called thee by thy name; thou art Mine.” “I have graven thee upon the palms of My hands.” Ezek. 34:31; Isa. 43:1; 49:16. Jesus knows us individually, and is touched with the feeling of our infirmities. He knows us all by name. He knows the very house in which we live, the name of each occupant. He has at times given directions to His servants to go to a certain street in a certain city, to such a house, to find one of His sheep. Every soul is as fully known to Jesus as if he were the only one for whom the Saviour died. The distress of every one touches His heart. The cry for aid reaches His ear. He came to draw all men unto Himself. He bids them, “Follow Me,” and His Spirit moves upon their hearts to draw them to come to Him. Many refuse to be drawn. Jesus knows who they are. He also knows who gladly hear His call, and are ready to come under His pastoral care. He says, “My sheep hear My voice, and I know them, and they follow Me.” He cares for each one as if there were not another on the face of the earth”<sup>15</sup>.

## VIII. LOGOS SYMBOLIZED BY VINE

Equally, in the thinking of John, expressed in the Gospel written by him, the *Logos* is called the *vine*: “I am the true vine, and my Father is the husbandman...I am the vine, ye are the branches: He that abideth in me, and I in him, the same bringeth forth much fruit: for without me ye can do nothing”<sup>16</sup>.

<sup>9</sup> The Holy Bible, Cambridge: Cambridge University Press, The Gospel according to John 4, 9-14, p. 126.

<sup>10</sup> E.G.White, *Viața lui Isus*, București: Ed. Viață și sănătate, 2001, p. 162.

<sup>11</sup> E.G.White, *Viața lui Isus*, București: Ed. Viață și sănătate, 2001, p. 163.

<sup>12</sup> The Holy Bible, Cambridge: Cambridge University Press, The Gospel according to John 7, 37-38, p. 133.

<sup>13</sup> The Gospel according to John 10,11-16, p. 138.

<sup>14</sup> E.G.White, *Viața lui Isus*, București: Ed. Viață și sănătate, 2001, p.459.

<sup>15</sup> E.G.White, *Viața lui Isus*, București: Ed. Viață și sănătate, 2001,pp.460-461.

<sup>16</sup> The Holy Bible, Cambridge: Cambridge University Press, The Gospel according to John 15, 1.5, p. 146.

## IX. LOGOS SYMBOLIZED BY LIFE AND RESURRECTION

Or the terms *resurrection* and *life* also refer to Jesus Christ as the divine *Logos*:

“Jesus said unto her, I am the resurrection, and the life: he that believeth in me, though he was dead, yet shall he live”<sup>17</sup>

John refers to the person of the *Logos* even when its wording contains terms of an abstract nature.

The difference between the conception of the Apostle and Evangelist John and the theory of Philo the Jew and the Alexandrian becomes more striking when it comes to the role of the *Logos* or of the Word in the world. In the thinking of Philo, *Logos* is considered to be an intermediate existence, placed somewhere halfway between God and man, that unites them. In contrast, the divinity of the *Logos* or of the Word for the Apostle and Evangelist John is identical with the one of God the Father. “The light of the knowledge of the glory of God” is seen “in the face of Jesus Christ.” From the days of eternity the Lord Jesus Christ was one with the Father; He was “the image of God,” the image of His greatness and majesty, “the outshining of His glory.” It was to manifest this glory that He came to our world. To this sin-darkened earth He came to reveal the light of God’s love,--to be “God with us.” Therefore it was prophesied of Him, “His name shall be called Immanuel.” By coming to dwell with us, Jesus was to reveal God both to men and to angels. He was the Word of God,--God’s thought made audible”<sup>18</sup>.

The *Logos* or the Word incarnated, in the thinking of John, unites God and man through His incarnation, because He is both God and man. “When He became man, Christ never ceased to be God. Although He humbled Himself to the level of man, he was still master of the Godhead. Only Christ could represent the Father among men, and the disciples were privileged to watch this representation for more than three years” [6].

D.Popa said: “The purpose of the incarnation of our Lord Jesus Christ, the second person of Godhead, was twofold: a) to reveal God the Father; b) to redeem and save the sinner from sin and all its consequences” [7].

“By His word and His works He declared Himself the Author of the resurrection. He who Himself was soon to die upon the cross stood with the keys of death, a conqueror of the grave, and asserted His right and power to give eternal life”<sup>19</sup>.

## X. LOGOS SYMBOLIZED BY THE TERMS "FIRSTBORN" AND "ONLY BEGOTTEN"

John refers to Jesus Christ (*Logos*) and the terms “firstborn” and “only begotten”, which even if they are talking about His birthday, in John’s conception remains the idea of the divine nature of the *Logos*, and its coexistence with God eternally. The term “only begotten” used by John, comes from the Greek

<sup>17</sup> The Gospel according to John 11, 25, p. 140.

<sup>18</sup> E.G.White, *Viața lui Isus*, București: Ed. Viață și sănătate, 2001, p. 10.

<sup>19</sup> E.G.White, *Viața lui Isus*, București: Ed. Viață și sănătate, 2001, p. 504.

(gr. *monogenes*). “And the Word was made flesh, and dwelt among us, (and we beheld his glory, the glory as of the only begotten of the Father,) full of grace and truth...No man hath seen God at any time; the only begotten Son, which is in the bosom of the Father, he hath declared him”<sup>20</sup>.

The use of the word *monogenes* reveals that the meaning of “only” or “sole” outlines a certain relationship, and not an event that happened at a specific time. Isaac, for example, is called “the only son” of Abraham, although he was not the only son of Abraham and not even his firstborn: “By faith Abraham, when he was tried, offered up Isaac: and he that had received the promises offered up his only begotten son”<sup>21</sup>.

Isaac was the only son, unique in his own way, meant to be the successor of Abraham. Jesus Christ, the *Logos*, the creative Word, God pre-existent, became through His incarnation, in a unique way, the divine Son, which is why He is called *monogenes*, the only one of His kind, totally unique in many aspects of His being and His lifetime. No other child of the human race was as closely united in his being, none had such an unparalleled relationship with the Godhead, or did such work as did the *Logos*, Jesus Christ, as a distinct person of Godhead.

Thus, *monogenes* describes in John’s vision, a relationship between God and the Son, between God and Christ the *Logos* as a distinct person of Godhead. This is a relationship that belongs to a complex, human-divine personality of the *Logos* or of Jesus Christ<sup>22</sup>.

Even the erudite apostle Paul uses the term “firstborn” in several places in his writings, such as: “And again, when he bringeth in the firstbegotten into the world, he saith, And let all the angels of God worship him.”<sup>23</sup>, or: “For whom he did foreknow, he also did predestinate to be conformed to the image of his Son, that he might be the firstborn among many brethren”<sup>24</sup>. “Who is the image of the invisible God, the firstborn of every creature?”<sup>25</sup>

The term “firstborn” at Paul does not refer to a chronological order, rather, he emphasizes the importance or priority. In the Hebrew culture, the firstborn received the family privileges. Likewise, Christ the *Logos*, as the first-born among men, regained all the privileges which man had lost. He became the new or second Adam, the new “first born” or head of the human race.

Possible analogies between the *Logos* of Apostle John and the *Logos* of Greek philosophy can be found most in terminology. Moving from terminology to the deeper meanings, we can see radical differences. The *Logos* of Greek philosophy, regardless of the system which conceives it,

<sup>20</sup> The Holy Bible, Cambridge: Cambridge University Press, The Gospel according to John 1, 14.18, pp. 121-122.

<sup>21</sup> The Holy Bible, Cambridge: Cambridge University Press, The Epistle of Paul the Apostle to the Hebrews 11, 17, p. 295.

<sup>22</sup> Problems in Bible Translation, Washington D.C.: Review and Herald, 1954, p. 202.

<sup>23</sup> The Holy Bible, Cambridge: Cambridge University Press, The Epistle of Paul the Apostle to the Hebrews 1, 6, p. 285.

<sup>24</sup> The Epistle of Paul the Apostle to the Romans, 8, 29, p. 210.

<sup>25</sup> The Epistle of Paul the Apostle to the Colossians, 1,15, p. 264.

remains above all a simple idea that may work in history or not, but whose action cannot be studied, only theoretically developed, based on philosophical speculation. The beauty of the *Logos* theory in Greek philosophy remains the fact that it is conceived as both source and ideal of the existence, ideal towards which the existence runs without ever reaching it. The philosophical *Logos* remains a nicely conceived idea, designed from infinite to infinity [3].

#### XI. LOGOS DESIGNATES A PERSON

The *Logos* of John is conceived quite differently, in a profound way, although expressed very simply, in a parallel conception as *Logos* and *Son*. The first term, *Logos*, is used mainly in the prologue of the *Gospel*, where it designates a very well defined person. *Logos*, thus defined, does not remain an intangible existence. John says that all things were made through Him, being the vine and the light of those who believe in Him. The first element that supports the concept of *Logos* is the idea of revelation and of the revealer. Christ the *Logos* is the Divine Word that existed before the world began, and is present in the world as constructive topic. God made all with His *Logos* or His Word [8]. The incarnation of the *Logos* brings perfect revelation. The *Logos* or the Word of God expresses God's thinking. *Logos* thus implies the idea of thought, reason and dialogue or communion: "That which was from the beginning, which we have heard, which we have seen with our eyes, which we have looked upon, and our hands have handled, of the Word of life. For the life was manifested, and we have seen it, and bear witness, and shew unto you that eternal life, which was with the Father, and was manifested unto us"<sup>26</sup>.

The notions of *word* and *life* are reabsorbed in the concept of life and this in the concept of everlasting or eternal life: "For the life was manifested, and we have seen it, and bear witness and shew unto you that eternal life, which was with the Father, and was manifested unto us"<sup>27</sup>.

#### XII. CONCLUSIONS

The *Logos*, in the conception of John, is not a fiction, an abstraction or a product of the human spirit [9]. John's *Logos* is divine-human. The source of life incarnates, He himself living a natural life, along with the people on earth, because through him, man is able to ascend to the divine life, the eternal life. The *Logos* of John is a historical person, with the specific attributes of a person, He fasted, was hungry and thirsty, He cried, slept, etc., but above all, He bore the sacrificial death, and rose again, resuming the life He had before the incarnation. John describes in the *Gospel* the testimony of the *Logos* about His life, that: "Therefore doth my Father love me, because I lay down my life, that I might take it again. No man taketh it from me, but I lay it down of myself. I have power to lay it down, and I have power to take it again..."<sup>28</sup>

The *Logos* of John is presented in multiple symbolic instances. Therefore He is presented as the *light* that illuminates the entire world through light, or His teachings. He is also presented as being *the bread*, respectively the One who cares for the daily bread, but also the spiritual bread, that is food for the soul, that nourishes Christian hope. It is He who has *life* through Himself, no one can take it from him, but he gives it from himself as a sacrifice for the salvation of mankind. He also says that whoever believes in Him has, as a gift, the eternal life. The *Logos* refreshes the human soul like the water for the thirsty soul, because He, who is *the water of life*, quenches the thirsty human's desires after righteousness and eternal life. For a sinful man, the only way to get back to God, for an eternal communion with Him, is just through Christ *The Logos*, *the entrance* of the eternal kingdom. For this, Christ *The Logos* also holds the keys of death and He promises the dead that He is *the resurrection* and He will bring them back to life.

Christ *The Logos* takes care of people's needs like a shepherd that cares for the needs of his flock, *the Logos*, as well, calls Himself as *the Good Shepherd* and the *vine* which nourishes and brings joy to people. *The Logos*, in the vision of John, is The One that underlies all things, through whom all things were made, being called *the firstborn* and *the only-begotten*. Everything that was written in the Gospel of John, according to the writing thereof, has, as a final conclusion, the following role: "but these are written, that ye might believe that Jesus is the Christ, the Son of God; and that believing ye might have life through his name"<sup>29</sup>.

#### REFERENCES

- [1] The Holy Bible, New International Version, Hodder and Stoughton: London Sydney Auckland Toronto, 1980, *John* 20,31, p. 1090.
- [2] Ioan-Gheorghe Rotaru, Concepția despre logos. In Alexandru Boboc, N.I.Mariș (eds.), *Studii de Istorie a filosofiei universale*, vol. XIII, București: Ed.Academiei Române, 2005, pp. 303-308, 321-323.
- [3] The Holy Bible, (Cambridge: Cambridge University Press), The Gospel according to John 1, 3, p. 121.
- [4] Oscar Cullman, *Christologie du Nouveau Testament*, Neuchatel, 1968, p. 17.
- [5] E.G.White, *Viața lui Isus*, București: Ed. Viață și sănătate, 2001, p.445.
- [6] E.G.White, *Hristos lumina lumii*, București: Ed. Curierul Adventist, 1981, p. 491. In Wilhelm Moldovan, *Întrebări și răspunsuri*, f.l., f.a., p. 29.
- [7] Dumitru Popa, *Fiul lui Dumnezeu și Fiul Omului*, București, 1977, p. 63.
- [8] A. Grillmeier, *Le Christ dans la tradition chretienne*, Paris, 1973, p. 48.
- [9] Sebastian Chilea, *Logos și ethos*, In *Studii Teologice*, XXII (1970), nr. 3-4, pp. 250-266.

<sup>26</sup> The Holy Bible, Cambridge: Cambridge University Press, The First Epistle General of John 1,1-2, p. 311.

<sup>27</sup> The First Epistle General of John 1, 2, p. 311.

<sup>28</sup> The Holy Bible, Cambridge: Cambridge University Press, The Gospel according to John 10, 17-18, p. 138.

<sup>29</sup> The Gospel according to John 20,31, p. 154.

# The Secrecy of the Universe: The Theory of Absolutivity

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**Abstract - The Cosmos we live in consists of Real and Virtual Universe. Virtual Universe is a seen world where we do live. All the galaxies, Milky Ways, nebulas and planets, stars and physical bodies belong to this world are governed by the physical laws of nature. Real Universe which is invisible, spiritually governed and wave-formed existed even before the Big-Bang. Absolute Entity holds the Virtual and real Universe around makes entire Cosmos in existence. Absolute Entity which is an absolutely positively charged and quality less with no traces of negative portions always existed, neither being created nor destroyed. A fraction of an Absolute Entity falls into the Real universe due to some causal effect for further expansion of the Virtual Universe known as Omega Point. Absolute Entity is situated in such a way that the Real and Virtual Universe cannot reach it. This entity is situated at the middle of the cylindrical universe surrounded by the Real and Virtual Universe. Theories proposed by different scientists and philosophers to verify the Absolute Entity seem to be incomplete trial and error of the zigzag puzzle show. The Theory of Absolutivity has solved the secrecy of zigzag puzzle show which can explain all the clues of formation of matter, life, death and universe including the query to know God.**

**Key words:** *Virtual universe, Real universe, Parallel universe, Omega Point, Absolute Entity, Cosmic Mind, Unit Mind, Sentient, Mutative and Static forces.*

## I. INTRODUCTION

In course of the development process before the creation of universe, there existed, since time immemorial, an Absolute omnipresent super-conscious immortal entity engulfed the universal truth, space, time, objects, and knowledge in invisible form. This entity possesses a fundamentally absolute positive (+) behavior, which always remains in a “Singularity” form. This is that formless subjectivity, pure potential, the infinite and universal Consciousness which alone exists even after the cosmic dissolution. Consciousness is the One without the second; the source of everything. The totality of manifestation occupied everything is Consciousness Itself. It is only within this pure, infinite Consciousness, the Potential Plenum, that phenomenal manifestation arose as a mere reflection of that Potentiality, as a mere objective expression of that pure subjectivity. In that original state, call it reality, Absolute, or Nothingness; there is no reason to be aware of anything (12). So Consciousness at rest is not aware of Itself. The Physicist, Planck, the originator of Quantum Theory, said, “Consciousness, I regard as fundamental. I regard matter as derivative of Consciousness” (10). Bohr, the father of modern atomic physics, also confirmed that Consciousness was indispensable in quantum physics. Modern physiology is also

extending our existence beyond physical limitations (10). Nobel Prize Laureate Wald indicated, “Consciousness lies outside the parameter of space and time and it cannot be located, as it has no location. It is all-pervading. Consciousness, therefore, is the potential final field behind the apparent universe comprised of mental as well as material” (10).

On the other side, there is an entity of fundamentally negative (-) in nature having three qualities or forces such as sentient (sattwa), mutative (rajas) and static (tamas) principles. This is called the Real Universe. Three qualities or forces don't have any physical entity at this stage but could be perceived in course of time as the universe further expands. Due to casual condition a fraction of Absolute Entity known as Omega Point fall into the Real Universe becoming aware of Itself with sudden feeling of ‘I Am’. ‘I Am’ is the impersonal sense of being aware. It occurs when Consciousness-at-rest transforms to Consciousness-in-action, in other sense when Potential Energy becomes actual energy. The phenomenal objectivity of this pure subjectivity appears and commences in function in our outer world of consciousness in the waking state as a Virtual Universe (12).

All the minute particles of Virtual Universe functions as a Cosmos do. In other word, all matters and particles, irrespective of dimension, behave like a universe. Only the difference is in its scope and sizes. This has been confirmed by the elementary particle Higgs-Boson (Fig.1) discovered in an experiment at CERN (European Organization for Nuclear Research) through the Large-Hadron Collider situated near the border of Geneva and Paris. Similarly, Fig. 2 shows the configuration of the Cosmos which also looks like a Higgs-Boson particle. In other words, in the Cosmos each and every matter having size infinitely small tending to zero or tending to infinitely big possesses positive and negative factors in balanced state (15).

Similarly, human body also functions as the Cosmos does. All functions which are taking place in the Cosmos are taking place also in a human body, relatively, in micro scale.

## II. OBJECTIVES

- To understand the Ultimate Truth (Absolute Entity) and its pertaining Cosmological structure,
- To reveal the mechanisms of creation of Real-, Virtual- Universe (Parallel Universe), energy, matter, mind as well as life from universal Consciousness,

- To verify the Theory of Absolutivity.

### III. MANIFESTATION OF ABSOLUTE ENTITY (CONSCIOUSNESS) INTO EXTERNAL UNIVERSE

The external universe in space-time is a holistic one, where everything is derived from and fundamentally interconnected with all-pervading Consciousness. Consciousness is the precondition for all physical and mental faculties like perceiving, acting, knowing, thinking, feeling and willing). First we become conscious before we perceive, act, know, think or feel. Consciousness is the elemental condition while all else is secondary to it (10).

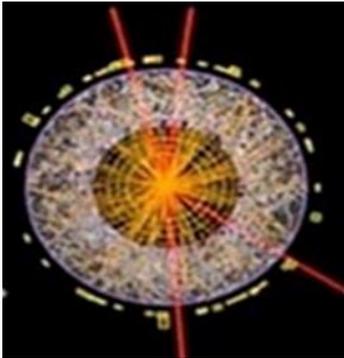


Figure 1. Higgs-boson particle

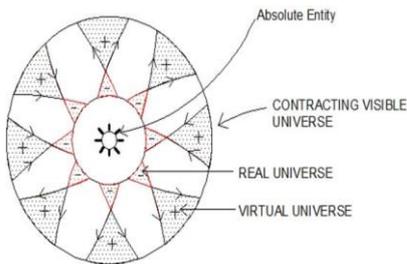


Figure 2. Configuration of Cosmos

Source: [home.web.cern.ch/topics/higgs-boson](http://home.web.cern.ch/topics/higgs-boson)

#### ABSOLUTE ENTITY

Absolute Entity has eternal existence. It is neither created nor destroyed. The final truth, as Raman a Maharishi, Nisargadutta Maharaj and many sages endowed with supernatural power clearly advocated, is that there is neither creation nor destruction, neither birth nor death, neither destiny nor free will, neither any path nor any achievement (12). It is absolutely positively charged entity without negativity. It exists as in the past and at present and will remain as such forever in future with all potentiality. It cannot be produced or generated by any agents. There is in reality no perceiver, perceived or perceptions, no vacuity, no matter, no spirit or Consciousness, but pure cessation or pure negation, and this is what we mean by Absolute Entity. Its nature is that of pure cessation, and it is this that the Samkhyists call *Purusha*, the Vedantins call *Bramh*, the idealistic Buddhists call "Pure idea" and the Nihilists "Pure-essence less" (19). The Absolute Entity is thus

neither existent nor non-existent and is both static and dynamical. It is indescribable and unnamable and neither being nor non-being nor being-non-being, neither static being nor becoming. It is situated in such a way that the Real and Virtual Universe cannot reach or touch it. The situation of this entity is supposed to be at the middle of the cylindrical (Fig. 3) universe and all around the cylindrical structure there exists only the Real and Virtual Universe.

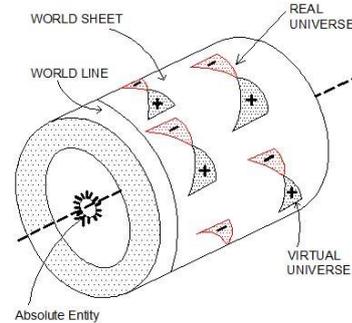


Figure 3. Cylindrical structure of the Cosmos

#### REAL UNIVERSE

The Real Universe is existed even before the big-bang event. It is composed of three subtler elements known as sentient (*sattwa*), static (*tamo*) and mutative (*neutral*) in a balanced form like an equilateral triangle. Each and every matter of Virtual universe has its anti-matter in unseen form which remains in the Real Universe. These types of anti-matter are not in a material form but are in wave fluxes of which existence cannot be seen face to face but perceived. The dimensions of Real Universe are many which we cannot see. The reason is that the dimension of real universe remains in very small curved space something like a million, million, million, million, and millionth of an inch (8). These could be said as a transcendental or spiritual form. These, are so subtler that they cannot remain in material form but remain as quality or thought/wave form. The entire Cosmos is filled with these elements. They are in a curve shaped having length equivalent to nearly Plank's Constant (2) i.e. invisible form like a one dimensional curved string of Hawking's String Theory. According to Theory of Everything of Stephen Hawking, all empty looked like space is filled with the pair of virtual (matter) and anti-matter which inherits an immense power, and due to its strong gravitational force all matters and anti-matters dense to a single point like a condition before the big-bang of universe. Real Universe has both the positive and negative entity in it but as a whole negatively charged. This does obey spiritual laws but does not follow the physical laws completely. It has got 26 to 50 dimensions for expressing itself. All the living beings and human's mental activities are governed by these dimensions. It can do miracles as superpower does. Virtual Universe is actually the projection of the Real Universe. Vibration of words or sounds produces all physical particles and elements in the Virtual Universe.

There are seven Plexus system to control mental attitudes in a human body. Each Plexus control some cluster of words of sounds known as acoustic roots and corresponding physical

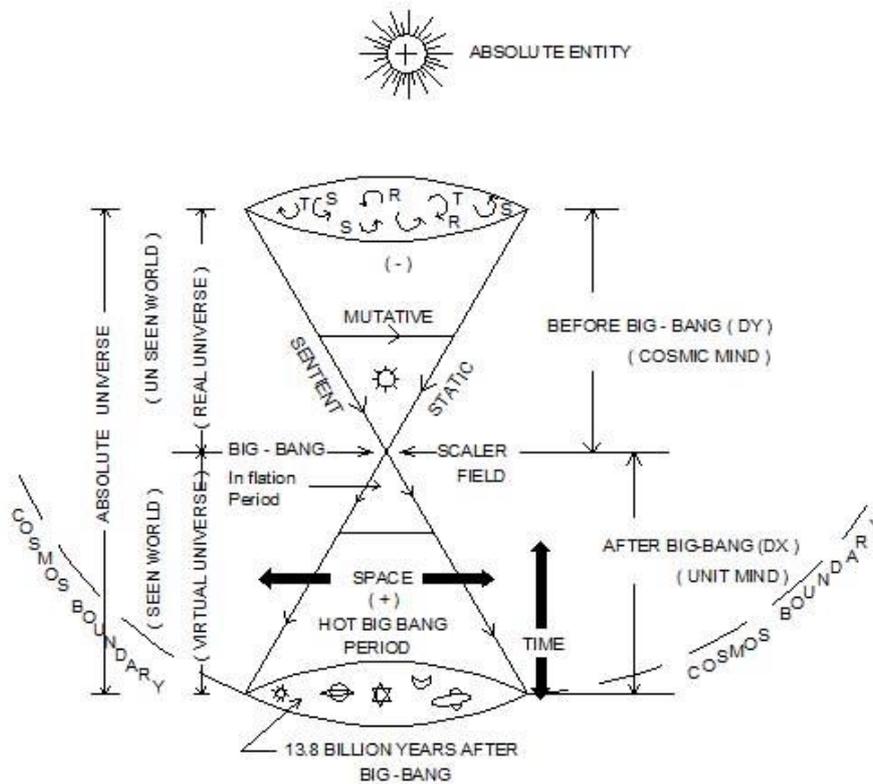


Figure 4. Absolute, Real and Virtual Universe in a Cosmos

organs. With a discipline of meditation one can control these Plexus, and human mind can rise to very higher level beyond Virtual Universe. Stephen Hawking and three British astrophysicists in 1970 solved the Equation of General Relativity and produced a deeper solution of the equations. It closes with the Space-Time Theorem of General Relativity, which states, "if the universe is governed by the equations of General Relativity, not only is we faced with an ultimate origin, we are all of the matter in the universe, and all of the energy in the universe. But we're faced with a coincident ultimate origin for even the dimensions of length, width, height and time" (7). This clearly indicates the importance of transcendental knowledge.

#### IV. CREATION OF VIRTUAL UNIVERSE

Scientists have proposed different theories and models regarding the creation of universe and concept of Absolute Entity (God). Most of these theories and models are incomplete solutions to zigzag puzzle shows, because they do not fully solve the clues of the formation of universe. Among them are standard big-bang model, steady state model, oscillating model, vacuum fluctuation model, chaotic inflation model, quantum gravity model and super naturalist alternative etc (17).

Scientists believe that the Big-Bang Model is nearer to the truth in context to the creation of universe. The author believes that the explanation of Big-Bang for the universe creation remains incomplete until the transcendental knowledge

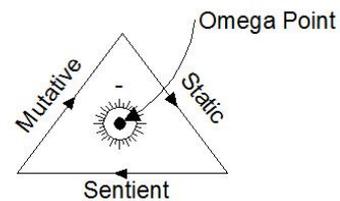


Figure 5. Omega Point in a Real universe

supports a complementary roll to the said model. In this regards, the author has tried to propose a complete solution forwarding complementary explanations of parallel universe, Upanishad, Sarkar's Sristi Chakra, Quantum Mechanics, Law of Information and Uncertainty, DNA, String Theory and Buddha's Concept to ease flow of Big-Bang Model (9).

All the modern scientific development and activities are limited only to the Virtual Universe. Scientists believe that some natural forces might be accidentally responsible to cause the Big-Bang and create the whole physical (Virtual) Universe. It has both the positive and negative entities but as a whole it is positively charged.

There created, in the beginning, multi-sided different shapes in celestial bodies due to nature driven haphazard directional flow of three forces (sentient, mutative and static) of Real Universe. Later, all of a sudden, a triangle of forces of

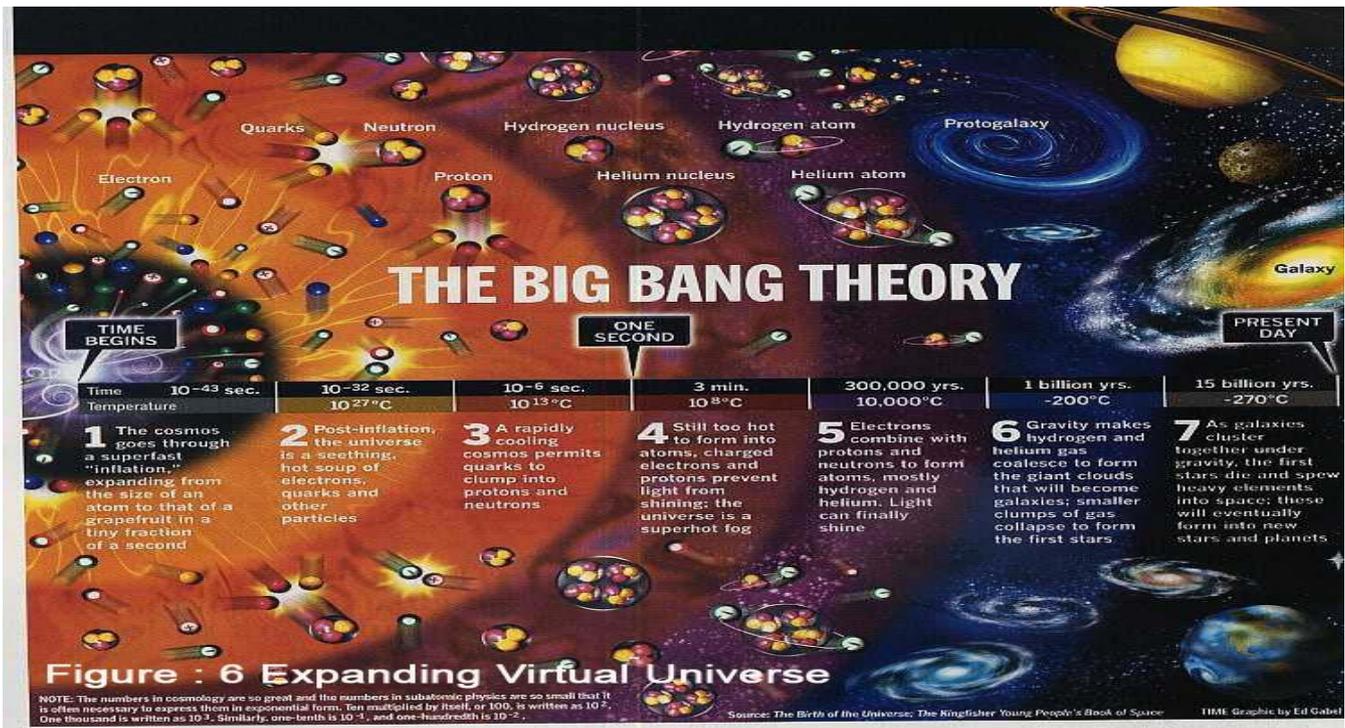


Figure 6. Expanding Virtual Universe

Source: The birth of the Universe, The Kingfisher Young People's Book of Space

sentient, mutative and static started swirling around Omega Point, the portion of Absolute Entity (Fig. 5)

Within a fraction of second after the Big-Bang, all the known four forces of Virtual Universe such as strongest sub-atomic (gluon), weak sub-atomic (radiation), electromagnetic and gravitational forces were created. In the earlier moments after the Big-Bang, the weaker gravitational force, as time passed, started dominating among forces, and as a result the created bigger lumps of celestial bodies commenced attracting scattered small particles into their orbits.

