

## ACCOUNTING PROFESSION TRANSFORMATION IN THE WAKE OF DIGITALIZATION – SURVEY RESULTS IN POLAND

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**Purpose:** The article aims to outline how digitalization has been contributing to the change in the role of accountants and present the professionally active accountants' perception of this transformation.

**Design/methodology/approach:** A literature review was conducted, followed by a survey carried out among accounting office employees and owners.

**Findings:** The accounting offices surveyed have shown inclination to utilize modern tools of digitalization. Employees report numerous benefits of digitalization, and most commonly consider the identified barriers to the implementation thereof to be of no significance. The greatest of these barriers is the lack of sufficient digital competence. The survey respondents, both the owners and employees, discern significant changes in the accounting profession, resulting from digitalization. The majority of respondents identify a new role assumed by accountants in the wake of digitalization, most prevalently that of a supervisor/controller and/or analyst.

**Research limitations/implications:** The empirical survey involved the use of the selection-by-convenience method, thereby the results obtained cannot be generalized to the entire population.

**Practical implications:** The article highlights the utmost relevance and indispensability of technological competencies in the accounting profession. By underscoring the increase in the importance thereof, the article can also contribute to greater focus on digitalization education among the students training to become accountants.

**Originality/value:** The article partially fills the research gap in empirical studies on the changing role of accountants in the wake of digitalization. It also serves as groundwork for the subsequent phase of empirical research on specialized studies graduates' awareness of the impact of digitalization on the role and profession of an accountant.

**Keywords:** digitalization, accounting profession, accounting office/firm, RPA, AI.

**Category of the paper:** Research paper.

## 1. Introduction

The modern technologies and solutions associated with the digitalization and digital transformation processes taking place in business entities are becoming increasingly popular. Generally, businesses can opt to utilize elective digitalization tools, but in many cases, they are mandated to undertake this process by various legal provisions, including the tax and accounting regulations. The legislative changes were initiated by the implementation of the Directive 2012/17/EU of the European Parliament and of the Council (Directive 2012/17/EU), which imposed digitalization obligations in EU member states. As a consequence of the Directive implementation, amendments to the Tax Ordinance followed in Poland, which introduced a mandatory requirement to provide the tax authorities with the information contained in accounting books and accounting evidence in an electronic form compliant with the logical structure of the Standard Audit File for Taxes (SAF-T). Online fiscal cash registers have been made mandatory for all entrepreneurs making sales to non-business customers. Starting July 1, 2024, in turn, regulations mandating issuance and availability of XML-format structured invoices via the National e-Invoice System (KSeF) [PL: Krajowy System e-Faktur] will come into effect. These changes concern the tax aspects, but they have also affected the regulations governing the areas of business entity accounting. As of 2016, a requirement has been in force to submit the information reported to the National Court Register via the eKRS [PL: Krajowy Rejestr Sądowy] system, using electronic applications signed with electronic signatures. Changes to the Accounting Act, in turn, have introduced mandatory electronic financial statements.

In February 2021, the Polish Agency for Enterprise Development [PL: Polska Agencja Rozwoju Przedsiębiorczości] surveyed a group of 105 companies which had undertaken digitalization process projects. The concluding study (Zadura et al., 2021) detailed eight good practices, one of which involved the process of voluntary digitalization in an accounting office, encompassing automation of clerical, accounting and administrative processes. A number of benefits resulting from the implementation of this practice were observed, such as increased revenue, improved quality of work, and ongoing error correction, which eliminated year-end backlogs. The example of this accounting firm has inspired further in-depth research on digitalization in accounting offices and the impact it has had on the change in the role of accountants.

Undeniably, the accounting profession has transformed over the past few decades. Personnel Service experts indicate the accounting profession as one of the professions most threatened by the development of robotization and artificial intelligence (Jarco, 2023). This dynamic transformation is associated with the process of digitalization, and year after year further changes in the practice of accounting activities are noticeable.

A report by Symfonia<sup>1</sup> and the Association of Accountants in Poland [PL: Stowarzyszenie Księgowych w Polsce], titled “Doradca i analityk czy może jednak rachmistrz? [ENG: Advisor and Analyst or still an Accountant?],” further revealed that more than 56% of accounting sector employers consider knowledge of financial and accounting software to be a key skill in the careers of specialized studies graduates. This underscores how important digital skills are. The report's authors add that persons resisting digitalization may struggle to find employment. Moreover, Małgorzata Ściślak - a Symfonia product marketing and strategy expert - stresses that in the near future, repetitive activities, such as invoice data entry, are likely to be performed by dedicated systems. This means that the role of accountants will be limited to analysis, verification and conclusion drawing. These areas are where machines will not be able to replace humans, thus accountants will become business advisors (Cyfryzacja wchodzi do księgowości... [ENG: Digitalization makes its way into accounting...], 2022).

