Impact of Digitalization on the Accounting Profession

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Abstract The goal of the paper is to provide a comprehensive insight into the implications that the process of business digitalization has on the roles and competencies of accountants. Due to current technological changes, all integral parts of accounting as a business function have undergone or will undergo corresponding changes shortly. Research is based on secondary sources of materials. A structured review of academic literature on the impact of digital technologies on accounting and corporate reporting has been performed by collecting peer-reviewed papers from the Web of Science and Scopus databases. The contribution of the paper is reflected in highlighting innovative ways of communicating accounting information, both internally and externally. In that sense, the paper points out the changes that have occurred in the financial reporting process and current regulations, then in the field of management accounting, as well as recent changes in the scope of integrated reporting. The accounting profession will continue to evolve, and accountants will acquire new knowledge and competencies to respond to numerous challenges adequately. These findings are important for accountants and management and other participants in the corporate reporting chain, such as investors, creditors, capital market regulators, and auditors.

Keywords Digitalization · XBRL · Accounting profession · Corporate reporting

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1 Introduction

The growing trend of the presence of digital technologies in everyday life and the economy has conditioned the need to change the way a company conducts business. Digitalization requires continuous communication with stakeholders to maintain the race with growing competition, better meet customers' needs, operate at lower costs, and more efficiently realize the defined company's goals (Monterio 2016a). Digitalization, on the other hand, provides an opportunity to find new modalities of cooperation between a company and different stakeholders, both within the supply chain and within the company (Verneeten and Heinen 2021). Introducing innovative products and services, forming new markets and business opportunities, and reengineering business processes imply implementing effective strategies in response to new business conditions (Brands 2018). The strategy's definition, implementation, and validation must be based on relevant information. The digitalization of the economy and business model has not remained without an impact on the accounting profession, in the sense that it generates certain risks, but it also represents a kind of source of opportunity (Verneeten and Heinen 2021). As such, digitalization not only affects the scope of work and its implementation in the finance and accounting sector but also provides new opportunities to support the accounting profession in realizing company goals (Galarza 2017). Digitalization touches on numerous segments of financial reporting, starting with recording business events and transactions through preparing financial statements and their disclosure (Phornlaphatrachakorn and Na-Kalasindhu 2021). Changes are also inevitable in management accounting, business reporting, integrated reporting, auditing, and forensic accounting.

The digital environment that emerged as a result of technology entering all parts of society and the emergence of numerous innovations and trends, such as Big Data, XBRL (eXtensible Business Reporting Language—XBRL), Cloud Computing, Blockchain, Artificial intelligence (AI), have repercussions on the scope, as well as the extent and type of knowledge and skills that is necessarily expected from accountants so that they can successfully respond to new challenges (Howell 2015). Although accountants have long been more than mere notaries of business changes, digitalization implies a further evolution of their competencies. For professional accountants, digitalization reduces the volume of manual work, allowing them to use part of their efforts for more creative purposes, supporting management in its efforts to improve competitiveness and create company value (Boyle 2021).

Several questions arise from the previously stated, such as whether the accounting profession is endangered by the process of digitalization, i.e., whether AI will replace the human factor. How can the accounting profession contribute to managing current risks and value creation? What are the additional competencies and knowledge that accountants must master? Will the role of accountants, and thus the scope of their work, undergo significant changes in the coming period?

Since it has direct implications for accounting reports in terms of format and the time frame in which they become available to users, it is essential to consider how

digitalization affects the company's communication with stakeholders. Digitalization implies tagging financial reports in the financial reporting segment, which is highly regulated by professional and legal regulations. Improving the availability, accuracy, and timeliness of information provides an opportunity for report users to perform appropriate analyses and comparisons and to make adequate decisions on the allocation of financial resources on that basis. This further affects financial markets' efficiency by reducing information asymmetry and related risks (Tarca 2020).

