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Information and communication technologies as a source of marketing innovations in retail – trends

Abstract

Economic growth in modern retail trade is determined by the development of resources, especially knowledge and innovation. The aim of this paper is to demonstrate that retailers use innovative solutions, which are based on new information and communication technologies. Their manifestation is the development of marketing innovations. The investigation is aimed at answering the following questions: What are the possibilities for creating marketing innovations in trade based resources and potential of ICT? What trends can be observed in the creation of marketing innovations to trade based on knowledge acquired through ICT tools?

Keywords: retail, information and communication technologies, marketing innovations.

JEL classification: D83, L81, M15, O 31, O32.

Introduction

In contemporary retailing, the importance of modern information and communication technologies has been growing. Their application enters new areas, which is supported by development of the Internet, mobile phones and electronic mass media. They are becoming an important source of knowledge and information, as well as the means of trade and communications. In the situation of the multitude of information resources and their dispersion, information and communication technologies help and enable both traders and consumers to use collected data freely.

The study assumes that the development of modern information and communication technology enables acquisition of important information about consumers, their needs, expectations and purchasing behaviors that contribute to the creation of marketing innovations in retailing.

The structure of the paper is as follows. The first part is a description of the essence of ICT, explaining this concept, its main components and features. The next part shows the possibilities of using ICT and its tools in trade, while highlighting the growing role of social media in the market of communication. In the third section the areas of implementation of marketing innovations in retailing are presented on the basis of ICT resources and the need to acquire knowledge about consumers by traders is indicated. The last part discusses the characteristic trends in creating marketing innovations based on information obtained by means of ICT, treating them as one of the foundations of innovation in retail.

1. Information and communication technologies – the scope of the notion and key elements

The concept of information and communication technologies (ICT) covers a wide range of various kinds of technologies that enable processing and transmitting information in electronic form with the use of digital techniques and all electronic communication tools [Toffler 2006; Frąckiewicz 2010, p. 7]. Conceptual scope of the notion is made of elements shown in Table 1.

Table 1. Conceptual scope of information and communication technologies (ICTs)

<i>Conceptual scope of ICT</i>			
Communication media Internet, wireless networks, Bluetooth networks, fixed line, cellular, satellite, technology, audio and video communication radio, television, etc.	Media that enable to record information memory sticks, hard drives, CD/DVDs, tapes, etc.	Information processing devices PCs, servers, computer networks, etc.	Mobile devices mobile apps, complex IT systems (information technology)

Source: Based on: [*Slownik pojęć* 2014, p. 26].

Table 1 clearly shows that the scope of ICT notion includes four essential elements. They are: communication media that allow for recording information, appliances that enable to process information and available mobile devices. These elements define distinguishing features of modern information and communication technologies, which include:

- 1) equipment – a tablet, a smartphone, an Ultrabook, a Chromebook are becoming synonymous with the personal computer;
- 2) data transmission speed – LTE (Long Term Evolution) transmission standard, which is a step towards the so-called fourth generation of mobile allows mobile telecommunication; it allows for mobile use of the Internet with the speeds of up to 150 Mb/s;
- 3) mobility, which results in continuous development of Cloud computing technology, where access to programs, data and diverse services is provided by network cloud;
- 4) social networking portals (media) such as, for example. Twitter, Facebook and NK – where users can use such services as information, communication, and broadly perceived entertainment;
- 5) constantly declining cost of new technology, which facilitates its dissemination [Baron-Polańczyk 2013, pp. 7-9].

The aforementioned distinguishing features of ICT contribute to growing interest and application of these technological tools primarily by young people who eagerly use wireless Internet resources and interactive communication devices (e.g. smartfons, notebooks, tablets, etc.) every day. They enable not only a fast access to commercial offers, but also perform an important function of information [Cheung, Chiu, Lee 2011, pp. 1337-1343; Nikodemská 2012].

It results from the considerations that ICT provides a wide range of possibilities in the sphere of communication and market information exchange; however, their use depends mainly on skills and innovative approach to the needs and challenges currently imposed by retailing.

2. Opportunities and use of ICT tools in retail trade

Unified communication with entities of the trade sector (commercial chains, managers of shops, their partners and customers) by means of ICT is ensured by appropriate tools necessary for effective communication in business [Gudănescu, Nicolau A., Mitran 2010, pp. 27-36]. The role is performed by modern technology platforms that make it possible to streamline customer service processes and develop innovative solutions in the sphere of retailing. These tools combine

modern telephony with existing voice and e-mail infrastructure while providing comprehensive and affordable means of unified marketing communication. Their selected examples in retail trade are presented in Table 2.

Table 2. Examples of modern technological platforms applied in trade

Case 1. Microsoft Unified Communication Platform

Microsoft unified communication platform combines Microsoft Exchange Server 2007, Microsoft Office Communications Server 2007 and Microsoft Office Communicator 2007 programs, Microsoft Office Live Meeting service and Microsoft RoundTable™ devices in a flexible way while providing efficient communication to retail companies. Thanks to it, these entities can communicate at any time and place, in the way they choose.

