

The impact of digitalization and automation on accounting practices and the accounting profession in the Czech Republic

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Abstract: The rapid development of the implementation of digitization and automation of processes in both government organizations and private companies brings new knowledge about their applicability in this sector. This article analyzes the impact of digitalization and automation on accounting practice in the Czech Republic, focusing on key technology trends and their impact on professional requirements. The research was conducted through a questionnaire among accounting professionals in the Czech Republic, which analyzed their attitudes towards digitalization and the degree of use of digital tools. Statistical methods identified relationships between variables, while content analysis provided deeper insights into respondents' experiences. The results show that digitalization is perceived positively, especially in terms of efficiency and accuracy of accounting operations; However, its implementation requires the development of analytical and technical skills. At the same time, fears of job losses have been identified. The research provides a comprehensive overview of the digitization of accounting and offers recommendations on how to adapt to technological changes.

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1. Introduction

At a time when digitization and automation are rapidly evolving phenomena, accounting is becoming a key focus not only in the business world but also in academic circles. Now, more emphasis is placed on the efficiency and productivity of companies. Accounting processes and strategies that have been in place for many years and are considered standard are increasingly influenced by technological changes and the need to adapt to rapid changes. In the field of accounting, digitization and automation are widely recognized as essential tools for improving an organization's performance. Thanks to these innovations, companies can not only simplify and speed up their processes, but also respond more effectively to market demands and competition. Especially in the Czech Republic, this change is perceived as an opportunity to increase competitiveness, which has great potential for business growth and efficiency. With the growing demands on the accounting profession, the role of accountants themselves is also

changing; They are now facing new challenges and need new skills to keep up with technological advancements.

The topic of the article was chosen based on current social and economic trends that emphasize understanding and optimization of accounting processes in the context of digital technologies. Companies across various industries are increasingly turning to automating and digitizing their accounting operations. These steps allow them to increase efficiency while reducing costs. Manual processes, which carry a higher risk of errors, are gradually being replaced by technologies that deliver more reliable and accurate results. In this context, the topic of this thesis is very topical and topical. Research suggests that both digitalization and automation have the potential to dramatically change the work of accountants, requiring new skills and adaptation to new technologies (Brynjolfsson & McAfee, 2017).

Further justification for the choice of this thesis topic can be found in recent studies in the field of economics and management, which emphasize the importance of digitalization and automation for modernizing accounting processes and improving the competitiveness of companies (Mistry, 2019). At the same time, more and more studies are investigating ethical and labor issues related to the use of AI technologies in accounting (Sweeney, 2020). This article aims to conduct a comprehensive analysis of the current state of digitalization and automation in the field of accounting, with a focus on evaluating the impact of these technological changes on the work processes and professional development of accountants.

The research identifies the key skills that accounting professionals will need in the near future to best adapt to the new demands of the labor market. Based on the data obtained as part of the questionnaire, recommendations will be proposed on how accounting professionals can prepare for these changes and effectively respond to the growing requirements associated with digitization and automation. The questionnaire-based data collection method will allow us to gather the opinions and attitudes of a wide range of accounting professionals, providing a comprehensive overview of their perception of current technological trends and their readiness to face changes in their professional environment. This article aims to provide a comprehensive approach so that the results provide a comprehensive view of the impact of digitalization and automation on accounting, including practical recommendations for accounting professionals looking for ways to best adapt to this rapidly evolving environment. To this end, the following research questions were formulated:

RQ1: What role do digitization and automation play in accounting practice and the accounting profession in the Czech Republic?

RQ2: How do digitization and automation contribute to accounting practice in the Czech Republic?

RQ3: What is the attitude of accountants to the automation of accounting processes?

2. Literature Review and Theoretical Background

Thanks to ERP systems, accounting has shifted from manual processing to automation, and today's technologies, such as RPA, AI, and cloud computing, further expand the possibilities of data analysis and processing. Chyzhevskaya et al. (2021) point out that digitization brings

fundamental structural changes in accounting systems; it introduces modern tools (e.g., Big Data, blockchain), creates new forms of assets, and increases the demands on the digital maturity of companies. According to the authors, the modernization of information systems is the key to competitiveness and effective management in the digital economy.

According to Willcocks and Lacity (2016), RPA can significantly reduce the time it takes to complete accounting tasks while reducing the error rate, leading to better reporting and faster decision-making processes. Furthermore, artificial intelligence is able to autonomously analyze accounting transactions and identify discrepancies that may signal fraudulent activities, thereby increasing the security of accounting systems. Cloud technologies then enable real-time data sharing, promote transparency, and improve cash flow management (Kevin and Strauss, 2018). In addition to greater efficiency, the digitization of accounting has positive impacts on audit, regulation, and financial management. Abhishek et al. (2024), based on a survey of 482 experts, demonstrated that digital systems increase accuracy and transparency while reducing error rates and the risk of sanctions. The authors emphasize the need to develop new methods and incorporate them into educational curricula, thus contributing to both practice and academic research on digital accounting.

Although technologies such as RPA, AI, and the cloud are changing accounting processes, their impact on managerial decision-making depends primarily on the quality of the information provided. Al-Okaily et al. (2023), based on data from the Jordanian banking sector, found that decision-making efficiency is more influenced by the quality of the data than by the technical sophistication of the systems. The analytical culture of the organization is also a key factor, indicating that the successful use of digital tools requires not only technology, but also quality data interpretation and a suitable organizational environment. Digitalization significantly improves the comparability of accounting data between companies, which increases the transparency and quality of decision-making. Yang et al. (2024) found that this effect is more pronounced in non-state enterprises and firms with lower quality of management, where digitalization acts as a tool for harmonization. The study highlights the need for strategic management of digitalisation and recommends that regulators take its impact into account when developing accounting standards.