XBRL is used to tag financial data in such a way that a large amount of information in reports can be automatically loaded through software and is thus much easier to sort, aggregate, compare, and finally use by many stakeholders (Monterio 2016a). In the European Union, the turn toward digitalization of financial statements envisages that public companies operating in the EU will prepare statements by the Inline XBRL (iXBRL) starting in 2020 (Colgren 2018). These reports must also be subject to external audit, which requires the audit profession to make adjustments and acquire new skills. Leading companies strive to disclose additional relevant information to investors using the XBRL technology for more efficient communication. However, it is essential to note that the application of XBRL standards is not exclusively in the domain of financial reporting. Because the company's management is responsible for compiling financial reports, management accountants, as a kind of support to the management, also have competencies in this area (Mccullogh et al. 2017). Namely, their task is to reduce errors that may occur during data generation, and they have partial responsibility for verifying compliance with the relevant regulations. The importance of this support is evidenced by the high costs that may occur due to inadequate quality of information, which are manifested in the form of wrong business and investment decisions, reputational risk, legal obligations, and others (Dallavia and Garbellotto 2015).

Management accountants' contribution to improving the quality of information can be provided through adequate education and training, the advising of management when choosing investments in information technology and equipment, but also by pointing out to the management the importance of efficient and timely internal and external communication based on contemporary technologies (Brands 2018). The added significance of the profession is reflected in supporting the management of new types of risks, such as cybersecurity risks (Monterio 2016b).

This paper aims to point out the implications that the process of business digitalization has on the scope of work and competencies of accountants. All integral parts of accounting as a business function due to the dynamics in the selection and implementation of digital business strategy and current technological developments, all integral parts of accounting as a business function have undergone or will undergo appropriate changes shortly. Emphasized initiatives, generating new knowledge and competencies of accountants in response to current business circumstances, is an adequate response to support the decision-making process, and improve competitiveness and risk management.

Research is based on secondary sources of materials. A structured review of academic literature on the impact of digital technologies on accounting and

corporate reporting has been performed by collecting peer-reviewed papers from the WoS and Scopus databases. Highlighting innovative ways of communicating accounting information internally and externally is the main contribution of this paper. In that sense, the paper points out the changes that have occurred in the financial reporting process and current regulations, then in the field of management accounting, as well as recent changes in the scope of integrated reporting.

2 XBRL as an Instrument to Support Corporate Reporting

The emergence and broader use of the Internet initiated an information revolution, which is manifested in the fact that billions of information in electronic form are available at relatively low costs or completely free of charge upon request initiated with just one click. In the context of corporate reporting, the environment described has significantly influenced the communication system between the company and its stakeholders because their information needs have evolved and become highly complex. In addition, unfavorable market conditions, and particularly crises periods, often encourage data manipulation in financial statements (Pavlović et al. 2019b, 2022b), as well as some characteristics of management that could additionally contribute to that practice (Pavlović et al. 2018, 2019a, 2022a).

By applying specific software programs and standards, it is possible to do this faster and simpler, than in the conditions of manual compilation and publishing of corporate reports. Extensible Markup Language—XML is an Internet technology used to exchange company data electronically. The use of XML for processing accounting data and reporting is called eXtensible Business Reporting Language—XBRL. It is a key language implemented in the form of accepted dialects required by specific business processes. Although initially introduced to improve financial information, it was soon realized that XBRL could also be adapted and successfully applied to non-financial reporting (Willis 2002).

XBRL represents an international standard for preparing and using corporate business reports. As a software language, it is aimed at supporting investors, analysts, regulators, and other stakeholders by providing the ability to obtain and exchange information quickly and efficiently. This is achieved through the information marking protocol, more precisely so that each segment of data in electronic form is automatically added to the appropriate identification code (label). One of the advantages of using the XBRL electronic language is that computers can select, analyze, store, exchange, and present information (Piechocki and Servais 2010).

The foregoing suggests that XBRL represents a revolutionary approach to corporate reporting as it provides stakeholders with access to necessary information. The main characteristic of XBRL is that it is platform neutral, which means that the content it transmits remains unchanged. It also provides the ability to efficiently transform reports from one system to another, between different companies, without losing their essential meaning. More precisely, financial (or other) reports can be compiled using specific accounting software, and users have the opportunity to

download the report in the desired format through the XBRL standard (Monterio 2016a).