A. Lewandowski is of a similar opinion as regards the change in the role of accountants in the wake of automation. According to the author, the day-to-day tasks of an accountant will not consist of merely documenting past events. Accountants are tasked with analyzing, advising and suggesting directions for company optimization (Lewandowski, 2021).

The International Federation of Accountants (IFAC) has identified seven new roles within the accounting profession: that of a co-pilot (who introduces new strategies, influences people), a navigator (who guides toward the maintenance of profitability, by creating scenarios and identifying trends), a brand guardian (who protects the organization and its reputation), a narrator (who recounts the company's values and challenges to stakeholders), a perpetrator of digital and technological change (who is committed to the company's automation and digitalization, and persuades management to equip accounting with the right digital tools), a process and control expert (who ensures process efficiency), a trusted professional (who oversees the procedures ensuring protection against misconduct) (Wojtas, 2022).

The main objective of the article is to outline how digitalization has been contributing to the change in the role of accountants and present the professionally active accountants' perception of this change.

To achieve the objective, the following research questions were posed:

- In what scope do the surveyed accounting offices utilize voluntary digitalization in their operations?
- What is the surveyed accounting office employees' attitude toward digitalization?
- What is the employees' perception of the change in the role of accountants in the wake of digitalization?
- What benefits of and barriers to digitalization do the employees in the surveyed accounting offices identify?

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<sup>1</sup> Symfonia – business management software provider.

For the purpose of the article, a literature review was conducted using the Scopus and Web of Science databases, which were searched for positions describing digitalization in accounting. In the next step, the methodology of the planned empirical research was then detailed, and a survey was conducted among the owners and employees of selected accounting offices.

## 2. Literature review

The literature review was carried out between November 24<sup>th</sup> and December 20<sup>th</sup>, 2022, drawing on an Internet search of two electronic databases: Scopus and Web of Science. The main objective of the preliminary literature review was to search for items describing digitalization in accounting and the empirical research undertaken in this area. Two groups of keywords were used:

- digitalization, RPA, cloud computing, UiPath,
- accounting profession.

Individual search queries involved simultaneous use of keywords from both groups. A total of 81 articles were targeted. Considering the subject of the changing role of accountants as a result of digitalization, 14 articles from the Scopus database and 11 articles from the Web of Science database were selected for further research. In each category, the Authors identified the conclusions and main research areas common to the papers reviewed (Table 1).

**Table 1.**

*Primary research area and conclusions - literature review*

<b>Main research area</b>	<b>Conclusions /Authors</b>	<b>Number of publications</b>
Accountants' response to digitalization	- reaction to the digitalization-effectuated change – Stoica, Ionescu-Feleaga, 2021 - reluctance to implement RPA can occur at any stage of the process – Sarilo-Kankaanranta, Frank, 2022	2
Change in working conditions	- RPA positively changes and improves career prospects – Cooper et al., 2022 - the evolution of information technology poses challenges for accounting, but improves the quality of work and creates more value – Weng et al., 2014	2

Cont. table 1.

The course for the accounting profession	<ul style="list-style-type: none"> <li>- the insights set the course for the accounting profession as it increases its use of RPA – Cooper et al., 2022</li> <li>- research on the impact of new technologies (RPA, cloud computing, AI), and the process of accounting firm and profession transformation – Tiron-Tudor et al., 2022; Langmann, Kokina, 2021; Dimitriu, Matei, 2014; Mihai, Dutescu, 2022; Sytnik et al., 2022, Stancu, Dutescu 2021</li> <li>- main predictors of the accounting profession development and digitization in the country are the size of the population and the competitiveness of the national economy – Ionescu-Feleagă et al., 2022</li> <li>- Industry 4.0 will significantly affect the duties of accountants and the changes in the accountant profession – Bakarich, O'brien, 2021; Onyshchenko et al., 2022; Meiryani et al., 2022; Fulop et al., 2022</li> <li>- professional accountants with a strong understanding of the digital age do play a role in challenging the systems and mechanisms supporting the acquisition, management, sharing and distribution of information – Ciurea, Man, 2020</li> <li>- stages of accounting robotization: organizational and informational, robotic data processing, reporting and analytical, account management – Bakulina et al., 2020</li> <li>- the evolution of information technology presents accounting with challenges which call for a new set of skills to be acquired by professionals in order to improve the quality of their work and create more value – Moore, Felo, 2022</li> </ul>	15
Digitalization-effectuated change in the role of an accountant	<ul style="list-style-type: none"> <li>- accountants become the liaison and “voice of reason” between enthusiastic IT departments and skeptical management – Mangiuc, 2016</li> <li>- the emotional intelligence, ethical and moral values characterizing experienced accountants cannot be replaced by digitalization – Boutellis-Taft, 2019</li> <li>- the role as identifiers, explainers, trainers, supporters, analyzers, qualified strategic business consultant, decision-makers and financial supervisors – Kokina et al., 2021; Frolova et al., 2021; Knihova, 2019; Andreassen, 2020</li> </ul>	6

Source: own elaboration.