With the advent of new technologies, the requirements for the accounting profession are changing; technical knowledge is changing, and analytical skills and knowledge of digital tools have replaced manual skills. Richins et al. (2017) describe this shift as a "transformation in accounting", with accountants transitioning into the roles of advisors and analysts for strategic decision-making. Digitalization is also changing managerial accounting and control, as he states (Moeller et al., 2020). These changes affect not only technology and business models, but also accounting practices themselves, thus redefining the role of the controller. Coman et al. (2022) confirm that digitalization is changing the working style and role of accountants, who become strategic advisors. The success of this transformation requires a change in mindset and organizational culture, and the COVID-19 pandemic has accelerated the need for technological flexibility. The study by Magopets et al. (2022) builds on this way of thinking and highlights the need for a paradigm shift in strategic accounting. The authors propose a transition from a classical to a neoclassical approach that integrates digital platforms and cognitive technologies, and presents a methodology reflecting the requirements of the digital business environment.

Digitalization increases the efficiency of companies and strengthens their competitiveness, but at the same time raises concerns about the loss of traditional jobs in accounting (Brynjolfsson and McAfee, 2014). Chen et al. (2024) described the so-called substitution effect, where digitization replaces accounting staff, especially in technologically advanced private firms. This trend is hitting low-skilled workers the hardest, while new opportunities are opening up for tech-savvy professionals. Changes in accounting are also evident from the point of view of theoretical research. Spilnyk et al. (2022) analyze the concept of "digital accounting" and highlight the transformation of its methodological and conceptual principles. According to the authors, the current phase of accounting development represents a qualitatively new stage that requires a transition to a digital paradigm corresponding to the needs of the digital economy. On a practical level, these changes are reflected in the transformation of job roles. Rautiainen et al. (2024), in their case study of Finnish banks, show how digitalization is changing the identity of managerial accountants, whose roles are becoming more flexible, include IT specializations, and enable collaboration in agile interdisciplinary teams.

At the same time, digitalisation promotes more efficient management, especially in small and medium-sized enterprises. Ratmono and Zuhrohtun (2023) show that DIMAS improves information accuracy and reduces costs, thereby promoting better decision-making and competitiveness of businesses in developing economies. As the importance of digital technologies grows, so does the interest in specific tools such as blockchain. Pflueger et al. (2024) critically analyze its potential as a new accounting technology and highlight the structural changes it brings in the areas of trust, governance, and organization of accounting processes. Kolisnyk et al. (2023) focus on the practical aspects of blockchain implementation and show that this technology can significantly reduce the likelihood of accounting errors, increase the security of financial information, and minimize the risk of loss or misuse. The results of their risk-oriented modeling show that the introduction of blockchain into accounting and auditing systems reduces the risk of accounting errors by up to 3.1 times and increases information security by almost 100 times compared to traditional methods. However, the authors also emphasize the need for more research and a methodological basis for implementing blockchain in accounting systems.

In the context of Industry 4.0, financial reporting itself is also changing. Petcu et al. (2024) emphasize the importance of digitalization in improving business transparency and sustainability, with cloud computing and data security playing a key role. Klymenko et al. (2021) also focus on the issue of sustainability in the context of digitalization; They analyzed the use of digital technologies in sustainability accounting in four manufacturing companies. The findings of the study show that while economic aspects are well covered, environmental and social aspects often remain neglected. Although companies are implementing Industry 4.0 technologies and automation, digital data from these systems is not linked to sustainability accounting. The authors highlight the potential of this data to significantly improve the tracking of sustainable practices, especially when integrated with accounting tools and product lifecycle management strategies.

Technological changes also affect educational requirements. Pargmann et al. (2023) point to the growing need for digital competences and the ability to handle non-routine tasks, which requires the reform of educational programs in accounting. According to Chyzhevska et al. (2021), digitalization is changing the labor market, increasing the demand for digital skills, working with data, and expertise with digital assets. The new profile of accountants requires the active

involvement of schools, employers, and professional organisations. Ionescu-Feleaga et al., (2022) analysed the development of accounting and financial services in Europe based on data from 337 professional associations in 40 countries. They identified digitalisation as a key factor in professional development and national competitiveness, noting that differences between countries are related to economic conditions and the number of professional organisations. The study provides recommendations for education and regulatory policy. Based on these findings, a study by Brabete et al. (2024) examined the impact of disruptive technologies such as artificial intelligence on accounting education. The authors suggest revising curricula and strengthening cooperation with universities as necessary steps to remain competitive in the digital economy.

Educating accounting professionals in the digital age requires a systematic and analytical approach that reflects the needs of the digital economy. Wu (2022) identified the development of the digital economy as a key factor in the competitiveness of businesses and highlighted the growing importance of educating so-called "hybrid accounting professionals", that is, professionals with a combination of accounting, digital and cross-border competencies. Using the entropy method, the main factors influencing the development of these talents were evaluated and weighed. The results show that education systems should be flexibly adapted to the requirements of the digital economy and should promote international orientation, technological adaptability and analytical skills. The study highlights that an innovative approach to education is not only an academic challenge, but also a strategic necessity for companies striving for sustainable growth and competitiveness in the digital environment.