The two main components of XBRL as a standard for financial and non-financial information are technical specifications and taxonomies. Technical specifications contain fundamental definitions of how XBRL works. Taxonomies indicate what data is displayed and how it relates to other reports' positions. These are categorized schemes that define specific labels for individual items of information. The basic XBRL specification defines three dimensions: the reporting period, the reporting entity, and the more broadly defined reporting scenario. The listed XBRL specification tags are organized into logical structures known as taxonomies, i.e., data classification systems (Gonzalbez and Rodriguez 2012).

The advantages of the XBRL standard are reflected in the following (PriceWaterhouseCoopers 2003):

- Lower costs of preparation, publication, and use of reports (time and necessary interventions of reporting authorities are reduced).
- Greater reporting flexibility and timely information for company management and stakeholders.
- Simplified and international access to information.
- Standardized information recognized and understood by all users.
- Increased reporting transparency and reliability of information through the reduction of errors, distribution of information while preserving its integrity.
- Supports analytical skills.

In addition to the imposed legal obligation to publish reports using the XBRL standard in certain countries such as the United States, Australia, Canada, and Japan, numerous companies worldwide opt for its implementation voluntarily. These proactive companies strive to improve dialogue with their stakeholders (Dallavia and Garbellotto 2015). Regarding the authority for forming and maintaining taxonomies, the USA US GAAP XBRL taxonomies are defined and updated by the FASB), while the IASB defines IFRS XBRL taxonomies. One of the solutions for taxonomies in the field of integrated reporting is to define them by the International Integrated Reporting Council (IIRC).

Although XBRL was initially intended for financial information, this standard business reporting language is flexible and can be applied to sustainability reporting. The XBRL framework can be designed to meet a variety of information needs. Automating business reporting is part of the path to integrated reporting that includes technological innovations such as XBRL standards, Internet reporting, and real-time reporting. The Consortium XBRL states that significant benefits in efficiency and lower business costs arise from the automatic collection and systematization of information. Still, there are challenges in establishing the credibility of the information in business reports (Dallavia and Garbellotto 2015). The XBRL standard facilitates the adoption and implementation of the integrated reporting concept and enables stakeholders to have a more comprehensive knowledge of the company's performance and prosperity.

Analogous to financial reporting, the Global Reporting Initiative has defined taxonomies for reporting on sustainable development (specific categorized schemes and labels for a particular industry), such as taxonomies for carbon dioxide emissions, reduction of carbon dioxide emissions compared to the previous year, and similar. The taxonomy is a comprehensive set of XBRL files that cover numerous entry points at different points in time and provide concepts relevant to specific purposes. Taxonomies refer to both financial and non-financial information (Rowbottom et al. 2021). The XBRL taxonomy for environmental, social, and corporate governance information increases its value by making it available in real-time alongside financial information, based on which it is possible to see cause-and-effect relationships between them. The XBRL standard should also make it likely to increase the expressive power of financial and non-financial information. Namely, non-financial information in the reporting process is often presented in isolation, resulting in no insight into their connection with financial performance (Monterio 2010). The report on sustainable development in XBRL format is always based on the entry points defined by GRI or the extension created by the reporting entity. Defined taxonomies allow companies to easily mark information on sustainable development in their report, allowing users to recognize and analyze the required information (Global Reporting Initiative 2010).

The XBRL standard contributes to the quality of comparability and timeliness of the information. The question of comparability is particularly important for the information on sustainable development. Considering how it is possible to achieve comparability of content between individual companies requires identifying an objective reporting framework that supports comparability of information where it exists and simultaneously encourages comparability if the information is incomparable (Watson and Wray 2022).

A widely accepted framework is necessary for integrated reporting to provide globally comparable information, and XBRL provides just such a framework. Using the XBRL standard, information on sustainable development should be tagged according to a taxonomy so that it can be easily understood and processed by computers and transferred between available applications. Labels representing a kind of bar code provide relevant information and describe each element of environmental, social, and corporate governance information in a way that enables their computer processing and is easily understood by the users. The above codes are based on accounting principles that can be used to classify the different elements of the report. Labels should also indicate the connection of specific categories of information and references to the relevant non-financial reporting framework (Watson and Monterio 2010).