Thus, gradually, the masses and volumes of celestial bodies increased and formed different clusters, gluons, protons, electrons, neutrons, hydrogen atoms, stars, galaxies, planets etc to ultimately a Virtual Universe (Fig. 6). During the creation of the Real and Virtual Universe a minute fraction of Absolute Positive Entity or Omega Point disturbed the balance of the triangular forces of Real Universe and created a resultant positive force which caused the Big-Bang and created further expanded Virtual Universe.

The vivid descriptions on Omega Point dealt by Teilhard de Chardin and issues supported by Tipler in "The Physics of Immortality" (5) are followed

- It existed from very beginning and remains in the transcendent form.
- This remains as a personnel or it remains as a highly transcendent condition not as an imaginary or abstract form. When the universe reaches to Omega Point all

the objects becomes one and man personally rises from its mental at very high level. Because God which is in a personnel form always attracting everything within it.

- Omega Point is not the end point of universe but it was existed before the Virtual Universe. This Omega Point is the responsible for universe function, its complexity, transcendent condition and highly personnel development of mind.
- This remains independent from the bondage of space and time.
- This is not the changeable. This is always available and within the reach and is also very necessary too. This cannot be created.
- It remains in a closed space and it has a certain shape and has got science of three spears e.g. energy, matter and information. It does not have any surface. Matter, energy and information are the three spears of the Omega and its central point represent the Omega Point.

The two factors, Absolute Entity and Real Universe, though duel in theory, are singular in spirit. Their collective body is just like that of fire. One cannot think of fire without its special thermal value; in the same way one cannot think of Absolute Entity without Real Universe in the collective body. Therefore, Real Universe expressing her in the form of the resultant force inculcates a feeling of "existence" or "I" feeling which is known as "Mahattattva". At this stage, the creation of existence feeling occurs in the entity which does not have

thinking or doing ability. Sentient force of real universe is gradually transformed into the mutative principles owing to its internal clash. This mutation causes the feeling of second subjectivity and so the cosmic “I” gets metamorphosed into the cosmic doer “I”. This cosmic doer “I” is known as “*Ahamtattva*” (Ego; or second mental subjectivity). At this stage entity will have a knower-ship. *Ahamtattva* exists only in subjective strata. As the static principle starts its domination *Ahamtattva* gets objectivity. At this stage an entity will have doer-ship quality also and thus mind comes into existence. This Cosmic Mind is an objective reality with the doer-ship; its immediate mental subjectivity being the *Ahamtattva* and supreme mental subjectivity the *Mahattattva*. Thus Macrocosmic Universe is created and the Cosmic Mind is formed. Nothing is beyond the scope of the Cosmic Mind i.e. everything comes within its mental scope. So the Absolute Entity needs no nervous system or organs for controlling their operations. With the five manifested fundamental physical factors such as Ethereal, Aerial, Luminous, Liquid and Solid the Cosmic Mind of the Absolute Entity displays its will (15).

Mind under the influence of static force of Real Universe gets cruder and at a later stage is transformed into the Microvitum Entity which is a kind of subtler living entity in the form of idea or thought. This Microvitum could be the genetic mutative force which has been discovered in the modern quantum physics as a “mysterious” “transcendental realm” beyond normal space-time. This appears to be the source of driving force behind evolution of our life system in universe. This is the silver lining between the spiritual and psychic (antimatter and matter) stage and cannot affect the spiritual structure but can affect both the physical and psychic structures. It is a living subtler organism responsible for converting the idea into matter or energy and life indirectly as well. It is more idea than matter. Static forces metamorphosized Microvitum into ethereal element first. In this case “sound” remains as fluxes (fractions of wave). Aerial element comes into existence and in this “sound” and “touch” remains as fluxes. Then Luminous is created whose fluxes are “sound”, “touch” and “shape”. And then liquid is created and its fluxes are “sound”, “touch”, “shapes” and “tests”. Finally, solid element is created and “sound”, “touch”, “shapes”, “tastes” and “smell” remain as fluxes. Solid is the crudest manifestation of Absolute Entity (13).

All current Earthly life is composed of cells – from the single-celled amoeba to the hundred trillion ( $10^{14}$ ) celled human – serving the basic function of applying energy within open and closed systems. Thus, although on a cosmic level, Entropy “rules” the Universe from an initial temperature of  $10^{32}$  at  $10^{-43}$  seconds after the Big Bang (of some 13,700 Million years ago) to a current temperature of about 3 degrees Kelvin – Life on Earth resides within the Open System of our little Solar system.

A Super Nova explosion creates all elements having more than two protons within the core of their atoms. Within the extreme temperatures of these Super Nova extravaganzas the fusion of atoms in the range of Uranium 235 and 238 – with explosive distribution of this heavy element debris, floating within gigantic hundred light-year wide clouds (our Milky

Way) from which young stars and solar systems gather their substance.

During the first 1,000 Million years of the existence of the Earth, the off-gassing of elements into the second atmosphere of the Earth results in the colliding, sticking, and reacting of gasses. Combined with the application of energy from the Sun, and radioactivity from radioactive elements within the earth, electromagnetic discharge of energy through lightning, and even sound wave propagation from thunder, breaking chemical bonds – complex gases, such as ammonia and methane, combine into a collection of free atoms and simple molecules. These simple molecules slosh around within the primordial soup creating amino acids and nucleotide bases – in short, organic matter from inorganic substance.

The Amino acids, from the simplest structure of glycine to the most complex of tryptophan– along with the Nucleic acids – form the two dozen or so moderately complex molecules that comprise the basic ingredients of all life on Earth. With these two entities all the materials and lives could be created in universe (4).

Moreover, carbon finds creation through the cosmic evolution of exploding Super Nova – forging the necessary heat for the fusion of carbon from hydrogen and helium. Cosmic evolution creating further the ions, electrons, protons, atoms and later heavy elements and inorganic, organic elements and stars, galaxies, planets and then with complex molecules with carbon atom and later life in the virtual world. Later according to Durbin’s theory, complex life has been created such as monkey, champagne and finally complex human into existence. After trillion years or more, the virtual universe will again start contracting to form a condition before the Big-Bang and again it will expand as before. Thus the Virtual Universe starts oscillating forever. With Big-Bang, time and space dimension emerged and started playing in the virtual universe (as shown in Figs. 4 and 6). Our Virtual Universe has got four dimensions such as length, breadth, height and time. All our physical objects such as our modern science and its physical laws were governed and established only for Virtual Universe.

## V. PARALLEL UNIVERSE

The Real and Virtual Universe symbolically make a hexagon triangle like structure without touching each other and comes into life and becomes active to work together. It is also known as Parallel Universe or “*Sagun Bramh*”.

This hexagon triangle is also a symbolic representation of knowledge and it is a symbolic figure of many universities, schools and countries’ logos in the world. Actually it represents the function of both the Virtual and Real Universe (Figs.7 and 10).

Human body consists of two types of configurations within such as physical and spiritual body (Fig. 8). Physical body means the body consisting with muscles, bones, blood and with different organs and cells. Spiritual body consists of 7 kinds of different plexus which is also a centre point of human organs and its cluster to control all functions of human organs and mental attitude together (Fig. 9) (14). Within the human body is contained the entire cosmos: the first five chakras, from

*Muladhar* to *Vishuddha*, each is the centre of earth, water, fire, air and ether, collectively, the five elements. The sixth chakra, *Ajna*, is the seat of the mind while the seventh, the *Sahasrara*, is located in the brain, and represents Absolute Entity, the supra-causal state of Consciousness. The seven *lokas* corresponding to the seven chakras are *bhu*, *bhuvah*, *swa*, *maha*, *jana*, *tapa* and *satya* (1). One can see, feel and touch to the physical body. But spiritual body cannot be touched or seen. It remains in unseen form but can be felt or know only through our mind. It acts in the Real Universe while physical body functions in the Virtual Universe. Physical body functions as a tool to obeying the command of spiritual body. Event occurs when the pertinent information in the form of fluxes through the nervous system reaches to brain. Actually, brain is nothing but a kind of hardware memory or main control switch of physical organs.

Brain takes information to spiritual body i.e. Soul or mind which controls and order the brain to act. Then brain orders to

related motor or sensory organs to act or react. The Soul or mind which remains in the Real Universe cannot be seen in Virtual Universe. After death of human the physical body is burned or buried in earth, and thus the physical body gets destroyed. But the Soul or Mind remain intact with all its characteristics earned in Virtual Universe remains in Real Universe, and whenever it finds suitable physical structure it enters into as a suitable physical body to get rebirth again in Virtual world. British neurologist John Eccles concluded that human consciousness was extra-cerebral and that the non-physical mind entered the physical brain during embryological development (10).

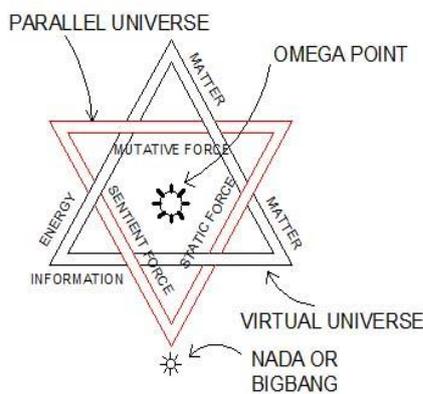


Figure 7. Parallel Universe

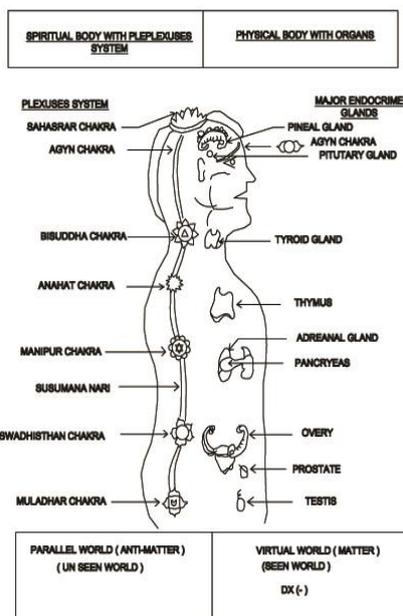


Figure 8. Physical and Spiritual Body

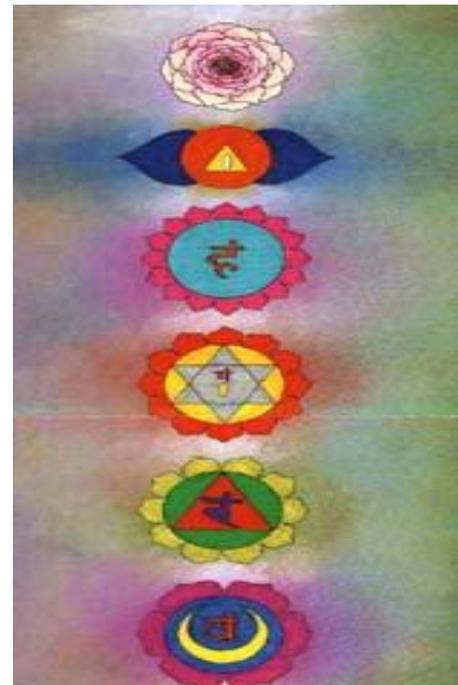


Figure 9. Plexus of Human Body

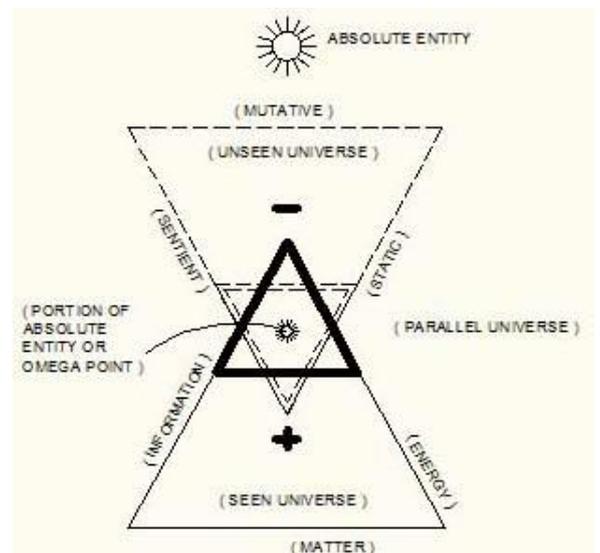


Figure 10. Parallel Universe

Soul or mind cannot be destroyed by fire or anything. We must understand that without Soul the physical body cannot function at all. Similarly, the Virtual Universe cannot function without the Real Universe.

Human's Unit Mind can enter into the curved quantum strings and can go anywhere swiftly at any place through the dimension of Real Universe. Therefore, only way to reach near to Omega Point is by concentrating Unit Mind through meditation. We must remember that thought power is much more subtle than the physical. It inherits unbelievable speed and it can resist any kind of heat or cold along with any kind of higher pressure or gravitation. Actually, before the evolution of Virtual Universe there were only thought waves of the different nature, namely sentient, mutative and static contained in the Real Universe. Therefore, through meditation which is a spiritual path, one can reach near the Omega Point.

Wittgenstein, a famous philosopher of this century regarding evolution of the universe, said, "Now we have left only one task that is to analysis of the languages." His remark seems absolutely correct. Language is made of words. The basic dimension of the universe configuration is known by words. Each letter of the word has a meaningful thought. That's why it is known as "Word of Absolute Entity or *Shabda Bramh*". Word is made of different kinds of vibration of strings. It is really surprising to mention here that a set of letters in alphabet being practiced now-a days are not the product of any artists or letters invented by chance. This is a collection of alphabet of internal sounds which one receives from body during meditation. The ancient oriental yogis who, during meditation, directed their mind towards these energy centers (Plexus) were able to perceive the subtle vibrations emanating from each letter in a set of 50 letters. These vibrated letters physically fabricated by yogis into a set of letters in a fixed order-the alphabet in practice today Spiritually, the 50 letters depict the fifty corresponding main propensities of the human mind expressed internally or externally through the vibrative expression of the said Plexus (2). If there is a matter or motion or any kind of activities exist, there must be some kinds of sound or bits going on and the word of those sounds is known as acoustic root.

In reality, all matters are produced from the vibration of strings. Its science is related to plexus system of spiritual body, and depends upon the dimensions of 7 plexus of human's. Depending upon the complexity of matter, the kinds and number of plexus vary. The meditation process of spiritual science is like a string theory in which Unit Mind of person enters through these strings and reaches near to Omega Point. String Theory is fundamentally based on materialistic thought only where as spiritual science has succeeded in describing one step ahead with behavior, feelings and human attitude, life, death, habit and objective of life etc.

#### VI. INTER-RELATIONSHIP AMONG SOUL, THOUGHT AND BODY

Physical body means the body containing all organs with muscle, blood, bones and corporeal chemicals. Besides, human body consists five sensory organs and five motor organs with brain, flesh, blood, respiratory and blood circulation systems. Sensory organs are eye, ear, nose, tongue and skin.

Spiritual body means an unseen body in each human being containing a proposed set of Plexus which controls the functions of all physical organs, glands and sub-glands in a cluster form. Plexus is a collective system of glands and sub-glands in a human body. Locations of these glands and sub-glands differ from human to animal and also vary from animal to animal (13).

Existence of physical objects or structure is nothing but a state of continuous vibration. This vibration creates waves which strike the gateways of organs. That is when the photon waves coming from an object strike the retina of eye, the optical nerve creates a similar vibration in the optical fluid and conveys the vibration to a point in brain. Mind or Soul takes the form of the object and "*Ahamattva*" or ego arises - "I am seeing the particular object." Thus actual perception is made through a process in different nerves carrying vibrations from the gateway of the organ to the site of the particular organ in the brain. Human body along with ten organs acts as a tool of Unit Mind. It can do nothing without Soul. Human body is a material object whereas Unit Mind is a Conscious entity. It is beyond the matter. Soul is the witness entity of Unit Mind (15).

Soul is a witness entity keeps and tracks all records of works done by a unit mind of a person or object in space and time like a super computer cheeps. Every human being has its own Unit Mind. Brain functions with the help of Unit Mind like a main switch of all the functions of body. The Unit Mind is the master which perceives orders and acts, and it does such actions with the help of sensory and motor organs. The functions of the sensory organs are to receive different fluxes, and that of the motor organs to create fluxes according to the inherent propensities, and transmit them in an extroversive style (15).

Most powerful is the Cosmic Mind which is capable to work in all the ten directions at a time, and it is complete in all sense. All creations are engulfed within it and are operated by Him. In the other hand, the capability of the Unit Mind is so limited that it can work in only one direction at a time and to a limited area with its limited power. So, human and other creatures have only this kind of Unit Mind. Second difference is that the objective of Cosmic Mind is only one i.e. to do well to all and to help in establishing all the Unit Mind into the position of ultimate objective. But the objective of Unit Mind of a person may be countless. One treats oneself as if all in all. This is the weakest point of human beings that is never to be fulfilled which becomes the main seed of dissatisfaction and pain to human being (13). The existence of Unit Mind is at Soul or Mind of living beings, and Cosmic Mind is on Absolute Entity. Cosmic Mind is the coordinated Minds or Souls of all the living being. It is also known as Cosmic Consciousness. Absolute Entity is the witness entity of all Minds or Souls. It means Cosmic Consciousness keeps and tracks all records of works performed or thoughts made by Souls or minds of an object in space and time. If Unit Mind is doer and user then Soul or Mind is a witness entity. The brain with physical body cannot live without Soul or Mind, and also without physical body, Soul or Mind can do nothing.

## VII. CONCLUSION

Cosmos consists of both the Real and Virtual Universes. Absolute Entity exists in a Cosmos in such a way that Virtual and Real Universes cannot reach to it. Absolute Entity has a Cosmic Mind which can act in every direction at a time and everything comes within the scope of Cosmic Mind. So, the Absolute Entity needs no nervous system or organs to act in its will. Cosmic Mind displays its will through the five manifested fundamental physical factors such as Ethereal, Aerial, Luminous, Liquid and Solid. Living and non-living beings have Unit Mind at different levels, which is also a fraction of Cosmic Mind that can work only through the nervous system and organs at a place and at a time. Real Universe is the witness of the spiritual and mental activities of the living and non-living beings where as Virtual Universe is the witness of the physical activities only. Meditation is the process practiced by Unit Mind to reach near to Cosmic Mind. It is in this sense that Consciousness is transcendental to the manifested universe. The universe exists in Consciousness like future wave in calm sea-only apparently different in potentiality. No substance of Cosmos could be lost or destroyed, but only it changes from potential to the movement forms depending upon their casual condition, and that is when Consciousness-at-rest transforms to Consciousness-in-action, when Potential Energy becomes actual energy.

### REFERENCES:

- [1] Taneja, A. Entire Cosmos is in human body. The Times of India, 6 March 2009.
- [2] Avadhutika, A. (Acharya). Beyond the Superconscious Mind. Ananda Marga Publications, Culcutta, India. 106 pp. Second edition. 2000.
- [3] Yivsam, A. Shaping the Future, Publication and Media relations Department. The Weizmann Institute of Science. Rehovot, Israel. 200 pp. Third edition. 2000.
- [4] Cosmicfingerprints. [www.brainauten.com/Apologistc/VQ\\_Booklet.pdf](http://www.brainauten.com/Apologistc/VQ_Booklet.pdf)
- [5] Tipler, F.J. The Physics of Immortality: Modern Cosmology, God and the Resurrection of the Dead. London: Macmillan. xxvi+528 pp. 1995.
- [6] Ross, H. New Scientific Evidence for the Existence of God. A Seminar Presentation by Astrophysicist, South Barrington, Illinois. [www.youtube.com/watch?v=d4EaWPIINYY](http://www.youtube.com/watch?v=d4EaWPIINYY). April 16, 1994.
- [7] Hawking, S.W. and Penrose, R. Nature of Space and Time. Princeton University Press. 121 pp. 1996.
- [8] Hawking, S. W. The Theory of Everything. Jaico Publishing House, Mumbai, India. 132 pp. 2007.
- [9] Cheodon, L. Cosmology Concept in Buddhist Philosophy. Paper presented at Tribhuvan University, Kathmandu, Nepal. 21 March 2012.
- [10] Kundu, M. N. Exploring Consciousness Beyond Body and Mind. Times of India, 19 July 2005.
- [11] Physics & Math / Cosmology, Stephen Hawking Is Making His Comeback, [discovermagazine.com/11\\_stephen\\_hawking\\_is\\_comeback](http://discovermagazine.com/11_stephen_hawking_is_comeback). September 11, 2009.
- [12] Balsekar, R.S. Consciousness Pervades the Real and Unreal. The Times of India, <http://spirituality.Indiatimes.com>. 20 Feb. 2008.
- [13] Sarkar, P.R. Microvitum in a nutshell. Ananda Marga Publications. Culcutta, India. 158 pp. Third edition. 1991.
- [14] Shrestha, G.M. Tantra ka Kehi Rahashya. Gopal Man Shrestha Publication, Janakpurdham. 81 pp. Second edition. 1995. (in Nepali).
- [15] Shrestha M.M. The Development Dimension, A Converging Point of Eastern & Western Philosophy and Sciences. Usha Publication, Lalitpur, Nepal. 234 pp. 2009.
- [16] Hawking, S.W. and Penrose, R. The Singularities of gravitational collapse and cosmology. Proc. Roy. Soc. Lond. A 314: 529-548 (1970).DOI: 10.1098/rspa.1970.0021
- [17] William L.C. The Ultimate Question of Origins: God and the Beginning of the Universe. [www.reasonablefaith.org](http://www.reasonablefaith.org)
- [18] Anonymous. Uncertainty principle. En.wikipedia.org/wiki/
- [19] Yoga\_Vasistha. en.wikipedia.org/wiki/

# Common requirements and organization of children's storage furniture systems

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**Abstract**— Furniture design for children of preschool age has always been a true challenge. They are made following a number of standards demanding specific sturdiness, lightness, ecological properties of materials and coatings. The user safety criteria should not be underestimated as well as the aesthetic looks, the proper dimensions based on the standard dimensions of the specific age group, the flexibility, the mobility and the interchanging and upgrading possibility of the furniture system.

**Keywords** – children, space organization, storage furniture systems.

## I. INTRODUCTION

A child is a true “collector” of toys, clothes and items of all sorts, all dimensions and quantity. The more the child grows, the more his possessions become. Their number turns into a challenge for the volume of the children's room. There is some relative amount of peace in the earliest age of the children, because their baby clothes, toys etc. could be easily stored in a single piece of furniture such as a small cabinet, a chest or on the top of several shelves. However, when children begin to walk, their action ground grows beyond the borders of their room, taking up the entire residence area. This makes their necessity of storing items grow bigger. As a matter of fact, 5 to 7 years is the exact age when children become sentient and they know that every item in their house has its own place. This is why it is important that parents inculcate the right kind of habits related to the storage and the order in a room, which will lead to its proper organization for the future.

## II. STORAGE FURNITURE SYSTEMS

Wardrobes are the most logical storage solution for children's' clothes and items. If the living space has an alcove designed for inserting a wardrobe, then it is possible to store all the general items together with the clothes hiding them behind the wall, leaving enough open space utilized for playing or other every day activities. When such a hidden space is not available, we don't have any other choice but to fit the wardrobe inside the volume of the room. Then we are facing two options- the first one is to design the wardrobe as an integral part of the general furniture composition including the bed and the desk completing them with colors and patterns of the same style. The second option is the stand-alone wardrobe. This piece of furniture is never the only storage item in a room- it should be followed by chests, boxes and other pieces specialized for keeping toys and accessories in order. It is good to consider the fact that these products are designed as modular

systems of shelves and cabinets, having the advantage to manipulate its dimensions according to the child's specific needs and desires and of course, its own height as the main criteria.

Establishing the children's right type of habits it is important to consider the “self-dependence” factor, which would be impossible if the child is not able to reach its own toys, to play with them and at the end, leave them back in their own places. This modular principle is used in a large number of furniture storage systems designed for children's rooms. Some of them are the common type; others represent compositions of hidden volumes that could be used independently from one another acquiring different functions- chairs, tables, benches- or construct new systems with various shapes; another type makes it easy to combine specific number of units such as



Figure 1. Different types of modular systems

bottoms, shelves, tops and side panels in a different manner following the user's specific needs and wishes “Fig. 1”. Another type of modular systems is also present. They are easily distinguished by their open type - the structural elements of the furniture form large open areas that fit boxes or other type of containers intended for storing toys or accessories “Fig. 1”.

There is a general rule for the case - always, no matter the situation; a child will choose the more exciting and intriguing way to do something, no matter what it is. This is why open volumes and chests are very appropriate storage solutions for those type of items that a child collects or puts in order without additional help. Drawers on wheels can be positioned under the bed, making it easy to store shoes, toys and various items with

small and average dimensions. Children get better access to these items and keep them in order, leaving the room tidy. Hangers are also a suitable option for organizing a child's room, especially the ones with the right height corresponding to the physical abilities of the children to reach for their clothes and the ones having the option to "grow" as the child grows.

One of the general problems, the parents face in the 21<sup>st</sup> century is the lack of space. Housing's higher prices caused the shrinking of the apartments to such an extent that it is nowadays common to see three or four-member families living over an area of 60 to 100 m<sup>2</sup>.

Modular shelves and cabinets are the best logical solution for satisfying children's storage necessities. As the child grows, more and more containers can be added to the main composition while interchanging the position of the old ones.

There is a tendency in children's interiors regarding furniture combinations. Children have the ability to combine not only pieces of furniture similar in shape or color, but also others that have different functions.

There are two popular tendencies in children's furniture storage systems. One of them is purely geometrical and practical. It is based on the shape of a square and it makes it easier to put possessions in order and store them independently. The other tendency is based on geometrical principles but is structured around several levels. The central shape here is the arc or its own variables.

As an integral part of children's lives, play is also applied to the various furniture systems. They are the ones shaping the specific atmosphere and interior style, important for children's sense of confidence and security. Often, children seek protection in the surrounding environment.

This century's advance of technology, materials and structural solutions allow the existence of new type of environments, leaving the stereotypes of the existing children spaces behind while still being in line with the contemporary exploitation requirements.

Taking in account the high child's security requirements, the most popular materials used in children's spaces are solid wood, plywood, laminated plywood, polycarbonate, polymethylethacrylate and metal. Corrugated cardboard has recently become a fashion in the national market, proving its



Figure 2. Cardboard furniture

high quality and properties- ecological, non-toxic, soundproof, light and low-cost material that in spite of the gentle appearance is able to carry substantial loads. Existing furniture systems of that kind are usually designed around combination of boxes, suitable not only for storage but also for a means of education and play "Fig. 2".

Years ago, physiologists came to the conclusion that the most effective way to educate children is to put them into a cognitive-amusement play. Children discover the world easily, getting involved into series of experiments. Fortunately, more and more designers acquire this specific creative direction-how to transform duties into pleasures. A good example is the amusing collection called "Little helpers" "Little helpers". The project represents her bachelor thesis at London University of Arts. The focus point of the furniture system is to both educate and engage children's minds into useful activities. The author claims that "Little helpers" analyzes the contemporary families and their member's relationship with one another "Fig. 3".



Figure 3. "Little helpers", "Little helpers"

A great respect is given to the Bulgarian design group Cherga, namely the competitions it organizes. It is a joyful fact that Bulgarian designers are provoked in a way that puts their professional skills and inspiration to the test and sometimes makes them famous in Europe and around the world. Most of these projects are purely conceptual- they do not go into mass production, but for every effort- from creating a single product to transforming a working collaboration into an institution-



Figure 4. "The Big Pan Ku", designed by Krasimir Savchev

there is a long and hard road. During one of Cherga's competitions, the designer Krasimir Savchev developed the products "The small Pan Ku" and "The Big Pan Ku". They are inspired by a tree branch and a hook and are produced with plywood. The shelves can be used together or independently. The small piece is an appropriate addition for a desk or used after hanging on a wall. "The Big Pan Ku" is a stand-alone design "Fig. 4".

Furniture design for children of preschool age has always been a true challenge. They are made following a number of standards demanding specific sturdiness, lightness, ecological properties of materials and coatings. The user safety criteria should not be underestimated as well as the aesthetic looks, the proper dimensions based on the standard dimensions of the specific age group, the flexibility, the mobility and the interchanging and upgrading possibility of the furniture system. One simple fact should always be taken into consideration- the child's room should be its own intimate world giving great opportunity to play or spend its time in the best considerable way.

#### CONCLUSIONS

The right functional zone organization of the space-limited children's room is more important than the type of the furnishing. During the years when play is the children's most important activity, parents should provide enough open space for action and creativity. In the earliest of age, chairs in a child's room are often useless. In preschool age they are already needed but it is advisable to use the adjustable types that change their height and width. In order to avoid the crowding of furniture in a room, it is good to consider modular systems and multifunctional and transformable products. A great amount of their time, children spend in their own rooms – this is where they play, study or sleep. They have direct contact to their surrounding items. Not all of the housing in Bulgaria is designed with a separate children's room, namely for each of the children in the family. In fact, it is often the case that all of the children live together. In such situations, common space should be divided with cabinets, wardrobes, grids or temporary separators. One should never forget that every child has its own personality and a necessity of an own, usually a small, little corner.

Greater attention should be given to the beds and their proper positioning in the space of the room. They are usually situated in a parallel manner, perpendicular to one another or on two levels, far from the outside walls. Children often prefer the two-level designs because the upper bed always seems to be "romantic", "magical nest" or a type of "transportation

device". At the same time the open space in the room grows bigger leaving enough room to play or work. It is advisable to position the sleeping area near a window for the necessity of more air and sunlight.

Finding the right place to store the clothes is also an important factor for the right organization of the room. It is good to know that every children's room needs to have its own wardrobe as a stand-alone piece or as a part of a larger furniture set. An important parenting issue is the storage of toys. Children need to learn how to take care of their own room's order. This is why the following specialized type of furniture should always be present- baskets, boxes, cabinets or other variations of volumes having the same function.

Furnishing a room for a preschool age is simple, with minimal number of elements: a bed, a small cabinet for clothes and underwear, one or two mobile boxes for toys, a chair that can be combined with the boxes and thus integrated into the playing process. In their school age, children tend to have bigger necessity of storage furniture so their volume changes, and the same room needs to change accordingly, acquiring other functions for the studying user. The new problems are related to the choice of proper lighting and a comfortable working space. The desk should have simple structure and the chair should have adjustable height. The working area also needs a special place for storing books and studying accessories.