Successfully managing the digital transformation does not depend only on the availability of modern technologies; The organisational and institutional environment also plays a key role. AlNasrallah and Saleem (2022) investigated the factors influencing the adoption of digital accounting tools in Saudi Arabia using TAM, ELM, and SET models. They found that organizational support is key, which has a greater impact than user experience or individual job relevance. In doing so, they emphasized the importance of leadership, training, and internal communication, seeing the digitization of accounting as a social and cultural process, not just a technological change. Fulop et al. (2022) analyzed the variability in the adoption of fintech accounting among professionals using the TAM model. The main factors for adoption were trust in technology and its perceived usefulness, while the risk was not significant. The authors also highlighted the increasing automation and the role of technology in financial policy decision-making in the era of Industry 4.0. Fulop et al. (2024) used a combination of TAM and TOE models in their follow-up study and confirmed that the adoption of digital tools is a complex process. Organizational support and external pressures play a key role. The study also noted that Romania lags behind the EU average in this area, which poses a challenge. The authors emphasize the need for deeper research on digitization in the context of changing conditions.

The quality of information systems is also an important factor in successful digitization. Papiórek and Hiebl (2024), based on an analysis of German companies, show that it is the quality of the systems, together with the degree of automation, that significantly increases the effectiveness of managerial controls. Finally, it is worth mentioning a study by Nadiia et al. (2022), which summarizes the current trends, benefits, and threats of digitalization and proposes four main directions for its further development. The results of this study can serve as a practical framework for the development of corporate digital strategies and for future research in this area.

3. Materials and Methods

The data needed for the analysis were collected through a questionnaire that was electronically distributed to accountants in various companies throughout the Czech Republic. The questionnaire was designed based on research questions and a literature review to ensure that the questions are relevant, clear, and in line with the research objectives. The research will focus on the collection of qualitative and quantitative data. Quantitative data will then be subjected to statistical analysis aimed at answering the formulated research questions. The questionnaire included both closed and open-ended questions, designed to reflect various aspects of digitalization and automation in accounting processes. Closed-ended questions provide quantitative data such as demographics, the extent of the use of digital tools in accounting processes, the perception of the benefits and risks associated with digitalization, the readiness of organizations to adopt digital technologies, and changes in the work activities of accountants. For example, respondents provided their rating by choosing from several options.

The collected data enables statistical analyses that identify relationships between individual variables, compare responses between groups of respondents, and thus reveal key trends in digitization and automation of accounting. For example, respondents provided their ratings by choosing from several options. The collected data allows statistical analysis to identify relationships between individual variables, compare responses between groups of respondents, and thus reveal key trends in digitization and automation of accounting. Open-ended questions provide qualitative data focused on respondents' specific experiences with digitization and automation. Participants in the research had the opportunity to express their views on future opportunities, describe what changes they expect in education, and explain how these changes will affect their organizations. This data is analyzed using content analysis and thematic coding to identify key patterns, topics, and differences in each respondent's responses.

To achieve the set goals, it was necessary to use a quantitative approach supplemented by qualitative knowledge, which enabled a comprehensive view of the examined issue. Data analysis was carried out using statistical methods and software tools suitable for quantitative data processing. The collected data were processed and presented in the form of tables, graphs, and results of analyses of relationships between variables. The results are interpreted with regard to the context and theoretical framework of the study. Each research study has certain limitations that are taken into consideration when analyzing and interpreting the results. The main limitation was the size and composition of the sample of respondents, which, although designed representatively, may affect the results. The time frame of data collection was also taken into account, as data collected in a certain period may be affected by current economic or technological conditions. Despite all these limitations, the methodological approach chosen should provide relevant and valuable insights into the impact of digitalisation and automation on accounting practice and the accounting profession. The findings will contribute to the expert debate on the digitalisation of accounting and may serve as a starting point for further research in this area. The data needed for the analysis were collected through a questionnaire that yielded 104 responses between September 2024 and March 2025.

The answer to the RQ1 question was obtained from a quantitative questionnaire, specifically from closed-ended questions related to the extent of use of digital tools, readiness of the organization, and demographic data.

The above-mentioned method of data collection was used to answer the research question 2 specifically; part of the answers suitable for statistical analysis of closed questions was used to evaluate benefits such as increased efficiency and accuracy and reduced error rate. For the qualitative analysis of the open-ended responses, thematic coding was performed, and recurring patterns in the responses were identified. The data were obtained from questionnaires and from respondents' own interpretations of the benefits of digitization in their practice.

The answer to the RQ3 question (What are the attitudes of accountants towards the automation of accounting processes?) was found mainly in open-ended questions focused on opinions and concerns. The content analysis of qualitative data consisted of categorizing opinions and identifying problems and opportunities (loss of employment, need for new skills, increased efficiency, loss of routine). Data sources were open responses from respondents, analyzed using thematic coding.

4. Results

A total of 104 responses were collected from participants, focusing mainly on their demographic characteristics, professional experience, and level of familiarity with digital tools used in accounting practice. The data collected provides a comprehensive overview of the age composition of the respondent sample, allowing for a better understanding of how different age groups are adapting to technological changes in accounting. An analysis of the age distribution of respondents showed that the largest group is made up of professionals aged 25-34 (43.3%) who already have work experience and demonstrate a high degree of adaptability to new technologies. The second largest group is made up of respondents aged 35-44 (36.5%), who often hold managerial or specialized positions. Another important category is accountants aged 45-55 (17.3%), whose many years of experience are particularly valuable in implementing new systems. Younger professionals under the age of 25 make up only 1% of the sample, indicating a lower influx of graduates into the profession. The oldest group, people over 55 years of age, makes up only 1.9%. Overall, the accounting profession is predominantly carried out by workers aged 25-44, who are most open to digital change.