The literature review conducted allowed for the systematization of publications on the digitalization-effectuated change in the role of accountants into four research areas. The first represents the accountants' response to the very process of digitizing and digitalization - different reactions have been indicated, showing that resistance to digitalization-related changes can occur at any stage of the process. The second area entails presentation of the changes in the working conditions of accountants, brought about by digitalization. The process has been emphasized to improve the quality of work. The last two research areas cover the directions of change and the related evolution of the accountant's role. Publications indicate that the role of accountants has been transforming due to the ongoing processes of mandatory and voluntary digitalization within accounting systems. Such new technologies and digitalization tools as RPA or AI have influenced the transition from the classic role of accountants to, inter alia, that of analysts or controllers. As emphasized, however, not all skills can be replaced by digitalization.

The literature review revealed a research gap consisting of a scant number of empirical studies on digitalization in accounting offices. The Authors aim to partially fill this gap through this article.

### 3. Empirical research methodology

The literature review carried out, the analysis of the legal acts in force in Poland, as well as the empirical survey conducted on February 9, 2023 via a semi-structured interview with the owner of an accounting office in the Pomeranian Voivodeship indicated ample research opportunities in the field of digitalization in accounting. The findings of the study on accounting office digitalization (Kotowska, Sikorska, 2023) show that, in addition to the obligations imposed by legal regulations, the surveyed accounting office also leverages such voluntary digitalization tools as OCR, bank transfer automation, as well as upload of bank statements in the form of MT 940, VPN or Power BI Desktop files. The digitalization process itself is also valued highly, and the benefits thereof are emphasized, with some of the highest rated including: increased productivity, ongoing access to data, improved service quality, and the flexibility to work remotely from any location. The owner of the surveyed office additionally stressed during the interview that accountants need to be IT literate and adept at technological innovations. This view prompted the Authors of the article to plan research in areas that had not yet been addressed. The research was designed to be carried out in three stages, divided into eight phases (Table 2).

**Table 2.**  
*Planned empirical study*

Research stage/study	Task	Study sample	Method
<b>STAGE 1</b>			
1) Preliminary study	Presentation of voluntary digitalization tools and the associated benefits and barriers	Case study	Semi-structured interview
2) Literature review - preliminary	Scopus, Web of Science	-	Literature analysis
3) Law regulation	Digitalization obligation under the law	-	Law analysis in Poland
<b>STAGE 2</b>			
4) Questionnaire 1	Digitalization-effectuated change in the role of accountants	Accounting firm owners	Questionnaire - MsForms
5) Questionnaire 2	Digitalization-effectuated change in the role of accountants	Accounting firm employees	Questionnaire - MsForms
6) Result analysis	Study summary and conclusions	-	Synthesis, deduction

Cont. table 2.

STAGE 3			
7) Questionnaire 3	Survey of final-year accounting students' knowledge and awareness of the changing role of accountants in the wake of digitalization	Students – Poland, Romania	Questionnaire - MsForms
8) Result analysis	Study summary and conclusions	-	Synthesis, deduction

Source: own elaboration.

The first stage of the research has already been carried out, and the results are presented in B. Kotowska, M. Sikorska (2023).

This article presents the conclusions of the survey conducted as part of the second stage with the use of questionnaires designed and developed for accounting office owners and employees.

An assumption was made that, to achieve the research objective set and obtain answers to the research questions posed, the method of selection by convenience, in which the researcher determines the quickest and easiest method of selection under the given conditions, would prove the most feasible for the selection of the sample population units (Kozłowski, Szreder, 2020). This unfortunately prevents generalizations to the entire population; nevertheless, such a measure does provide advantages, as it allows inclusion of willing and readily available entities in the study, yielding empirical data necessary to verify the research questions posed (Kowal, 1998).

#### 4. Empirical research – conclusions

The survey was divided into two parts: the part designed for accounting office owners and the part designed for accountants, i.e., employees of these offices. The survey characteristics are presented in Table 3.

**Table 3.**

*Characteristics of the surveys conducted*

	<b>Specification</b>
Survey objective	Outline of how digitalization contributes to the changing role of accountants, and how professionally active accountants perceive this change
Object of survey	1) Accounting firm owners 2) Accounting firm employees
Subject of survey	Digitalization-effectuated change in the accountant's role
Survey time horizon	From April 15, 2023 to June 10, 2023, using a Microsoft MsForms questionnaire
Survey method	Selection by convenience
Size of the survey sample	Survey sample: 1) 22 accounting office owners 2) 59 accounting office employees

Source: own elaboration.