Integrated reports show three levels of indicators. For each key performance indicator, it is possible to determine via XBRL whether it represents information about the state or current, historical or prospective, or quantitative or qualitative information. XBRL dimensions and formulas play an essential role in solving technical architecture challenges. Based on the defined dimensions, the integrated report can show the multidimensional nature of key value drivers such as key performance indicators and strategic goals, economic efficiency, energy efficiency,

reducing pollution, increasing the value of human and social capital, and effective corporate governance. The fundamental performance indicators are expressed in absolute value and belong to one of the selected areas from the sustainability domain: economic, environmental, social, and corporate management (Beusch et al. 2017).

In contrast, the derived performance indicators represent the relative relationship between the selected fundamental indicators. Using the formulas enables us to verify whether the displayed information respects the defined complex indicators and whether these values are coherent with the basic and derived indicators When financial and sustainable development information is marked in an integrated report, all participants within the information support chain—investors, creditors, analysts, capital market, auditors, regulation, and others, can quickly, precisely, and easily access valid and comparable information. This contributes to the credibility of integrated reports (Gonzalbez and Rodriguez 2012).

XBRL Global Ledger—XBRL GL enables the codification of financial and non-financial information in a suitable way for conducting various analyses. With this, it is possible to contribute to the digitalization of integrated reports since different business dimensions, such as economic, ecological, and social, are covered. That could facilitate data integration in the CSR reporting practice (Knežević and Pavlović 2019). The innovative way of generating reports, through the provision of information in real time, supports the decision-making process and contributes to the efficient communication of the company with stakeholders (Dallavia and Garbellotto 2015).

Automating corporate reporting provides the opportunity for accountants to devote more time to activities that add value to the company, the opportunity for key stakeholders to gain better insight from the reports presented, and enable more efficient capital allocation decisions—financial, natural, social/relational, human and intellectual capital (Verneeten and Heinen 2021). It is essential to point out that XBRL has the potential to be applied to the information that circulates within the company, primarily for performance management, process improvement, data mining, etc.

3 The Role of Accountants in the Business Digitalization

The imperative to improve business processes and the ubiquitous digitalization of business had implications for the scope of the accounting function and, thus, for the role and competencies of accountants. Digital technologies have contributed to the automation of numerous activities in the company, as a result of which routine operations such as data entry and documentation records have been significantly accelerated and facilitated. The described circumstances initiated numerous questions, such as: will the need for the services of accountants disappear in the future, and should accountants think about retraining in other activities?

With the development of AI and the automation of numerous activities within the accounting function, accountants have gained more time to focus on activities that contribute to value creation (Sun et al. 2020). The above implies the development of new activities in the field of accounting, as well as the emergence of new roles that accountants will have to contribute to the strategic positioning of companies and the creation of value. Some include technology management and data analysis, cross-functional collaboration, risk management, performance monitoring, and more (Verneeten and Heinen 2021).

Since machines cannot replace people, that is, thinking at a strategic level, it is considered that the digitalization process does not threaten the survival of the accounting profession. Still, the fact is that the accountant's scope will undergo significant changes. Expect that in the coming period, the accountant's scope of work will change by more than 30% compared to the current one, which requires the accounting profession to adequately prepare for the upcoming changes (Galarza 2017). The former confirms that accountants are still crucial in supporting strategic decision-making. Accountants will support management by creating various scenarios based on real data, assessments, and risk management through financial modeling and strategic planning (ICAEW 2019).

The above indicates that accountants are expected to become multi-specialized professionals possessing considerable skills. This implies continuous learning and improvement competencies. In addition, the faculties play a significant role in listening to the market's needs; they should strive to update their curricula to prepare new generations of accountants who will be able to provide substantial support to the adaptation of companies to changed business circumstances (Lundy et al. 2021). This is especially important if one considers that senior accountants have excellent accounting competencies but have not kept up with accelerated technological changes, due to which new technologies are not close to them (Verneeten and Heinen 2021). Professional accountants must be educated and develop additional skills through various continuing education programs. The evolution of the accounting function implies that accountants develop advanced skills in data management, their analysis, and visual presentation of the obtained information, to provide insight and foresight as business partners. The focus on strategic issues and assistance in formulating, validating, and implementing the strategy becomes the center of their activity. Furthermore, accountants are expected to focus on innovation and change management. This implies critical and creative thinking as well as the skills of timely recognition of threats and opportunities in the environment (Lawson 2019).