Women dominate the answers, accounting for 69.2% of respondents, while men make up 30.8%. Its distribution confirms the long-standing gender imbalance in female-dominated accounting, probably due to the historical perception of accounting as a detail-oriented and administrative activity. In terms of education, respondents with higher education predominate, 36.5% have a bachelor's degree and 45.2% have a master's degree, reflecting the growing demand for qualifications, analytical thinking and digital competences. 15.4% of respondents have secondary education, mainly in operational positions. Only 2.9% said they had a doctorate, confirming that the highest level of academic education is not common or necessary in accounting, the emphasis is primarily on practical experience and practical skills. The distribution of the respondents' years of experience shows considerable diversity. The largest groups are professionals with 4-10 years and 11-20 years of experience (both 35.6%) who already have extensive experience and are well versed in legislative and technological changes. Employees with up to 3 years of experience make up 20.2% of the sample and are in the early stages of their professional development. More experienced professionals with more than 21 years of experience make up 8.7% and often hold leadership positions or participate in strategic decision-making.

As regards the sectoral breakdown, the majority of respondents (88.5%) work in the private sector, confirming the dominant role of accounting in the business environment. 6.7% of respondents work in the public sector, where accounting is subject to specific regulations and stricter supervision. The non-profit sector accounts for 4.8% of respondents, with accounting primarily used to ensure transparent management of grants and contributions. Respondents practice their profession in organizations of different sizes. The largest share is made up of small enterprises (43.3%), which make up the main segment of the accounting services market. 33.7% of respondents work in medium-sized companies, which reflects the importance of these organizations as stable employers with their own accounting departments. Micro-enterprises employ 12.5% of respondents, often with limited accounting functions or those that are outsourced. 10.6% of professionals work in large companies, where it is typical to use specialized teams and advanced digital tools. This confirms the diversity of the working environment of the accounting profession across company sizes.

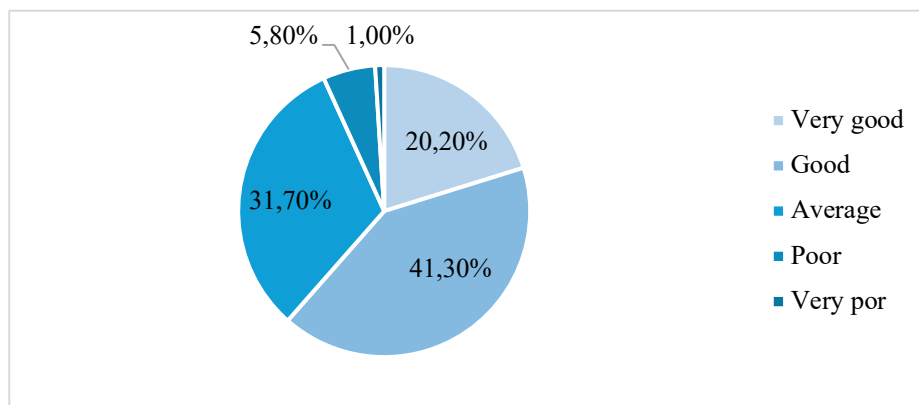


Figure. 1: Self-assessment of knowledge and experience with digital tools in accounting
Source: Author's own analysis based on data obtained from a questionnaire survey

Figure 1 shows that the use of digital tools in accounting was assessed on the basis of respondents' self-assessments. The largest proportion (41.3%) reported good knowledge, indicating regular use of accounting software and the ability to adapt to technological innovations. An average level was reported by 31.7% of respondents who have basic digital skills but may have room for improvement in more advanced features. 20.2% of respondents reported a very good understanding. By contrast, 5.8% feel that they are not very familiar with digital technologies, which may be related to a more traditional work environment, and only 1% of respondents said they have very limited experience with digital tools.

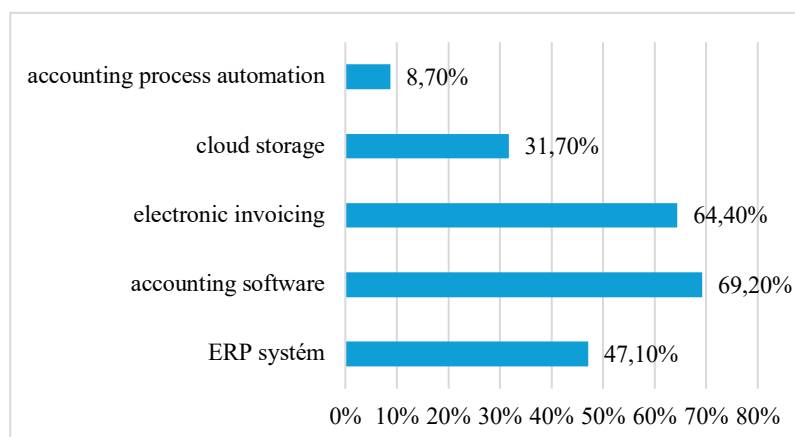


Figure 2: How digital tools are used in practice
Source: Author's own analysis based on questionnaire data

Figure 2 clearly shows that accounting software is the most commonly used digital tool, which is used by 69.2% (72) of respondents, confirming its role as the standard in accounting practice. Electronic invoicing is used by 64.4% (67) of respondents, indicating a trend towards paperless processing. ERP systems are used by 47.1% (49) of respondents to integrate accounting with other business functions. Cloud storage was cited by 31.7% (33) of respondents, reflecting an emphasis on data availability and security. Only 8.7% (9) of respondents indicated limited adoption, likely due to the complexity of implementation and low awareness of its benefits. The quantitative analysis revealed diverse attitudes of respondents towards the automation of accounting processes. For 24%, automation is of little importance, likely due to the absence of digital transformation or concerns about costs and technical barriers. The largest share of respondents (51.9%) consider it to be of medium importance; Although they already use modern tools to some extent, they still face obstacles to wider implementation, such as the need for training or incompatibility with existing processes. On the contrary, 24% of respondents consider automation to be very important; this group is already using modern technology to achieve greater efficiency and accuracy, and to free up capacity for analytical tasks.