#### 4.1. Questionnaire - accounting office owners

As part of the metric, questions regarding the number of employees working in accounting positions (Table 4), the number of clients served and the approximate monthly volume of documents in the office were asked (Table 5).

**Table 4.**

*Accounting position employment structure*

Number of employees	1-5	6-10	11-15	16-20	Over 20
Number of accounting offices	11	4	2	1	4

Source: own elaboration.

Of the 22 owners, 11 employ between 1 and 5 persons in accounting positions, two employ from 11 to 15 such specialists, whereas only one of the surveyed owners employs 16 to 20 accountants. Four of the surveyed accounting offices are staffed with 6 to 10 accounting position employees, and four with over 20 accountants.

**Table 5.**

*Number of clients served by accounting office*

Number of clients	Under 20	20-50	51-100	101-150	Over 150
Number of accounting offices	2	2	9	3	6

Source: own elaboration.

Most of the surveyed accounting firms, i.e., nine, serve 51-100 clients. Three offices serve between 100 and 150 clients, and as many as six accounting offices provide accounting services to more than 150 clients. Four accounting offices are smaller service providers delivering services to less than 20 clients (2 offices) and 20-50 clients (2 offices).

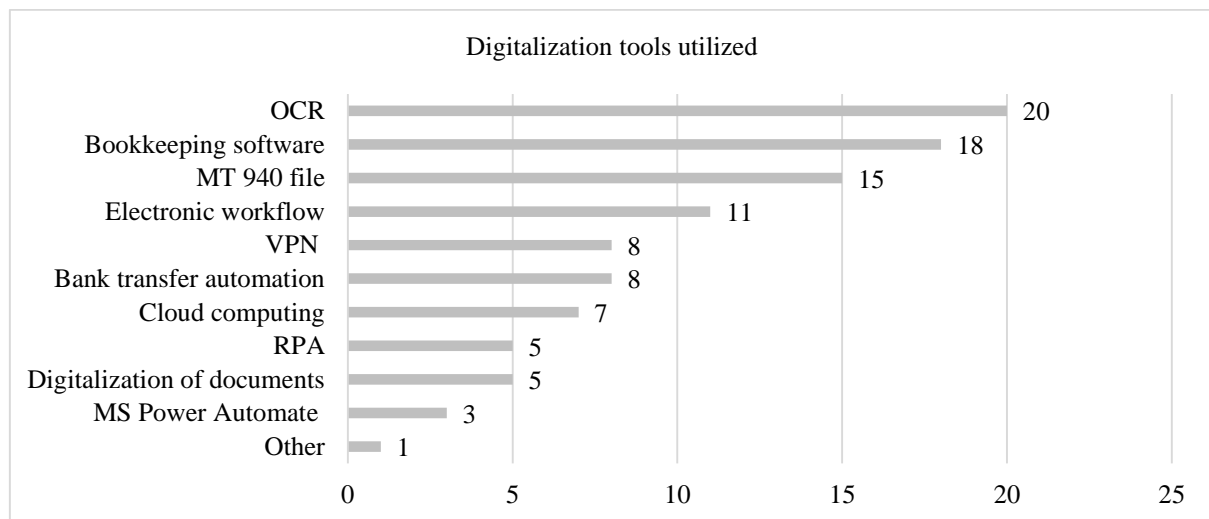
The majority of the surveyed offices specified the monthly number of documents as exceeding 6000, with five offices indicating 2000-3000 and three under 2000. A value in the range of 3000-4000 and 4000-5000 was reported by two office owners.

In all accounting offices participating in the survey, electronic workflow is already in place, but paper versions of documents are also used by the vast majority (18 offices). In 14 accounting offices, at least 50% of the documents are generated in electronic form. Five owners specified the share of electronic form in the total number of documents at 20-30%. Three of the surveyed offices indicated that electronic documents account for 15% or less of total documents.

The responses to questions regarding the areas subject to digitalization indicate that in more than half of the accounting offices surveyed, not only accounting, but also HR or clerical departments are subject to digitalization.

Figure 1 shows the responses relative to the tools utilized as part of digitalization in the accounting offices surveyed (selection of multiple answers was possible).





**Figure 1.** Digitalization tools utilized.

Source: own elaboration.