The previously described trends in contemporary business have caused changes in the field of information needs of both strategic stakeholders and management, and a new challenge has been set before the accounting profession. Namely, it is about financial and non-financial information being given the status of strategically important assets. Creating and maintaining the company's strategic resources requires appropriate investment in appropriate equipment and technologies. Accounting and financial experts participate significantly in technological projects, providing support through assessing expected effects and implementing innovative technical solutions (Brands 2018). Also, it is essential for accountants in the early stages of

specific technological changes must anticipate the impact on business in the short, medium, and long term (ACCA-IMA 2013).

In light of the digitalization of business and the improvement of the accounting function, it is necessary to invest in data strategy, data management, and data analytics. The introduction of new processes in the company presupposes the existence of skilled personnel who will initiate and support the proposed changes. In this sense, the reporting team must be equipped with knowledge (knowledge of the specifics of the company's business, strategy, business model, clear awareness of what information needs to be created, how to analyze and present it), as well as the skills to effectively implement the entire process while ensuring the integrity and reliability of the displayed information (Bray 2018). A company's information strategy is vital to gaining and maintaining a competitive advantage. That is why it is crucial for management to know where information is located, who is responsible for it, for what purposes it was created, the degree of information aggregation, and its importance in the context of performance management (Corban 2021).

One of the leading risks of the digitalization of business is cyber risk. The role of accountants in this area is to support the protection of strategic information through an adequate system of internal control, monitoring, and innovative technologies (Monterio 2016b). Accountants must be extremely proactive in terms of contributing to the initiation and timely implementation of changes in companies in such a way that the business can successfully adapt to the dynamic environment and improve its competitive position (Boyle 2021).

It is important to note that the success of a digital strategy does not depend only on the purchase of state-of-the-art equipment and advanced software. Each company has its specifics, and the digital strategy implemented by one company may not be adequate for others. Critical thinking, problem-solving creativity, and business understanding make human capital still a key player in the race with digital Darwinism (Gibson et al. 2020). The importance of human capital as a part of intellectual capital has been recently widely explored in various industries (Pavlović et al. 2021). Its unique qualities make it a factor of competitive advantage of rising importance in the Digital Age. It is a detailed understanding of customer needs, strategic and integrated thinking, creative problem solving, effective communication, ethical issues, regulatory compliance, leadership, and more (Serafeim 2016; McDonald 2022). Some researchers find evidence that ethics conduction is connected with age (Pavlović et al. 2019a).

Integrated thinking as the basis of successful digitalization of business means that the decision-making process is carried out with an overview of the long-term implications of each decision and action on various forms of capital, as well as the potential of creating company value. Integrated thinking starts at the board of directors level and then, through a "top-down" approach, is transferred to lower hierarchical levels—senior management and employees, including accountants (Deloitte 2015). Integrated thinking requires implementing changes within a company's traditional performance measurement and reporting system. It has already been pointed out that digitalization enables the creation of detailed information, as a result of which companies can introduce certain more advanced

performance measures and thereby better understand the efficiency of certain aspects of the business (Brockhaus et al. 2022). As such, integrated thinking implies a change in the business concept and is essential in effectively implementing a business digitalization strategy.

To successfully implement the digitalization strategy, it is not enough just for the management to declare that they want to leave the traditional thought algorithm. The problem is much more complex; the "silo" mentality does not arise spontaneously. A silo is the result of a combination of several elements—organizational culture, traditional way of thinking, and process factors. Correcting the mentioned elements makes it possible to change the mentality in the company. The accountant's role in this domain is to present to the management all the advantages that digitalization brings for the company and to initiate the idea of the necessity of digitalization of business and reporting (Savić 2015).