The results showed that 20.2% of respondents have had a very good experience with digital accounting tools and 41.3% rate them as good, which shows a high level of digital competence for most participants. The average level was reported by 31.7% of respondents who work with digital tools but lack advanced skills or access to more modern technologies. 6.8% of respondents reported a bad or very bad experience; they may face technological barriers or a lack of education in this area. Overall, therefore, the adoption of digitalization in accounting remains uneven, highlighting the need for targeted support and further training for accounting professionals.

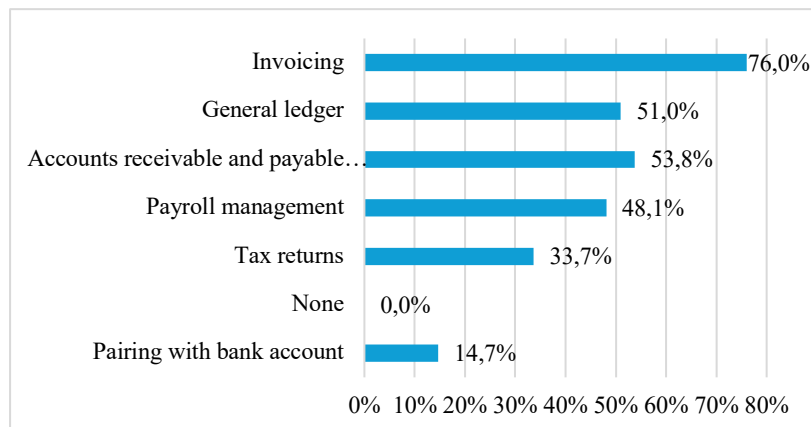


Figure. 3: Automated accounting transactions
Source: Author's own analysis based on questionnaire survey data

Figure 3 shows that the most commonly automated accounting operation is invoicing, which was cited by 76% of respondents. Automation in this area reduces administrative burden and the risk of errors, and improves cash flow management. 53.8% of respondents have automated management of accounts receivable and payable, which provides more effective control over due dates, reminders, and payment flows. Ledger management is automated for 51% of survey participants, making it easier to record transactions and contributing to the accuracy of accounting records. Payroll accounting is digitized for 48.1% of respondents, leading to automatic calculation of wages, taxes, and contributions, and simplifying compliance with regulatory requirements. Only 33.7% of respondents have their tax returns automated, indicating room for improvement in this area, even though digital tools for generating and filing tax returns are already available. The lowest level of automation is in bank reconciliation (14.7%), which, however, offers the potential to speed up and improve the accuracy of accounting operations. The degree of automation varies by area; when routine operations are digitized, more complex or less frequent tasks require manual intervention. Therefore, the implementation of technologies varies according to the needs and capabilities of specific organizations.

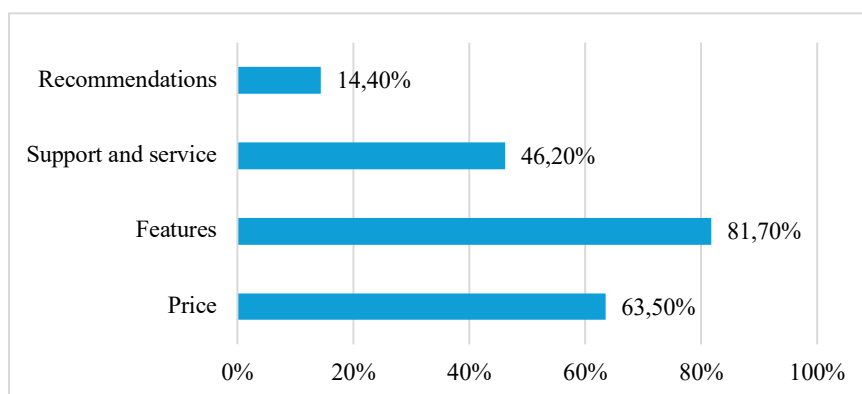


Figure 4: Key criteria for choosing accounting software
Source: Author's own analysis based on questionnaire survey data

The choice of accounting software is a key decision that affects the efficiency of accounting processes, as shown in Figure 4. The main selection criterion is functionality, which was stated

by 81.7% of respondents. Organizations emphasize a wide coverage of accounting operations, accuracy of records, and the possibilities of automation, analytics, and integration with other systems. The second most common factor is price (63.5%), which reflects the efforts of companies to optimize costs. Not only the purchase price is taken into account, but also the costs of implementation, training and maintenance. Support and service are important to 46.2% of respondents; quality technical support and regular updates ensure reliable system operation. On the other hand, only 14.4% of respondents cited recommendations from colleagues or partners as a key criterion. Therefore, most accounting professionals rely on rational evaluations of software features rather than subjective references.

The frequency of use of digital tools varies between respondents. 22.1% of respondents use them daily, indicating a high degree of integration of technology into their work activities. The largest group (42.3%) work with digital tools several times a week, while 33.7% use them only a few times a month, probably in an environment with partial digitization. Only 1.9% of respondents said that they rarely use digital technologies, confirming that digitalisation is becoming a common part of accounting practice.