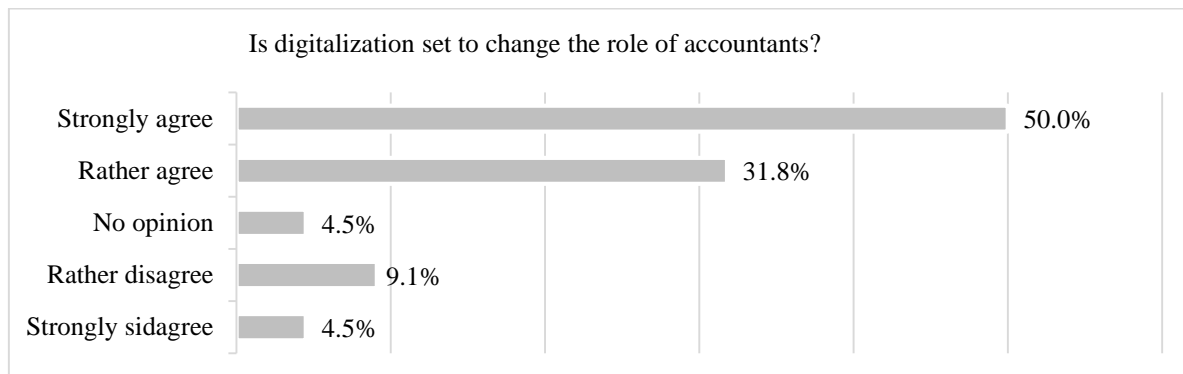
Bookkeeping software and Optical Character Recognition (OCR) are in greatest demand when it comes to digitalization. As many as 20 of the 22 surveyed owners utilize OCR in their offices. Bank statement loading is also very popular - 15 of the 22 surveyed offices operationalize this function. Half of the offices participating in the survey have introduced electronic workflow. Document digitalization, robotics and MS Power Automate, in contrast, are the least popular.

The respondents were also asked what services they have used/are using as part of their digitalization implementation process - external consultants and in-house training were most commonly indicated. UiPath Academy as well as other training courses and webinars were also utilized.

The survey participants were also asked about their customers' reception of digitalization. Half of the respondents reported that most of their clients showed a positive attitude in this regard, but as many as seven owners indicated a very mixed customer reaction. Resistance on the part of customers was indicated by one office, and three owners reported that this aspect was of little importance to customers, as only the end product is what matters.

One very important part of the survey administered to the owners consisted of questions regarding employee attitudes toward digitalization. The majority of respondents (12 indications) stressed that their employees' attitude to digitalization is mostly positive, although some resistance to implementing new technologies has been noted. Eight respondents, in turn, indicated that their employees' attitude is mostly highly positive, and is characterized by eagerness to become familiar with new tools and employ new technologies. Two respondents indicated a very mixed pattern, with attitudes toward digitalization contingent on experience and other factors. Significantly, none of the respondents described their employees' attitudes toward digitalization as negative.

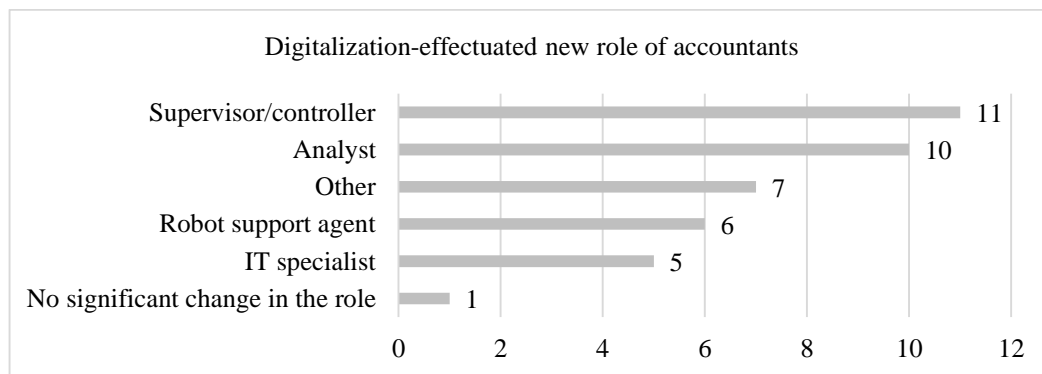
Half of the respondents strongly agree with the statement that digitalization is set to change the role of accountants. Less than 32% rather agree with this position, whereas only 4.5% of the respondents strongly disagree with such a stance. The results are shown in Figure 2.



**Figure 2.** Impact of digitalization on the change in the role of accountants.

Source: own elaboration.

A question regarding the direction of the digitalization-effectuated role of accountants was also included in the survey, with several answers available for selection. The results are shown in Figure 3.



**Figure 3.** The new role of accountants according to accounting office owners.

Source: own elaboration.

The answer most commonly identified was that of a supervisor/controller, selected by half of the respondents. Slightly fewer respondents felt that the new digitalization-effectuated role of an accountant would be that of an analyst. The role of a tax advisor (provided under the answer "other"), IT specialist or robot support agent was indicated by less than half of the respondents.