The cabinets in children's rooms should correspond to the specific needs of the current age, this is why it is best to invest in adjustable type of furniture that grow together with the child from infancy to university life.

What type of requirements should this furniture correspond to so that they're suitable for all ages?

- they should be open systems, giving the opportunity to add, upgrade and widen the number of the separate items;
- they should give an opportunity to interchange, combine and move and have the proper construction so that they can be play items or parts of them should be used for play. It should never be forgotten that children's necessity for action and moving is big so that climbing and lifting volumes around shouldn't be banned. It is best if this possibility is integrated into the design of the furniture systems;
- they should have clean, pure shapes, but also hold their specific "character";
- they should have a durable construction;
- they should not have sharp edges and hard edges that hurt;
- their surface should be easily cleaned and should bear scratches or other mechanical damage;

The combination of different functional containers situated in a complex composition is often applied in the design of children's furniture. It is unreasonable to build a big volume. The mobility of the compositions is achieved in various ways:

- through the application of shelving systems from wood, metal or even plastic;
- through combinations of elements that give the opportunity to hang shelves, containers, work tops etc.;
- through a structure of wood-based panels and boards;

Creating a harmonious living environment for the children is one of the most noble and paramount tasks for our society which is important goal for a large number of specialists-architects, designers, artists, furniture manufacturers, sociologists, doctors and teachers. The design process of children's furniture starting from concept to mass production is a serious problem, where the necessary synchronization of functional dimensions and anthropological data of the users is always applied. The furniture systems for the youngest of age should be different in structure and appearance from the furniture, the adults use. It is crucial to design objects that do not copy the shape, composition and color combinations of the adult furniture blindly.

#### ACKNOWLEDGMENT

This document was supported by the grant No BG051PO001-3.3.06-0056, financed by the Human Resources

Development Operational Programme (2007 – 2013) and co-financed jointly by the European Social Fund of the European Union and the Bulgarian Ministry of Education and Science.

#### REFERENCES

- [1] Official publication of the Quality Committee of the Council of Ministers. (1988). BDS 8478-88 Furniture for pre-schoolers. Classification and functional parameters, K25, (S. Publishing "Standardisation").
- [2] Official publication of the Quality Committee of the Council of Ministers. (2008). BDS EN 716-1:2008 Furniture. Children cots, stationary and folding for home use, Part 1: Safety requirements. (S. Publishing "Standardisation")
- [3] Kalaydzhev, I. (1996). Student furniture for home interiors (UACEG-Publishing Center, Sofia).
- [4] Campos, K. (2010). Little nursery rooms (Knigomania Ltd.)
- [5] Топузлиев, Д., Основи на дизайнерското проектиране, Централна станция на младите техници, Топузлиев, 1977.
- [6] Somov, U., "Художественое конструирование промислених izdelii" - Mash.1967.
- [7] Expertise in Design, Design Thinking Research Symposium 6, Sydney , 17-19 November 2003.

# A comparative analysis of learning a foreign language by traditional, modern and combined method

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**Abstract** — The purpose of this study is to contribute to finding the best methods of teaching foreign languages at colleges that do not involve philology. We particularly pay attention to the advantages in the field of teaching provided by information technology. At first, we analyzed the different groups of students. Groups were not prepared in advance, but students practically alone, spontaneously based on their own preferences and motivations, formed various groups which have proved very suitable for comparing modes and performance in certain segments of the curriculum. In this way the results of the analysis can be considered as a realistic reflection of the actual situation. To make a conclusion we used earlier studies by various authors who have dealt with this topic.

**Keywords** - Traditional and modern teaching, foreign language, methods, analysis, information technology

## I. INTRODUCTION

The scientific progress, especially in the field of information technology has led to significant shifts in the perception of sense, choosing methods, objectives and requirements of the educational process when it comes to learning a foreign language at colleges that do not involve philology.

All theorists agree in their works when it comes to terms of learning a foreign language: the development of students' communicative competence, practical mastering a foreign language. In recent years, research materials show poor preparation of students for effective communication compared with the native speakers. Various aspects of capable approach in professional and communicative learning is the sphere of interest of many professionals; E. Taroun, E. Bialystok, K. Kasper, A. Cohen, R. Oxford, A. Shamo and others in their works dealt with the problems of training communicative methods. V.A. Bolotov, V.I. Bajdenko and many others wrote about various aspects of competent approach in professional and communicative learning. Many theorists give priority to understanding, transfer of content and expression of meaning, as opposed to grammatical perfection.

Today we have a new approach in organizing educational process, which relies on advanced information technology. The task of education consists of the fact that students acquire certain knowledge, but also to form ability and skills for acquiring knowledge by themselves in terms of contemporary informatics. Many educational institutions consider introducing information technology, especially multimedia, in the structure of modern teaching, as one of the priorities.

"The lesson is a mirror of general and pedagogical culture of teachers, a measure of its intellectual wealth, an indication of his vision and erudition" – says A.Suhomlinski. These words have not lost their importance. To make students interested in learning, and we, teachers to be interesting to teach, it is necessary to improve our information culture and keep pace with the times.

In terms of teaching a foreign language at colleges that do not involve philology, taking into account that the foreign language is not one of the major subjects with a reduced number of lectures compared to studying foreign languages at the Faculty of Philology, there is the question of selecting an appropriate curriculum and teaching methods so that student can master the subject matter and obtain the required communicative competence that is set before him.

In order to make studying in such conditions more effective and more complete; it is necessary that the student masters the use of computers, especially the Internet. Therefore lecturer gives only the core of a lecture (the base) and links for additional and faster learning that students should be able to understand and access easily.

The introduction of information technology and PowerPoint presentations in the educational process does not exclude traditional teaching methods, but presents their supplementation in all phases of training. This theme was written about by many experts in the field of pedagogy (Polillo T. A.; Podoprigrorova L. A.; Solomahina I. A.; Mickey Touro).

What it essentially means?

How to make a perfect combination of traditional and modern educational process?

## II. METHODS OF STUDYING

### A. Traditional teaching methods

The traditional method of teaching is based on the relation between a speaker and a listener, where the main carrier of information is the lecturer, and trainees are expected to focus, to be highly concentrated and to think. But not every student is able to work in that way (which depends on the psychological characteristics of the character, kind of perception), this kind of teaching can be unsuccessful.

The leading role in a traditional lecture has a lecturer. His or hers job is to control and lead the classes. The lecturer manages and is responsible as an instructor (in the form of

classes), as well as the decision-maker (related to the content of the curriculum and its outcomes). He or she is the one who completes the knowledge of participants and poses himself or herself as a figure who causes learning (Novak, J. (1998)).

**B. Modern approach of teaching a foreign language**

Since the 21<sup>st</sup> century is characterized as "information era" and "age of global information society", education, knowledge, information and communication are the basis for the development and prosperity of human society. For this reason, we implement computerization of education, which involves the use of information technology.

Using computer presentations, a lecture is more intense, with improved quality and offers the opportunity to avoid subjective evaluation; it motivates students, and, most importantly, is included in the independent learning process of students. Power Point presentations allow the presenter without losing time to complete this process many times.

In order to make a successful presentation that will keep the attention of the participants, it must be: visually clear or readable, concise, with illustrations that accompany the lecture topic (for easy memorization using the images). Keywords are marked (bold, italic, different color, larger font) and examples must be well chosen. Presentation influences simultaneously on several types of learning: visual, auditory, emotional.

Except from making and delivering a presentation, it is important that the teacher instructs students to additional sources. Educator thus becomes an informant, methodologist, and technologist as well as an animator, while the student becomes a truly active participant in the process.

The principle of clarity should be viewed not as additional, but as one of the basic principles of learning a foreign language, as this study has practical application.

**III. TRADITIONAL AND MODERN APPROACH:**

**A. Research**

Starting from the different interests of students, their motivation and intellectual ability to adopt certain knowledge and not from their own preferences, the ideal combination of innovative and classical methods is left to each lecturer individually. In our pedagogical work, we had opportunities to perform with our students, classical, traditional teaching of a foreign language and by using computers.

Grammatical units were presented through clear elemental tables and explanations. The teaching itself was accompanied by concrete tasks and exercises.

Lexicon was adopted through parallel reading in foreign and native language. Texts and dialogues were chosen according to the program of the course structure and the participants themselves.

We monitored the work and progress of students during all four courses (a thousand students) in the period from 2010 to 2014.

The exam contained 15 tasks, of which 12 included grammatical units and 3 tasks had lexicon in it (translation). Tasks related to grammatical units offered four answers, tasks

related to the lexicon (texts) – had to translate 3 complex and 2 simple sentences without using a dictionary. Estimated time for finishing the tasks is 30 + 30 minutes.

The result demonstration of traditional teaching:

85% of students successfully solved the tasks related to the grammatical norms of a language; when it comes to mastering the lexicon - 89% of students successfully responded to the task.

Analyzing the presence of students at lecture we came to the following conclusions:

- a) 15% of the students attended all classes;
- b) 58% attended 70% of lectures;
- c) 7% of students attended 25% of lectures;
- d) The remaining 20% of students did not attend classes - their learning of the language and grammatical units came down to a self-learning.

Testing results of mentioned sample:

80% of students in a group a) successfully solved the tasks (getting a positive grade);

50% of students in a group b) successfully solved the tasks (getting a positive grade);

42.85% of the students in the group c) successfully solved the tasks (getting a positive grade); and only 10% of students in a group d) (getting a positive grade) (Figure 1).

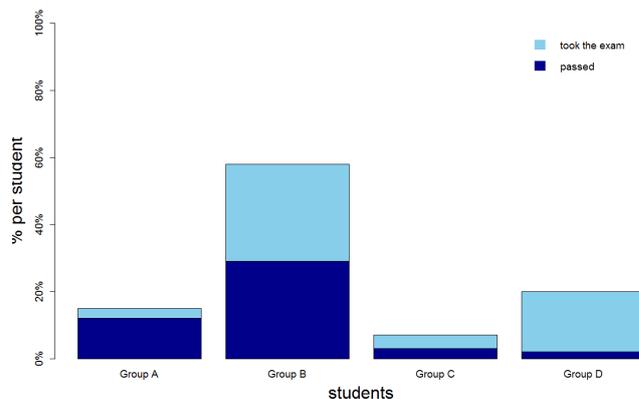


Figure 1. Analysis of attending the lectures and passing the exam

Further, deeper analysis of the structure of main grammatical units gave us the following results:

Mistakes that students made from a group a):

- 6.6% - tenses;
- 46.6% - comparison of adjectives and adverbs;
- 66.6% - the change in declination.

The students in this group learned tenses the best.

Students who did not attend the lectures regularly or did not attend at all (b, c, d) were not equally successful. In tasks declination changing - 80% did not give a correct answer; tasks

involving the comparison of adjectives and adverbs - 71.7%; tasks with the correct use of tenses - 10.6% .(Figure 2).

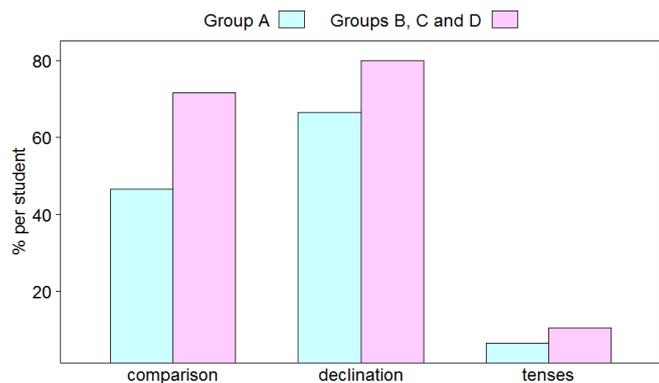


Figure 2. Students' mistakes from group A and other groups in comparison of adjectives and adverbs, changes in declination and tenses

It can be concluded that for all categories of students (who attended the class and those who did not) the greatest percentage of mistakes was related to variable types of words and their grammatical use, and the least was for the construction of verb tenses. Mistakes were about the same, but the passing rate of students in the group "a" was much greater.

#### IV. RESULTS

The results obtained at the end of each course were carefully analyzed and served as a further indication of the method of presentation and exercises of these grammatical units.

When it comes to the analysis adopted in the lexicon at the end of the course and published exam, results showed that for adopting the lexicon presence did not play an important role, communication was important with the teacher during the class in order to obtain a meaningful and logically accurate translations (especially professional). Students who did not attend classes gave poor translation as a result of misunderstanding the issue, since it was a language with specialized vocabulary of a certain profession.

It has been shown that direct communication between a lecturer and a student was exceptionally important in order to overcome obstacles within the studying material. Ambiguities and difficulties in adopting grammatical units, and the lexicon were being resolved during the lecture itself. There were interesting questions by the students bound for finding a simple scheme for better adoption of the studying materials. Learning of the given material was connected for a specific word. Of course, in order to learn and adopt grammatical and lexical units easily student needs to be present at the class.

In the last few years we have been using PowerPoint presentations. All students receive a recording of the lecture with a presentation on the Internet. Students choose the time when to listen to the lectures which depend on the time they actually have. Respecting all the rules of a well done presentations and organizing lectures, summarizing the results after completing the exam, we came to the following conclusions:

89% per cent of students successfully solved the tasks related to the grammatical norms of the language; tasks regarding the lexicon successfully solved 93% per cent of the students.

Even though all students listened to the same lecture, only those who attended the class had an opportunity to participate and to gain additional explanations from the teacher. Because of this, there is also a noticeable difference in the passing rate among students who were in class and the students who listened to it later.

95% per cent of notable students in class passed with high marks. Among students who did not attend classes there were those who failed.

Analyzing the performance results of these two categories of students (students who have attended lectures and students who did not) we can conclude that the students who regularly attended classes studied the teaching units step by step, which led to the systematization of the adopted material. Students who studied only by using a recorded presentation often did not paid attention equally to all things, they chose, in their opinion, only "essential" things from the presentation - often because they did not understand the task. Irregular learning from the presentation and if in this we add the possibility of poorly organized time and listening to several presentations at one time, lead to results such as superficial learning and, ultimately failing on the exam. As a disadvantage of this learning approach in particular it should be noted that there is no direct but only virtual communication between the teacher and the student.

#### V. CONCLUSION

Although modern learning has its visible benefits (time, saving costs of travelling to college, being able to playback presentations repeatedly, organize your daily pace of life - family, work), this research has shown that it does not lead in the quality of learning.

Students should be motivated in order to gain continuity in learning.

How much is a lecture, interesting, depends on the authority and competence of a lecturer. But not only that, it also depends on the ability of animating students to participate to the class and particularly to take part when discussing grammatical units. In that way a lecturer becomes educator and in the same time the animator as well.

Students are animated and cheered for their activity; the grammatical units are processed through the practical application of a different set of tasks, learning a foreign language is guided through a comparative analysis of the mother tongue and the language to be learned. We devoted particular attention to the beauty of the individual translation and expression, and accurate translation of technical materials.

Considering this analysis, so that all participants can be equally successful, they must be equally motivated - whether it is the presence or better access to teaching. This means that students must be interested in studying; materials must be understandable and easily available. Special attention must be

paid to the visual effects of the presentation, to the quality units which are processed and their quantity. Students are expected to use computers well, the Internet, track links and further readings given by the teacher. It is of great importance the contact with the teacher via e-mail in order to learn the entire matter well. This study cannot precisely determine in what degree these two methods should be applied. It also depends on the lessons that are thought. The benefits that information technology gives, and of course it should be increased, should be used in the right way, so that the living word, which will always be indispensable, won't be neglected or completely suppressed.

#### REFERENCES

- [1] Shachar, M., Neumann, Y. (2003) Differences Between Traditional and Distance Education Academic Performances: A meta-analytic approach. Touro University International USA
- [2] Bernard, R. M., Lou, Y., Abrami, P.C., Wozney, L., Borokhovski, E., Walset, P. A., et al. (2003). How does distance education compare to classroom instruction? A meta-analysis of the empirical literature. Presented as a Symposium at the 2003 Annual Meeting of The American Educational Research Association, Chicago, IL
- [3] Polilova T. A.(1997) Vnedrenie kompjuternyh tehnologij IJS, no 6 Introducing computer technologies
- [4] Boumová, V. (2008) Traditional vs. Modern Teaching Methods: Advantages and Disadvantages of Each. Master, s diploma thesis Masaryk University
- [5] Novak, J. (1998) Learning, Creating and Using Knowledge: Concept Maps as Facilitative Tools in Schools and Corporations. Lawrence Erlbaum Associates, Inc; New Jersey
- [6] Fjodorovna, G.I. (2003) Komjuteri i Internet v obucenii inostranim jazikam; Computers and the Internet in teaching a foreign language

# Simultaneous family bilingualism of Albanian-Greek children in Albania

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**Abstract-** Family bilingualism resulting from a mixed marriage is based on the one parent-one language theory. This is also the case of our ten year-old bilingual children having a Greek parent and an Albanian parent, speaking Albanian and Greek languages and living in Albania surrounded by a larger Albanian-speaking community. We both co-authors of this article have similar experiences with converging results. At the age a bilingual child establishes full contacts with the outside world (nursery school and then primary school) the language of the outside environment (the Albanian language in our case) becomes the dominant language and influences the other language (the Greek one) in spite of the fact that both languages are mother tongues. The influence of the Albanian language upon the Greek language is mainly seen at the lexical level when they use Albanian words but with Greek declension and at the syntactic level with syntactic constructions typical of Albanian language, whereas grammatical analogy is mainly seen at the morphological level. The reasons for its dominance are three: the first reason is the linguistic environment within the family between the parents who communicate in Albanian, the second reason is the communication in the outside linguistic environment which is in Albanian and the third reason is education which is in Albanian, too. Does the dominant language proficiency hinder or does it help the learning of the other language?

**Key words-** Bilingualism, mother tongue, dominant language, linguistic environment, vocabulary, grammatical analogy.

## I. INTRODUCTION

There are two tendencies in language learning in the world today. One is that of learning a foreign language that is used as a linking bridge or as a language of the broadest communication such as English, French, Spanish, Arabian, Russian, Indian, etc. These languages are learnt in school and, always in artificial conditions, and rarely lead to bilingualism. In most cases they remain a foreign language. There is also a second tendency according to which children, apart from the language of the country they live in, learn, know and use another language, too, that of their nation of origin. That second tendency makes them bilingual in the narrowest sense or rather in the proper sense of bilingualism.

We call bilingualism an individual's knowing and using of two languages in the same geographic, economic or political area, i.e., within the boundaries of a state where two distinguished language communities are placed side by side. What better suits this definition are immigration and minority bilingualisms, but also family bilingualism resulting from a mixed marriage with parents who speak two different

languages and meeting the necessary conditions with two language communities in miniature. Another case of bilingualism is technical bilingualism where the work language is different from the family or socialization languages, such as the case in the offices of European Commission, etc. All these cases make the speakers of two languages bilingual in the proper sense of bilingualism. As a result of these bilingual situations there are a lot of bilinguals in the world today. The case when bilingualism results from a mixed marriage based on the one-parent-one language principle is the object of our study. In this case children acquire the two languages since birth and they are called simultaneous bilinguals with two mother tongues.

How well should a bilingual know and use both languages? Is one language dominant over the other? One opinion is that speakers are bilingual when they are able to speak both languages fluently. But this criterion is too strong. Fluent speakers exist but they are the exception and not the rule. Most bilinguals don't command equally both languages: one language is more fluent than the other, it affects the other or it is simply the preferred language in some situations [1]. This constitutes the dominant language. The dominant language is the language a bilingual knows better and he or she uses most. The dominant language is the language of the country the bilingual child lives in or the language he or she uses at school.

## II. DATA DESCRIPTION AND RESULTS

The object of our study is our two the bilingualism of our two ten-year old children brought up in Gjirokaster, a town in the South of Albanian. It is made up by the Albanian and Greek languages which are spoken to them by different parents separately. At their first contact with their parents' languages, the children began reacting positively to both languages: firstly by understanding the languages and then by speaking them. But the dominance of one language over the other comes out soon. Thus, for the case we study, the reasons are three: the first reason is their parents' language of communication inside home which is Albanian, the second reason is the communication in the outside linguistic environment which is in Albanian and the third reason is education which is in Albanian, too. That happens since before the age of three when the children have more Albanian than Greek words in their lexicon. Greek becomes their minority language and it begins to be threatened when the children's contact with the majority language (Albanian language) increases thanks to school and other forms of social interaction.

Once the children go to preschool, age of three and over, Albanian obviously becomes their dominant language. They have heard Greek less than Albanian, only inside home and through television cartoons. This is the reason why Greek has become the second language, and even at a great extent.

The ways they behave are really specific: when the children know that the listener speaks Albanian, too, they talk to them only in Albanian and only after the listener's answers are in Greek, they begin talking in Greek. They can remember this fact even after. In environments where only Greek is spoken, e.g. in a Greek minority village in Albania or in Greece where their ear is bombarded with Greek language they react immediately in Greek with the persons they may get in touch with or when they meet monolingual persons inside a multilingual environment. Later on, during their speaking Greek, they stop and ask about the meaning of a word they don't know in Greek, but that they know in Albanian. That shows that in the course of time they are more aware of the difference between the two codes and because the Albanian lexicon increases more rapidly than the Greek lexicon; that happens at the age of eight to ten when linguistic consciousness has already been created. It's the period of the third and fourth school grades that the children begin ameliorating and specifying their Greek second language after they have better learnt the Albanian dominant language and after they have been in touch with some theoretical grammatical rules of Albanian language. The second language helps the dominant language so that the latter can be better understood through being compared with Greek, whereas the dominant language helps the second language so that the second language can be used more accurately.

In our study we have compared the grammatical structures and categories as well as the lexical units and meanings of Albanian and Greek languages by drawing thus some conclusions about their interaction: which language gives and which one takes, and which are extralinguistic reasons and stimuli.

The case we study is divided in three phases: first phase, age 0-3 years of age, second phase, 3-8 years of age, third phase, 8-10 years of age. This division is made on the basis of linguistic and extra-linguistic factors. As linguistic factors we can mention the age of a child's language competence and the age of the first years of school education. As extra-linguistic we can mention the child's socialisation: the period of socialisation inside home and the period of socialisation outside home: at school and within the broadest society.

A. At the first phase there are a few mistakes made as a result of language evolution. They belong to morphology. At this phase the cases of mistakes are not numerous for two reasons:

1) The limited use of language that lead to fewer possibilities for mistakes.

2) The main reason is that both languages develop almost equally. A typical case of this phase is ο αγόρης (instead of: το αγόρι): djali, the boy. It is used as a masculine noun with masculine ending and article instead of a neutral noun as it should be used.

B. Most mistakes happen at the second phase, a few of them are part of language evolution, some are influenced by the analogical forms of the same Greek language and most are influenced by the Albanian dominant language. They belong to linguistic fields such as morphology, lexicology, syntax and phonology, e.g.:

1) In morphology:

*Ήρθαν οι άντρωι (instead of: οι άντρες): erdhën burrat*, the men came, under the influence of the plural of Greek nouns ending in -οι.

*Είδα μία άντρα (instead of έναν άντρα): pashë një burrë*, I saw a man, under the influence of the feminine of Greek nouns ending in -α.

*Το βιβλίο του παιδι (instead of: του παιδιού): libri i djalit*, the boy's book, under the influence of the genitive of Greek nouns ending in -η in the genitive case (e.g. του Αντώνη).

*Δώσε μου ένα λεφτό (instead of: ένα (χαρτο)νόμισμα): më jep një lek*, give me a piece of money, under the influence of the singular of the Albanian corresponding noun "lek".

*Είμαι (instead of: έχω) πλυθεί: jam larë*, I have washed, under the influence of the Albanian auxiliary verb "jam" that is used to conjugate reflexive verbs.

*Εγώ έρχω (instead of: έρχομαι) εδώ με τη μαμά: unë vij këtu me mamin*, I come here with mum, under the influence of the active form of the Albanian corresponding verb "vij".

*Εγώ ζαπλώθηκα πρώτη (instead of: ζάπλωσα): unë u shtriva e para*, I went to bed first, under the influence of the reflexive voice of Albanian corresponding verb "shtrihem".

*Ένα βιβλίο για εσύ (instead of: σένα) και όχι για μένα: një libër për ty dhe jo për mua*, a book for you and not for me, under the influence of the nominative of the Albanian corresponding pronoun "ti" which has almost the same pronunciation as the accusative of the same pronoun "ty".

2) In syntax:

*Σκέφτομαι για σένα (instead of: σκέφτομαι εσένα): mendoj për ty*, I think about you, under the influence of the structure of the Albanian corresponding verb "mendohem për".

*Δεν φοβάμαι από τον πατέρα (instead of: δεν φοβάμαι τον πατέρα): nuk kam frikë nga babai*, I am not afraid of my dad, under the influence of the structure of the Albanian corresponding verbal expression "kam frikë nga".

*Το αρέσω το βούτυρο (instead of: μου αρέσει): më pëlqen gjalpi*, I like butter, under the influence of the structure of the Albanian corresponding verb "pëlqej diçka" which is wrongly used in Albanian, too.

3) In phonology:

*Δες πως κάτσεται η κούκλα (instead of: κάθεται): shiko si rri kuklla*, look how the doll keeps staying, under the influence of the stem of the past tense "έκατσα" or the imperative "κάτσε".

*-Το βρήκες;-Ναι, το βρήκια (instead of: το βρήκα): E gjete?- E gjeta*, did you find it?-Yes, I did, under the influence of the stem of the second person.

4) In lexicology:

*Δώσε μου τη λούγκα (instead of: το κουτάλι): më jep lugën,* give me the spoon, under the influence of the Albanian word “lugë” that serves as the noun stem as well as under the influence of the feminine of the Albanian word “lugë”. In Greek the word is used as a feminine noun having the ending – α and the article η/τη of the feminine. Most cases of mistakes belong to this category e.g.: *Πάρε τη σάπκα (instead of: την παντόφλα): merr shapkën,* take the slipper. *Εγώ έχω δύο κουσουρίρες (instead of: εγώ έχω δύο ξαδέρφες): kam dy kushërira,* I have got two cousins.

A lot of cases of mistakes refer to the invariable parts of speech, e.g.:

*Θα περιμένεις πατjetër (instead of: οπωσδήποτε): do të presësh patjetër,* you will wait in any case.

*Δεν το κάνω ντοτ(ι) (instead of: δεν μπορώ να το κάνω): nuk e bëj dot,* I can't do that. In the last case the Albanian particle of possibility “dot” has replaced the verb of possibility “mund”.

*Δεκαένα (instead of: έντεκα): njëmbëdhjetë,* eleven.

*Δεκαδύο (instead of: δώδεκα): dymbëdhjetë,* twelve, as further counting is “δεκατρία, δεκατέσσερα, δεκαπέντε, etj”.

*Κλείσε την τηλεόραση (instead of: σβήσε): mbyll/fik televizorin,* turn off the TV, under the influence of the meanings of the Albanian corresponding verb “mbyll”.

*Βγάλε το χέρι από την τηλεόραση (në vendë të: πάρε, τράβα): hiqe dorën nga televizori under,* take your hand away from the television, the influence of the meanings of the Albanian corresponding verb “heq”.

At this phase the cases of mistakes increase for the opposite reasons we presented at the first phase.

The contrary can happen. There are cases when it is the Greek second language that affects the dominant language and it mainly refers to lexical units, e.g.:

*Do të vemi te kunjat (instead of: shilarës): θα πάμε στις κούνιες,* we will go and play on the swings.

*Mos fol katholu (instead of: aspak): μη μιλάς καθόλου,* don't talk at all.

C. At the third phase there are fewer mistakes mostly influenced by the Albanian dominant language, but their fields of use are limited. They mainly refer to lexicology and morphology, e.g.:

*Δώσε μου ένα λεφτό (instead of: ένα (χαρτο)νόμισμα): më jep një lek.*

*Εγώ ξαπλώθηκα πρώτη (instead of: ξάπλωσα): unë u shtriva e para*

But at the third phase the language is “provided” with other mistakes of the kind of mistakes that continue to be made since the second phase, e.g.:

*Ο ήρωας πηδήχθηκε (instead of: πήδηξε): από το παράθυρο: personazhi u hodh nga dritarja,* the film hero

jumped from the window, under the influence of the reflexive voice of the Albanian corresponding verb “shtrihem”.

*Αρχισε η σφάκια μπαμπά (instead of: το σόου): baba, filloi shfaqja,* father, the show has started, under the influence of the Albanian word “shfaqje” that serves as a word stem.

We see that both languages influence one-another by words that are short, easy to pronounce and of high frequency use in one or the other language.

Most mistakes are made at the age of 3-8 and mainly 5-8 because the lexicon already increases in both languages, the grammar use area is extended and, therefore, the possibility of making mistakes increases. As most mistakes refer to the age of 5-8, they are mainly influenced by the Albanian dominant language and not by the evolution of language, as the period of language competence has already finished. The reasons of language interferences by the dominant language are language-use-non-repletion as well as the general tendency of language speakers to generalising and simplifying.

In spite of the interferences of the dominant language mainly in the second language, most grammatical phenomena have been rightly used. We should, moreover, point out that the above-mentioned mistakes constitute few cases. Some of them are part of the language evolution, some are influenced by analogical forms within the same language and most are influenced by the dominant language. As a result they are not a disturbing problem. This is also proved by the further course of language proficiency achieved by children of that category.

### III. EVOLUTION OF BOTH LANGUAGES

Some linguistics describe bilingual children brought up by the one-parent-one-language principle as mixing both languages. Thus, Volterra and Taschner [2] describe this process in terms of a three-stage model. First, the child develops a vocabulary consisting of words from both languages, but only one word is used for one concept. Next, the child distinguishes two vocabularies, but uses only one syntax. Finally, in the third stage, the child has two grammars separated from each-other.

Other studies [3,4,5] indicate that some children seem able to keep their languages apart from the very beginning of language development.

We share the second position [3,4,5] according to which a child who is simultaneously exposed to two languages can not undergo some confusion that would lead to language deficiency or to mixing up both languages, which would make this child a speaker of a mixed typical language of his own. Bilingual children are based on two languages, those of their parents and acquire them in a regular way as two separate systems. In general, for any child who doesn't suffer from any serious disorder, the result of his or her language development is always a completed language code or, in the case of bilingual children, two completed language codes independent of each-other. The children who are exposed to two languages inside home and inside a narrow social environment, during the four first years of their life have more chances to become bilingual, i.e. natural speakers of both languages or speakers with two languages as mother tongues, and they achieve that by

wonderful speed and accuracy. As a result of that, we would replace the term “mixing” by code-switching and we would accept the idea of “a word for one concept” only in the case when this word comes from the dominant language as a result of not knowing the word in the other language. And finally, we could accept the idea of “one syntax”, but only as the dominance of the syntax of the dominant language, and not as a new mixed typical syntax.