Through integrated reporting, accountants have the opportunity to innovate corporate culture and improve the company's reporting process, which contributes to freeing relevant information from corporate silos and making it available to management and numerous stakeholders at the same time. The innovative content of the report, through the integration of information on realized value and used capital together with information on implemented strategies and the business model, represents a strong incentive to generate and distribute added value in the short, medium, and long term (Ridehalgh et al. 2018).

The survival of the accounting profession in the future requires a reorientation toward management accounting and its support for internal decision-making. This presupposes that the competencies and knowledge available to management accountants are used to support management decision-making while preserving the traditional role of accountants in the field of financial reporting. Additionally, accountants must improve their IT skills for collecting, validating, and reporting purposes in the digital era. They are expected to conduct cost/benefit analysis and support when choosing a data management strategy, data analysis using business intelligence software, interpretation of results, and generation of predictive information. In this regard, Frigo and Krumwiede (2020) indicate that management accountants are in a unique position to participate in and guide the process of strategic analysis. The above requires strategic thinking and strategic analysis skills. To be reliable advisors, they must understand the company's operations in detail. They need to know how the business is doing, key influences, customers' buying habits, satisfaction level, and competitors' strengths and weaknesses.

For cost-benefit analysis and cost control that is related to digitalization, it is necessary to extend the concept of life e cycle to include a broader set of costs, not only directly but indirectly, through externalities or impacts in the broader environment (Savić et al. 2019). To design the digitalization of business operations and achieve profitability, accountants have at their disposal different budgeting techniques. They are used for various purposes, and besides defined goals and business conditions, the choice is determined by the type of activity (Savić et al. 2016).

Finally, due to the change in reporting, it is necessary to choose an adequate model for presenting reports to stakeholders (Lawson 2019). In this sense, integrated

reports that strive to show financial and non-financial performance in a way that shows their mutual connection and conditioning have shown numerous benefits compared to other forms of reports. The foregoing assumes that accountants take on the part of the tasks previously reserved for IT experts, such as mapping XBRL GL data, codifying and decoding data, and advanced analysis tools (Dallavia and Garbellotto 2015).

Through various forms of cooperation between companies and key stakeholders, it is possible to collect the necessary information to define strategies, plans, and internal and external reporting. In the given circumstances, integrated reporting is recognized as an instrument that allows a comprehensive overview of the company's performance. Building trust and consequently securing long-term support from the public, including commercial and financial market participants, requires selecting and implementing an appropriate reporting strategy that will guide the corporate reporting portfolio, along with an integrated report as a leading instrument. To achieve adequate results in the mentioned area, the reporting strategy must be conceived and supported by an efficient system that will manage the entire implementation process of the integrated reporting undertaking. Accountants inevitably have a significant role in the mentioned process, which is first of all recognized through the initiative of introducing integrated reporting, and then through information support for the definition and implementation of the digital reporting strategy (Todorović et al. 2020).

Integrated reporting and digitalization should enable a reorientation from displaying historical information to predictive analysis. This further presupposes the introduction of accounting engineering, which includes redesigning and innovating the accounting function by the changes (digitalization, AI; cloud) for accountants to respond to the challenges they face successfully. Accounting must adopt an interdisciplinary approach to problem solving. Effective use of digital systems in daily work requires accountants to improve their knowledge since digital accounting is much more comprehensive than the use of individual digital systems. Hence, digitalization requires more than technological innovation. More precisely, digital transformation radically changes key elements of the accounting profession, such as concept, business philosophy, education, the definition of accounting and qualifications of professional accountants, accounting thought, practice, and culture (Tekbas 2022).

Digitalization paves the way for introducing new KPIs based on new information. Also, it is possible to predict the future, that is, to create prospective information based on real-time web search data. Thus, for example, financial accountants can anticipate stakeholder demand for information before earnings announcements, and management accountants can predict customer sentiments before launching a new product. Big Data helps companies track their costs, i.e., improve cost control and productivity, thereby enabling sustainable value creation (Knudsen 2020).

Regarding cost management and control as an essential assumption for developing and preserving competitive advantage, it is undeniable that the accounting profession has significantly contributed to practice so far. Successful cost management primarily requires precise cost measurement. Information obtained based on

traditional costing systems is not suitable for managing the challenges faced by enterprises. The solutions could be found in the contemporary cost accounting systems that eliminate the weaknesses of the conventional approach and provide more precise information (Savic et al. 2014).

