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Summary of the doctoral dissertation entitled

“The impact of accounting choices for intangible assets on the assessment of the financial situation of a company”

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Intangibles are vital resources for the contemporary economy. Being the key to business activity, they include different categories such as knowledge, employee skills and competencies, brands, software, relationships with customers and suppliers, and organisational culture. Accounting recognises only a few of these resources as intangible assets, which is the main reason for debates on the future direction of accounting development. Nonetheless, investigation and critical evaluation of current solutions are needed when improving the quality and broadening the scope of accounting information.

International discourse is focused on the desired amendments for currently unrecorded intangible resources. The most suitable ways of including a broader scope of intangible resources in the financial statement are considered. However, research on reported intangible assets is relatively scarce, and its focus is limited to the usefulness of accounting information about intangible assets. Most of the research ignores the impact of accounting choices on reported numbers, even though these numbers are the input into the decision-making of financial information users. To date, the only accounting choice investigated in detail is the accounting treatment of research and development costs.

Theoretical consideration of accounting policy choices and their impact on reported amounts has been a field of research in Poland for years. However, there has been little investigation into whether shaping the accounting numbers in a financial statement also triggers the judgements of financial statement users. This research gap is particularly important regarding reported intangible assets because of their crucial role in business activities. Moreover, strict recognition criteria for intangible assets present in accounting standards exacerbate information asymmetry between the management and shareholders of a company. In turn, shareholders with incomplete information may perceive accounting policy choices disclosed in financial statements as being indicative of the financial situation of a company.

The main aim of the dissertation is to investigate the impact of accounting policy choices for intangible assets on the assessment of the financial situation of companies listed on the Warsaw Stock Exchange. Given that understanding the accounting choices made by a company is necessary to interpret information reported in the financial statements, the main hypothesis of the dissertation is that accounting policy choices for intangible assets influence the investors' assessment of the financial situation of companies.

The following partial goals were set to accomplish the main goal of the dissertation and to verify the main hypothesis:

1. To determine the scope of intangible assets recognised in accounting against the background of intangible resources developed in contemporary economies.
2. To identify detailed accounting policy choices for intangible assets.
3. To describe theories justifying the relationship between accounting policy choices and the assessment of the financial situation of a company.
4. To investigate the accounting policy choices for intangible assets made by companies listed on the Warsaw Stock Exchange.
5. To empirically verify the impact of accounting policy choices for intangible assets on the assessment of the financial situation of companies listed on the Warsaw Stock Exchange.

Detailed hypotheses were assigned to the aforementioned partial goals:

1. The scope of intangible assets recognised in accounting is significantly limited because of their specific nature, which is difficult to reflect when providing the reliable measurement crucial to accounting.
2. Despite strict accounting standards for intangible assets, companies may make a broad set of accounting choices that shape financial information about intangible assets.
3. In the presence of information asymmetry, accounting choices may be interpreted as an indication of the financial situation of a company.
4. Reported information about intangible assets is incomplete and constitutes the circumstances for interpreting financial situations through the prism of accounting policy choices made by a company.
5. Accounting policy choices impact the assessment of the financial situation of companies, which is reflected in their market valuation.

Research methods used in the dissertation are a literature review and its critical analysis, comparative analysis of Polish and international accounting standards, content analysis of financial statements, hypothetico-deductive reasoning, and quantitative methods related to multiple regression analysis.

The main part of the dissertation contains an introduction, three theoretical chapters, two empirical chapters, a conclusion, and one appendix. The structure of the dissertation reflects the research procedure, aiming to achieve the research goals and verify the research hypotheses.

The introduction identifies the important research gap which justifies the research. Then the goals of the dissertation with matched hypotheses were presented and the research methods indicated. Finally, the structure of the dissertation was outlined.