#### IV. CONCLUSIONS AND RECOMMENDATIONS

Our children’s bilingualism is based on two languages, the Albanian and the Greek ones, and they acquire them in a regular way as two separate systems.

At the age our bilingual children establish full contacts with the outside world (nursery school and then primary school) the language of the outside environment (the Albanian language in our case) becomes the dominant language and influences the other language (the Greek one) in spite of the fact that both languages are mother tongues. The influence of the Albanian language upon the Greek language is mainly seen at the lexical level when they use Albanian words but with Greek declension and at the syntactic level with syntactic constructions typical of Albanian language, but in spite of the dominance of one language over the other, most grammatical phenomena are rightly used.

The acquisition of simultaneous bilingualism from birth is the same as that of acquisition of one language, i.e., children growing up in a bilingual environment do not speak much later than children brought up monolingually.

In the case of the simultaneous bilingualism we study, the second language is considered less formal and it is used for information about events related to everyday activities inside home and only as spoken language, whereas the dominant language is used in informal situations as well as in formal situations. It is used for everyday activities inside home as well as for activities outside home: at school and with friends, i.e. as spoken and written language.

Our children’s simultaneous bilingualism is natural because it is the result of a natural learning process during the children’s growing up in a bilingual environment, it is also productive because the bilingual children can understand and speak both languages, but it is unbalanced because the bilingual children are less proficient in one language than in the other.

The children who are exposed to two languages inside home and inside a narrow social environment, have all chances during the four first years of their life to become bilingual, i.e. natural speakers of both languages or speakers with two languages as mother tongues, and they achieve that by wonderful speed and accuracy.

The fact that a child can grow up with two mother tongues he or she has acquired without a lot of effort and without studying, constitutes a precious privilege that his or her parent can offer for free and without effort. If appropriate circumstances which can offer that privilege to bilingual children exist, it would be inexcusable to deprive them of it out of ignorance or fear.

#### REFERECES

- [1] J. Richards and R. Schmidt, *Longman Dictionary of Language Teaching and Applied Linguistics*, 3rd ed. London: Pearson Education Limited, 2002, pp. 51.
- [2] V. Volterra and R. Taeschner, “The acquisition and development of language by bilingual children,” in *Journal of Child Language*, vol. 5. Cambridge: Cambridge University Press, pp. 311–26, 1978.
- [3] A. Padilla and E. Liebman, “Language acquisition in the bilingual child”, in *Bilingual Review*, vol. 4. Philadelphia: University of Pennsylvania Press, pp. 52–67, 1975.
- [4] C. Bergman, “Interference vs. independent development in infant bilingualism”, in *Bilingualism in the Bicentennial and Beyond*, G. Keller, R. Teschner and S.Viera, Eds. New York. Bilingual Press, pp. 86-96, 1976.
- [5] J. M. Meisel, “Early differentiation of language in bilingual children”, in *Bilingualism Across the Lifespan: Aspects of Acquisition, Maturity and Loss*, K. Hyltenstam and L. K. Obler, Eds. Cambridge: Cambridge University Press, pp. 13–40, 1989.

# Similes in Tess of the d'Urbervilles

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**Abstract** – Similes are one of the most widely used linguistic means of expressions in literary texts. Thomas Hardy's novel *Tess of the d'Urbervilles* is no exception. It abounds in similes, analogies and other comparative expressions. In this article we focus specifically on similes and their artistic function in the novel. As a stylistic device similes are employed for denotative as well as characterization-evaluation purposes. The presence of these two features in the semantic content of a linguistic item is a matter of degree. While in some the denotative aspect overrides the characterization-evaluation aspect, in others the characterization-evaluation is the dominant feature. These features lie on the basis of the artistic functions similes fulfill in literary texts.

In *Tess of the d'Urbervilles* similes are most significantly used for the depiction of the characters. Most of them have the main character, Tess Derbyfield, as their referent focusing on various psycho-physical aspects of her figure. Other similes are linked to Angel Clare, the second main character. Similes are also used for secondary characters. Another important category of similes is that devoted to the description of abstract or concrete natural phenomena, objects or other entities.

**Keywords:** *similes, denotative, characterization-evaluation, depiction, linguistic means of expression*

## I. INTRODUCTION

In this paper, we aim to investigate similes and their artistic function in Thomas Hardy's novel *Tess of the d'Urbervilles* [1]. By simile we mean the 'word or phrase that compares something to something else, using words *like* or *as*, for example, *a face like a mask*' [2]. In this category we include mainly ad hoc expressions created by authors for the artistic needs of their literary works. However, we do not exclude the similes which, through frequent use, have become part of the language and as such appear as special entries in dictionaries. We first discuss the nature and function of similes as linguistic means of expression and then we focus on their specific use for description as well as characterization/evaluation purposes.

## II. NATURE AND FUNCTION OF SIMILES IN *TESS OF THE D'URBERVILLES*

From a communicative point of view, linguistic expressive means are of a dual nature; they are denotative and at the same time characterizing-evaluative. This is true of similes as well, especially those found in literary texts. In the case of the similes in Thomas Hardy's novel *Tess of the d'Urbervilles*, while there are hardly any similes whose function is exclusively denotative, it can be said that there are instances of similes in which this function seems more salient than in other

instances which tend to be closer to the characterizing-evaluative pole. These are descriptive similes whose function is the delineation of particular characters or objects [3]. Two sub-categories can be noticed within this layer. Firstly, there are those which are based on the presence of given shared features, which are cultural elements enabling an almost instinctive association of an entity with another. For instance, in various cultures the concept of elasticity has often been objectified with a simple object such as a ball made of plastic material. This conceptual link lies on the basis of the simile *she sprang like an elastic ball* (p.203). Also the act of people walking one after the other without talking creates the impression of a funeral. Such a simile, *as in funeral procession*, depicts a scene in the novel with Tess and Angel Clare as participants, *...walking very slowly, without converse, one behind the other, as in a funeral procession ...*(p.240) Almost universally, an individual that finds himself/herself in a difficult situation with no way out is conceived as a bird caught in a trap. There are two instances in the novel of similes built according to this logic, *...who had been caught during her days of immaturity like a bird in a springe* (p.201). Another instance of a simile typically used with a denotative function is, *...his straw hat so far back upon his head that the brim encircled it like a nimbus of a saint*. (p.63), where the round shape of people's hats resembles the halo on the saints' heads painted on church walls. What needs to be emphasized here is that the already mentioned instances are not completely devoid of characterizing-evaluative features

The second category includes the similes which, according to Islamaj, [4] are based on purely random or contextual similarities. Unlike the first category, the similarity of features is not built on some universal concept and is unlikely to be present in other cultures. The following examples illustrate this point:

1. ...the **cliff-like** dwellings of Shaston broke the line of the ridge. (p.47)
2. ...a kind of rope could be seen descending to some distance below her waist, **like a Chinaman's queue**. (p.66)
3. ...and it glistened **like a slimy snake** in the rays of the moon. (p.66)
4. ...the green lea was speckled with them **as a canvas by Van Asloot or Sallaert with burghers**. (p.105)
5. She was yawning and he saw the red interior of her mouth **as if it had been a snake's**. (p.173)

6. ...your arms are **like wet marble**, Tess. (p.191)
7. The smoke of the kindled wood rose from the chimney without **like a lotus-headed column** (p.244)

The other similes are of a characterizing-evaluative nature with a high degree of expressiveness and emotionality. They convey judgments and evaluations on various aspects and features of human characters, objects and phenomena 'giving rise to a new understanding of the object characterized as well to the characterizing one' [5].

### III. TESS DERBYFIELD

Several similes in the novel focus on Tess Derbyfield's physical and psychological features. The similes related to Tess's physical aspect aim at highlighting certain physical characteristics that make her admirable to the other characters in the novel as well as the reader. For instance, the softness of her skin is the object of three similes. In the simile *...her skin is as supple as a duchess's* (p.22), the quality of her skin is likened to that of a female belonging to the noble stratum of the society, reflecting, thus, the fact that the soft, clear skin has been a distinguishing mark of people from the high strata of society and something desired from those who cannot have it because of their hard living conditions. This simile is uttered by Joan, Tess's mother. While expressing admiration for this physical aspect of her daughter, she considers it as something that Tess must use to entice Alec d'Urberville. The other two describe respectively Alec d'Urberville and Angel Clare's sensations during their physical contacts with Tess. Aided by adjectives such as *damp and smoothly chill* and *new-gathered*, both similes serve as expressions of Tess's physical freshness.

*...his lips touching cheeks that were damp and smoothly chill as the skin of the mushrooms in the fields around.* (p.79)

*...her arm was as cold and damp to his mouth as a new-gathered mushroom...*(p.180)

Similes are also employed for the depiction of other admirable physical qualities. For instance, there is something about her way of walking that evokes that of a bird before it flies up in the air.

*They marked her buoyancy of her tread, like the skim of a bird which has not quite alighted.* (p.200)

Her mouth is graceful even when she sleeps.

*...wrapped in profound slumber, Tess's lips being parted like a half-opened flower near his cheek.* (p.405)

Even the way she holds things is aesthetically pleasing and sensual.

*...holding the corn in an embrace, like that of a lover.* (p.90)

Tess is the focus of two similes uttered by Angel Clare's mother who echoes the way her son has described his future bride to her. Tess's lips are compared to Cupid's bow which is often represented in the form of bright red female lips,

*You said the other day that she ...had deep red lips like Cupid's bow;*

whereas her thick hair is said to be like a cable holding a ship to the harbor.

*...an immense rope of hair like a ship's cable...*(p.271)

Other similes are employed with a view to depicting her emotional state or situations in which she is involved. Her reluctance to enter the d'Urberville's residence is described as someone's reluctance to dive into water.

*Tess still stood hesitating like a bather about to make his plunge...*(p.35)

Her first contact with the d'Urberville's family has a numbing effect on her. As this is her first experience away from home, she is confused and seems like she is not aware of what she is doing.

*"... and then the two passed round to the rose trees, whence he gathered blossoms and gave her to put in her bosom. She obeyed like one in a dream, ..."*(p.37)

Her feeling of fear mixed with rage when Alec d'Urberville goes down the hill on his dog-cart at top speed is reflected on her eyes:

*...her large eyes staring at him like those of a wild animal.* (p.52)

Negative feelings all too often affect the way she perceives the reality around. After an embarrassing scene, which makes her feel miserable, even the sun acquires unpleasant shapes.

*"The evening sun was now ugly to her, like a great inflamed wound in the sky.* (p.138)

According to Hardy, human nature has this special quality of resilience even after the hardest set-backs. This is true of Tess as well, who, after her personal drama, finds the strength to rise again. In the text this is given by means of a simile. The comparison between the human spirit and that of a biological entity emphasizes the fact that the life process in humans is like that of other living things.

*...and some spirit within her rose automatically as the sap in the twigs.* (p.102)

Being aware of her intellectual deficiencies, Tess compares herself to Sheba, who, according to the Bible, turns to King Solomon for spiritual enrichment. This is how she points to the differences between her and Angel implying at the same time, that, in a way, he is to her what Solomon was to Queen Sheba, her spiritual leader.

*I'm like the poor queen of Sheba who lived in the Bible.* (p.129)

The figure of the bird has often been used in literature as a symbol of weakness and fragility. There are four similes with it that have Tess as referent. One has already been mentioned, which describes her way of walking. In another case, in a comment referring to the drama of her life, it is said that in all

this history she resembles an inexperienced bird that falls into the trap that has been set for it.

*“...who had been caught during her days of immaturity like a bird in a springe. (p.201)*

A third case is linked to a specific situation where Tess finds herself in the presence of two women who used to be her enemies and a farmer, a hateful character, who nurtures hostile feelings about her. The tension she experiences is conveyed by a simile.

*“Tess between the Amazons and the farmer, like a bird caught in a clap-net, returned no answer. (p.301)*

The fourth instance refers to her listening to the music that Angel Clare plays with his harp. Even though, as the author underlines, the interpretation is not perfect, the music has an almost magical effect on her.

*...as she listened Tess, like a fascinated bird, could not leave the spot. (p.125)*

The novel reaches its climax when Tess commits murder, which causes her a terrible shock. Her judgment now is not lucid and her utterances are abrupt and incoherent. The reader is under the impression that she is not fully conscious of what has actually happened. Says the author:

*“She seemed to feel like a fugitive in a dream who tries to move away but cannot. (p. 394)*

Another simile in the same context compares her to a lifeless thing stripped of any desire to live.

*...allowing it to drift, like a corpse upon the current, in a direction dissociated from its living will. (p.395)*

It has to be stressed, though, that none of the similes referring to Tess contains negative connotations. On no occasion do they convey any critical or other negative judgment that would make her look guilty in the eyes of the other characters or the reader. On the contrary, what prevail are positive tones, appreciation, admiration, regret and a constant attempt to justify her actions. The following says it all:

*...this beautiful feminine tissue, sensitive as a gossamer, and practically blank as snow ... (p.74)*

#### IV. ANGEL CLARE

A number of similes in the novel have Angel Clare as their referent. Especially detailed is the process of evaluation of his character as a result of his stay in Talbothays where he subjects his outlook on the world and people to a total revision and begins to see things more realistically. The farm is a remote place, distanced from the rest of the world and this gives him ample opportunity to reflect on a whole lot of things.

*...he had come as to a place from which as from a screened alcove he could calmly view the absorbing world without... (p.156)*

Contact with common people, whom he had so far despised, leads to a radical change in the way he views them. This change is like a chemical reaction.

*...began to differentiate themselves as in a chemical process. (p.121)*

For Angel Clare, his return to Talbothays after his visit to his parents' house has an almost liberating effect. Not just because Tess, his dearest person, is there but also because when he returns there, he leaves his dogmas and prejudices behind and everything else that inhibits his character and restricts his freedom of thought. This is, in my opinion, one of the most striking similes in the novel.

*...to come here...affected him like throwing off splints and bandages... (p.172)*

Other similes have to do with his relationship with Tess and express his evaluation of her as a human being and as a woman. To him she is:

*...like an undulating billow warmed by the sun... (p.148)*

In order to show his unshakeable belief in her pure character he compares her to a flower that has had no time to grow. Says:

*My Tess has, no doubt, almost as many experiences as that wild convolvulus out there...that opened itself this morning for the first time. (p.181)*

The sharp turn that their relationship takes after Tess tells him the story of her life seems to have a profound impact on him. They start to show new aspects of their unknown before. There are a number of similes to this end. To show that feelings like love, affection and intimacy have now become a thing of the past, it is said that:

*...impressions from their previous endearments seemed to hustle away into the corners of their brains, repeating themselves as echoed from a time of supremely purblind foolishness. (p.34)*

Angel's heavy psychological state makes him feel as if he is involved in some crime, while Tess's tears have no effect on him due to his moral scruples.

*Clare arose in the light of a dawn that was ashy and furtive, as though associated with crime. (p.243)*

*...so gentle and affectionate, as he was in general, there lay hidden a hard logical deposit, like a vein of metal in a soft loam... (p.249)*

Similes with lexical items denoting lifeless entities for their descriptive component are employed with a view to representing artistically the dramatic turn of their relationship as well as conveying the idea that now Angel is no longer the man he was a few moments ago,

*I send this message to them as a dying man to the dying. (p.281)*

*...he had disappeared like a shape in a vision. (p.282)*

## V. OTHER CHARACTERS

Similes are widely used with secondary characters as well. Thus, Angel's father is compared twice to a child for his open, straightforward nature.

*...and welcomed his son today with a smile **which was as candidly sweet as a child.** (p.161)*

*Now, as always, Clare's father was **as sanguine as a child.**... (p.171)*

Female characters are Hardy's favourite. To him, they are like pigeons, whereas their bodily shapes could rival those of classical statues.

*...clinging to the roadside bank **like pigeons** on a roof-slope... (p.146)*

*...her plump neck, shoulders, and arms to the moonshine, under which they looked **as luminous and beautiful as some Praxitelean creation.**... (p.67)*

## VI. OBJECTS AND PHENOMENA

A considerable number of similes aim at creating true to life images of various entities, concrete or abstract, comprising the world Hardy constructs in his work. Similes try to capture their essence in order to make them as vivid as possible. Very often they also carry poetic nuances, especially when they are linked to various aspects of human characters.

Visual effects are a permanent attraction for Hardy. The effect of the rays of the sun on the earthly objects along with their shadows is always a source of aesthetic pleasure.

*...the beams of the sun, **almost as horizontal as the mead itself.**... (p.198)*

*...the shadows of Claire and Tess would stretch **like two long fingers pointing afar.**... (p.199)*

*...was visible to their eyes under the luminary, **like the track of moonlight on the sea.** (p.206)*

The rolling tear resembles the lens of a microscope.

*...a tear so large that it magnified the pores of the skin over which it rolled, **like the object lens of a microscope.** (f.236)*

Darkness gives objects unusual shapes, sometimes exaggerating, sometimes hiding them rendering them almost unreal.

*All waited in the growing light, their faces and hands **as if they were silvered.**... (p.413)*

Even the clouds in the sky take part in the show.

*...**rapid as the shadow of a cloud,**... (p.105)*

*The uniform concavity of black cloud was lifting bodily **like the lid of a pot.** (p.410)*

Keen on architecture, Hardy finds the forms of objects always intriguing. The comparison between things often stems

from random similarities. In these cases the function of similes tends to be basically descriptive.

*...whose notched tips appeared **like battlemented towers.**... (p.189)*

*...its more prominent buildings showing **as in an isometric drawing.**... (p. 413) -*

There is quite a number of similes built on acoustic images.

*...his notes thrilled their ears through dwindling away **like echoes down a valley of rocks.** (p.222)*

*...the ground ringing under her feet **like an anvil.** (p.305)*

*The wind, playing upon the edifice, produced a booming tune, **like the note of some gigantic one-stringed harp.** (p.409)*

Heavenly bodies are often depicted giving them shapes and proportions of terrestrial objects. This often parallels the characters' psycho-physical state creating, thus, the impression that the perception is done through their senses. The two following examples are typical,

*...and presently a **pumpkin-like moon** rose on the other hand... (p.182)*

*Above Jupiter, hung **like a full-blown jonquil,** ... (p.361)*

The sea is always present in the language of the people living in an island. This is reflected even in Hardy's similes where elements such as the sea, waves etc, are often found as described or describing components. The author's fatalistic outlook is again expressed by one such analogy. According to him, there exists a certain power which guides and gives purpose to human existence. This power throws humans around just like the tide throws the weed.

*...the tremendous force which sways humanity to its purpose, **as the tide sways the helpless weed.**... (p.196)*

The hustle and bustle of the city of London is another element which is compared to the sea and its waves, whereas Angel Clare in the middle of London is like a cork on the waves.

*...tossed about by doubts and difficulties in London, **like a cork on the waves,** ... (p.232)*

The thin mist covering the meadows makes them look like a white sea.

*...the summer fog was more general and the meadows **lay like a white sea,** ... (p.134)*

## VII. CONCLUSION

In this article, we focused on similes as linguistic means of expression in Thomas Hardy's novel *Tess of the d'Urbervilles*. Similes constitute one of the most important stylistic features of this novel. This is not only due to their relatively large number, but also the artistic function for which they are employed.

The bulk of the similes have Tess Derbeyfield, the main character, as their referent. They focus on various aspect of her

outer appearance as well her personality. Similes are typically used to express the author's attitude towards his character.

Several similes focus on Angel Clare, the second main character in the novel. Hardy has devoted considerable space to the analysis of Clare's character especially his evolution after his arrival at Talbothay dairy farm. In the wide array of linguistic means the author as used to this end, similes may be the most striking ones.

Similes have also been used for the delineation of abstract or concrete objects and phenomena. Built upon visual, acoustic

or other images, they create vivid representations of their referents.

#### REFERENCES

- [1] T. Hardy, "Tess of the d'Urbervilles", New York: Bantam Dell, 2004.
- [2] Oxford Dictionary of English, 8<sup>th</sup> Electronic Edition, 2008.
- [3] S. Tomita, "Similes in *Great Expectations*", Phoenix 58, 2002, pp. 1-22.
- [4] Sh. Islamaj, "Gjuha e Jakov Xoxës", Prishtinë: Instituti Albanologjik i Prishtinës, 2000, pp.214.
- [5] I.R. Galperin , "Stylistics", Moscow: Isdatelstvo, Bisshja Shkola, 1981, pp.167.

# Interaction man-made geohazard and landslide risk over pipelines in Latin America

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**Abstract-** Rainfall is the most frequent trigger of landslides. Researchers try to estimate the amount of precipitation needed to trigger slope failures, a serious problem of pipeline operators by economic, environmental and social implications. This paper shows man-made geohazards: deforestation, land use changes and climate change, and their risk over pipelines in Latin America.

**Keywords-** Landslide, Risk, Pipeline, Geohazard, Climate change, Land use, ENSO

## I. CLIMATE TENDENCIES IN LATIN AMERICA RELATED WITH RAINFALL

In Latin America (LA) regions like east of the Andes and NorthEast Brazil (NEB) show significant interannual rainfall variability, with a minor decrease since around 1970s [1]. Some droughts in this region have been associated with El Niño and/or a warmer Tropical North Atlantic Ocean (e.g. 1983, 1987 and 1998). However, Marengo et al. (op. cit.) showed not all El Niño years result on drought in NEB, as the drought 2012-2013 occurred during La Niña.

In the La Plata Basin (Argentina) a variety of studies have recognized since the mid-1970s a decline in the number of dry days during the warm season (IPCC 2014), while heavy rain frequency is increasing in SouthEast of South America (SESA) [2] and [3]. In regions like SESA, rising in rainfall are probably the cause for changes in soil dampness [4], which increase the risk of landslides during wet season.

According with Vuille et al. [5] in the tropical Andes the temperature has ascended by around 0.1 °C/ decade, and precipitation has marginally increased during the second half of the past century in the inner tropics and decreased in the outer tropics. A pattern corresponding to dampening in the inner tropics and drying in the subtropical Andes could imply an intensification of the tropical atmospheric circulation, increasing potentially the risk over pipelines in Colombia, Peru and Ecuador.

Donat et al.[2] suggest that extreme rains are increasing in frequency in Amazonia, with three floods that have impacted the region from 2005, highlight while that these phenomena have been associated with natural climate variability and not with use soil changes [6] [7].

South America Monsoon Season (SAMS) has one of most active rainfall regions (Fig. 1), coinciding with the Betim gas pipeline and the net of pipelines between Rio de Janeiro and Sao Pablo, and positive trends in rainfall extremes have been

identified since mid-1980s increasing frequency and intensity of heavy rainfall events [8] and earlier onsets and late demise of the rainy season [9].

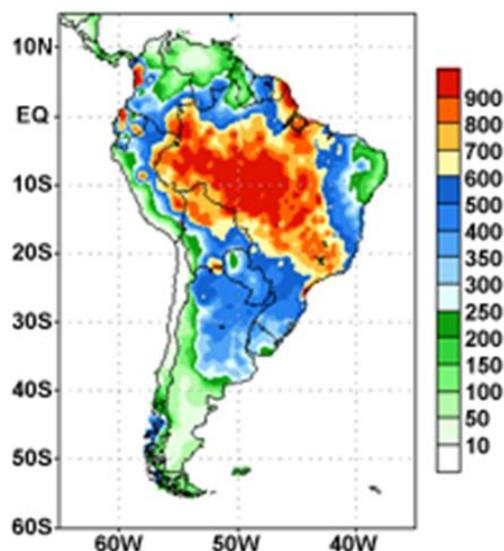


Figure 1. Accumulated precipitation during mature SAMS.

Source: NOAA

Currently the General Circulation Models (GCM) not offer regional forecast with enough accuracy and climate change sceneries for mountain zones in LA are quite uncertain. Other problem is the lack of continuous records and reliable meteorological and hydrological data in most of mountain zones.

## II. TRENDS AND PROJECTIONS ON COVER AND LAND USE CHANGE

In LA the cryosphere is represented by glaciers in the height of Andes and three main ice camps in southern SA. The warm of high peaks could lead to decline important snow covered surfaces, as well as changes in atmospheric circulation by El Niño could modify seasonal melt down, rising ground surface and sub-surface runoff in mountain zones, impacting mainly pipelines in tropical Andes like Ecuador, Peru, Bolivia, Colombia and Venezuela.

If the extreme phenomena rise in frequency and/or intensity, sudden floods, landslides and fires could becoming most frequent. In mountain zones fire span during dry season, follow by heavy rainfall events, before to get a substantial

recovery of vegetation, which conduce most of the case to an almost irreversible alteration of landscape, increasing susceptibility of soil to landslide.

Achard et al. [10] and Clark et al. [11] have showed how deforestation rates in the region remain high in spite of a reducing trend in the last decade. Eight countries of LA are included in the top 25 countries with most high rates of deforestation [12]. The countries of CA and SA lost a total of 38,300 km<sup>2</sup> of forest per year. Between 1990 and 2005, Brazil was the leader, cleared over 42 million hectares of forest, Mexico deforested almost 5 million Ha, and Venezuela, Bolivia, Ecuador, Honduras, Paraguay and Argentina, cleared between 4.7 and 2.8 million hectares [13].

Aide [14] researched deforestation for LA along the period 2001-2010 (Fig. 2). The result of overlapping deforestation zones with pipelines trajectories shows that most vulnerable pipelines and sectors are:

- Santa Cruz-Arica (OSSA1) pipeline between Oconi and Santacruz (Bolivia)
- ONSZ1 pipeline between Vibora and Yapacani (Bolivia)
- North gas pipeline, southern Jujuy and Salta, in Salta closet to border with Bolivia and Tucumán province (Argentina)
- SOTE and OCP pipelines between Lago Agrio and Lumbaqui, and the section between Quinindé and Esmeraldas (Ecuador)
- North section of Santo Domingo to Pascuales pipeline (Ecuador)
- Caño Limón-Coveñas and Bicentenario pipelines between Banadia and Samoré (Colombia).



Figure 2. Deforestation in LA along the period 2001-2012. Modified from Aide, 2013.

### III. EL NIÑO-SOUTHERN OSCILLATION

The El Niño-Southern Oscillation (ENSO) can be defined as a natural fluctuation of the global climate system produced by equatorial ocean-atmosphere interaction in the tropical Pacific Ocean [15]. The term Southern Oscillation refers to a tendency for above-average surface atmospheric pressures in the Indian Ocean to be associated with below-average pressures in the Pacific, and vice versa. This oscillation is associated with variations in Sea Surface Temperatures (SST) in the east equatorial Pacific. The oceanic and atmospheric variations are collectively referred to as ENSO.

An El Niño episode is associated with abnormally warm central and east equatorial Pacific Ocean surface temperatures, while the opposite phase, a La Niña episode, is associated with abnormally cool ocean temperatures in this region. Both phases are associated with a characteristic spatial pattern of droughts and floods. In a La Niña episode the climate anomalies are usually the opposite of those in an El Niño.

The possible role of increased greenhouse gases in affecting the behavior of ENSO over the past 50 to 100 years is uncertain but probable. Changes in the background temperature associated with increases in greenhouse gases should affect the behavior of ENSO, as was suggested by [16], such as the location of the strongest SST anomalies, because El Niño behavior is strongly related to the average ocean temperature gradients in the equatorial to increased CO<sub>2</sub>.

In Colombia La Niña is associated with high abnormally rainfall. According NOAA during last decade have befallen one moderate (2007-2008) and other one strong (2010-2011) event (Tab. 1). Statistics of Ecopetrol (Colombian National Oil Company) shows how the number of pipeline fracture by geotechnical failure during the period 2008-2011, can be more than three times (Fig. 3) above the average, in special during the mature phase of La Niña, when soils on hills and mountains are saturated with water and landslide events are triggered.

TABLE I. YEARS AND INTENSITY OF LA NIÑA EVENTS

La Niña		
Weak	Moderate	Strong
1956-57	1950-51	1955-56
1962-63	1954-55	1973-74
1964-65	1970-71	1975-76
1967-68	1998-99	1988-89
	2000-01	<b>2010-11</b>
	<b>2007-08</b>	

Source: NOAA/NOI 2012

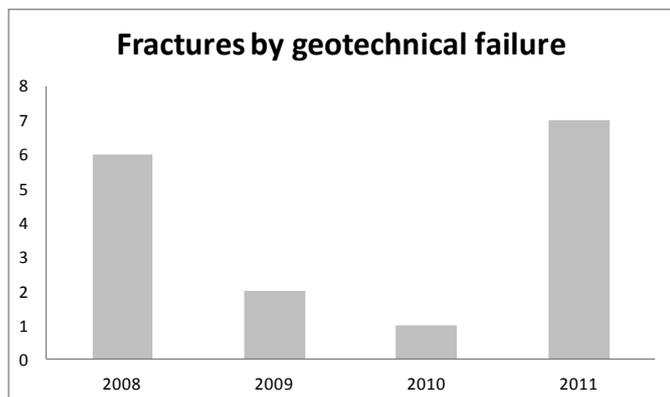


Figure 3. Statistics of Ecopetrol of pipelines fractures by geotechnical failure. Source: Ecopetrol

Overlapping most probable alterations of rainfall during a typical La Niña event vs. susceptibility of soils to mass removal, Gutiérrez (com. pers.) has obtained a map of critical hot spots of potential landslides. Same author stated that the distance between landslides happened in Santander-Colombia during December of 2010 is closer when compared with hot spots, compared with the distance between the same landslides happened and isohyets with maximum values and susceptibility of soils to mass removal, which is the traditional interpretation in geohazard risk assessments. It example shows in spite of not be of pipelines, the importance of include a new interpretation of the relationship between rainfall and geohazard risk associated with landslides.

#### IV. TROPICAL CYCLONES

A Tropical Cyclone (TC) is a rotating, organized system of clouds and thunderstorms that originates over tropical or subtropical waters and has a closed low-level circulation. There are seven tropical cyclone regions (Fig. 4), where tropical cyclones form on a regular basis.

TCs are classified in terms of their intensity, which is a measure of near-surface wind speed. The strongest storms are comparatively rare but are generally responsible for the majority of damage. Significant progress is being made, but substantial uncertainties still remain due largely to data quality issues and imperfect theoretical and modeling frameworks.