The fact that integrated reporting and business sustainability require the consideration of not only economic aspects but also the social and environmental dimensions of business has created the need for cost management to understand the implications of business operations for the broader environment of entities. The most significant number of contemporary techniques and methods of cost calculation and analysis focus on the costs arising from the production phase. From the perspective of global competition, considering the imperative of maintaining sustainable business in the long run, the information obtained is insufficient for designing, implementing, and revising competitive strategies. Cost accounting information that goes beyond the traditionally understood operating costs to quantitatively encompass and give a monetary presentation of environmental business aspects is very important in a contemporary business environment for capturing, analyzing, managing, and improving the overall performance of an entity (Savić et al. 2020).

Digital transformation of accounting can help to reach that goal through cost modeling. Two fundamental principles of cost modeling are the principles of causality and analogy. This will ensure more comprehensive knowledge of costs, more rate budgeting, better insight into the cause-and-effect relationships between certain decisions and incurred costs, and more efficient decision-making (Clinton and England 2016).

4 Conclusion

The process of automatization and digitalization of business has significantly affected the accounting profession in such a way that accountants have become more efficient in creating high-quality information. New challenges in business have led to the expansion of the scope of accountants to more effectively use opportunities and manage risks in business. The accountant's role has evolved from the creation of financial information for accounting to capital owners to a partner and management advisor in the strategic decision-making process. Accountants are expected to support management in assessing and managing existing and potential risks and simultaneously contribute to finding innovative solutions that will create sustainable value for all stakeholders. In addition to numerous advantages, digitalization also brings a new type of risk, cyber risk, reflected in the possibility of unauthorized access to data. Hence, the internal control system supported by IT controls should prevent potential damage.

Analytical skills and logical thinking remain essential elements of accountants' competencies to manage Big Data effectively. The focus on strategic issues and assistance in formulating, validating, and implementing the strategy becomes the center of their activity. Furthermore, accountants are expected to focus on innovation

and change management. In this sense, accountants must master digital knowledge and be ready to learn and improve continuously.

With the change in the business environment, the information needs of both management and stakeholders change, which presents a new challenge to the accounting profession. Namely, it is about the fact that financial and non-financial information received the status of strategically important assets. Accountants are expected not just to prepare past-oriented information but also to create prospective information to see the future. Integrated reports emerged as a response to the changing culture of reporting and the need for more effective communication with stakeholders. By showing the interrelationship of financial and non-financial performance, it is possible to see the impact of different forms of capital (financial, production, natural, human, intellectual, relational, and social) on business sustainability.

Integrated reporting and digitalization should enable a reorientation from displaying historical information to predictive analysis. This further presupposes the introduction of accounting engineering, which includes redesigning and innovating the accounting function by the resulting changes. Accounting must adopt an interdisciplinary approach to problem solving, and accountants must master the application of IT technologies, statistics, modeling, scenario analysis, and more.

Each company has specifics that must be considered when choosing a digital strategy. It is important to note that success in implementing a digital strategy does not depend only on purchasing state-of-the-art equipment and software. Thinking, understanding specific situations in the company and its environment, as well as creativity in overcoming challenges are qualities that technology still does not possess. This speaks in favor of the importance of human capital, i.e., accountants, as an essential element not only of the successful digitalization of business but also of the long-term survival and prosperity of the company. For the successful improvement of business processes and the implementation of a digitalization strategy, it is not enough just for the management to declare that they want to leave the traditional thought algorithm. The problem is much more complex since the "silo" mentality does not arise spontaneously. Digitalization of corporate reporting is much more comprehensive than the use of individual digital systems. It presupposes a review and redefinition of key elements of the accounting profession, such as concepts, definitions, philosophy, education, the definition of accounting and qualifications of professional accountants, accounting thought, practice, and culture.

The future survival of the accounting profession requires greater attention to management accounting as significant support for internal decision-making and management consulting. The foregoing assumes that accountants take over some of the tasks previously reserved for IT experts, codifying and decoding data and advanced tools of analysis.

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