Case 2. The platform of mobile devices with SAP software

The described platform provides commercial enterprises with innovative mobile technologies that ensure secure access to information at anytime, anywhere and on any device. SAP company supported by an extensive system of partners, provides mobile devices users with the ability to use the key functions via mobile applications. Infrastructure applied in them is closely integrated with existing software environment. Thanks to skilful implementation of the described solution, retail companies gain many benefits. The possibility to communicate important information and relevant offers via mobile devices is one of them.

Case 3. Communication platform of Comarch company

Communication platforms by Comarch company constitute a group of modern solutions for comprehensive support of all key business processes in medium and large retail companies, particularly retail chains. Thanks to their application, these entities gain a lot of benefits in terms of sorting the flow of information, better control over costs and operational activities. This also concerns the possibility to implement full or partial automation of many activities in the areas including: purchasing, sales, marketing, logistics, administration and Human Research.

Source: Based on: [www 1; www 2; www 3].

The use of the aforementioned and other technological platforms that enable unified marketing communication requires from traders openness to changes in the sphere of innovative mobile solutions occurring on market that improve and facilitate existing sales processes. However, their scope and type must follow the needs of modern consumers and the type of communication that suits them best [Macik 2013].

In recent years growing popularity of social media can be observed. They attract the attention of many companies, including retail chains, mainly due to new possibilities in the sphere of communication, cooperation and establishment of relationships with customers that are associated with them [Kaplan & Haenlein 2010, pp. 59-68; Całka & Mróz-Gorgoń 2014, pp. 123-131].

Interactions between social networking websites participants (users) are provided by Internet web sites and on-line tools. The most popular social networking portals include YouTube, Facebook, Twitter, Google Plus, Instagram, Ask.fm. and Nasza Klasa (*Our Class*, NK) among others [Collier 2014]. They enable exchange of information, opinions and knowledge also concerning various topics, including

products, purchasing, as well as customer experience and interests of retail outlets related to them [Reformat & Bilińska-Reformat 2014, pp. 208-214].

3. Characteristic trends in the sphere of creation of marketing innovations based on new information technologies in retail trade

Creation of new contacts and closer relationships with customers is one of the apparent trends in retailing. It brings development of modern ICT tools. Their idea assumes that the customer is not only a participant in the sale transaction, but becomes an active market entity that shapes the offer of commercial outposts through participation in value formation. Hence, following K. Prahalad and V. Ramaswamy, we can conclude that the value offered by trade does not result from its offer, but from the experience of its co-creation. The customer is actively involved in it in a specific time and place, and in the context of a specific event [Prahalad & Ramaswamy 2005, p. 21]. This results in emergence of innovations based on the knowledge about customers. They provide a basis for creating marketing innovations focused on the needs of a specific customer who co-participates in designing a new or improved product. Therefore, formation of community, loyalty and support, increasingly more frequently determines success of innovative products and services in retailing.

These activities are particularly evident in the case of large international retail chains as: Lidl, Tesco, Carrefour, Biedronka and Kaufland. One such example is presented in Table 3.

Table 3. Example of modern relationships with customers

Case 4. Example retail chain Lidl

Retail chain Lidl focusing on how best to communicate with their customers is very active in social media. According to data from Sotrender fanpage Lidl is not only the largest in the category of shopping centers and supermarkets, but also brings together the most engaged community. Its marketing activities on the Internet, characterized by consistent brand communication across all channels, through the "Kitchen Lidl" and consistent organizing around her communication – cooks, who are the faces of (Karol Okrasa, Pascal Brodnicki) present in its TV advertising, but also are the authors of the book and they are available for the fans on network application chat. Its activity in social networks based on the potential of crowdsourcing (which causes so much community involvement) – fans the network have the ability to select the promotion for their favorite products, vote on more themed weeks or decide which stores to be opened as part of the "Wielka Noc Okazji dla Facebookowiczów". How admit representatives of the brand, through community Facebook managed to get a powerful tool to track changing consumer preferences, their opinions and needs. This fact should be considered the greatest benefit research and development, flowing to the retail chain of interacting with virtual consumer communities on social networks. Therefore, activity of this network is not just Facebook, but also others, such as YouTube and Pinterest. An important aspect of its activities is the organization of educational bloggers ("Winnica Lidla", "Ryneczek Lidla"), which help to increase consumer awareness, creating new trends in the consumption of food, and thus to an increase in demand for this retail chains and market recognition.

Source: Based on: [Lidl ma już... 2013].

Development of the so-called Social Networking is another trend in retailing. It is closely associated with the use of the aforementioned social networking sites for the purpose of providing support to commercial enterprises and their relationships with customers (both business to business model and business to customers) [Jurisic & Azevedo 2010, pp. 349-366].