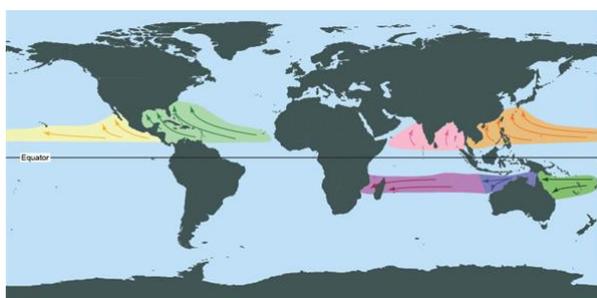


Figure 4. Tropical Cyclone Formation Regions. Green: Atlantic, Yellow: Northeast Pacific, Brown: Northwest Pacific, Rose: North Indian, Purple: Southwest Indian, Blue: Southeast Indian/Australian, Olive: Australian/Southwest Pacific. Source:

[http://www.srh.noaa.gov/jetstream/tropics/tc\\_basins.htm](http://www.srh.noaa.gov/jetstream/tropics/tc_basins.htm)

Detection of trends in TCs metrics such as frequency, intensity, and duration remains a significant challenge. Progress has been made toward a more homogeneous global record of TCs intensity using satellite data during the past 30 years [17], [18], [19].

According with IPCC natural variability combined with uncertainties in the historical data makes it difficult to detect trends in TCs activity. There have been no significant trends observed in global TCs frequency records. Regional trends in TCs frequency have been identified in the North Atlantic, but the fidelity of these trends is debated [21] [22]. Regional trends have not been detected in other oceans [23][24][25].

Only during 2013 three fractures of pipelines was attributed to TCs and extreme rainfall associates to these. In China Typhoon Soulik was the cause of the fracture of a pipeline operated by Shaanxi Yanchang Petroleum Company in Zichang County (NW China). Hurricane Manuel lashed Mexico's northwest coast with heavy rains on September and state oil monopoly Pemex had to dispatch technicians to fix a ruptured 12-inch oil pipeline between Madero and Cadereyta. In Philippines an underwater pipeline of Petron was fractured during Typhoon Basyang, affecting around 10,000 fisherfolk in Cavite province.

#### REFERENCES

- [1] J. A. Marengo, J. Tomasella, W. R. Soares, L. M. Alves, and C. A. Nobre, "Extreme climatic events in the Amazon basin: Climatological and hydrological context of recent floods," *Theor. Appl. Climatol.*, vol. 107, no. 1–2, pp. 73–85, Jan. 2012.
- [2] M. G. Donat, L. V. Alexander, H. Yang, I. Durre, R. Vose, and J. Caesar, "Global Land-Based Datasets for Monitoring Climatic Extremes," *Bull. Am. Meteorol. Soc.*, vol. 94, no. 7, pp. 997–1006, Jul. 2013.
- [3] A. S. Dufek and T. Ambrizzi, "Precipitation variability in São Paulo State, Brazil," *Theor. Appl. Climatol.*, vol. 93, no. 3–4, pp. 167–178, Aug. 2008.
- [4] C. Saulo, L. Ferreira, J. Nogués-Paegle, M. Seluchi, and J. Ruiz, "Land–Atmosphere Interactions during a Northwestern Argentina Low Event," *Mon. Weather Rev.*, vol. 138, no. 7, pp. 2481–2498, Jul. 2010.
- [5] M. Vuille, B. Francou, P. Wagnon, I. Juen, G. Kaser, B. G. Mark, and R. S. Bradley, "Climate change and tropical Andean glaciers: Past, present and future," *Earth-Sci. Rev.*, vol. 89, no. 3–4, pp. 79–96, Aug. 2008.
- [6] J. C. Espinoza, M. Lengaigne, J. Ronchail, and S. Janicot, "Large-scale circulation patterns and related rainfall in the Amazon Basin: a neuronal networks approach," *Clim. Dyn.*, vol. 38, no. 1–2, pp. 121–140, Jan. 2012.
- [7] S. L. Lewis, P. M. Brando, O. L. Phillips, G. M. F. van der Heijden, and D. Nepstad, "The 2010 Amazon Drought," *Science*, vol. 331, no. 6017, pp. 554–554, Feb. 2011.
- [8] B. Wang, J. Liu, H.-J. Kim, P. J. Webster, and S.-Y. Yim, "Recent change of the global monsoon precipitation (1979–2008)," *Clim. Dyn.*, vol. 39, no. 5, pp. 1123–1135, Sep. 2012.
- [9] L. M. V. Carvalho, C. Jones, A. E. Silva, B. Liebmann, and P. L. Silva Dias, "The South American Monsoon System and the 1970s climate transition," *Int. J. Climatol.*, vol. 31, no. 8, pp. 1248–1256, Jun. 2011.
- [10] F. Achard, R. Beuchle, P. Mayaux, H.-J. Stibig, C. Bodart, A. Brink, S. Carboni, B. Desclée, F. Donnay, H. D. Eva, A. Lupi, R. Raši, R. Seliger, and D. Simonetti, "Determination of tropical deforestation rates and related carbon losses from 1990 to 2010," *Glob. Change Biol.*, vol. 20, no. 8, pp. 2540–2554, Aug. 2014.
- [11] M. L. Clark, T. M. Aide, and G. Riner, "Land change for all municipalities in Latin America and the Caribbean assessed from 250-m MODIS imagery (2001–2010)," *Remote Sens. Environ.*, vol. 126, pp. 84–103, Nov. 2012.

- [12] Food and Agriculture Organization of the United Nations, *Global forest resources assessment 2010: main report*. Rome: Food and Agriculture Organization of the United Nations, 2010.
- [13] R. Lindsey, "NASA Earth Observatory .," 30-Mar-2007. [Online]. Available: [http://earthobservatory.nasa.gov/Features/Deforestation/deforestation\\_update3.php](http://earthobservatory.nasa.gov/Features/Deforestation/deforestation_update3.php). [Accessed: 17-Sep-2014].
- [14] T. M. Aide, "Land change between 2001 and 2012 in tropical montane forests/shrublands/grasslands in Latin America," presented at the New Frontiers in Tropical Biology: The Next 50 Years (A Joint Meeting of ATBC and OTS), 2013.
- [15] M. Collins, S.-I. An, W. Cai, A. Ganachaud, E. Guilyardi, F.-F. Jin, M. Jochum, M. Lengaigne, S. Power, A. Timmermann, G. Vecchi, and A. Wittenberg, "The impact of global warming on the tropical Pacific Ocean and El Niño," *Nat. Geosci.*, vol. 3, no. 6, pp. 391–397, Jun. 2010.
- [16] S.-W. Yeh, B. P. Kirtman, J.-S. Kug, W. Park, and M. Latif, "Natural variability of the central Pacific El Niño event on multi-centennial timescales," *Geophys. Res. Lett.*, vol. 38, no. 2, p. L02704, Jan. 2011.
- [17] P. J. Klotzbach, "Trends in global tropical cyclone activity over the past twenty years (1986–2005)," *Geophys. Res. Lett.*, vol. 33, no. 10, p. L10805, May 2006.
- [18] C. S. Velden, T. L. Olander, and R. M. Zehr, "Development of an Objective Scheme to Estimate Tropical Cyclone Intensity from Digital Geostationary Satellite Infrared Imagery," *Weather Forecast.*, vol. 13, no. 1, pp. 172–186, Mar. 1998.
- [19] C. Velden, B. Harper, F. Wells, J. L. Beven, R. Zehr, T. Olander, M. Mayfield, C. Guard, M. Lander, R. Edson, L. Avila, A. Burton, M. Turk, A. Kikuchi, A. Christian, P. Caroff, and P. McCrone, "The Dvorak Tropical Cyclone Intensity Estimation Technique: A Satellite-Based Method that Has Endured for over 30 Years," *Bull. Am. Meteorol. Soc.*, vol. 87, no. 9, pp. 1195–1210, Sep. 2006.
- [20] C. Velden, B. Harper, F. Wells, J. L. Beven, R. Zehr, T. Olander, M. Mayfield, C. Guard, M. Lander, R. Edson, L. Avila, A. Burton, M. Turk, A. Kikuchi, A. Christian, P. Caroff, and P. McCrone, "The Dvorak Tropical Cyclone Intensity Estimation Technique: A Satellite-Based Method that Has Endured for over 30 Years," *Bull. Am. Meteorol. Soc.*, vol. 87, no. 9, pp. 1195–1210, Sep. 2006.
- [21] C. Landsea, "Counting Atlantic tropical cyclones back to 1900," *Eos Trans. Am. Geophys. Union*, vol. 88, no. 18, pp. 197–202, May 2007.
- [22] M. E. Mann, K. A. Emanuel, G. J. Holland, and P. J. Webster, "Atlantic tropical cyclones revisited," *Eos Trans. Am. Geophys. Union*, vol. 88, no. 36, pp. 349–350, Sep. 2007.
- [23] J. C. L. Chan and M. Xu, "Inter-annual and inter-decadal variations of landfalling tropical cyclones in East Asia. Part I: time series analysis," *Int. J. Climatol.*, vol. 29, no. 9, pp. 1285–1293, Jul. 2009.
- [24] H. Kubota and J. C. L. Chan, "Interdecadal variability of tropical cyclone landfall in the Philippines from 1902 to 2005," *Geophys. Res. Lett.*, vol. 36, no. 12, Jun. 2009.
- [25] J. Callaghan and S. B. Power, "Variability and decline in the number of severe tropical cyclones making land-fall over eastern Australia since the late nineteenth century," *Clim. Dyn.*, vol. 37, no. 3–4, pp. 647–662, Aug. 2011.

# The Role of Rural Ecotourism and Transhumance in Sustainable Rural Development

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**Abstract**—This study presents the rural ecotourism and the transhumance as part of the sustainable tourism, setting off the strong and the weak points of the Romanian rural ecotourism. Was carried out a SWOT analysis and resulting the elements which may transform the Romanian ecotourism market in a reference market for the tourism worldwide. Also were analyzed dynamics of the number of accommodation in rural ecotourism, dynamics of the number of beds in those structures and dynamics of the number of sheep involved in transhumance in Romania in 2003-2013 period. Regarding the elements analyzed, it was found that the trend is ascending, ecotourism and transhumance gaining an important role in rural development.

**Keywords**-ecotourism, principles, rural, sustainability, transhumance

## I. INTRODUCTION

Rural ecotourism and transhumance may be an important field of the Romanian tourism, because Romania has a good geographic position, it's a territory placed at the crossing roads of the main European access roads, North – South, East – West, important for all kinds of tourism and especially the business tourism, the beauty of the landscapes, the favorable conditions for accommodation and the traditional Romanian hospitality and creativity, the Romanian rich ethnography and folklore, the Romanian typical dishes, all these offer good opportunities to develop a quality rural ecotourism, plus the fact that Romania is between the countries that are still practicing the phenomenon of transhumance with which only few of the countries of Europe can be identified, is bringing to the touristic aspect of the country a special value.

## II. MATERIAL AND METHOD

As the definition says **transhumance** is the seasonal movement of people with their livestock between fixed summer and winter pastures. In the region of the mountains the *vertical transhumance* implies movement between higher pastures in summer and lower valleys in winter. Herders have a permanent home, typically in valleys. Generally only the herds travel, with a certain number of people necessary to tend them, while the main population stays at the base. In contrast, *horizontal transhumance* is more susceptible to being disrupted by climatic, economic or political change.<sup>[1]</sup>

Traditional or fixed transhumance it is often of high importance to pastoralist societies, as the dairy products coming from the transhumance flocks and herds (milk, butter, yogurt and cheese) often form much of the diet of such

populations. In many languages there are words for the higher summer pastures, and frequently these words have been used as place names: e.g. Tara Barsei, Bartalus – Mocani etc.

Several university programs use the definition of the **ecotourism** as a form of tourism involving visiting fragile, pristine, and relatively undisturbed natural areas, intended as a low-impact and often small scale alternative to standard commercial (mass) tourism. Its purpose may be to educate the traveler, to provide funds for ecological conservation, to directly benefit the economic development and political empowerment of local communities, or to foster respect for different cultures and for human rights. Since the 1980s ecotourism has been considered a critical endeavor by environmentalists, so that future generations may experience destinations relatively untouched by human intervention.<sup>[2]</sup>

Generally, ecotourism deals with living parts of the natural environments.<sup>[3]</sup> Is considered that ecotourism focuses on socially responsible travel, personal growth, and environmental sustainability and involves travel to destinations where natural heritage as flora and fauna, and cultural heritage are the primary attractions. Ecotourism is intended to offer tourists insight into the impact of human beings on the environment, and to foster a greater appreciation of our natural habitats.

Responsible ecotourism programs should include those that minimize the negative aspects of conventional tourism on the environment and enhance the cultural integrity of local people. In addition to evaluating environmental and cultural factors, an integral part of ecotourism is the promotion of recycling, energy efficiency, water conservation, and creation of economic opportunities, especially places for work for local communities.<sup>[4]</sup> For these reasons, ecotourism often appeals to advocates of environmental and social responsibility.

The term 'ecotourism', like 'sustainable tourism', is considered by many to be an oxymoron. Tourism in general depends upon and increases air transportation, contributing significantly to greenhouse gas emissions from combustion placed high into the stratosphere where they immediately contribute to the heat trapping phenomenon behind global warming and climate change. Additionally, "the overall effect of sustainable tourism is negative, where, like ecotourism, philanthropic aspirations mask hard-nosed immediate self-interest."<sup>[5]</sup>

Ecotourism is a form of tourism that involves visiting natural areas—in the remote wilderness or rural environments. According to the definition and principles of ecotourism

established by The International Ecotourism Society (TIES) in 1990, ecotourism is "Responsible travel to natural areas that conserves the environment and improves the well-being of local people." (TIES, 1990).

Martha Honey, expands on the TIES definition by describing the characteristics of ecotourism, which are:

- Involves travel to natural destinations;
- Minimizes impact;
- Builds environmental awareness;
- Provides direct financial benefits for conservation;
- Provides financial benefits and empowerment for local people;
- Respects local culture;
- Supports human rights and democratic movements conservation of biological diversity and cultural diversity through ecosystem protection;
- Promotion of sustainable use of biodiversity, by providing jobs to local populations;
- Sharing of socio-economic benefits with local communities and indigenous peoples by having their informed consent and participation in the management of ecotourism enterprises;
- Tourism to unspoiled natural resources, with minimal impact on the environment being a primary concern;
- Minimization of tourism's own environmental impact;
- Affordability and lack of waste in the form of luxury;
- Local culture, flora and fauna being the main attractions;
- Local people benefit from this form of tourism economically, often more than mass.<sup>[6]</sup>

The sustainable development concept used also for sustainable rural tourism is related to an economic growth, meeting the needs of the society – prosperity, in this case of the rural society on short, medium and especially on long terms. This concept stands on the following reason: the development must be faced with the present needs without endangering the future needs.<sup>[7]</sup>

The implementation of the politics and tourist plans for rural ecotourism represents a responsibility of the government but also of those that are involved in the private sector.

The private sector has some responsibilities: to fix the strategy, the planning and research, the fulfillment of the basic infrastructure, the development of some tourist attractions, for introducing measures in order to administrate and capitalize a region to offer facilities and services and to preserve the environment, to maintain the public health and security.

The private sector is responsible for the development of the accommodation services; the activity of the firms specialized in tourism and the tourist agencies, and is based on infrastructure,

on the development of tourist attractions and on the way they are promoted within the field of marketing.

The development of human resources in tourism has to be a priority, these must be able to offer high quality services, expected on the tourism market and needs to be approached in a systematic manner (to lay out the demand on human resources and to fix the modality these persons are going to be trained) in order to provide qualified people in the public and private sectors.

In order to determine the role of rural ecotourism and transhumance in sustainable rural development in Romania were determined the strengths and weaknesses by SWOT Analysis.

The SWOT analysis (alternatively SWOT matrix) is a structured planning method used to evaluate the strengths, weaknesses, opportunities and threats involved in a project or in a business venture:

- Strengths: characteristics of the business or project that give it an advantage over others.
- Weaknesses: characteristics that place the business or project at a disadvantage relative to others
- Opportunities: elements that the project could exploit to its advantage
- Threats: elements in the environment that could cause trouble for the business or project

A SWOT analysis can be carried out for a product, place, industry or person. It involves specifying the objective of the business venture or project and identifying the internal and external factors that are favorable and unfavorable to achieve that objective.

Identification of SWOTs is important because they can inform later steps in planning to achieve the objective. First, the decision makers should consider whether the objective is attainable, given the SWOTs. If the objective is *not* attainable a different objective must be selected and the process repeated.<sup>[8]</sup>

In addition to the SWOT analysis were analyzed dynamics of the number of accommodation in rural ecotourism, dynamics of the number of beds in those structure and dynamics of the total number of sheep involved in transhumance in Romania.

These analyses were made in 2003-2013 period. To achieve the research objectives we have studied the official statistical data provided by different institutions (Eurostat, Ministry of Regional Development and Public Administration, Ministry of Agriculture and Rural Development of Romania, National Institute of Statistics, National Agency for Amelioration and Reproduction in Animal Science), we calculated the percentage difference between the reference years and we interpreted data obtained.

Finally, were issued the conclusions and recommendations resulting from this study about the role of rural ecotourism and transhumance in rural development.

### III. RESULTS AND DISCUSSIONS

In Romania are regions with flora and fauna species, disappeared in other countries or found out in captivity. Because of the weak development of the classic tourism in some regions, good conditions for the development of

ecotourism and rural ecotourism associated to the transhumance were created. Maybe this means that Romania is able to become an important destination for this kind of tourism. The SWOT Analysis of the Romanian rural ecotourism and transhumance is presented in Table I.

TABLE I. THE SWOT ANALYSIS OF THE ROMANIAN RURAL ECOTOURISM AND TRANSHUMANCE

SWOT Analysis	Romanian Rural Ecotourism	Romanian Transhumance
<b>Strong Points:</b>	<ul style="list-style-type: none"> <li>• Many UNESCO villages</li> <li>• The rich number of sights included on the UNESCO patrimony list, which are located in natural areas surrounding the villages</li> <li>• The permanent development of the protected area system</li> <li>• Diversity of natural tourist resources</li> </ul>	<ul style="list-style-type: none"> <li>• The rich fauna and flora, including unique species, the presence of wild areas unharmed by man</li> <li>• A big percentage of sheep still going in transhumance</li> <li>• Beautiful natural areas by where the sheep are going to the mountains</li> <li>• Not a big international competition</li> </ul>
<b>Weak Points:</b>	<ul style="list-style-type: none"> <li>• The extending of built up areas near or inside the protected area</li> <li>• The overexploitation of natural resources</li> <li>• The low accommodation capacity inside the protected areas</li> <li>• The low vocational training level (for guides, people who manages these activities)</li> <li>• Reduced services and leisure offer</li> </ul>	<ul style="list-style-type: none"> <li>• In some areas is an excessive pasture</li> <li>• The illegal woodcuttings, wild trespass or uncontrolled tourism</li> <li>• The absence of ecological education</li> <li>• The poor legal frame to create a kind of tourism sustained by this activity</li> </ul>
<b>Opportunities</b>	<ul style="list-style-type: none"> <li>• the traditional activities related to hospitality and rest</li> <li>• the increasing number of tourists and demand for rural ecotourism</li> <li>• good natural products as food, cosmetics or art craft obtained without hurting the environment</li> </ul>	<ul style="list-style-type: none"> <li>• many transhumance roads that can be used in new types of tourism as for mountain bike roads</li> <li>• slow food and many natural products directly from the shepherd</li> </ul>
<b>Threats</b>	<ul style="list-style-type: none"> <li>• not to many facilities for the investors interested in this kind of tourism</li> <li>• The deficient administration of the existing rural ecotourism facilities, generating big quantities of wastes</li> <li>• the urbanization of the country people and the wastage of the cultural patrimony</li> <li>• Insufficient market studies</li> </ul>	<ul style="list-style-type: none"> <li>• not to many facilities for the tourists interested in the tourism involving the transhumance</li> <li>• the inexistence of the necessary legal frame which allows other kinds of tourism developed on the path of transhumance</li> <li>• The marketing of national/natural parks is reduced especially on regional/local field, that means the ignorance of these sights</li> </ul>

The weaknesses in the field are revealed by a lack of capacity and modernization in some rural ecotouristic units, the fact that the hygienic conditions are not always strictly respected, and there is a small number of specific endowments for the entertainment. For transhumance is the lack of marked paths followed by the herds during the process, that can be used for other tourist purposes.

The threats in rural ecotourism are given by the facts that the Romanian infrastructure is still not as good as the public roads should have a significant role in the development of tourism in any country.

Also concerning the rural ecotourism, there is always a big concurrence with the other types of tourism, at the seaside or in the mountains, types of tourism that have already an old tradition in Romania, but the aspect of transhumance may be a plus for the rural ecotourism in Romania because exist in only few countries of Europe.

The opportunities are given by the strengths and also by the investments that can be made in rural ecotourism, by the possibility of creation of new association to sustain the development and the improvement of rural ecotourism, a

better publicity at national and international level of this kind of tourism, by all means etc.

Regarding the dynamics of total touristic accommodation structures in the Romanian rural ecotourism (Rural touristic pensions, Touristic Inns, Holiday Villages), this was analyzed in 2003-2013 period, taking as reference years 2003, 2008 and 2013 (Fig. 1).

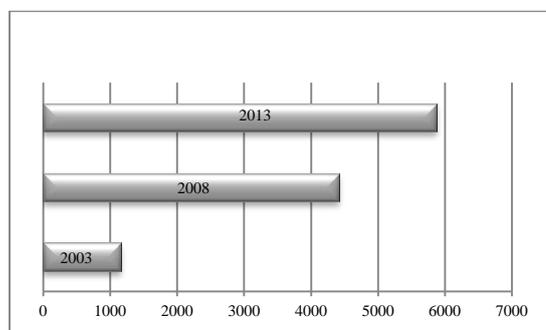


Figure 1. Dynamics of total touristic accommodation structures in the Romanian rural ecotourism, in 2003-2013 period

It has been found that in 2013, the number of touristic accommodation structures has increased by 80% compared to 2003 and by 25% compared to 2008.

The same dynamic has been observed in terms of accommodation capacity (Fig. 2).

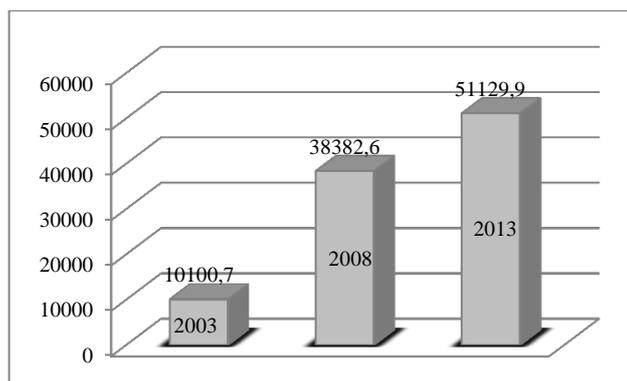


Figure 2. The dynamics of total accommodation capacity in the Romanian rural ecotouristic structures, in 2003-2013 period

The total touristic accommodation capacity (touristic beds) in the Romanian rural ecotouristic structures has increased by five times in 2013, compared to 2003.

Regarding transhumance, in the past, it was one of the factors that have contributed to the strengthening of national unity consciousness of the Romanian people. In our day, it takes a certain ability to adapt to new social conditions of our transhumant shepherds. They valorize sheep's dairy products like milk, butter, yogurt and cheese, products which are increasingly required on the market.

In analyzed period, was found an increase in the number of sheep involved in transhumance in Romania (Fig. 3).

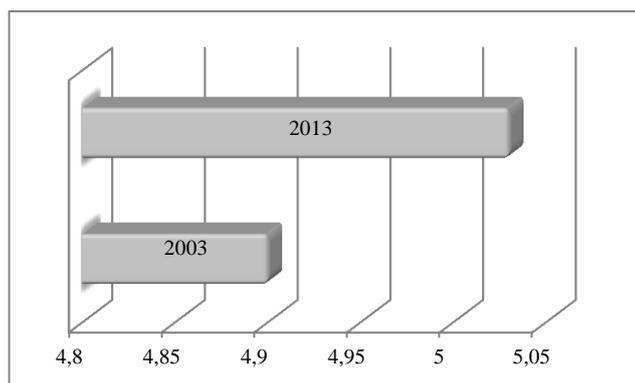


Figure 3. Dynamics of total number of sheep involved in transhumance in Romania (mil. heads), in 2003-2013 period

Compared with 2003, when there were 4.9 million sheep heads, in 2013, the number increased by about 2.5 times and reached to 5.03 million sheep heads. The increase cannot be considered spectacular. There are several reasons that led it like decrease of shepherds, reduced opportunities for use of wool, restrictions on public roads etc.

But nevertheless, it is gratifying that is maintained and practiced the transhumance which can provide a sustainable rural development. In this way, we can keep the spirit of the Romanian people which bears the seal of "mioritic space".

#### IV. CONCLUSIONS

As a consequence of the study to develop the rural ecotourism and transhumance for a sustainable rural development needed some planned activities as:

- The identification of high potential rural ecotourism areas, villages and tourism services;
- Set-up a national information service (catalogue, online platforms etc) to promote rural areas and villages;
- Promotion of local traditions and cultural heritage;
- Promotion of rural ecotourism and agro - tourism associated with the transhumance;
- Promotion of slow food and other innovative concept and integration in tourism programs;
- Development of specific events and tours to promote rural ecotourism activities and the transhumance;
- The increase of the number of accommodation structures in rural ecotourism, the number of beds in those structures and the number of sheep involved in transhumance in Romania.

The quality food products obtained in the farms and in the shepherd home from the rural ecotourism, the nice landscapes, the rich biodiversity for those who want to preserve nature, the innovative business opportunities in this type of tourism, all these represent high nature value tourism.

This type of tourism is very important because it is promoting the care for natural resources, which in many countries of the European Union have been neglected and lost. Also is helping to inform about the crucial role that the tourist and farmer have in the maintenance of the natural and cultural treasury by the traditional methods used to work the land, or to prepare the food and to make superior quality products by multiplying and sharing with the following generations the traditions and customs related to the nature, and the rural ecotourism is learning the tourists about this way of living leading to the preservation of rural landscapes and the protection of natural resources.

#### ACKNOWLEDGMENT

This work was a part from PhD thesis elaboration "Study on transhumance in the European concept and ways to exploit the specific products within the rural tourism ecological" of Nicoleta Emilia Leonte.

#### REFERENCES

- [1] Roger Blench, "You can't go home again' – Pastoralism in the new millennium", London: Overseas Development Institute, 2001, p. 12.
- [2] Martha Honey, "Ecotourism and Sustainable Development: Who Owns Paradise?", (Second ed.) Washington, DC: Island Press., 2008, p. 33.

- [3] B.N. Sadry, "Fundamentals of Geotourism: with a special emphasis on Iran", Samt Organization publishers, Teheran, 2009.
- [4] A. Randall, "Resource economics", Second Edition. New York, USA: John Wiley and Sons, 1987.
- [5] M.J. Stabler, "Tourism and Sustainability: Principles to Practice", CAB International: Wallingford, 1997, p 45.
- [6] Martha Honey, "Ecotourism and Sustainable Development: Who Owns Paradise?", (Second ed.) Washington, DC: Island Press., 2008, p. 29-31.
- [7] P. Nistoreanu, Magdalena Bobe, A. Stroia, M. Negrea, „Contribuția ecoturismului la dezvoltarea durabilă a comunităților locale rurale românești”, Turismul rural românesc. Actualitate și perspective, Editura Performantica, Iasi, 2008, p 53-61.
- [8] Humphrey, Albert, "SWOT Analysis for Management Consulting". SRI Alumni Newsletter (SRI International), 2005.

# Contribution of postal providers to e-commerce development

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**Abstract**—Transferring business into the area of e-trading of products and services brings a new dimension of the expected quality when it comes to the velocity of trading i.e. of delivering bought products. Logistically oriented organizations, where postal providers can see their opportunity to bring the competition to a new level play a major role in this part of the trading chain.

New services which are being developed by postal service providers are oriented towards the contemporary communication with clients, from e-payments, to the availability of information about consignment's movement, to online defining of the time and location of the delivery. Regular postal services, which include a universal service, play a decreasing role in the market, considering that the velocity and flexibility of delivering introduce a new criteria which classifies the success of providers.

When observing economically developed parts of Europe, The European Union, as well as world known postal providers, we can draw conclusions which could show us the way to develop postal traffic in the upcoming period.

**Keywords-** e-commerce, postal providers

## I. INTRODUCTION

The development of digital economy has stimulated postal service providers to innovate business management through developing electronic postal services and their integration with the already existing services. However, the speed, quantity and the level of success of these innovations differs in different countries, regions and markets. One of the reasons for these variations is the lack of exact and universal information about the type of postal e-services, their value and impact on future development of postal traffic [1].

It is also known that the providers of express services have a major role in distributing international consignments in a unique EU market. The value of this market increased by around 70% from 1999 to 2010 [2], while the income from delivering consignments in this territory increased by around 85%. This information shows that express delivery inside the EU has a major role and a huge impact on united market development. Research has shown that about 30% [2] of the income from e-commerce depends on express postal services.

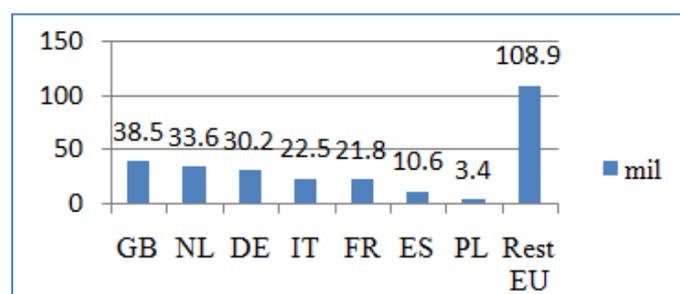
The main point of express transportation is providing services of additional value which primarily means transporting and delivering the next day or until another fixed deadline door-to-door. However, the biggest contribution is the effect on other competitive firms which do business in this manner.

Starting from the fact that e-commerce is made of buying and selling products and services using ICT, this paper focuses on the fact that postal service providers whose main activity is transportation and delivery can contribute not only to their own development, but the development of this field altogether, or slowly disappear from the market and leave this job to someone else.