The first chapter emphasises the role and diversity of intangible resources in the contemporary economy. With the existing strict recognition criteria for intangible assets, accounting does not record many intangibles. This is related to the nature of intangible resources which is difficult to capture while providing reliable and verifiable financial information. In line with the first detailed hypothesis, the scope of intangible assets recognised in accounting is severely limited in comparison to the body of intangibles being developed and used by companies. Furthermore, the detailed comparative analysis of Polish and international accounting standards is presented with an emphasis on intangible assets measurement. Both accounting regulations for initial measurement are similar, but significant differences for subsequent measurement were identified. Regardless of the accounting standards (Polish or international), companies must apply standards in a customised manner, which constitutes the accounting policy of a company.

The accounting policy choices for intangible assets are the subject of theoretical consideration in the second chapter. The author makes an effort to distinguish accounting policy from earnings management and fraud. The accounting policy for intangible assets is defined as the management of a company applying, within the bounds of the law, specific principles, conventions, rules, and practices chosen to reflect the economic nature and method of obtaining future benefits from intangible assets. This definition stresses the compliance of accounting policy with accounting standards, managerial discretion when making choices, and the goal of accounting policy to provide reliable financial information. Accounting policy for intangible assets as defined above encompasses accounting choices for measuring and recognising amounts in profit or loss, a company's definition of intangible assets, detailed rules for intangible asset recognition, classification and grouping in financial statements, and rules for presentation and disclosure of information in financial statements.

Additionally, the second chapter addresses the second partial goal by identifying the detailed accounting choices for intangible assets, which companies have to make when applying either Polish or international accounting standards. All described elements influence the quality of financial information and might impact the assessment of a company's financial situation by

the information users. The choices related to the subsequent measurement are crucial because they shape both the quality and amount of items presented in financial statements. These choices are classified as conservative (income-decreasing) or aggressive (income-increasing), according to the direction of their impact on the reported values of intangible assets and earnings. With a conservative accounting choice, the earnings are charged relatively earlier than with an aggressive accounting choice. Nevertheless, in line with the definition of accounting policy, both conservative and aggressive accounting choices aim to reflect economic reality and provide neutral financial information.

The third chapter explains the possible mechanisms for shaping financial situation assessment through accounting policy choices, to achieve the third partial goal. First, the influence of accounting policy choices on the quality of information is described. Furthermore, the accounting policy choices impact the financial ratios used in the fundamental analysis of a company. Despite these obvious influences, it is ambiguous if accounting choices impact, in turn, the information users' assessment of the financial situation. In an efficient capital market with complete information, a rational investor should be indifferent to accounting choices that do not change the economic reality. The only effect an accounting choice should have is offering another way of presenting the real state which is known to the investors. Nevertheless, investors with incomplete information may perceive accounting choices as additional information indicative of the financial position of a company. According to accounting theory, conservative (income-decreasing) accounting choices indicate that the future benefits from an intangible asset are low, the useful life of an asset is short, and the uncertainty of obtaining future economic benefits from the underlying resource is high (relatively to aggressive choices). Hence, an income-decreasing accounting policy should be applied by companies in relatively poor financial situations. However, accounting choices might be interpreted in line with signalling theory as well. When choosing an income-decreasing accounting policy, a company voluntarily accepts the higher risk of missing expected earnings targets and breaching debt covenants related to book values. Such a potentially costly strategy – in line with signalling theory – is a positive signal about the high quality of a company, i.e., its favourable financial situation. Due to those contradicting plausible explanations, the real impact of accounting choices for intangible assets on the assessment of the financial situation of companies needs to be verified empirically. The empirical verification of these ideas is presented in the latter two chapters.

The research sample consists of 117 entities listed on the Warsaw Stock Exchange, with consolidated financial statements prepared as at 31 December 2018 and complying with the