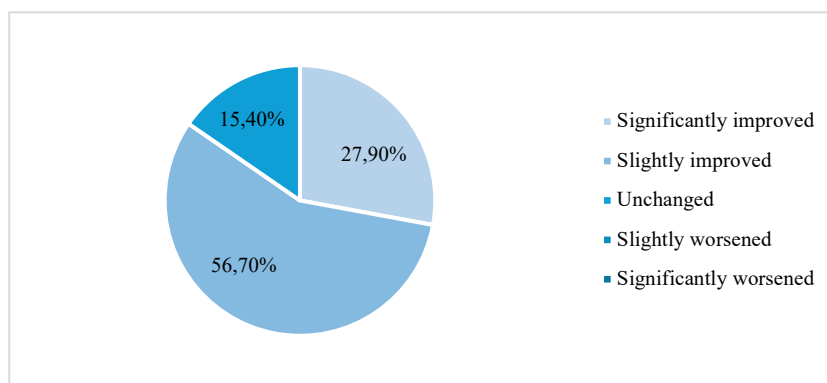


Figure 5: Impact of digitization and automation on work efficiency
Source: Author's own analysis based on questionnaire survey data

In Figure 5, let's look at the self-assessment of efficiency related to digitization. A significant improvement was noted by 27.9% of respondents who are likely to work with advanced systems and automation. However, the largest share of responses (56.7%) report only a slight improvement, which may be the result of partial implementation or a transitional adaptation period. On the other hand, 15.4% of respondents reported no change, which may be related to a low level of digitalisation, technical barriers, or perceived ineffectiveness of change.

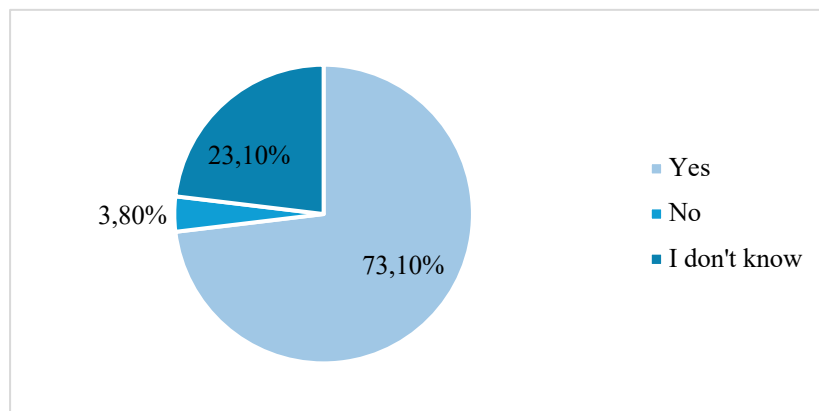


Figure 6: A view of data security through digitization and automation
Source: Author's own analysis based on questionnaire survey data

The results of the questionnaire shown in Figure 6 show that digitization and automation have a positive effect on the perceived accuracy of accounting data. A total of 73.1% of respondents said that digital tools make data more accurate. Automation helps reduce error rates, ensures data consistency, and eliminates the risks associated with manual data entry. At the same time, modern systems offer control mechanisms that help detect errors in real time. By contrast, 3.8% of respondents do not feel more secure due to digitalisation, which may reflect concerns about cyber threats, loss of control over data, or uncertainty about liability. Another 23.1% are unsure whether digitalisation has actually improved data accuracy, likely due to lack of experience, incomplete implementation, or lack of metrics to evaluate its benefits.

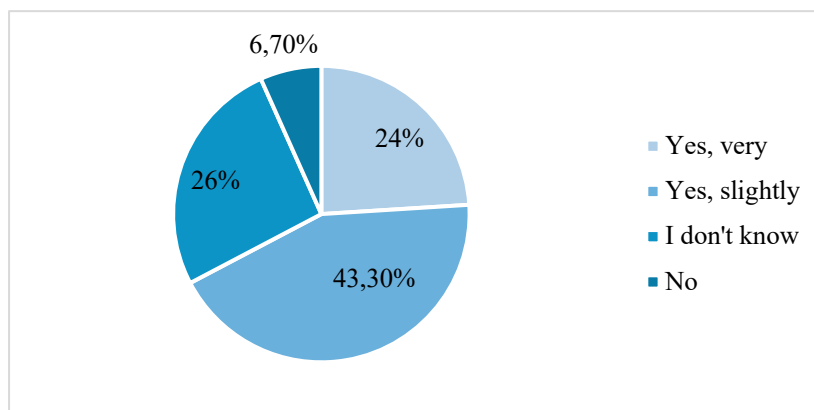


Figure 7: Self-reflection on feelings about the accuracy and quality of financial statements
Source: Author's own analysis based on questionnaire survey data

Figure 7 shows that a total of 24% of respondents perceive a significant improvement in the accuracy and quality of accounting data, confirming the positive impact of digitalisation on the accuracy and standardisation of financial reporting. This advantage is attributed to the automated processing and validation mechanisms of modern accounting systems that minimize human error. Another 43.3% perceive the changes as mild. This may reflect different levels of digital integration across organizations or differences in their use. Some respondents (26%) express uncertainty about the changes that may be related to the incomplete implementation of digitalisation, the transition period, or limited experience with new tools.