## II. EASE OF USE CONDITION OF THE EU REGION

Express transportation plays a major role in making international trade across the EU easier for enterprises which use this service in order to deliver goods to buyers located in other countries-members of the EU. Graph 2.1 shows how international express transportation works in the EU. Express transportation services should play a major role in making international trade in EU easier. The question is how ready the postal services providers are to timely respond to such requests and enable enterprises which rely on this way of trading goods to stay in the market, both international and national.

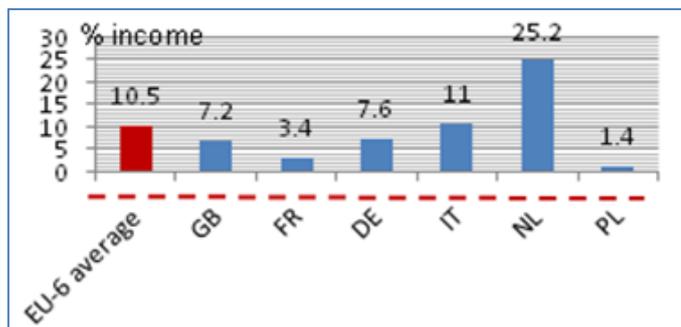
Data shows that in the EU region small and medium enterprises use express consignments mainly for international



deliveries. International consignments make up circa 72 per cent of all express consignments in the EU.

Graph 2.1: International express consignments inside the EU per country of origin (in millions) [2]

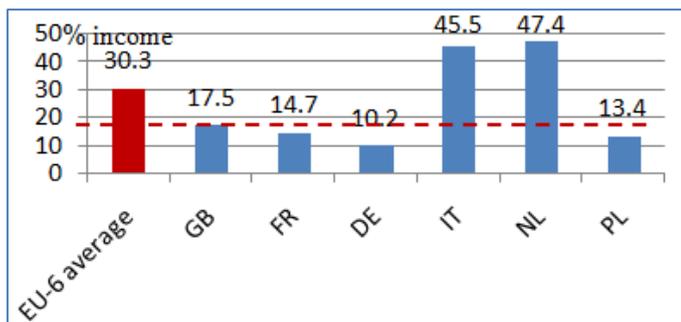
Today, e-commerce is an important marketing channel for European companies. The income made by selling becomes more and more dependent on e-commerce in all countries-members of the EU. The most outstanding is Holland, where a quarter of all income made by selling is dependent on e-commerce, as graph 2.2 shows.



Graph 2.2: Companies' income made by selling dependent on e-commerce in the EU region [2]

E-market, on the other hand, depends on the delivery speed, which automatically increases the effect of express deliveries on the total income. Graph 2.3 shows income made using e-commerce dependency on express delivery services.

It is obvious that companies in Holland and Italy most commonly use express services in order to expand e-commerce importance in doing business. A large number of Internet users inside the EU also use e-market, which is not the case with developing countries (such as Serbia). The average percentage of Internet users in Europe who use e-commerce is circa 60 per cent [3], which is still twice as large as the number of internet users who use e-commerce in Serbia (26.7 per cent) [4].



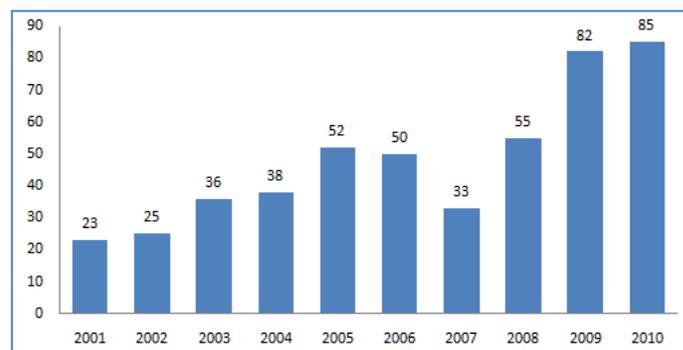
Graph 2.3. Income made using e-commerce dependency on express delivery services [2]

### III. ELECTRONIC POSTAL SERVICES WORLD-WIDE DEVELOPMENT TREND

Strategic goals and postal managements' investments across the world are being more and more directed towards complex requirements of their customers, along with towards new commercial and high-tech services which provide quality, simplicity and comfort, as well as competitive advantage in different trading segments. The electronic postal services world-wide development trend during the last decade is presented in the graph 3.1., based on survey done by the Universal Postal Union (UPU).

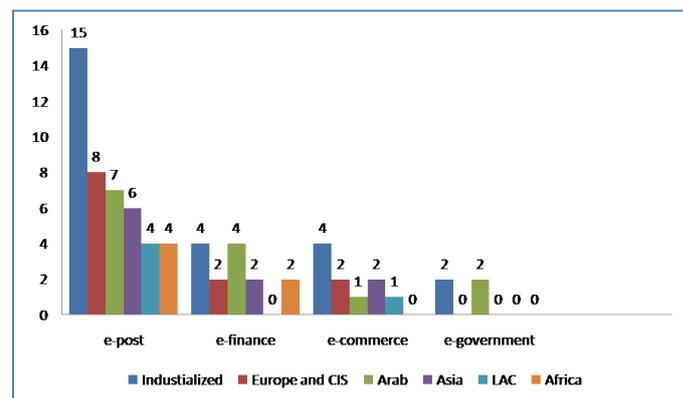
Regional analysis conclusion shows uneven development and implementation of electronic postal services by regions, as

well as uneven development and frequency of both groups and individual services. The average number of realized electronic postal services provided by postal managements in industrialized countries' group (23) is far larger than with other



world regions, while the smallest LAC (?) is in the African region. The average number of electronic postal services divided by categories and regions is shown in the graph 3.2.

Graph 3.1. – Development trend and the number of implemented postal services world-wide [1]



Graph 3.2. Average number of electronic postal services by regions, for every service category [1]

Based on the mentioned survey, most current electronic postal services world-wide are:

- e-post services: Track&Trace, Hybrid mail, postal address accuracy check and ZIPcode search
- e-finance services: electronic money transfer
- e-market services: online philately and Customer e-market support
- e-management services: electronic customs documents, digital identity, electronic pension payments and electronic export documents

while:

- e-post services: e-postcards, online direct mail, registered electronic consignment and mobile phones applications
- e-finance services: online bills payment
- e-market services: online ZIP products shop and SSL web certificates and

- e-management services: online passport app

described as partially developed services, especially in industrialized countries. Based on these analyses a development strategy can be made in our country for services like these.

#### IV. POSTAL SERVICE PROVIDERS' RESPONSE

Postal market is becoming more exciting than ever, in a way more fragmented, far away from the traditional universal service. The e-commerce boom surprised many express service providers who fight to keep up with the demand. To make everything harder, there are no national companies evolved enough to compete with leading companies such as FedEx or DHL. Services vary, in quantity as in quality, from region to region. This all leads to the fact that companies which rely on e-commerce are facing a serious problem.

What solution do postal service providers (PSPs) have? Logistics is one of the ways to go. But is it the right way? Isn't logistics what postal service is, or is logistics postal service? Aside from the fact that logistic companies should be able to efficiently locate their resources and available work force based on the quantity and location of entry accounts, when it comes to transporting goods, where is the real border, and is there a real border between these two? Let's try and find it.

The infrastructure of PSPs exists, but her technical abilities are not being used in the proper quantity, especially when it comes to public postal operators (PPOs). What happens with private providers of these services? They usually make up a large percentage of this market in national regions. Can a large number of small and not so small courier companies lead to less efficiency of services such as these, which is exactly what happened in China in 2012? [5]

Companies which rely on e-commerce often overcome their concerns by establishing their own delivery network, especially in national region. Another problem for PSPs is the fact that in some cases these networks are in partnership with a third party.

The goal of these companies is most often to establish their own network which would be able to deliver packages anywhere in the country in less than 24 hours. Technologies such as cloud computing enable faster and more efficient business managing by enabling establishing a joint platform for transferring data crucial for realizing processes in e-commerce, sharing data inside a logistic company and supporting the whole supply chain management. Distributive centers of larger companies are usually equipped with systems for automatic sorting. Shouldn't all this be a characteristic of PSPs, and especially PPOs? Is their problem, which is the case in Serbia, the low level of automation, non-existing system for managing storages and a large number of territorially divided units across the country with sorting processes which are not developed enough?

Another field where quality differences between PSPs can be found is in the infrastructure they use. A large number of consignments are transferred using road vehicles, and it is a known fact that the quality of road network varies from region to region.

#### V. USING THE TEMPLATE SOME POSTAL PROVIDERS' SOLUTIONS

ITELLA (Itella belongs to Finland, does business in eleven European countries, including Germany, Sweden and Russia) is a company which offers postal and logistic services and has started testing international e-commerce solutions [6]. The company offers a new way of marketing, delivers Balmuir products directly from Russian producers [7].

During the testing period, Balmuir products are offered to Russian customers which have had the opportunity to buy them in online store designed by ITELLA, which is also in charge of managing products, storage and logistics, including customs. The main idea is managing internet commerce as a whole service. Thanks to that, producers can focus all their efforts to their primary activity.

Sanoma's Mitäsaisiolla.fi (MSO.fi) and ITELLA have entered a partnership in order to increase e-commerce on domestic market. In cooperation with a Finnish postal operator, Sanoma is trying to provide online dealers a market platform and a logistic service as a unique solution [8] [9].

The solution started in 2013 and already covers 200 online dealers and over 35000 products, and circa 3.5 millions of clients demand different services online in this way weekly.

In 2013 ITELLA started an investment project which covers storage and delivery systems and in that way enables significant automation of a part of the e-commerce process. To online dealers, this change means a more efficient and heterogeneous service, while it leads buyers to faster delivery (a buyer can receive ordered products the very same day when they were ordered).

The cooperation between ITELLA and MSO.fi helps online dealers realize jobs which are usually tough or expensive – marketing or logistic processes.

SingPost cooperates with a Chinese company called Alibaba, which strives to develop international e-commerce [10][11]. Alibaba has invested 249 million US dollars in national postal services of Singapore after buying 10.35 percent of the company. The new partnership should provide access to logistic possibilities of SingPost, the delivery infrastructure and network. In this way the company expands its business abroad, especially in the Asian-pacific region.

The new partnership will enable SingPost to offer end-to-end solutions to buyers and dealers in the Alibaba Group, using the expertise of the Alibaba Company in the area of e-commerce. It should be taken into consideration that the e-commerce market in the Asian-pacific region is becoming the biggest e-commerce market in the world.

These changes should enable SingPost to increase income, even being faced with the problem of the decrease in traditional postal services.

Deutsche Post DHL also has plans for becoming the leader in the logistics market which supports e-commerce [12]. Just like the majority of international companies in the logistics industry, they believe that they are destined to successfully do B2C business in non-European market. Their idea is to use all

their potential to become the leading providers for e-commerce in the next couple of years.

The study they have carried through suggests that e-commerce could cover up to 40 per cent of the overall market up to 2025. At the moment, e-commerce makes up to 8 per cent of the overall market in Europe. They believe that in the future logistics will be of greater importance to online dealers than it is today.

Emirates Post is also trying to increase their presence in the e-commerce market by launching new e-services which will enable users to buy online and have consignments delivered at an address of choice. As a part of their e-commerce strategy, in June 2014 Emirates Post launched a new mobile app for 18 different postal e-services. These services include monitoring, calculator, maps with posts' locations, mobile payments etc. It is important to emphasize that the penetration of smart mobile devices in this part of the market is the largest in the world, over 73 per cent [13].

The initiative has the goal to increase interaction of the postal sector with its clients through different media channels. In the beginning of this year, Emirates Post launched an e-Book service which enables users to view their mailbox online.

Unlike these examples, PSP services which enable e-commerce are extremely limited in Africa, Latin America and the Caribbean, regardless of the fact that there is a belief that these services are important.

Let's see possible development strategies in Serbia for these services.

#### VI. POSSIBLE PPO SOLUTIONS ON THE TERTORY OF THE REPUBLIC OF SERBIA

Based on differentiation strategy [13], The Post of Serbia can gain a unique position in its economic segment, thanks to some traits which customers appreciate. The differentiation strategy logic required that a company choose features which do not differentiate its rivals. So, what can The Post of Serbia emphasize?

The liberalization of postal market and different consignment types dictate the development of new ways of delivering. The Post of Serbia wants to grow into a regionally significant transport and logistics company. As a consequence of the requirement of everyday transport of a large number of consignments inside a wide-spread network, the optimal, or at least rational work organization is required. The Post of Serbia already has access to a vast quantity of information. The basic challenge is to put together all these data in the right way, so that the process of transportation of consignments which had appeared as a consequence of e-market development flows as simply as possible. By choosing the right roads, avoiding traffic jams, monitoring drivers' behavior, employing the right number of transportation means and people, it is possible to live up to the expectations of clients by providing services quickly and on time. For that purpose, using geographic information system (GIS) can prove to be quite effective.

Realization of the ZIP postal code project, made primarily to solve the problem of fast, high-quality and cheaper

automatized consignments sortation, started on the territory of Serbia in 2001. The project gets its visual form, i.e. clear region borders, through GIS, which also helps in the later development. The main idea is that all data bases which are a part of the GIS must go through pairing up with a ZIP code. This makes territory managing possible, and the synergy of the project and GIS exceeds traditional postal activity and forms a new powerful weapon for managing areal and informational data.

A huge advantage of GIS is that it is able to make a new organizational scheme every day, which leads to saving money, i.e. increasing service quality, because the optimal number of vehicles and executors is always being used. Specialized emergency deliveries, whose efficiency is not being brought into question, will be able to adequately respond to the increase of the quantity of services in connection to e-market.

Such direct work organization is in the near future. Data bases can be updated in a relatively simple manner and with a few technical investments and employee training for working with GIS, major savings can be made while at the same time responding quickly to possible service quantity increase.

While noting that the usual delivery already has a problem with decreased resources in large cities, and overly dimensioned capacities in rural areas, we can say that everything mentioned leads to the fact that postal consignments distribution needs to be seriously worked on.

Using GIS technology in such conditions is not only possible, but desirable. Based on available information about the number and types of received consignments, it is possible to divide areas of delivery regions and areas which belong to different ZIP codes. The delivery manager can easily make a decision about a possible transfer of a populated place in the delivery area of another delivery post, or about conjoining a part of one region with another, less busy, or about the number of executors, about opening a specialized delivery region, all to the purpose of creating flexible delivery regions and all that on a daily basis.

#### CONCLUSION

Although e-commerce has been quickly developing as a trading channel over the last ten years, many PSPs are still not ready for this business, i.e. they are not ready for a different approach to doing business which differs diametrically from providing the universal postal service. Their influence on delivery expenses which are a large part of the overall logistic expenses of using e-commerce is not to be forgotten. Those expenses, unfortunately, multiply in case this part of the job should be done by an unready PSP. It seems it is still early to talk about the possibility of PPOs to provide whole supply chains.

#### REFERENCES

- [1] F. Abdallah, and Y. Shakurova, "Measuring postal e-services development, A global perspective" UPU, Berne, 2012. pp.10-11.
- [2] The Economic Impact of Express Carriers in Europe, Oxford economics, November 2011. pp.1-36.
- [3] J. de Lange, A. Longoni, and A. Screpnec, "Online payments 2012", E/commerce Europe, Innopay 2013.

- [4] Statistical Yearbook of the Republic of Serbia – Usage of information and communications technologies, 2013.
- [5] P. Willis, “Growing pains”, Postal Technology International, 2014 <http://www.postaltechnologyinternational.com/articles.php?ArticleID=831>.
- [6] Itella develops cross-border e-commerce route to Russia, [online], available: <http://www.postaltechnologyinternational.com/news.php?NewsID=60309>. 30 Jun 2014
- [7] Dream Delivery. [online], available: <http://balmuir.ru/dream-delivery>. 30 Jun 2014.
- [8] Get the world. [online], available: <https://www.sanoma.com/> 09 Jun 2014
- [9] Sanoma and Itella join forces to boost domestic e-commerce. [online], available: <http://www.postaltechnologyinternational.com/news.php?NewsID=59705>. 09 Jun 2014.
- [10] SingPost and Alibaba Group to Form Strategic Collaboration to Grow International E-commerce Logistics Business. [online], available: <http://infopub.sgx.com/FileOpen/NewsRelease.ashx?App=Announcement&FileID=299060>, 02 Jun 2014.
- [11] SingPost collaborates with China’s Alibaba Group to develop international e-commerce. [online], available: <http://www.postaltechnologyinternational.com/news.php?NewsID=59465>. 02 Jun 2014.
- [12] Deutsche Post DHL reveals plans to become leader in logistics market for e-commerce. [online], available: <http://www.postaltechnologyinternational.com/news.php?NewsID=59239>. 27 May 2014.
- [13] Emirates Post to increase presence in the e-commerce market with launch of new e-services. [online], available: <http://www.postaltechnologyinternational.com/news.php?NewsID=59235>. 27 May 2014.

# San Marino's foreign policy towards the European Union in the face of the “pre-accession referendum” of 2013

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**Abstract** – The aim of this paper is to analyze the background and conduct of the referendum of 2013 in which citizens of small Republic of San Marino were to decide about their future in the united Europe. The Author tries to explain why the referendum about starting accession to the European Union process was stopped. In view of the fact that the referendum took place in 2013, and the literature is missing from drawing attention to the integration of San Marino with the EU in the context of the referendum, the author tries to fill this gap<sup>1</sup>.

**Keywords**-San Marino, referendum, European Union, accession, EU-San Marino relations

## I. INTRODUCTION

Each of the European democratic microstates (Andorra, Liechtenstein, Monaco, San Marino) has a legal or presumed protector. In the case of Liechtenstein it is Switzerland (formerly Austria), in the case of Monaco – France, in the case of San Marino – Italy and in the case of Andorra – both: Spain and France. With these states mentioned microstates have the closest economic and political ties.

The international legal subjectivity of the European microstates was repeatedly questioned by larger states, mainly when dealing with requests of these countries for membership in international organizations. However, as it later turned out, diplomacy and testing of applications by the respective colleges of experts pointed to the sovereignty of these countries. The refusal to accept these countries to the League of Nations was often driven by political considerations: bigger states were thinking that, by adopting these microstates to the League of Nations, the protectorates (France, Italy, etc.) [1] would gain additional votes in the decision-making bodies, assuming that microstates would vote with their guidelines [2]. Furthermore, there were arguments that those states are just too small [3]. Finally, in the second half of the 20th century “blocking” of the microstates was abandoned: microstates became members of the United Nations (Liechtenstein – 1990, San Marino – 1992, Andorra and Monaco – 1993) and other international and regional organizations (Council of Europe: Liechtenstein – 1978, Andorra – 1994, San Marino – 1988, Monaco – 2004). Opening of foreign relations was also associated with the recovery of relations with neighbors. San

Marino has a specific relationship with Italy, but it is also undoubtedly one of the most “pro-Union” European microstates. This behavior of Sammarinese government to become a member state of the EU is the subject of this paper.

The structure of this paper is based on introduction summary and four other sections. The author focuses only on timeline from the 19th century till 2014, because the Pact of Friendship (1862) after the Italian unification was crucial for bilateral relations and modern relations between not only both countries but between San Marino and the European Union as well. Firstly the author tries to outline the historic grounds on which the foreign policy of San Marino was (and still is) based. Then, in section IV tries to show main issues in the matter of EU-San Marino relations. Finally in the section V, the author tries to show previous attempts to strengthen ties with the EU and explain why the referendum failed despite the fact that majority of the voters decided to strengthen relations with the EU. From the methodological point of view the paper is based mostly on historical analysis of political institutions and behavior. The paper is limited only to examine political relations between the EU and San Marino and only in the context of the referendum of 2013. In view of the fact that the referendum took place in 2013, and the literature is missing from drawing attention to the integration of San Marino with the EU in the context of the referendum, the author tries to fill this gap.

## II. HISTORIC OUTLINE OF THE FOREIGN POLICY

Before there was united Italy in the 19th century, the Sammarinese people repeatedly had to use diplomatic techniques based on balancing between two hostile parties many times. The barbarians, surrounding the church authorities, and even the pope himself threatened the viability of the independent state of San Marino [4]. The policy conducted by the authorities of the Republic was focused on protecting the state, above all, not only before answering sovereignty, but before becoming someone’s protectorate. Therefore, alliances were concluded with the Principality of Urbino, and few centuries later with Napoleon Bonaparte.

When it came to unification of Italian lands in the era of the Risorgimento, Sammarinese-Italian relations were quickly normalized on 22 March 1862 through the Pact of Friendship and trade agreements, which enabled introduction of a single currency in the territory of the Kingdom of Italy and the

<sup>1</sup> The author received funding for his doctoral thesis from the National Science Centre in the framework of a doctoral scholarship funding based on the decision no. DEC-2014/12/T/HS5/00140.

Republic of San Marino. Twelve years later, Italy opened its consulate in San Marino. In 1877, a postal agreement was signed, in subsequent years “Il Giovane Titano”, “La Lotta” and “Il Radicale” opened their editorial offices, and in 1897 another agreement between the countries was concluded. Relations between the countries, however, did not work out as good as at the beginning of the Italian monarchy’s statehood. In 1874 there was a closing of the border of San Marino by the Italian army, due to Italian’s accusations to the Sammarinese authorities for storage many criminals. Luckily for bilateral relations, in the same year, this blockade was withdrawn [5]. In 1923 Postal Union between Italy and San Marino was concluded.

Once again, the Italian-Sammarinese relations were settled in 1939. Convention of Friendship and Good-Neighborly Relations of 31 March 1939 which replaced the previous two contracts, emphasized a protective Italian friendship. It was later a field for analysis whether San Marino is a sovereign state or only the Italian protectorate. Therefore, in 1971, included an additional clause which replaced the words about protectionist friendship and formulated into cooperation and independence of this microstate.

Immediately after the II World War there was a problem in the Italian-Sammarinese relations, which according to some researchers stumbled the sovereignty of the oldest republic in the world. This was due primarily to two factors: a more liberal divorce law and a more favorable fiscal system (for entrepreneurs). However, the balance of bitterness war overflowed due to adoption by the Grand and General Council a law authorizing the operation of casinos in the Republic. The Italian Government called the Sammarinese authorities to change these provisions, which of course could not produce an effect (because it would raise Sammarinese sovereignty). The Italians introduced the passport control at the border, which would discourage tourists to visit this small country. That blackmail brought the result after the parliamentary elections in the Republic – the government stepped down. We have to agree with J. Duursma who indicates that it is doubtful whether Italy’s countermeasures between 1949 and 1951 were permitted under international law. Italy invoked the violation of the spirit of the 1939 treaty of friendship. This treaty however did not prohibit the establishment of gambling houses and did not restrict San Marino’s company law or matrimonial legislation [6].

The issue of representation of states in the form of embassies and consulates were not taken by both countries to the twentieth century. This was because the small population potential (and as well financial) of San Marino. In 1968, an agreement was reached under which Italy undertook to render all assistance to citizens of San Marino in countries where there are no Sammarinese embassies/consulates [7]. First Sammarinese embassies were placed in Rome and in the Vatican City. In the 80s and 90s of the twentieth century the relationship was further enhanced, by the conclusion of various types of contracts and agreements (eg. Agreement on cooperation in the matter of radio and television). San Marino contains a very large number of contracts and agreements of all kinds with his only neighbor [8].

TABLE I. AGREEMENTS BETWEEN THE EU AND SAN MARINO

Agreements' names	Date signed	Entry into force
Cooperation and Customs Union Agreement between the European Economic Community and the Republic of San Marino; Ratification by San Marino: Brussels 03.03.1993	16.12.1991	01.04.2002
Interim Trade and Customs Union Agreement between the ECC and the Republic of San Marino (agreement replaced since 01.04.2002 by the Cooperation and Customs Union Agreement between the European Economic Community and the Republic of San Marino)	27.11.1992	01.12.1992
Protocol to the Cooperation and Customs Union Agreement between the ECC and the Republic of San Marino following the accession of the Republic of Austria, the Republic of Finland and the Kingdom of Sweden to the EU. Ratification by San Marino: 24.11.1997	30.10.1997	01.04.2002
Monetary Convention between the Republic of San Marino and the Italian Republic on behalf of the European Community	29.11.2000	
Agreement between the European Community and the Republic of San Marino providing for measures equivalent to those laid down in the Council Directive 2003/48/EC on taxation of savings income in the form of interest payments and Memorandum of Understanding (ratification by San Marino: 16.03.2005; deposit: 06.04.2005).	07.12.2004	01.06.2005 (impl.: 01.07.2005)
Protocol to the Cooperation and Customs Union Agreement between the ECC and the Republic of San Marino concerning the participation, as contracting parties, of the Czech Republic, the Republic of Estonia, the Republic of Cyprus, the Republic of Latvia, the Republic of Lithuania, the Republic of Hungary, the Republic of Malta, the Republic of Poland, the Republic of Slovenia and the Slovak Republic following their accession to the EU	04.05.2005	
Protocol to the Cooperation and Customs Union Agreement between the EEC and the Republic of San Marino concerning the participation, as contracting parties, of the Republic of Bulgaria and of Romania	20.11.2007	
Monetary Agreement between the Republic of San Marino and the European Union	27.03.2012	01.09.2012

Source: Secretary of Foreign Affairs, *Bilateral Conventions - Agreements with international bodies*, <http://www.esteri.sm/on-line/en/home/international-treaties/bilateral-conventions/bilateral-conventions---agreements-with-international-bodies.html>, 13.10.2014.

### III. SAMMARINESE FOREIGN POLICY IN 20TH CENTURY

Recognition of the state's sovereignty is often identified with recognition by another state and by the participation in international organizations as well. Due that the Sammarinese authorities decided to conduct and direct its foreign policy to a goal of participation in international organizations. The presence in the United Nations' structures seems to be the crowning of all achievement of the country's aspirations to its international recognition, however, it involves substantial financial costs. This significantly hinder contributing in the global politics all small countries, including microstates (in particular) [9].

In addition to engaging in global policy issues, San Marino showed interest in intracontinental organizations such as: Council of Europe and the Organization for Security and Cooperation in Europe (CSCE/OSCE). Already in 1972, San Marino has been invited to the first meeting of the preparatory meeting of the CSCE (and a year later, on June 25 San Marino became the official member state).

San Marino is a signatory to the Great Charter for Peace (1975) and the Charter of Paris (1990). Membership in the Council of Europe was made possible due to the positive conclusions resulting from the study conducted by the Council of Europe regarding the sovereignty and independence of San Marino, and above all on the fact does not remaining the Italian protector, which would make it impossible to obtain the status of a member state. After a six-year waiting (in 1982 San Marino received an observer status) in 1988, the Republic of San Marino joined the Council of Europe becoming the twenty-second member of this organization. It is worth noting that the San Marino three years later received the position of chairman of the Committee of Ministers of the Council of Europe, which means a recognition of the country as a full member not only in the formal sense, but actual.

Over the past hundred years, relations of San Marino with other countries have developed quite significantly, resulting in the creation of 3 embassies in the territory of San Marino (of Vatican, Italy and the Order of Malta), majority of others are in Rome. Currently, San Marino maintains bilateral relations with over 110 countries and actors such as the Holy See, the Order of the Knights of Malta and the Palestinian Authority [10].

### IV. SAN MARINO'S RELATIONS WITH THE EUROPEAN UNION

Although San Marino established diplomatic contacts with the European Communities in 1983, it formally came to be thanks to the Agreement on Cooperation and Customs Union between the European Economic Community and the Republic of San Marino signed by the end of 1991 [11]. Its implementation took place a year later – on 1 December 1992 [12]. Earlier, issues of the customs union between Italy (and hence the EEC, and later EC) and San Marino have been solved by the provisions contained before the war in the Convention of 1939. Worth noting is that in exchange for the submission of San Marino in matters of fiscal policy towards foreigners (changing the law which formed a tax haven) and elimination of the gambling clubs, Italians undertook to pay a huge amount of the annual contribution [13]. Despite the open

border, the Republic of San Marino is not a party of the Schengen Agreement. Currently, the border between the countries is open from the time of Garibaldi. Still, customs officers may carry out some random checks [14]. What about currency it must be underlined that now, since 2002, the official currency of San Marino is euro. Previously, according to the Pact of Friendship of 1862, the Sammarinese used an identical as in Italy currency – lira [15]. Then the issue of currency was repeatedly clarified [16].

Next document, thanks to which bilateral relations could have been improved was the Agreement on Customs Union and Cooperation approved by the European Parliament on 9 July 1992. Due to the Maastricht Treaty of 1993, customs barriers among EU member states were abolished, so the Interim Agreement on Trade and Customs Union had to be signed. After this Agreement was approved, a new era in the bilateral relations began.

TABLE II. RECOMMENDATIONS OF POLITICAL PARTIES ON THE ISSUE OF VOTING IN THE 2013 REFERENDUM (INCLUDED ONLY THOSE POLITICAL PARTIES WHICH HAD AT LEAST ONE MP IN A DAY OF THE REFERENDUM)

Party	Position
<b>Sammarinese Christian Democratic Party</b>	<b>Blank ballot</b>
<b>Popular Alliance</b>	<b>Decision left to the voters</b>
<b>We Sammarinese</b>	<b>No</b>
<b>RETE Movement</b>	<b>No</b>
<b>Party of Socialists and Democrats</b>	<b>Yes</b>
<b>Socialist Party</b>	<b>Yes</b>
<b>Union for the Republic</b>	<b>Yes</b>
<b>United Left</b>	<b>Yes</b>
<b>Civic10</b>	<b>Yes</b>

Note: One of the member of *Cittadinanza Attiva* coalition, *Per San Marino* (For San Marino) was against the proposal.

Source: *Psd: sì all'Europa e no al rimpasto*, <http://www.smtvsanmarino.sm/san-marino/elezioni/referendum-2013/referendum-news/2013/10/17/psd-si-europa-no-rimpasto>, 13.10.2014; *Tutte le forze politiche si sono schierate circa il referendum sull'Europa*, <http://www.smtvsanmarino.sm/politica/2013/09/19/tutte-forze-politiche-si-sono-schierate-circa-referendum-sull-europa>, 13.10.2014; *Referendum Europa: Ap non dà indicazioni di voto*, <http://www.smtvsanmarino.sm/politica/2013/09/24/referendum-europa-ap-non-indicazioni-voto>; 13.10.2014; *Europa: Noi Sammarinesi ribadisce il suo NO ad un percorso di piena adesione*, <http://www.smtvsanmarino.sm/politica/2013/08/30/europa-noi-sammarinesi-ribadisce-suo-no-percorso-piena-adesione>, 13.10.2014; *Referendum 2013: Per San Marino invita a votare sì*, <http://www.smtvsanmarino.sm/san-marino/elezioni/referendum-2013/referendum-news/2013/10/06/referendum-2013-san-marino-invita-votare-si>, 13.10.2014.