The most popular retail chain in social media in 2014 year was Tesco. The brand appeared to 282,5 thous. posts and comments, with 60,5 percent on Facebook, and 31,5 percent on Twitter. Slightly less popular social media was the Biedronka – 187,3 thous. materials. Just behind the podium were Lidl (95,7 thous.) And Carrefour (56,4 thous.). This statement closes the retail chain Żabka with a score of 51,8 thous. [Najlepsza marka 2015]. These actions result in development of more advanced approaches to innovations that are also referred to as open innovations in retail [Mierzejewska 2008].

Shifting the focus from innovation coming from any source, to selected open innovations in compliance with the community-driven strategy and the wish to establish relationships and loyalty is their characteristic feature. This approach becomes the key to introduction and implementation of marketing innovations in retailing only for those entities that are able to combine their own strategy, products, customers, their experience and commitment for the purpose of creation of a competitive potential.

A third of emerging trends in retail trade concerns the occurrence of proactive business model, which defines the way in which innovative solutions are created and expressed in the chain of operational and strategic values constructed on the basis of ITC resources [Duarte 2014, pp. 302-303]. Taking this into consideration, it is about providing consumers with sustainable values. This enforces identifying new types of values in the context of achievement of the objectives pursued in commercial transactions with interested parties, for the purpose of meeting the needs that emerge. Examples also shown in Table 4.

Table 4. Example of programs retail chains that provide lasting value to consumers in a proactive business model

Case 5. The educational program Tesco for Schools – “The future on a plate”

The aim of the program is to deepen students' interest in primary and secondary schools the subject of healthy eating, rational management of food and building attitudes conscious consumer. The competition consists of solving tasks and missions and the preparation of the students work related to the subject of the origin of food.

Multistage form of competition allows involvement on different levels. An innovative form of competition was based on an attractive for children and youth gamification mechanics, which in an interesting way raises important social issues related to healthy eating. Through play, children in a practical way, they will learn to read labels, to develop an attitude of being an informed consumer. Furthermore the amended system of choosing the winners can to win attractive prizes almost every team provided to demonstrate its activity.

Table 4 cont.**Case 6. The project consumer retail chain Biedronka – “We test”**

The project “We test” was designed for active consumers who are interested in shaping the range of products available in stores Biedronka. Thanks to the Internet platform www.testujemy.biedronka.pl network clients can participate in the testing of products and choose those that will be offered by Biedronka. The hallmark of the program is dedicated logo are testing the best Biedronka, which refers to the network logo. To become a tester, simply fill out the registration form on the site www.testujemy.biedronka.pl. Once you are registered, users can receive information about current tests and rankings. Among registered persons, 500 users who were the first to declare their willingness to participate in research, receives test samples of several flavors or variants of the product.

Thanks to customer complaints have been made many changes to the offer, labeling, and the available combinations of flavors. The aim of the “We test” is also raising consumer awareness, as well as the educational program “Let us read the label”, in which customers can benefit from free advice dietitians and receive educational materials about the proper interpretation of the labels placed on food products.

Source: Based on: [Konkurs dla szkół 2015; Biedronka zaprasza klientów 2014].

Another trend in retail trade, which leads to the development of ICT, can be summarized as: ‘Fast at low risk innovation’. It shows that not only rapid introduction of product on market is more and more important in the trade, but also increase in accuracy and reduction of errors that accompany this process. The creation and development of ICT tools supporting rapid introduction of innovative products is becoming more and more important due to the growth of global brands and omnipresent, mass transfer of information. This allows for gradual introduction of new products on market, availability of products and services for 24 hours 7 days a week, and product development through execution of tests and research experiments.

In conclusion it must be emphasized that predominant share of customers can be observed in creation of marketing innovations applied in retail trade and constructed on resources of ITC potential. New challenges are the way in which specific innovative solutions must be used for more efficient operation of business enterprises. Continuous development of new, innovative products refers to application of ICT tools currently preferred by consumers. This is also vital in the context of lower costs and improvement of competitiveness in trade.

Conclusions

Emergence of a greater number of new innovations is one of important trends in retail sector in the sphere of creation of marketing innovations based ITC potential. Reduction of costs together with gaining access to specific technologies, knowledge of the local market, and thus about the markets in general is their main driving force for growth. The presence in markets that are geographically diversified allows for better market recognition with respect to changing needs of customers or identification of market segments.

Means of communication occurring thanks to development of ICT, become a distinguishing feature of a modern retail outlet (store, Web, etc.), and the way to reach customers more effectively. They are supported by digital technologies with appropriate software that allows for interactions with consumers (e.g. interactive billboards, advertising network monitors, touch screens, etc.). As a result, participants in the sector of retail trade have the opportunity to gain valuable marketing information. This knowledge contributes to increasingly better and more complete satisfaction of customers' needs and expectations of consumers and it also supports creation of new types of marketing innovations in retail.

Investing in new technologies in the retail area should be seen as a very cost-effective for companies operation, because through access to data, retailers will be able to identify each consumer. Therefore, we see effect, whereby the activities of a growing number of retailers (especially high) based on personalized service. Their development means that they are now a key success factor for innovative retail companies, which is confirmed by the opinion expressed by many retailers that access to data is the second most important area of short-term investments, which aim to maintain customer loyalty and increase market share.

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