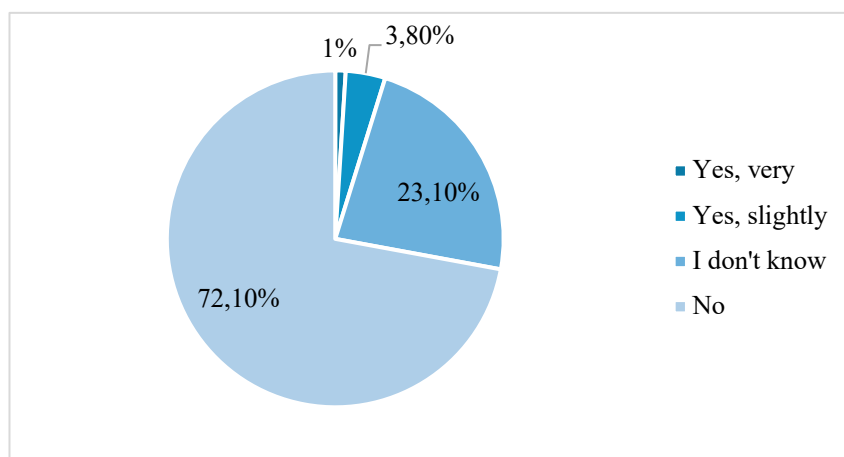


Figure. 8: Self-reflection of the workload and stress associated with the implementation of digitization and automation

Source: Author's own analysis based on questionnaire survey data

Figure 8 shows that the majority of respondents (72.1%) do not experience increased workload or stress related to the digitalisation and automation of accounting processes. Digitalisation is therefore seen as a means of simplifying work rather than as a source of pressure. It probably contributes to the reduction of routine tasks and allows accountants to focus on analytical activities. It can be assumed that these respondents have already successfully gone through the adaptation process. 23.1% of respondents expressed uncertainty in this area, which may be related to the recent introduction of technology or different levels of support in the organization. A slight increase in workload was reported by 3.8% of respondents, probably due to the initial phase of adaptation to new systems. Only 1% of respondents perceive a high workload and stress, which may reflect concerns about technological change, lack of support, or uncertainty about future job prospects.

According to 92.3% of respondents, automation can lead to layoffs in accounting, especially in routine tasks such as invoicing or ledger management. However, most expect a change in the nature of work rather than a massive loss of jobs, a shift to analytical and strategic roles. This view is not shared by 7.7% of respondents, who believe that the human factor will remain indispensable, especially in decision-making processes and professional advice. Although digitalization may seem like a disruptive trend, 89.4% of respondents did not express any concerns about its future development. Only 10.6% have concerns such as the need to adapt, technological pressure, or job loss. However, the vast majority (100%) expect the level of automation in accounting to continue to grow over the next five years.

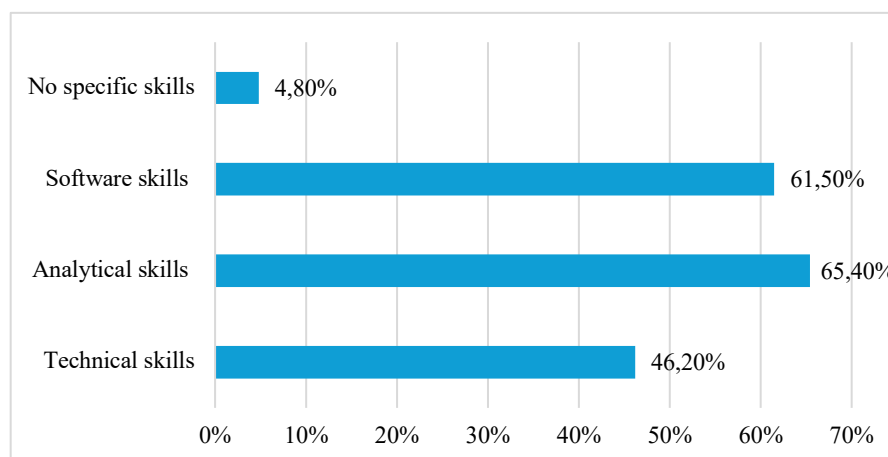


Figure 9: List of skills considered essential in view of the increasing digitalisation of accounting
Source: Author's own analysis based on questionnaire survey data

Figure 9 shows that respondents consider analytical skills (65.4%), i.e., the ability to interpret data and draw conclusions, to be the most important key skills for accountants in the age of digitalisation. This is followed by software skills (61.5%), which confirm the importance of knowledge of accounting systems, ERP tools, and cloud solutions. Technical knowledge (e.g. understanding databases or automation principles) is considered important by 46.2% of respondents. Interestingly, 4.8% of respondents do not consider any digital skills to be essential, which may reflect either working in a less digitised environment or a high degree of personal adaptability. According to 45.2% of respondents, it was expected that the upcoming new accounting law would affect their work, while 54.8% stated the opposite. The results were influenced by the postponement of the law; many respondents were unsure about the possible impacts. Nevertheless, it is expected that the new legislative requirements will bring a review of internal guidelines and accounting procedures, the need to train employees in legislation and digital tools, and an increased emphasis on compatibility with modern accounting systems.

According to respondents, the digitization of accounting is perceived as an inevitable and generally well-received process. Respondents highlighted the following benefits: increased efficiency and accuracy of accounting operations, reduced error rates and administrative burdens, greater transparency and simplified audit supervision. Despite fears of job losses, the majority of respondents see digitalisation as an opportunity for professional growth and a change in job responsibilities. Respondents believe that digitalisation is changing the nature of the accounting profession in the following ways: automation of routine tasks frees up time for analytical and consulting work, accountants are increasingly involved in strategic decision-making and data analysis, and there is a growing demand for skills in ERP systems, AI, and digital reporting. According to respondents, the increased demand for digital competencies leads to the following trends in education: emphasis on practical skills, working with software and simulation of real situations, integration of technology into teaching, ERP systems, automation and artificial intelligence, the need for IT literacy: cybersecurity, working in the cloud and working with data.