One of the following documents, which constituted a milestone in relations between the EU and San Marino was the adoption of the Agreement on taxation of savings income. San Marino committed to provide for information exchange in accordance with OECD standards. In the years 2010-11 further reports on the possibility of microstates' accession to the European Union (or what other scenarios if not membership) were taken. In September 2011, then Secretary for Foreign Affairs, Antonella Mularoni, met in Brussels with the European Council's President, Herman Van Rompuy, who underlined that greater integration with small states is for the European

Council a priority and commitment to identifying the best legal framework, so that the needs of all parties involved can be met. The EU-San Marino Cooperation Committee met on 20 October 2011 and discussed some issues, including the possible establishment of a San Marino customs office, the improvement of free circulation of some goods, the strengthening of cooperation in selected issues [17]. On 23 March 2012, a meeting on European integration among technical delegations of the Principality of Andorra, the Principality of Monaco and the Republic of San Marino was held in San Marino [18].

On 20 December 2012, the next report about bilateral relations (between each: Andorra, Monaco, San Marino and the EU). The authors took good note of the efforts made for closer integration and encouraged to continue this work and hold consultations with a view to identifying the feasibility and the degree of support for the options deemed to better meet the integration needs of the three small States [19]. On 28 February 2013, the Great and General Council (the Sammarinese parliament) approved a petition thanks to which the Council of State (the government) was obliged to assess the administrative requirements necessary to the implementation of the relevant *acquis communautaire*. Later referendum was one of the long-term effects of this instrument.

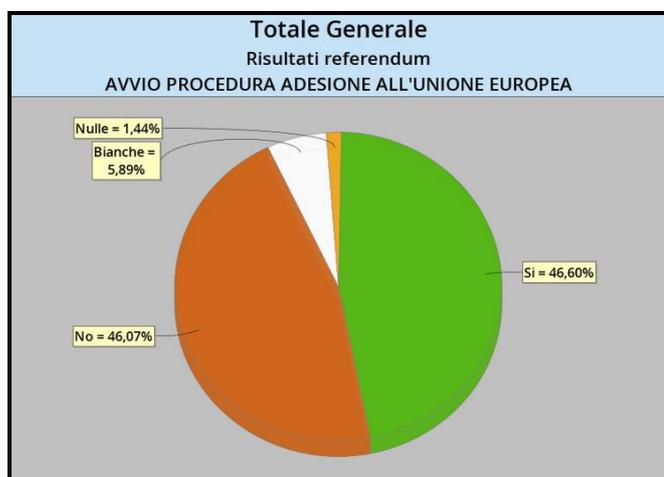


Figure 1. **Diagram 1.** Results of the 2013 referendum.

**Note:** Yes (46,60%); No (46,07%), Blank ballot (5,98%), Spoilt (1,55%).  
**Source:** S. Writer, *San Marino EU accession bid rejected*, <http://www.trendingcentral.com/san-marino-eu-accession-bid-rejected/>, 13.10.2014.

## V. THE REFERENDUM OF 2013

In 2010, the Great and General Council clearly pointed out the need to strengthen relations between the European Union and San Marino, because as long as the agreement of 1991 fulfilled its role in the bilateral relationship, however there was a need to establish stronger integration, so the parliament committed the government to start negotiations [20]. In the same year, decided to begin collecting signatures for an initiative associated with the referendum on accession to the European Union. Finally, the referendum was set for 27 March 2011, but on 24 February 2010 the Constitutionality of the Provisions Guarantor Board (*Collegio garante della*

*costituzionalità delle norme*) cancelled the referendum on request of the government [21]. A year later, which may seem surprising, parliament blocked the debate about the possibility of full membership, but only expressed the desire to continue talks on further integration between San Marino and the EU.

TABLE III. RESULTS OF THE 2013 REFERENDUM.

Polling stations	Yes	No	Valid votes	Blank ballot papers	Spoilt ballot papers
Città	842	810	1652	135	28
Borgo Maggiore	1221	1418	2639	167	30
Castello Serravalle	2041	1966	4007	253	51
Acquaviva	401	414	815	32	15
Chiesanuova	198	243	441	36	5
Domanigano	672	646	1318	99	22
Faetano	297	210	507	33	5
Fiorentino	509	556	1065	59	16
Montegiardino	207	181	388	26	5
<b>Total votes of resident citizens</b>	<b>6388</b>	<b>6444</b>	<b>12832</b>	<b>840</b>	<b>177</b>
<b>Total votes of citizens residing abroad</b>	<b>344</b>	<b>213</b>	<b>557</b>	<b>27</b>	<b>15</b>
<b>Overall valid votes (%)</b>	<b>50.28</b>	<b>49.72</b>	-	-	-
<b>Overall (votes)</b>	<b>6732</b>	<b>6657</b>	<b>13389</b>	<b>867</b>	<b>192</b>

**Note:** 3,925 favorable votes missing to reach the quorum (10,657); referendum proposal rejected – quorum not reached; 20,21% favorable votes on a 32% quorum.

**Source:** *Referendum 2013*, <http://referendum.sm/ref2013/>, 13.10.2014.

On 23 July 2013, the Captains Regents issued a regency decree thanks to which a referendum were to be organized. The Captains Regents wrote: “The EU accession process can be completed by the Republic of San Marino exclusively after being approved by San Marino nationals through a confirmative referendum upon parliamentary initiative under Article 29 of Law no. 101 of 28 November 1994. Do you citizens want the adoption of a law containing the aforesaid

guiding principles and criteria?'. The other question was linked with remuneration of employees [22]. Both referenda were to be held on 20 October 2013.

A slight majority of citizens of San Marino (75) has decided that the country should submit an application to join the EU. However, due to the provisions of the law on the referendum, its result does not involve the government, because the quorum is not reached [23]: the proposal may be accepted by not only the majority of citizens but at the same time – votes in favor have to reach 32% of eligible citizens. The result of the referendum was the recent lowering of the threshold from 32% to 25% meaning that nowadays about 8,000 voters need to vote in favor for the proposals to be approved (earlier about 10,500) [24].

## VI. SUMMARY

On 24 January 2014, the Great and General Council approved decision and recommended the government to carry on the process already started with the EU by identifying the officials to be involved in negotiations according to their specific field of competence, and by rigorously selecting the experts necessary to adopt the most appropriate decisions for the drafting of the Association Agreement with the EU [25]. Six days later, the secretary of state for Foreign and Political Affairs, Pasquale Valentini, and another Sammarinese minister, Claudio Felici, had a meeting with the President of the European Commission, José Manuel Barroso who confirmed the EU interest in further strengthening its relations with San Marino and other microstates. President Barroso also expressed satisfaction with the implementation of the Monetary Agreement between the European Union and the Republic of San Marino, as well as with San Marino's access to the Single Euro Payments Area - SEPA as from 1 February 2014. On the occasion, the Representatives of the San Marino Government described the present economic situation [26].

It seems that due to recently adopted legal provisions, a referendum on membership in the European Union, which undoubtedly will soon be re-organized, is important. It must be a subject of scientific interest not only because of the subject of this referendum, but because of the apparent division in the society of the Republic (50% in favor and 50% against). It is very interesting that if the majority of political parties were in favor of strengthening ties with the EU, only slightly more than half of Sammarinese people agreed with this majority of parties. It must be a subject of further observations and studies.

Another question is linked with the referendum's provisions in San Marino. It is worth considering whether to low voter turnout should be fixed by lowering the threshold for the validity of the referendum. This leads to a situation where minority decides about crucial issues of the country's future.

## REFERENCES

- [1] J.-R. Bézias, *La France et l'intégration internationale de la principauté de Monaco (1918-1939)*, "Guerres mondiales et conflits contemporains", 1/ 2006, n° 221, p. 98.
- [2] J. C. Duursma, *Fragmentation and the International Relations of Micro-states: Self-determination and Statehood*, Cambridge 1996, pp. 291-293.
- [3] B. Broms, *Entitlement in the International Legal System*, (in:) *The structure and process of international law: essays in legal philosophy doctrine and theory*, R. S. J. Macdonald, D. M. Johnston (eds.), Dordrecht 1989, p. 9.
- [4] F. M. Shelley, *Nation Shapes: The Story Behind the World's Borders*, ABC-CLIO, 2013, p. 118.
- [5] S. Stępnicki, *System polityczny „Najjaśniejszej Republiki San Marino”*, Wydział Dziennikarstwa i Nauk Politycznych UW, 2004, pp. 33-34.
- [6] J. C. Duursma, *Fragmentation and the International Relations of Micro-states: Self-determination and Statehood*, Cambridge 1996, pp. 226.
- [7] S. Stępnicki, *System polityczny „Najjaśniejszej Republiki San Marino”*, Wydział Dziennikarstwa i Nauk Politycznych UW, 2004, p. 48.
- [8] Recent agreements between the countries were concluded in 2014: Agreement between the Republic of San Marino and the Italian Republic defining and regulating competences, responsibilities and modalities of intervention of Police Forces of the two States in relation to the new road called "strada di Fondovalle" and Technical Agreement between the National Central Bureau of Interpol of the Republic of San Marino and the Central Directorate of the Criminal Police of the Public Security Department of the Ministry of Internal Affairs of the Italian Republic on exchange of information in the field of currency counterfeiting. Secretary of Foreign Affairs, *Bilateral Conventions – Bilateral agreements with Italy*, <http://www.esteri.sm/online/en/home/international-treaties/bilateral-conventions/bilateral-conventions---bilateral-agreements-with-italy.html>, 13.10.2014.
- [9] T. M. Eccardt, *Secrets of the Seven Smallest States of Europe: Andorra, Liechtenstein, Luxembourg, Malta, Monaco, San Marino, and Vatican City*, New York: Hippocrene Books, 2005. 978-0781810326, pp. 21-22.
- [10] Secretary of State For Foreign and Political Affairs – Republic of San Marino, *Bilateral Relations*, <http://www.esteri.sm/online/en/home/international-relations.html>, 13.10.2014.
- [11] Agreement on Cooperation and Customs Union between the European Economic Community and the Republic of San Marino, OJ 2002 L 84/43, art. 2.
- [12] S. Blockmans, A. Łazowski, *The European Union and Its Neighbours: A Legal Appraisal of the EU's Policies of Stabilisation, Partnership and Integration*, Hague 2006, pp. 200-206.
- [13] S. Stępnicki, *System polityczny „Najjaśniejszej Republiki San Marino”*, Wydział Dziennikarstwa i Nauk Politycznych UW, 2004, p. 49.
- [14] W. Orliński, *Abecadło Sengenlandii*, <http://wyborcza.pl/1,87648,4751237.html>, 13.10.2014.
- [15] S. Stępnicki, *System polityczny „Najjaśniejszej Republiki San Marino”*, Wydział Dziennikarstwa i Nauk Politycznych UW, 2004, p. 50.
- [16] Decreto Reggenziale. Che Ordina Darsi Esecuzione Alla Convezione Postale 5 Maggio 1923 Tra La Repubblica E Il Regno D'Italia 29 Settembre 1923 N. 24, art. 2.
- [17] San Marino Chamber of Commerce, *A Brief History of the Relations Between San Marino and the European Union*, <http://esteri.sm/online/en/Home/InternationalRelations/MultilateralRelations/articolo1001896.html>, 13.10.2014.
- [18] San Marino Chamber of Commerce, *A Brief History of the Relations Between San Marino and the European Union*, <http://esteri.sm/online/en/Home/InternationalRelations/MultilateralRelations/articolo1001896.html>, 13.10.2014.
- [19] San Marino Chamber of Commerce, *A Brief History of the Relations Between San Marino and the European Union*, <http://esteri.sm/online/en/Home/InternationalRelations/MultilateralRelations/articolo1001896.html>, 13.10.2014.
- [20] Ordine del Giorno presentato dai Gruppi Consiliari di maggioranza che impegna il Governo ad aprire un negoziato per una maggiore integrazione della Repubblica di San Marino con l'Unione Europea, 15 dicembre 2010.
- [21] *I Garanti decidono: il referendum sull'Europa non si farà!*, <http://www.smtvsanmarino.sm/politica/2011/02/24/garanti-decidono-referendum-sull-europa-non-si-fara>, 13.10.14.
- [22] Regency Decree no. 88 of 23 July 2013, art. 1.
- [23] D. Keating, *San Marino rejects EU accession*, <http://www.europeanvoice.com/article/san-marino-rejects-eu-accession/>, 13.10.2014.

- [24] *Referendum: quorum scende al 25%. Necessari 8.398 "Si"*, <http://www.smtvsanmarino.sm/politica/2014/05/06/referendum-quorum-scende-25-necessari-8-398-si>, 13.10.2014.
- [25] Final Decision ensuing from the debate on the Report from the European Commission and the Conclusions of the Council of the European Union concerning the options for the participation of Small States in the Internal Market of the EU, approved by the Great and General Council at the sitting of 24 January 2014.
- [26] San Marino Chamber of Commerce, *A Brief History of the Relations Between San Marino and the European Union*, <http://esteri.sm/online/en/Home/InternationalRelations/MultilateralRelations/articolo1001896.html>, 13.10.2014.

# Cost Effectiveness Analyses Models in The Defence System in Bulgaria

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**Abstract-**The thesis resulting from the research on the „costs-effects” relation is the principle of economic efficiency of defence capabilities. At first glance, the arguments in this direction are well-known and popular in crisis situations of various nature, including the current financial and economic crisis in the country, the question about the cost of public welfare - security and defence is debatable. This cost is manifested through the defence capabilities of a country. In the new security environment the compilation of a National Defence Strategy is a priority of the Defence Ministry, which has more and more limited resources. This means that they should be treated as an economic activity. An economic activity is considered "any purposeful activity, allocating and combining scarce resources among alternatives, making it possible to maximize the outcomes and minimize costs." The ratio between the costs and benefits of a given resource or combination of resources to achieve a pre-defined objective is pushed to the forefront and the rationalization of management decisions is based on it. This necessitates a cost effectiveness analysis hence the evaluation of the outcomes (benefits) is manifested in the „cost-effect (benefit)” analyses. Defence as a product has the basic features of any commodity or service, i.e. it is designed for exchange, is useful and meets certain needs. But due to the fact that it meets very specific needs (preservation of the territorial integrity of the country and improving its national security) it is distinguished by certain features which may be summarized as follows: - collectivity of production and consumption of defence as a product necessary to the public, is expressed by its consumption indivisibility.

-lack of market valuation of the price of defence as a product upon its consumption (as a monetary expression of its value); -the usefulness of defence as a product is reflected in its capacity to meet the system's needs for security and defence, which determines its conditional nature, expressed in reaching certain operational capabilities;

-the realization of defence as a product, unlike the products of civil legal entities is not subject to a clearly formulated outcome of activity, such as profit, which makes implementation of the principle of economic efficiency and profitability of minor importance for the Armed Forces.

**Key Words:** Analyses Models, Defence System, National Defence Introduction

## I. INTRODUCTION

The starting point of benefit-cost ratio studies is the defence capabilities economic efficiency principle. At first glance, considerations in this respect are widely known and popular,

but under the conditions of various crisis situations, including the financial and economic crisis in the country, the question about the cost of a general welfare such as public security and defense remains debatable. This cost is manifested through the defense capabilities of a country. The foundation of the National Defense System (NDS) within the new security environment is a priority task of the military institution, which has decreasing resources. This means that they shall be approached as an economic activity. Economic activity is „every purposeful activity of distributing and combining alternatives for maximizing benefits and minimizing costs” [1]. In the foreground comes out the cost and benefit ratio for a certain resource or a combination of resources for achieving a certain, preliminarily defined objective and on that grounds - rationalization of management decisions. This predetermines the necessity of a cost-effectiveness analysis and hence the evaluation of outcomes (benefits) manifested in benefit-cost analysis [3].

## II. COST EFFECTIVENESS ANALYSES MODELS IN THE DEFENCE SYSTEM

The implementation of the cost-benefit analysis may be used as a „planning method; decision-making tool and a medium for historic documentation of adopted decisions” [4]. Each of the mentioned aspects of cost-benefit analysis has its place and advantages. Without neglecting any of them, for the purposes of the present paper, focus is put on the use of cost-benefit analysis as a tool for development and adopting managerial decisions in response to „What if” questions of the financial resource management.

The starting point of cost-benefit analysis is studying and grouping defense costs. In theory and in practice there are a number of significant studies, projects and papers in this field. For this reason for the purposes of this paper, focus is put is on the managerial approach to the organization of reporting, analysis and control of defense costs as a manifestation of the analysis on the benefit-cost ratio.

Costs- as an economic category, in their multifold nature, are connected with the amount of spent resources for obtaining a benefit. In this respect, they reflect „the value of resources in their alternative use...-value of opportunities” [5]. They are always connected with a reduction of economic benefit for any activity of the public economic life, due to reduction of assets (production factors) as a result of their use in activity or their taking out of the company, or due to increase of liabilities

(obligations) which results in a reduction of company equity capital, including state-owned companies.

Depending on the characteristics of defense as a product, demanded by society, and the costs for its support and following the logic of the paper, attention should be paid to the circumstance that „a defense and economic product is every commodity or service which may satisfy needs, related to security” [6].

Defense as a product has the general characteristics of every commodity or service, i.e. it is intended for exchange, and it is useful and meets certain needs. But, because it meets specific needs (protecting the territorial integrity of a country and raising its national security) it is characterized by specific features, summarized as follows:

- collective production and consumption of defense as a product, demanded by society, which is manifested by the inseparability of its consumption;
- lack of market valuation of the price of defense as a product upon its consumption (as a monetary expression of its value);
- The usefulness of defense as a product is reflected in its capability to meet the needs of the security and defence system, which predetermines its conditional character, manifested by obtaining the necessary operational abilities;
- implementation of defense as a product, unlike products of civilian economic entities, is not subject to the clearly set activity objective, i.e. profit, which makes the application of economic and cost efficiency principle of secondary significance for the Armed Forces (AF).

Notwithstanding the above-mentioned characteristics, an essential feature of defense as a product, demanded by society is that its production is a result of production factor combinations (material, financial, human, information flows) and the ratio between them. These factors are determined by the existing defense availability, manifested by the accumulated material and spiritual welfare, ensuring the rational functioning of the security and defense system of a country. A distinguishing feature of defense availability on the one hand is that due to the limited resources, it has limits. On the other hand-,the absence of a precise valuation of the defense resources, and of the real defense availability, hampers the economic and effective management of the real defense and economic process and worsens the quality of the economic provision of defense” [6].

Managerial approach in reporting, analysis and control of business processes in the security and defense sector is implemented in search for ways for overcoming the mentioned limiting characteristics of defense availability and the production of defense as a product. Such an approach allows objective reflection of the modifications of size and structure of factors for production of defense as a product, demanded by society within specific limits, as determined by the shortage of resources. It contributes to bringing security and defense resources management closer to the Euro-Atlantic standards.

The essence of the cost-benefit analysis is reflected in the economical and efficient spending of defense resources when establishing NDS by the Armed Forces (AF) through the proper combination of material and financial condition elements of the military institution at the required time and place.

The analytical indicators for efficiency are applicable in the reporting and analytical practice for the needs of the cost-benefit analysis. These are cost income efficiency coefficients. Cost efficiency coefficient is the ratio of income to cost, showing how much income is generated after spending 1 BGN. Income efficiency coefficient is the ration of cost to income and shows how much is spent for generating 1 BGN of income. Taking in consideration the above-mentioned characteristics of defense as products, adaptation of efficiency coefficients implementation is advisable and economically justified. In this respect their manifestation is in determination of the benefit, obtained after spending 1 BGN of cost for defense and how much is spent for obtaining a unit of benefit. The implementation of effectiveness indicators, allows rationalization of the military solutions, and is also grounds for revealing factors leading to ineffective spending of the resources, for servicing the defense system of the country.

The implementation of cost -benefit analysis is closely related to finding of the actual value of defense resources, known as historical price. It is the foundation of their evaluation and their reduction to a common commensuration and comparison indicator such as the value indicator. The calculation is directly dependent on cost assessment for the support of defense as a product. It is in correlation to the organization of the accounting and accountability of costs and their management, aimed at decreasing the indefiniteness of actions (market and military ones). Such an organization of defense cost reporting accounting is based on the implementation of the “optimal analyticity” principle [7]. The application of this principle is in compliance with the information needs and opportunities to meet them, requiring maximum quantity of information, of proper quality with minimum use of public labour. It is in the interest of efficiency of the financial report analysis and control on the process of production of defense as a product. The effect of implementing the “optimal analyticity” principle in the resource management of security and defense is manifested in establishing and effective use of NDS for ensuring stability and security of economic growth of the country and increasing the value of money. In its essence, this is the objective of the actions of the Armed Forces and Bulgarian Army in times of peace, which substitutes the profit as a final result from the security and defense system functioning.

The application of the analytical approach to security and defense resources management requires also a proper grouping of costs. Many criteria for grouping security and defense costs (also known as military costs) are known in theory and practice. Every grouping is a reflection of a characteristic of the defense costs structure, which is one of the major elements of state costs, spending of which, at first sight, seems unproductive. Within this context, financial theory and practice considers security and defense costs based on their

manifestations in the following three groups: direct, indirect and hidden [8].

In their essence direct security and defense costs ensure: support and training of the Armed Forces; their furnishing with high-tech arms and equipment as a direct consequence of the broad popularization of electronics and new information technologies in defense operations; support of the personnel and the research and development activity related to the military programs.

For the needs of the military institution cost budgeting, direct costs for security and defense include investment, current, professional and social adaptation costs, and costs for information and communication technologies, research and development costs. The direct costs trend worldwide and in Bulgaria is to increase investment costs related to implementation of the high-tech systems. This is in response to the conformity of military staff with NATO staff in accordance with the "new face of the war". As opposed to the increase of direct costs, the costs for support of personnel (called also current costs) tend to decrease. One should not interpret this trend from one aspect only. The unproductive character of the defense costs and their relation to the monetary mass, inflation, debt and tax burden, reflect on the budget deficit, and the level of direct costs depend on it.

This is only one aspect. The state consumption, being part of the Gross Domestic Product and army technology, except for „tanks, aircrafts, fuel...”, is expressed by technologies, open for civil use and bring money” [9]. There are many world examples in this respect: Global Positioning Service (GPS) system, which was developed by the military, but is in benefit to the civil economy; aviation industry know-how, used in the civil aviation and the air control; in the pharmaceutical industry, etc. [9]. On this background the modernization of the Armed Forces and the Bulgarian Army, investment in western licenses provide an opportunity for revival and pouring fresh capital in defense industry companies, with potential in the field communications, radio-location, bio-chemical protection. Apart from providing a perspective for the defense industry and other branches of the national economy this approach also has leads to increase of employment, attraction of foreign investments, increase of capital, and equipment of labour and the competitiveness of entities. This leads to income growth, savings growth and improving of the quality of life as factors and indicators of economic growth, interpreted in a 'broad sense' [10]. The mentioned outcomes are a precondition for neutralizing the negative effects resulting from increased budget deficits, as well as the other consequences from resources allocation.

The indirect security and defense costs in fact are not directly related to the support of military potential, but influence its formation. These are costs for state debts, humanitarian operations and rehabilitation of damages caused by war, compensations for casualties in peace-keeping operations. The unproductiveness of these costs is a precondition for raise in unproductive state consumption. It is accompanied by a loss of effectiveness in budget resources allocation, manifested in the actual correlation between the objectives and the shortage of resources for their achievement.

Missed benefits are also important for business processes, the final result of which is the decrease of the economic growth opportunities, decreased consumption, and worsened living standard.

Hidden security and defense costs are related to the civil organizations programs with relation to security and defense programs; costs for infrastructure projects, resulting from the security environment challenges and our NATO membership; the public procurement system deliveries for the army. By nature these costs are to a great extent fundamental for the macro-economic development, which is confirmed by the fact that war is a very good business for those who manufacture war tools. What is more, „the things that shoot and kill people are demanded and sold as fresh bread” [11].

The specified grouping of security and defense costs allows analysis of their outcomes. It is advisable to approach such an analysis on multiple levels. Notwithstanding the universally accepted thought of Milton Friedman concerning military costs as part of state costs, namely: „when somebody spends somebody else's money on somebody else, he is neither concerned how much money is spent, nor the way it has been spent” [12], they influence economic growth directly, indirectly or covertly. This influence has two aspects, manifested in their positive and negative outcomes.

In specialized literature there is a type of costs grouping based on to the so-called „cost tree” [13]. We are speaking of the general costs grouping, of costs related to labour and capital, costs with obligatory amount and costs of advisable nature, costs for keeping a basic potential, for upgrading potential, for realization of the potential, mutually related and mutually unrelated expenses, personnel costs, operational costs, capital costs, direct and indirect costs, etc.

Regardless of the variety of security and defense cost grouping, for the analytical and reporting needs of this paper, focus is put on their grouping based on major programmes. It is in compliance with the adopted planning system of the military budget, based on the programme targeted approach, expressed in „PPBS” (Planning, Programming and Budgeting) and in compliance with the Financial Security Doctrine.

This grouping is substantially in compliance with the Unified Budgetary Classification (UBC) of security and defense costs and it differentiates: personnel costs, military formations support costs, military training costs and capital costs.

Personnel costs include costs for salaries, social security contributions and other remunerations and payments.

Costs in support of military formations, also known as current expenditure include the so called „utility costs” (for electricity, water, heating, fuel, food, clothing, medications, insurances, rents, spare parts, overhaul of infrastructure, research and development, office consumables etc.).

Military training costs cover the costs for fulfilling the tasks of the Armed forces in implementation of the three missions, which by nature are current costs and for that reason they are included in that category.

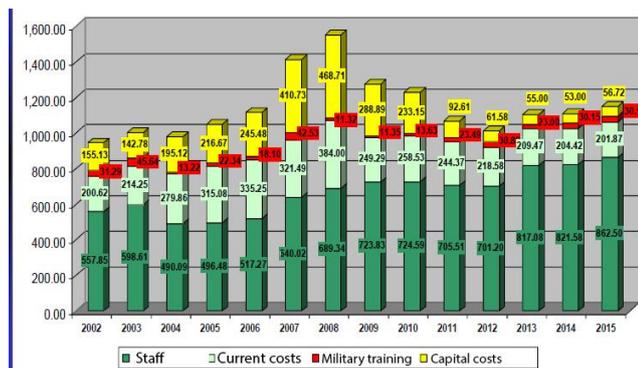


Figure 1. Costs, incurred by the MoD by type within the period 2002-2015

Capital costs are related to investments in new arms and equipment, overhauls, modernization of available arms and equipment, repairs of fixed assets and other capital investments in the field of defense.

Based on that grouping, figure 1 shows the costs incurred by the Ministry of Defense by type and group within the period 2002-2015 (based on a forecast for 2014 and 2015) [14].

In accordance with the annual budget instructions for spending MoD budget, MoD budget, structures under the direct supervision of the Minister of Defense and the BA, including annual budget accounts, budgets of second level spending units, costs are subdivided into institutional and administrative, allocated based on the UBC, adopted by the Minister of Finance. On those grounds administrative costs include: costs for bursaries, current transfers, compensations and support to households, subsidies for non-financial entities, membership fees and participation in international non-profit organizations and activities.

Institutional costs are all other budget costs of the MoD, its structures are under the direct supervision of the Minister of Defense and the Bulgarian Army, they are directly related to the major programme activity/programme for achieving the objectives.

Breakdown of MoD costs, structures, directly subordinate to the Minister of defense and BA based on sectorial policies: Defense Capability Policy and Allied and International Security is in accordance with the mentioned grouping.

We believe that the said security and defense costs grouping in its essence corresponds to the economic nature of costs and allows their reporting as costs based on economic elements, operational costs, financial and incremental costs with manifestation in the UBC budget accounts based.

Such an approach based on costs grouping based on their origin, makes defense and security budget structure adjustable to the information exchange international. This enables analyses of defense resources and resource availability concerning the stage of implementation of priority programmes and determination of outcomes from the quality fulfillment of programmes, sub-programmes and programme elements manifested as defense costs benefits.

Last but not least research and good practices in the field of managerial accounting suggest the use of an alternative beginning when organizing defense costs reporting and cost-benefit analyses for the needs of defense processes effective management. This approach is based on the implementation of the so called „alternative costs” and their outcomes, where loss resulting from non-implementation of certain alternatives should be reported. The comparison between various options and benefits, resulting from them enables the selection of optimal option, while establishing conditions for objective and true reporting of actual costs in the process of transformation of available resources into military potential, ensuring maximum defense outcome. It also determines the contents of the so called „military training costs”.

Analytical estimates of actual security and defense costs confirm the above statements. Based on the logic of the said statements, a starting point of research in this direction is the military institution budget analysis for the period 2009/2013 and analysis of obtained outcomes (benefits) resulting from the implementation of defense programmes. The selected analyzed period corresponds to the defined general priorities, contained in the Programme Resolutions Memorandum 2008÷2013 and the three-year budget forecast for the period 2012÷2014. [15]. These are the priorities defined by the medium-term Development Plan of MoD and AF and Programming Instructions 2010÷2015, Instructions by the Minister of Defense on Defence Policy 2011÷2014, which are fundamental for the White Paper on Defense and the Armed Forces (AF).

Attention should be paid on the fact that the analytical estimates are in compliance with the following admissible limitations and initial data:

- Resource environment analyses for the researched period;
- Economic and financial efficiency of defense;
- Costs dynamics of policies and programmes within the period 2009÷2013;
- Revenue dynamics for the period 2009÷2013;
- Dynamics of institutional and administrative cost items for the period 2009÷2013;

Due to the fact that security and defense are pure public goods entirely dependent on the state budget, benefits, resulting from them are measured by means of reaching the declared capabilities and by implementing defense policies and programmes.

Used initial data for the analytical estimates are based on the following information: Report on Military Institution Budget Implementation for 2009; Defense Budget for 2010, pursuant to the State Budget Act of the Republic of Bulgaria for 2011; Defense Budget for 2012, pursuant to the State Budget Act of the Republic of Bulgaria for 2012; Defense Budget for 2013, pursuant to the State Budget Act of the Republic of Bulgaria for 2013 and military institution budget implementation for the first quarter of 2013

Data from „Production model and analyses of defense costs” [13], Reports on the condition of defense and Armed

Forces of the Republic of Bulgaria in 2010, 2011, 2012. [16-18] are used;

For the purposes of this study the defense policies and programmes for 2009 and 2010 are conditionally aligned with those for 2011÷2013, which is predefined by the changes in budget structure of the military institution of 2011 after the strategic review of the Armed Forces and the subsequent AF Development Plan up to 2014.