Importantly, from the perspective of the accounting profession and its future, however, the vast majority of respondents (19 office owners) stressed, when asked whether they thought digitalization could lead to a scenario in which the job of an accountant would not require a degree in the field, that no such possibility existed.

## 4.2. Questionnaire - accounting office employees

The employee survey was completed by 51 female and 8 male respondents. Most of the surveyees (12) aged between 36 and 40, with slightly fewer, i.e., 11 respondents, under 25 years of age. The fewest number of surveyees (5) were between 46 and 50 years of age. The data on work experience (Table 6) shows that the same number of respondents (14) reported professional experience ranging from 11-15 years and over 20 years. Experience of 16-20 years was indicated by the least number of surveyees. 10 respondents reported work experience of less than two years.

**Table 6.**

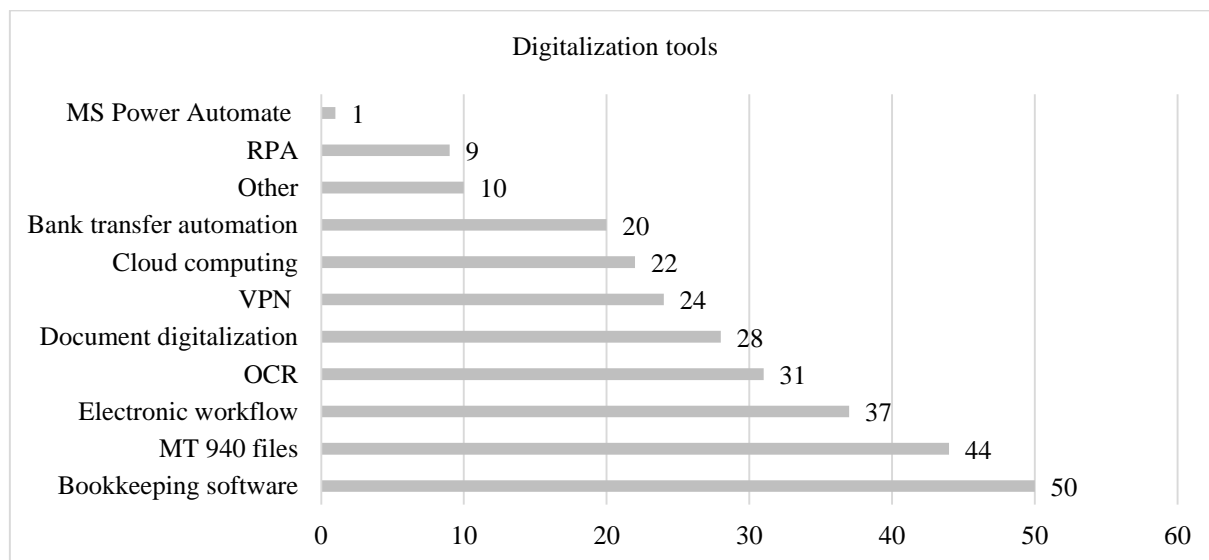
*Professional experience of accounting office employees*

Professional experience	0-2 years	3-5 years	6-10 years	11-15 years	16-20 years	Over 20 years
Number of answers	10	12	7	14	2	14

Source: own elaboration.

A vast majority of the surveyed employees (47 indications) hold a master's degree in specialized studies. Slightly fewer, i.e., 32, have completed dedicated courses. No specialized education was declared by four respondents; five marked the answer "other". The survey sample also included one PhD graduate and one chartered accountant.

As part of the survey, the respondents were asked to select the most practical digitalization tools they use in performing their work. The results are shown in Figure 4.



**Figure 4.** Digitalization tools.

Source: own elaboration.

Bookkeeping software, with 50 responses, and bank statement loading in the form of MT 940 files, with 44 indications, are the most popular tools. Electronic workflow, OCR and document digitalization are also widely employed (37, 31 and 28 indications, respectively). Slightly less popular, but still widespread, is the use of VPN - 24, cloud computing - 22,

and bank transfer automation - 20. Robotization, other than document uploading, and MS Power Automate are the least widely utilized.

The questionnaire also included questions regarding the benefits of digitalization and the barriers to its implementation. Both the benefits and barriers were rated on a Likert scale, with the following scores assigned to individual responses: 1 - strongly disagree, 2 - rather disagree, 3 - no opinion, 4 - rather agree, 5 - strongly agree. The benefits of digitalization are shown in Table 7.