5. Discussion

5.1 The Role of Digitization and Automation in Accounting Practice

Based on the research carried out, it was found that digitization and automation already play an important role in accounting practice in the Czech Republic. Accounting software, electronic invoicing, and ERP systems are widely implemented, with respondents describing their use as a common part of their work. This confirms the trend cited by Varzaru et al. (2022), for example, who highlight the increasing integration of digitalization into management and accounting information systems. Nevertheless, advanced technologies such as robotic process automation (RPA) and artificial intelligence in accounting still appear to be used to a relatively limited extent, which corresponds to the findings of Rautiainen et al. (2024) on the slow transition of accounting professionals to advanced digital tools. Unlike international studies such as the work of Ionescu-Feleagy et al. (2022), which show a higher level of digitalization in the developed economies of the European Union, Czech accounting still faces some obstacles in implementing the latest technological solutions. These differences can be attributed to different regulatory frameworks and approaches to investment in digitisation technologies. At the same time, the adoption of digitalisation has been found to be uneven across different sectors, with the private sector showing a higher degree of automation than the public and non-profit sectors, which corresponds to the findings of Petchenko et al. (2023), who identified similar trends in Ukraine.

5.2 Contribution of Digitization and Automation to Accounting Practices in the Czech Republic

The results of the questionnaire show that digitalization has a positive impact on the efficiency and accuracy of accounting processes. Around 67.3% of respondents said that digitalisation has led to an increase in the accuracy of financial statements. In their analysis, Petcu et al. (2024) emphasize that the digitalization of accounting systems contributes to greater transparency and better decision-making in management. However, it has also been found that while digitalization increases efficiency, it does not always lead to a reduction in workload. Only 27.9% of respondents said that digitalization has significantly improved work efficiency, while 15.4% of respondents did not notice any change. These results suggest that the transition to digital accounting may not always be seamless and may require further adjustments to work processes. This conclusion is in line with the conclusions of Fulop et al. (2024), who found that accountants still face challenges in adapting to digital technologies and that the full benefits often only become apparent after a longer period of time.

5.3 Accountants' Attitudes Toward the Automation of Accounting Processes

The results of the research indicate that most accountants consider digitization and automation to be an inevitable trend that brings practical benefits, especially in the area of streamlining routine tasks and improving accuracy. However, the attitudes of individuals vary, the key factors are age, level of digital competence, and the type of organization in which the accountant works. The younger generation shows greater openness to new technologies, while older professionals are often more cautious, mainly due to concerns about job security or the complexity of new systems. Authors Chen et al. (2024) and Brynjolfsson & McAfee (2014) came to similar conclusions in their research. However, even more skeptical accountants recognize that digitalization allows for a shift from routine tasks to analytical and consulting work.

Organizational culture, availability of training, and technical support play a significant role in the positive adoption of technology; these findings were also reported by Fulopem et al. (2024) and AlNasrallah & Saleem (2022). At the same time, these changes in attitude also reflect the new requirements for accountant education in the digital age.

6. Conclusion

The aim of this article was to systematically evaluate the current state of digitization and automation in the field of accounting, focusing on their impact on work processes and professional development of accountants in the Czech Republic. The aim of the article was to conduct a comprehensive analysis of the current level of digitalization, to evaluate the impact of technology on accounting processes themselves, and to find out how accounting professionals perceive and evaluate these changes. Three research questions were asked within the study: the role of digitization and automation in the accounting profession, the extent of the benefits of these technological changes, and the attitudes of accountants towards the automation of accounting processes. This objective was achieved by analysing secondary sources and conducting an original questionnaire among accounting professionals, accounting department employees, and independent accountants. A synthesis of theoretical knowledge and empirically observed facts was carried out, on the basis of which it was possible to formulate answers to research questions. The survey confirmed that digitization and automation are playing an increasingly important role in domestic accounting practice, which is in line with the conclusions of foreign authors. It found that accounting professionals generally perceive this technological shift positively, although there are still some barriers and concerns about the potential impacts on jobs and the need for reskilling. These findings highlight the need to develop new competencies – especially analytical and technical skills – for the successful integration of automation into accounting processes.

The main advantage is a deeper understanding of the specific factors that affect the implementation of digital tools in accounting and the identification of their impacts on the professional requirements of accountants. The survey also revealed areas where digitalization contributes to increasing the efficiency and accuracy of accounting processes, while also describing the limitations associated with adapting to advanced technologies. The findings can be applied in practice, especially in the implementation of accounting systems and in the support of targeted professional development of accountants. This knowledge can thus benefit both organizations deciding on the scope and method of digitization, as well as accountants themselves, who are looking for ways to use modern technologies more effectively. It should be noted that several limiting factors arose during the conduct of the research. First of all, it was a limited number of respondents, which may affect the representativeness of the findings. Furthermore, it is worth noting that the pace of technological progress and the different levels of preparedness of individual companies can cause the results to quickly become obsolete if the research is not repeated or expanded with a longitudinal approach. Nevertheless, it can be concluded that the societal demand for understanding the impacts of digitization and automation on accounting has been met, as a comprehensive view of the current situation in the Czech Republic has been created and practical implications have been formulated that are useful for both accountants and company management.

Based on the analysis performed, it can therefore be concluded that the declared goal has been met, as a comprehensive analysis of the digitization and automation of accounting processes

has been carried out, including an assessment of the practical impacts for accounting professionals and recommendations on how accounting experts can best adapt to the constantly evolving technological requirements. This thesis thus contributes to the development of theoretical knowledge and practical guidance in the field of modern accounting and offers a starting point for further research into the use of advanced technologies in accounting practice. We can conclude that the goal of the article has been met, which is confirmed by the results of the applied part, which show a similar trend in market sentiment and copper prices in all the years reviewed.

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