Guidelines for defense and security costs analyses have been defined, by using mathematical and statistical set of tools contained in the costs and revenues comparative analysis approach and subsequent cost effectiveness in response to the benefits-costs analysis.

The analytical model is based on the following analytical dependencies:

Absolute cost variation:

$$\pm P = P_1 - P_0 \quad (1)$$

where:  $\pm P$  stands for the absolute cost variation;

$P_1$  –costs for the studied and reporting period;

$P_0$  –costs for base period.

It reflects the cost variation as compared to the base period in absolute terms.

Relative cost variation:

$$P_{\%} = \frac{P_1}{P_0} \times 100 \quad (2)$$

where:  $P_{\%}$  stands for relative (percentage) cost variation.

It reflects the percentage cost variation as compared to the base period .

Cost variation rate (growth):

$$T_p = \frac{P_1}{P_{n2}} \times 100 \quad (3)$$

where:  $T_p$  stands for variation rate;

$P_{n2}$ -cost for previous year.

It reflects the percentage cost variation as compared to the cost for the previous year.

Cost growth variation rate:

$$T_{np} = T_p - 100\% \quad (4)$$

where:  $T_{np}$  stands for growth rate. It reflects the growth (decrease) rate as compared to the previous period.

Average cost variation rate:

$$\overline{T_p} = \sqrt[n-1]{\frac{P_k}{P_n}} \quad (5)$$

Where:  $\overline{T_p}$  - average cost variation rate (growth);

$n$ -number of years of the analyzed period;

$P_n$ -costs for the first year of the analyzed period;

$P_k$ -costs for the last year of analyzed period

It reflects the variation for one year of the analyzed period based on the average geometric quantity.

Average cost growth rate:

$$\overline{T_{np}} = \overline{T_p} - 100\% \quad (6)$$

Where:  $\overline{T_{np}}$  stands for the average growth rate. It reflects the growth or decrease of costs by the end of the analyzed period as compared to the first year of the said period.

Cost-efficiency ratio:

$$Ke\phi p = \frac{\Pi}{P} \quad (7)$$

where:  $K_{e\phi p}$  stands for the cost-efficiency ratio;

$\Pi$  -revenue amount (benefits, outcomes);

$P$  -cost amount.

It shows how much benefits have been gained after spending 1 BGN costs.

Absolute revenue (benefit) variation:

$$\pm \Pi = \Pi_1 - \Pi_0 \quad (8)$$

where  $\pm \Pi$  -absolute revenue (benefits) variation;

$\Pi_1$  -revenue (benefits) for the current period;

$\Pi_0$  -revenue (benefits) for the base period.

It reflects income (benefits) variation for the current period as compared to the base period.

Relative revenue variation (benefits)

$$\Pi_{\%} = \frac{\Pi_1}{\Pi_0} \times 100 \quad (9)$$

where:  $\Pi_{\%}$  -percentage revenue variation (benefits).

It shows the percentage revenue variation (benefits) as compared to the base period.

Revenue (benefits) growth rate:

$$T_p = \frac{\Pi_1}{\Pi_{n2}} \times 100 \quad (10)$$

where :  $T_p$  -growth rate;

$\Pi_{n2}$ -revenue (benefits) for the previous year.

It shows the percentage of decrease (growth) of revenue (benefits) as compared to the previous year.

Revenue (benefits) growth rate:  $T_{np} = T_p - 100\%$  (11)

where:  $T_{np}$  –growth rate; it reflects the growth / decrease rate of revenue (benefits) as compared to the previous period.

Average revenue (benefits) growth rate:

$$\overline{T_p} = \sqrt[n-1]{\frac{\Pi_k}{\Pi_n}} \quad (12)$$

where:  $\overline{T_p}$ -average revenue (benefits) growth rate ;

$n$  -number of years of the analyzed period ;

$\Pi_k$ -revenue (benefits) for the last year of the analyzed period;

$\Pi_n$ -revenue for the first half of the analyzed period.

It shows the annual average revenue (benefits) variation for the selected analyzed period, calculated as an average geometric quantity.

Average income (benefits) growth rate:

$$\overline{T_{np}} = \overline{T_p} - 100\% \quad (13)$$

where:  $\overline{T_{np}}$ -average growth rate, which reflects the average increase or decrease rate of revenue (benefits) as compared to the beginning of the analyzed period.

Revenue (benefits) efficiency ratio:

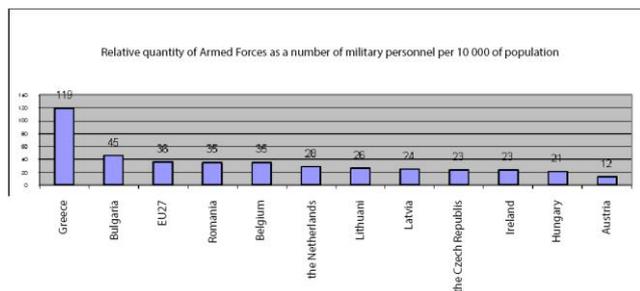


Figure 2. number of military personnel per 10 000 ppl

(relative share)

$$K_{ed\phi n} = \frac{P}{\Pi} \quad (14)$$

where:  $K_{ed\phi n}$ -revenue (benefits) efficiency ratio.

It shows how much costs have been incurred for obtaining benefits in the amount of 1 BGN.

The analytical estimates model is in compliance with the specified analytical ratios and is based on real data. In order to make the efficiency evaluation of defense processes and AF complete and reliable it is appropriate to bind it with the indicators of coalition partners, the uniform security environment and the comparison of comparable economic and financial parameters.

The first step of this model is the analysis of the security and defense resource environment in accordance with the priorities specified in chapter one of this paper. This is because resources are the most important factor for the development of the necessary AF operational capabilities. The economic crisis and the following resource shortage have led to a trend of reduce the military budget security and defense costs share of the GDP. The diagram in fig.2 confirms that.

It is noteworthy that compared to 2000 the relative share of defense costs in 2013 is reduced more than twice. This trend persists in the following years as estimated military institution budget for 2013 has a reduced relative share of the GDP as compared to the previous three years: from 1.72% to 1.36%. Estimates suggest that this share will be reduced to 1,29% for 2014 and 1,25 % for 2015” [19]. If this trend persists without any significant changes in Bulgarian AF objectives during the analyzed period, reaching declared level of capabilities and fulfilling the tasks assigned will be subject to challenges. This necessitated carrying out the Strategic Defense Review in the autumn of 2010 and reconsideration of the Bulgarian defense policy with a “more effective, and economic command structure” [20], corresponding to the Lisbon Treaty. As a result, the defense system needed to establish a unified set of AF with capabilities to effectively contribute on the tree missions. Thus, in 2010 „strategic reconsideration” of defense was carried out; in 2011 focus was put on the military capabilities of the army; in 2012 their capabilities were “upgraded” based on their imperatives [18].

This is indicated by the budget of the military institution, represented as a share of the GDP. The available data clearly point out that the 1.5% of the GDP as set out by the White

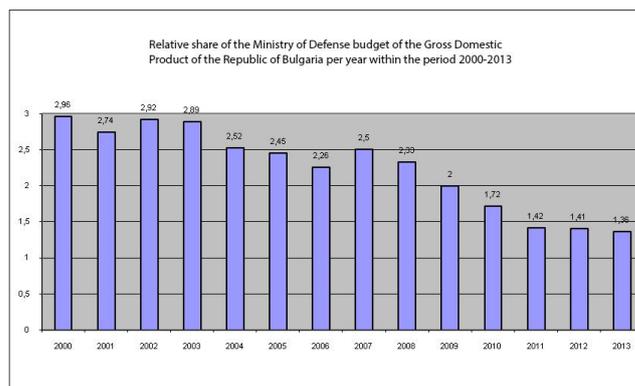


Figure 3. Relative share of MoD budget in the GDP for the period

Paper lead to a persistent trend of shortage, resulting in the difficulties met when training battalion in 2012.

In search for an answer if security and defense resources are too much or scarce and what the real price for this good is to be paid by the Bulgarian society is the next step in the analysis- the economic cost efficiency of defense, based on current data by EDA I EUROSTAT [21]. For this purpose fig. 3 shows the relative share of military personnel per 10000 of the population.

The data of fig.3 are indicative that in accordance with the demographic setting and the number of army personnel, our country ranks among the top places in number of military personnel, overcoming a number of members of Euro-Atlantic Structures with similar demographic parameters. This without a doubt leads to serious burden for the national economy in the interest of defense and the AF, and the economic crisis on the background in the last two years. This is confirmed by the place of our country by share of the GDP, spent for security and defense as compared to the other NATO member states, as shown on fig. 4.

When studied in absolutes, nominal annual defense costs per capita for the mentioned states, rank our country next to the last one (105 Euros) before Romania. This is four time less than the average for the European Union.

Considering the published data and the actual values of our national economy the general impression is that the price of defense as public good as compared to the other Alliance member-states is too high for Bulgarian tax-payers. This is confirmed by the annual defense cost indicator per capita (in EUR) as shown in fig. 5. It is obvious that in terms of nominal costs our country ranks next to the last one, only Romania is

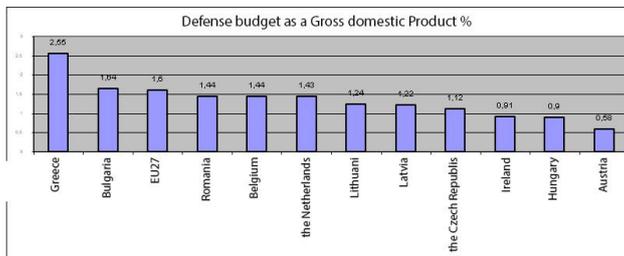


Figure 4. Share of defense budget as GDP %

Current operations and maintenance costs for a service person per year

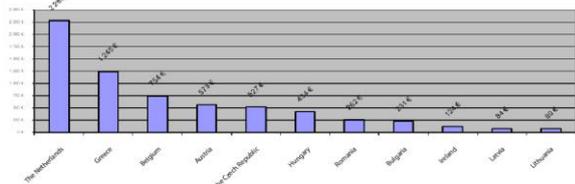


Figure 5. Current operation and maintenance costs for a serviceperson per year

behind us, but when recalculated based on purchasing power, numbers show that our country is ahead of countries such as Hungary and Lithuania with significantly better living standard. For this reason it is necessary to seek for opportunities to make managerial decisions more efficient based on the “resources-capabilities” ratio and to raise the benefits resulting from the implementation of responsibilities of AF within the country.

The financial efficiency of defense as a next step in the analytical estimates, contained in this paper finds its manifestation in the analyses of allocation and spending of budget resources for security and defense based on policies and types of costs.

Research in this field gives an idea about the correlation between the various types of defense costs, annual defense costs per serviceperson in total and by type. When comparing the correlation between types of defense costs for the Republic of Bulgaria and in total for the EU (fig. 6) there is an impression that the total highest cost for Bulgaria and other NATO states is the personnel cost of 57% for Bulgaria and 53% for the EU. Current costs are 20% for Bulgaria and 26% for the EU, capital costs- 23% for Bulgaria, as compared to 21% for other NATO states. The correlations are calculated based on data for 2009. It is obvious that as a whole and in coalition context breakdown of defense costs by type is almost the same, in benefit of personnel costs. When comparing costs per year per serviceperson, the lowest amount is spent in the Republic of Bulgaria- 23524 EUR, as compared to 245962 EUR in Austria, 87102 EUR in the Czech Republic, 61234 in Hungary, etc. (fig 7)

Similar is the breakdown of costs by type per serviceperson. Fig.8 shows that the lowest amount of personnel cost is in the Republic of Bulgaria -10586 EUR, as compared

Breakdown of defense costs by type

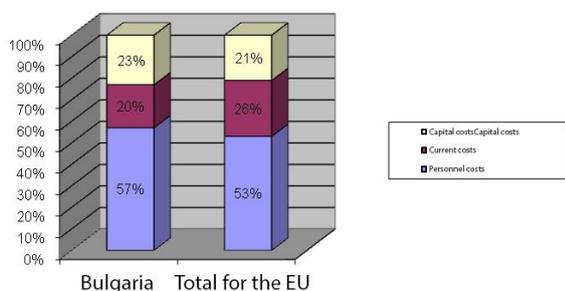


Figure 6. Breakdown of defense costs by type

MoD Budget in thousand BGN

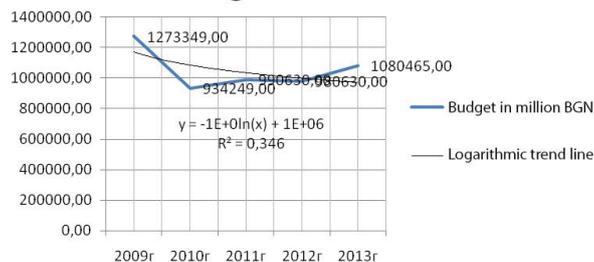


Figure 7. MoD budget change trend for the period 2009-2013

to 150037 EUR in Austria, 43551 EUR in the Czech Republic, 23883 EUR in Hungary, 18781 EUR in Romania. This means that personnel costs in Bulgaria are five times as low as the average in EU member states.

With respect to the current costs for a serviceperson, as shown on Fig. 9, our country ranks only before Lithuania (80 EUR) Latvia (84 EUR) and Ireland (124 EUR). For Bulgarian military personnel these costs amount to 231 EUR, which is approximately six times as low as the ones in Greece (1245 EUR) and approximately twice as low as in the Czech Republic (527 EUR) and Hungary (434 EUR).

Specified data is indicative that Bulgarian military personnel dispose of scarce resources for current costs. The necessity of current costs drastic saving is a direct consequence of the economic crisis on global and national level, as for the implementation of current tasks the status and social benefits of Bulgarian military personnel should be compromised. In support of that, indicators for defense resources management for the period 2011÷2014 for the country are published, as for 2014 those are estimates.

The supply of Bulgarian military personnel with arms, technical means and equipment (4940 EUR) ranks our country ahead of Romania (4627 EUR). As shown on fig.10, those costs are twice as low as costs of the same type in Latvia (7744 EUR) and Hungary (9186 EUR) and three times as low as costs in neighboring Greece (16197 EUR). As compared to the average level in the European Union (23267 EUR) those costs are approximately five times lower for Bulgarian military personnel. There is a trend to reduce investment in modernization AF arms, technical means and equipment in our country that leads to their technological ageing. As a result there is a real threat of failure to reach the declared capabilities,

Personnel costs per serviceperson per year

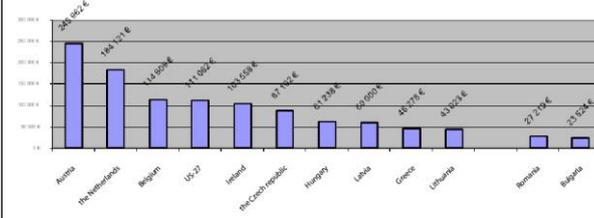


Figure 8. Personnel costs per serviceperson per year

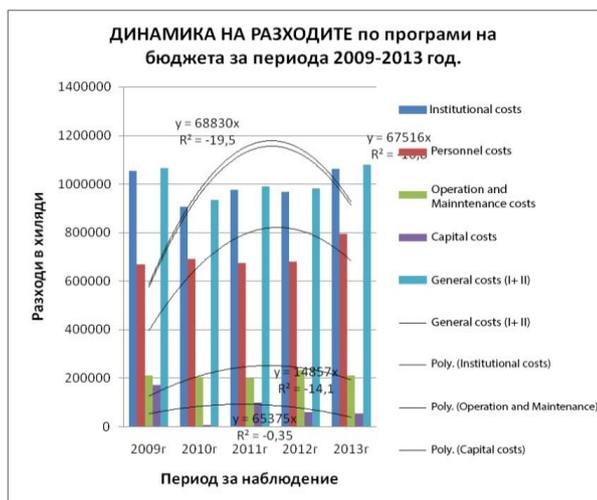


Figure 9. Cost Type Dynamics for 2009-2013

compatible with Euro Atlantic structures.

Attention should be paid to the general resource unavailability for technological maintenance of the AF in almost all NATO states. Hence, the primary objective in this respect appears to be the need to pool resources and efforts for joint investment in defense and security of members of Euro-Atlantic structures. The fact that until recently our country was absent from the collective investment projects is indicative of the gap between declared and implemented political actions in this respect. This resulted in negative consequences due to the misbalance, caused by the drastic cuts of military budget and the ineffective allocation and use of the economic resources of Bulgarian taxpayers.

Following the logic of the paper and based on the initial data, an analysis and forecasting model has been developed to be used for estimating defense costs in total and based on policies and programmes in the analyzed period 2009÷2013, based on linear analysis and polynomial regression. The main concept is to get the so called 'thick' dynamic lines in the analyzed period as for this purpose there is an assumption of a liner development trend for every variable in the course of every single year. And as expert analyses of data, collected in the analyzed period shows the presence of a linear trend we

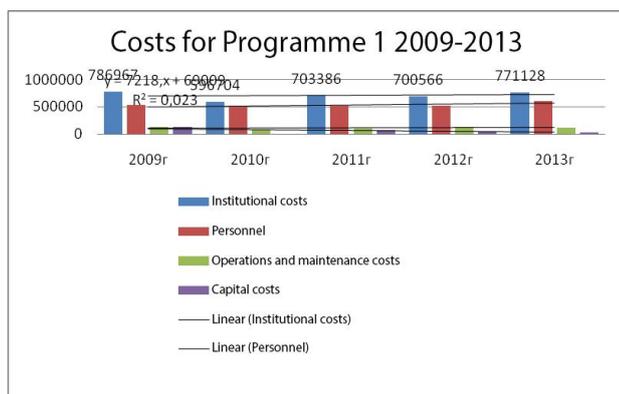


Figure 10. Defense programme 1 costs dynamics 1

believe the assumption is grounded

The starting point of the analysis is the trend change the budget in the analyzed period based on statistical information, as shown on fig. 11. It confirms the above conclusions, as the logarithmic budget trend line for the last 5 years is shown, indicating the trend to reduce the budget despite its peak in 2009. This trend is the basis for achieved defense capabilities based on policies and programmes.

The dynamics of costs by type for the analyzed period is shown on fig 12, by taking into consideration that military budget costs are defined in accordance with the UBC as personnel costs (staff) current operations and maintenance costs, including training and capital costs. There is an impression that cost curves are almost parallel, in support of the conclusion that budget reduction in the analyzed period follows the polynomial regression curves, which makes them comparable.

For a more detailed analyses, scientific research follows the change of cost types based on defense programmes, constituting both defensive policies „Defensive Capabilities” and „Alliance and International Security”, giving an idea of the military budget structure

Based on the data as shown in Fig.13, and based on linear analysis, cost type analysis for the analyzed period for Defense programme 1 „Training and Use of Armies” shows that there is a trend of increasing institutional costs. This is due to the increase of personnel costs while current operation and maintenance costs remain on the same level, at the expense of capital costs. In accordance with that, programme costs are about 70 % of the general costs of the MoD, which are directly related to development and maintenance of combat readiness of the AF.

Defense programme 2 „Human Resources and Reserves Management” costs type analysis is based on the polynomial regression statistical method, reviewed as a type of linear regression, where the connection between independent variable x and dependable y- is modelled as n-polynomial line. Polynomial regression uses a non-linear link between the value of “x” and the respective conditional mean value of “y” designated by E (Y | X) and is used to describe non-linear phenomena, in spite of the fact that polynomial regression uses non-linear data model. The statistical assessment is linear, which means that it is a regression function of a linear one of unknown parameters, calculated based on the data. For that reason polynomial regression is considered to be a special case of a multiple linear regression.

In general we can project the expected value of Y as n-polynomial line to finally get a general polynomial regression model of the type:

$$y = a_0 + a_1x + a_2x^2 + a_3x^3 + \dots + a_nx^n + \epsilon. \quad (15).$$

### III. CONCLUSION

In the search for economically sound management solutions to address the financial management problematic areas of security and defense resources, adequate to the economic potential of our country, the decisions taken on the Lisbon and

Chicago Summits and the aspirations to ensure the necessary defense capabilities at a reasonable cost to society, consistent with the key resource constraints, is the reason for a country to join smart defense initiatives. Accordingly, the establishing of "a single set of AF with balanced capabilities across all components for addressing the full spectrum of tasks, as set by the expected scenarios and analyzes of the military and strategic environment" more than ever requires a balance of the resources-capabilities ratio. The implementation of this ratio is determined by the relative share of defense and security costs from the GDP amounting to not less than 1.95 % and by maintaining the ratio of the military costs structure (personnel costs to current costs to capital costs)- 60:25:15.

Of great significance for the effective and efficient spending of security and defense resources, raising the integrity of the military institution and improving defense management is the observation of the requirements for transparency in planning, reporting, analysis and control of the spending of scarce budgetary resources. Accordingly, the logical conclusion is that an appropriate audit system similar to the Financial Management and Control System (FMCS) should be implemented.

#### REFERENCES

- [1] Stankevich, V., Y.Gerber, One of the founders of the German Armed Forces microeconomics. S., IM "Economy", 1998, s.43,85,98, 101, 178. [Станкевич, В., Й.Гербер, Един от създателите на немската микроикономика на въоръжените сили. С., УИ „Стопанство”, 1998, с.43,85,98, 101, 178].
- [2] New in the theory and practice controls production SSHA. Trans. English., M., 1971, s.120-122.[Новое в теории и практике управления производством США. Прев. Англ., М., 1971, с.120-122].
- [3] Dimitrova, S., V.Stoyanova, and V.Gramatikov, Costs-Benefits Analysis – Foundation for the Decision-Making Process in the Bulgarian Armed Forces. Conference of University Defence, Brno, 2004, с.59-75.
- [4] Semerdziev, W., strategy, environment, resources, capabilities, planning. S., 2007, s.159-162, 214. [Семерджиев, Ц., Стратегия: среда, ресурси, способности, планиране. С., 2007, с.159-162, 214].
- [5] Hein, Paul economic mindset, S., 1995, s.67. [Хейн, Пол, Икономическият начин на мислене, С., 1995, с.67].
- [6] Ivanov, S., The Economics of Defense Publishing House, Sofia, 1997, s.67, 81. [Иванов, Т., Икономика на отбраната, Университетско издателство, С., 1997, с.67, 81].
- [7] Averkovich E., G.Iliev and others., Management Accounting, St., 1999, pp. 48, 105. [Аверкович, Е., Г.Илиев и др., Управленско счетоводство, Св., 1999, с. 48, 105].
- [8] Adam C. Finance. Abagar, VT, 1998, s.417. [Адамов, В., Финанси. Абагар, В.Т., 1998, с.417].
- [9] P. Gavrilov, where military and technology meet Capital journal, 10 to 16 July, 2004, s.31. [Гаврилов П., Къде военните и технологиите се срещат, в.Капитал, 10-16 юли, 2004, с.31].
- [10] Ivanov, S., Effect of defense spending on the growth-economic situation and prospects for research. VZh magazine, issue 1, 2004, s.98. [Иванов, Т., Влияние на отбранителните разходи върху икономическия растеж-състояние и перспективи за изследване. сп.ВЖ, бр.1, 2004, с.98].
- [11] Halinan, K., War is good business, <http://www.zmag.org/content/showarticle.efm?SectionTD=2>. [Халинан, К., Войната е добър бизнес, <http://www.zmag.org/content/showarticle.efm?SectionTD=2>].
- [12] Stiglitz, J., The Economics of sector 'Member, S., 1996, s.317. [Стиглиц, Дж., Икономика на държавния сектор, С., 1996, с.317].
- [13] Ivanov, T. et al., Production design and analysis of defense spending. Military Publishing House, Ministry of Defence. Sofia. 2008, s.129. [Иванов, Т. и кол., Производствен модел и анализ на разходите за отбрана. Военно издателство, Министерство на отбраната.София. 2008, с.129].
- [14] Totev, D., T.Ivanov, B.Budinova, S.Stefanov. Transparency in the management of defense resources. (Association "Dzh.S.Marshall", 2003). [Тотев, Д., Т.Иванов, Б.Будинова, С.Стефанов. Прозрачност при управлението на ресурсите за отбрана. (Сдружение „Дж.С.Маршал”, 2003)].
- [15] Appendix 3. Estimates for the period 2012-2014. program format in the Ministry of Defence. [www.minfin.bg/document/\\_MO.pdf.pdf](http://www.minfin.bg/document/_MO.pdf.pdf). [Приложение 3. Бюджетна прогноза за периода 2012-2014г. в програмен формат на министерството на отбраната. [www.minfin.bg/document/\\_MO.pdf.pdf](http://www.minfin.bg/document/_MO.pdf.pdf)].
- [16] Report on the state of the defense and Armed Forces of the Republic of Bulgaria in 2010., [http://www.md.government.bg/bg/doc/drugi\\_20110323\\_DokladMS\\_Sus-toianieVS.pdf](http://www.md.government.bg/bg/doc/drugi_20110323_DokladMS_Sus-toianieVS.pdf). [Доклад за състоянието на отбраната и ВС на Република България през 2010г., [http://www.md.government.bg/bg/doc/drugi\\_20110323\\_DokladMS\\_Sus-toianieVS.pdf](http://www.md.government.bg/bg/doc/drugi_20110323_DokladMS_Sus-toianieVS.pdf)].
- [17] Report on the state of the defense and Armed Forces of the Republic of Bulgaria in 2011., [http://www.md.government.bg/bg/doc/drugi\\_20111114\\_Doklad\\_MO\\_III\\_trimesechie.pdf](http://www.md.government.bg/bg/doc/drugi_20111114_Doklad_MO_III_trimesechie.pdf). [Доклад за състоянието на отбраната и ВС на Република България през 2011г., [http://www.md.government.bg/bg/doc/drugi\\_20111114\\_Doklad\\_MO\\_III\\_trimesechie.pdf](http://www.md.government.bg/bg/doc/drugi_20111114_Doklad_MO_III_trimesechie.pdf)].
- [18] Report on the state of the defense and Armed Forces of the Republic of Bulgaria in 2012., [http://www.md.government.bg/bg/doc/drugi\\_20130308\\_Defence\\_Status\\_Report\\_2012.pdf](http://www.md.government.bg/bg/doc/drugi_20130308_Defence_Status_Report_2012.pdf), s.13-14,39-40. [Доклад за състоянието на отбраната и ВС на Република България през 2012г., [http://www.md.government.bg/bg/doc/drugi\\_20130308\\_Defence\\_Status\\_Report\\_2012.pdf](http://www.md.government.bg/bg/doc/drugi_20130308_Defence_Status_Report_2012.pdf), с.13-14,39-40].
- [19] Totev, D., Innovative methods for the management of defense resources, December 6, 2012, [http://md.government.bg/pdf\\_Presentation\\_G\\_C\\_Marshall\\_Dec\\_2012\\_2.Pdf](http://md.government.bg/pdf_Presentation_G_C_Marshall_Dec_2012_2.Pdf). [Тотев,Д., Иновативни методи за управлението на ресурсите за отбрана, 6 Декември 2012, [http://md.government.bg/pdf\\_Presentation\\_G\\_C\\_Marshall\\_Dec\\_2012\\_2.Pdf](http://md.government.bg/pdf_Presentation_G_C_Marshall_Dec_2012_2.Pdf)].
- [20] White Paper on defence and the Armed Forces of the Republic of Bulgaria, s.6,12,1, 39-407. [http://www.md.government.bg/bg/doc/20101130\\_WP\\_BG.pdf](http://www.md.government.bg/bg/doc/20101130_WP_BG.pdf). [Бяла книга за отбраната и ВС на Република България, с.6,12,1, 39-407. [http://www.md.government.bg/bg/doc/20101130\\_WP\\_BG.pdf](http://www.md.government.bg/bg/doc/20101130_WP_BG.pdf)].
- [21] Irish Management Institute. Getting the best from the Competency Approach: An Irish Perspective Irish Manegement Institute Dublin.
- [22] Saykova, I., A.Stoykova-Kaneva, S.Saykova. Survey of dependencies. IM "Economy", Sofia, 2002. [Съйкова, И., А.Стойкова-Кънева, С.Съйкова. Статистическо изследване на зависимости. УИ „Стопанство“, С., 2002].
- [23] Petrov M., V. Chitanov. A. Ishtev, S. Ahmed, (2008 October 1-4) FUZZY – NEURAL MODEL BASED PREDICTIVE CONTROL ALGORITHM FOR CONTROL OF A POLYMERIZATION REACTOR. Available at: <http://www.csd.bg/?id=292>.
- [24] Center for Study of democracy. *Gray economy* [Център за изследване на демокрацията. *Сива икономика.*] Available at: <http://mpet.hit.bg/I-1.pdf>.

**Published by:** EDIS - Publishing Institution of the University of Zilina

 Univerzitna 1  
01026 Zilina  
Slovak Republic

**Editors:** Ing. Michal Mokrys; Ing. Stefan Badura, Ph.D.

**ISBN:** 978-80-554-0949-8

**ISSN:** 1339-522X

**Pages:** 289

**Printed in:** 150 copies

**Publication year:** 2014

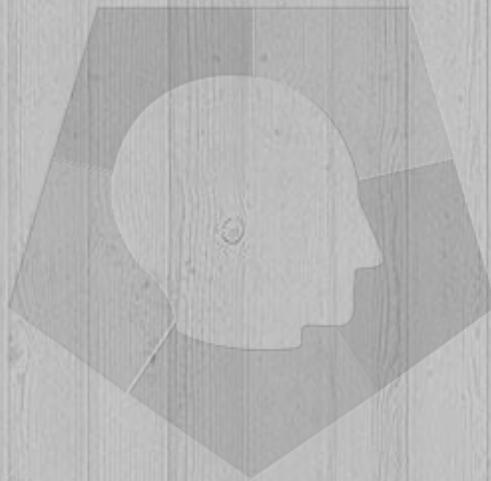
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**HASSACC 2014**

**Proceedings in**  
**Human and Social Sciences at the Common Conference 2014**  
*The 2<sup>nd</sup> Human And Social Sciences at the Common Conference*

**17. - 21. November 2014**  
Slovak Republic

**ISBN 978-80-554-0949-8**  
**ISSN 1339-522X**