**Table 7.**  
*Benefits of digitalization according to accounting office employees*

Benefit/scale	1	2	3	4	5
Increase in productivity			8.5%	39.0%	52.5%
Reduction of work time	1.7%		13.6%	40.7%	44.1%
Increase in digital competence	1.7%	1.7%	16.9%	40.7%	39.0%
Ongoing access to data		1.7%	5.1%	28.8%	64.4%
Reduction of errors		11.9%	28.8%	32.2%	27.1%
Improved speed of processes		3.4%	11.9%	37.3%	47.5%
Greater control over processes		5.1%	22.0%	30.5%	42.4%
Higher quality of data (accuracy, consistency)		3.4%	20.3%	42.4%	33.9%
Feasibility of continuous operation		5.1%	13.6%	33.9%	47.5%
Feasibility of remote work from any location	1.7%	1.7%	5.1%	25.4%	55.1%
Reduced environmental impact	1.7%	5.1%	15.3%	28.8%	49.2%

Source: own elaboration.

More than 50% of the respondents rated the benefits associated with increased productivity, ongoing access to data and the feasibility of remote work from any location at "5," which indicates their strong agreement that a given benefit does arise as a result of digitalization. With regard to four benefits, namely the reduction of work time, higher digital competence, feasibility of remote work from any location, and reduced environmental impact, a number of respondents were found who strongly disagree, which indicates that they do not discern any benefits in those areas. Reduction of errors, in turn, elicited the most "No opinion" ratings among all the respondents. Three respondents additionally provided their own examples of benefits:

1. *Process streamlining, assignation of steps to be performed by inexperienced personnel lacking substantive accounting/tax knowledge.*
2. *Optimization of customer communication (customers do not, so to speak, bother the personnel, as all information and documents are available to them).*
3. *Paperless work environment*".

The Likert scale rating of digitalization-resultant barriers is presented in Table 8. Habituation to traditional solutions as a barrier to the implementation of digitalization was rated with a score of "5" by 15.3% of the respondents. The largest barrier, in terms of combined respondent ratings of "4" and "5," however, is the lack of sufficient digital competence. The majority of respondents disagree or strongly disagree on a barrier consisting in the

prevalence of digitalization-related responsibilities over the benefits, thus not identifying it as an obstacle to the implementation of digitalization.

**Table 8.**

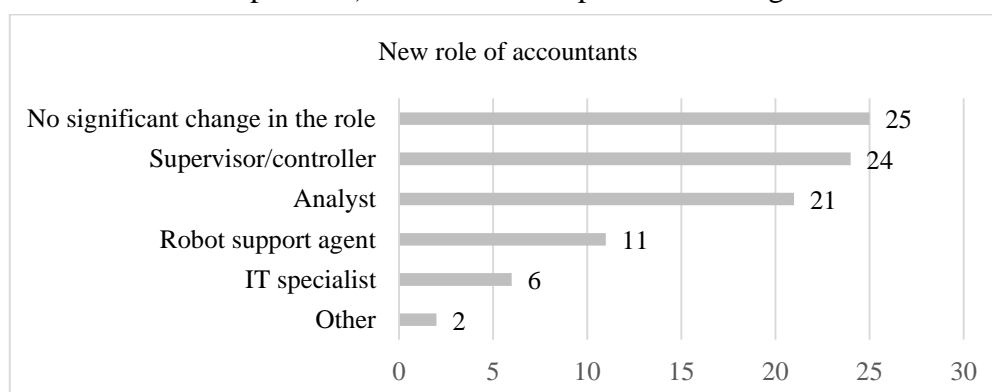
*Barriers to digitalization according to accounting office employees*

Problem/Scale	1	2	3	4	5
Anxiety towards/fear of new solutions	16.9%	30.5%	10.2%	33.9%	8.5%
Lack of sufficient digital competence	13.6%	22.0%	15.3%	47.5%	1.7%
Reluctance associated with additional responsibilities	22.0%	27.1%	18.6%	23.7%	8.5%
Habituation to traditional solutions	22.0%	13.6%	20.3%	28.8%	15.3%
Prevalence of digitalization responsibilities over the benefits	32.2%	25.4%	27.1%	13.6%	1.7%

Source: own elaboration.

The survey revealed that 88% of the respondents (52 surveyed) do consider the accounting profession to be changing as a result of digitalization. Furthermore, 53 respondents (89%) reported that, as a result of digitalization, accountants are faced with the need to acquire new competencies in technology and prefer digitalization solutions to traditional ones.

The employees surveyed were also asked to indicate, from a range of possible answers, the direction in which the role of accountants is heading in the wake of digitalization (selection of more than one answer was possible). The results are presented in Figure 5.



**Figure 5.** The new role of accountants according to accounting firm employees.

Source: own elaboration.

In response to the question regarding the digitalization-effectuated role of accountants, 25 of the respondents answered that their professional role would not change significantly. 24 surveyees opined that the role of accountants is moving toward that of supervisors/controllers, while 21 indicated the role of analysts. Only one respondent specified the role of a tax specialist. The question was open for multiple responses.

The results of the survey show that 48 of the 59 respondents (81%) believe that digitalization will not lead to a scenario in which professional education would not be required for an accounting position. Eleven people are of the opposite opinion.