International Financial Reporting Standards. The fourth chapter presents the results of a detailed qualitative analysis of accounting choices for intangible assets made by the companies from the research sample. The scope of accounting choices investigated is consistent with the scope identified in the literature review. This empirical research evaluates the influence of accounting choices on the content of financial statements and their impact on accounting numbers. The financial information on intangible assets is found to be incomplete and often vague, which limits its usefulness for users. It is observed that the higher importance of intangible assets in business activity does not induce more complete information. Although all entities examined comply with IFRS, the comparability of their financial statements is limited due to varying rules of charging profit or loss and different ways of presenting financial information. The obvious indication of the latter are mistakes in the professional financial database, which in some cases classifies specific intangible assets incorrectly. Moreover, the compliance level with IFRS mandatory disclosure requirements is analysed (Appendix 1 contains the instruction on the content analysis of financial statements for replication purposes). Companies disclose on average 72% of mandatory information on intangible assets. Checking almost 4000 single disclosure items reveals that monetary information, which can be easily produced based on financial information systems, is reported more often than descriptive information, which is the key to understanding the financial situation of a company. In line with the fourth hypothesis, qualitative analysis proves that the reported information on intangible assets is incomplete and shallow, presenting the necessary circumstances for interpreting accounting policy choices as a specific kind of information about the financial situation of a company.

The last chapter verifies whether there is a relationship between the accounting policy choices for intangible assets and investors' assessment of the firm's financial situation. The research uses value-relevance methodology and assumes that if accounting choices impact the investors' perception, they should be reflected in market valuation and, in turn, induce varying value-relevance of accounting numbers for conservative and aggressive accounting policies. A measure comprised of six detailed accounting choices for intangible assets is proposed to operationalise the accounting policy profile of a firm (conservative or aggressive). Based on content analysis of 117 financial statements, the selected accounting policies are classified as income-decreasing, neutral, or income-increasing, scoring 0, 0.5, and 1, respectively. Then the measure of accounting policy nature is calculated as the sum of scores over the number of accounting policies disclosed and applicable for every financial statement. The measure reflects the degree to which each entity introduces income-increasing accounting policies. Examining

702 single accounting choices reveals that 38% of accounting choices are aggressive (income-increasing) in their nature with the average measure at 0,58.

All companies were classified according to the median value of the accounting policy measure as conservative or aggressive, and the Ohlson model is used. The model regresses the book value of equity (net assets) and earnings on the equity market value. The model is adjusted to the research interest by separating intangible assets from the number of net assets and separating accruals for intangible assets from earnings. Then, the accounting policy profile (dummy variable) is added as an interaction term to allow varying regression parameters for conservative and aggressive firms. The findings show that the intangible assets of conservative companies are seen as assets with real economic value, resulting in the higher market value of a firm. For aggressive firms, especially the largest ones, intangible assets are perceived by investors negatively, resulting in reduced market value. Accruals for intangible assets are not value-relevant for conservative companies while they are related negatively to the market value of aggressive firms. These results are in line with signalling theory and suggest that accounting choices observed by investors influence their view of a firm.

In the conclusion, the contribution of the research to knowledge and accounting practice is expressed. The theoretical part of the research reveals the terminological chaos that harms accounting research development. It is necessary to use precise, specialist language more intentionally. It would be also beneficial for the academy to formulate a set of terms and definitions accepted and translated by international accounting associations. Such guidelines could be used uniformly by accounting researchers all over the world. Previous empirical research investigates only one accounting policy choice for intangible assets, mainly accounting treatment of research and development costs. The research presented in the dissertation is more complex and examines six detailed accounting policy choices for intangible assets. A measure of accounting policy nature is intuitive and may be used and advanced in future research. The results advance knowledge about the usage of financial information by investors, supporting signalling theory. Furthermore, in line with previous research, the disclosure index for mandatory information on intangible assets is used. At this point, the presented research contributes by disclosing both the list of items included in the disclosure index and the detailed content analysis instruction for coding, which may be used by other researchers to replicate findings or research design.

The practical implications are twofold. First, the accountants' awareness of the impact of financial information on users' decisions should be heightened. Detailed and profound information is needed to understand the business activity of a company. Moreover, given the

results in line with signalling theory, the pressure on accounting standard-setters to liberalise recognition criteria for intangible assets needs cautious consideration. Broadening of intangible assets recorded in financial statements may not overcome the shortcoming of current accounting rules. Finally, the conclusion section discusses research limitations and future research avenues.

In summary, the theoretical consideration and empirical evidence presented in the dissertation allow us to achieve the main goal of the research and support the main hypothesis about the influence of accounting policy choices for intangible assets on investors' assessment of the financial situation of companies.