### 4.3. Survey summary

All of the accounting offices surveyed employ electronic workflow, which indicates that digitalization is widespread, regardless of the office size. Digitalization processes involve such areas as accounting, HR and clerical work, which means that digitalization is not only implemented under the regulatory requirements, but also in voluntary areas.

Both groups of the respondents (accounting office owners and employees) indicated that the most widespread digitalization tools used were bookkeeping software, OCR and the MT 940 file loading of bank statements.

None of the office owners surveyed reported negative employee attitudes toward digitalization, which bodes well for the future.

The employees surveyed indicated increased productivity, ongoing access to data and the feasibility of remote work from any location as their perceived benefits of digitalization implementation. The greatest barriers to the implementation of digitalization indicated in the survey are habitual use of traditional solutions and lack of sufficient digital competence. Interestingly, the employees expressed their preference for digitalization solutions over traditional ones in their responses.

Both the accounting office owners and employees agree that the accounting profession is undergoing transformation as a result of digitalization. As a consequence, accountants need to acquire new competencies in technology. The vast majority of the owners surveyed note the new nature of the accountant's role - supervisor/controller and/or analyst. A somewhat different picture emerges for the responses provided by the accounting office employees. Among this group of the respondents, some believe that their professional role will not change significantly as a result of digitalization, while others discern a new direction for the accounting profession - supervisor/controller and/or analyst. The objective set in this article, namely, to outline how digitalization has been contributing to the change in the role of accountants and how professionally active accountants perceive this change, has been achieved.

It is also worth noting that the vast majority of the accounting office owners and employees surveyed believe that digitalization is unlikely to lead to a scenario in which accounting personnel will not be required to hold a degree in accounting.

## 5. Conclusions

Analysis of current Polish legislation shows that, in many areas of business operation, digitalization constitutes an element mandatory, both in tax-related and accounting aspects. Some businesses, however, also utilize voluntary digitalization tools, as exemplified by accounting firms.

The literature review conducted has revealed a research gap in the field of accounting office digitalization, more specifically, the scant number of empirical studies conducted in this area. The research gap indicated has been partly filled by the Authors of this article.

The main objective of the article was to demonstrate how digitalization contributes to the change in the role of accountants and present the perception of professionally active accountants in this regard, based on a survey of selected accounting offices. The survey yielded answers to the research questions posed. The surveyed accounting offices, in addition to their legally imposed duties, also implement digitalization within a voluntary scope. The owners emphasize their readiness to utilize modern digitalization tools, including OCR, bookkeeping software, MT 940 file loading of bank statements, electronic workflow, VPN and bank transfer automation. The surveyed employees, in turn, emphasize their use of bookkeeping software, but also MT 940 files, electronic workflow, OCR, document digitalization or VPN. The most substantial benefits of digitalization, noted by the surveyed employees, are increased productivity, ongoing access to data or the feasibility of remote work from any location. The most substantial barriers, indicated by the surveyed employees, include the lack of sufficient digital competence, as well as anxiety towards modern solutions and habituation to traditional solutions. The last of the research questions referred to the perceived new role of accountants. The owners of accounting offices in vast majority indicated the role of a supervisor/controller or analyst. They additionally have identified their new professional role with that of a tax advisor and a robot support agent. Only one owner expressed an opinion that the role of accountants would not change significantly. The employees' opinions, by contrast, were more disparate. The answer stating that the professional role of accountants will not change significantly received 25 indications. The roles of a supervisor/controller and analyst received 24 and 21 indications, respectively. The role of a robot support agent also showed to be a relatively common choice (11 responses).

The conclusions drawn from the literature review and the survey research confirm the need to undertake further in-depth empirical research on digitalization in accounting offices, accounting departments and the very system providing education for future employees whose professional life will entail accounting. The respondents emphasize in their answers the need for professional education covering the aspects of digitalization. This provides impetus for the subsequent, third stage of the research, which will be carried out by means of a questionnaire designed for students, with the aim of examining the level final-year accounting students' familiarity with and awareness of the change in the role of accountants in the wake of digitalization.

A comprehensive review of accounting regulations is currently underway, with the aim of identifying areas in need of possible refinement, simplification, harmonization or introduction of new solutions, in order to adapt those solutions to the current practice, the legal and economic reality, and the opportunities offered by digitalization-related advances. The work on this part of the report is expected to be completed in April 2024 (Huczko, 2023).

It is also worth noting that one survey respondent expressed an opinion that artificial intelligence (AI) will either cause a drastic change or extinction of the accounting profession within 10 years, and simple accounting systems such as lump sums and tax ledgers will be handled by AI and corporations (e.g., banks). This somewhat outlines the possible future of the accounting profession.

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