THE ROLE OF ENTITIES PROVIDING ACCOUNTING SERVICES IN THE IMPLEMENTATION OF STRUCTURED ELECTRONIC INVOICES

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Purpose: The aim of this article is to enhance the operational processes (reduce processing time, improve management) of accounting offices in the implementation of structured electronic invoices. The article analyzes the significance of these entities in the context of transitioning from traditional paper invoices to electronic invoices, and identifies the benefits, challenges and solutions associated with their involvement in this process.

Design/methodology/approach: The research utilizes a methodology based on literature analysis and a questionnaire survey among enterprises providing accounting services, aiming to comprehend their perspective in the context of implementing structured electronic invoices.

Findings: The outcome of the research involves the creation of three scenarios for dealing with clients of accounting offices in the implementation of structured electronic invoices.

Research limitations/implications: The research is based on a limited range of respondents, which may affect the overall representativeness of the results. Furthermore, rapidly evolving technologies and regulations may impact the relevancy of some findings in the future.

Practical implications: The findings of this study suggest that collaboration with entities providing accounting services can significantly facilitate businesses in the process of implementing structured electronic invoices. Companies should consider the benefits of external support in order to effectively transition to new solutions.

Originality/value: The article contributes to the discussion about the changing role of entities providing accounting services in the digital transformation of B2B services.

Keywords: Digital transformation, accounting services, e-invoice, e-business.

Category: Research article.

1. Introduction

In the era of digitization, business processes are undergoing dynamic changes, and digital transformation becomes not only a possibility but also a necessity. One of the areas experiencing this transformation is the way of issuing and storing invoices. In Poland, the National e-Invoice System (Polish abbreviation KSeF) has been in operation since January 1, 2022, aiming to facilitate the invoicing process by introducing structured electronic

invoices. Although this system is currently optional, it will become mandatory for many enterprises from July 1, 2024 (Act of June 16, 2023). The invoice, being a crucial document in economic trade, serves for settlements and confirmation of trade transactions (Papazoglou, 2003). The definition of an invoice, according to applicable legal regulations, includes a number of elements that must be included for it to be recognized as an accounting document. In the context of the KSeF introduction, understanding the role and significance of invoices becomes key for enterprises and entities providing accounting services. Invoices are documents issued primarily for VAT purposes, hence the issues concerning invoices are regulated in the VAT Act (Act of October 29, 2021). The VAT Act defines who is required to issue an invoice for which transactions, in what mode it should be issued, what form it can take, what data it should contain, how it should be corrected, and stored.

The introduction of KSeF is a response to the growing demand for digitization of business processes, which aligns with the global trend towards digitalization. European Union directives (Directive 2006/112/EC), oblige member states to promote and implement electronic document flow in economic trade, aiming to enhance the efficiency and transparency of business processes. The VAT Act should comply with EU law in the area of invoicing, including the VAT Directive.

In the global context, Poland joins the group of countries that actively promote and implement digital solutions in the invoicing area. The introduction of KSeF aligns with the global trend towards digitizing business processes, aimed not only at increasing efficiency but also promoting transparency and sustainable development through the reduction of paper usage. For entrepreneurs and accountants, the new way of issuing and receiving invoices represents another technological revolution. As most micro and small enterprises use the services of accounting offices, one can ask whether the introduction of a new invoicing system will be a challenge for accounting offices and how to address this challenge?

The aim of the study is to improve the operation of accounting offices (reduce processing time, enhance management) in the implementation of structured electronic invoices in Poland. During the research process, studies of both Polish and foreign literature were conducted. The literature review utilized the methods of induction and deduction. Subsequently, in the empirical study, synthesis and analysis methods were employed, using a survey questionnaire as the research tool. The pivotal aspect of the study involves assessing the benefits, challenges, and potential solutions concerning the digital transformation by owners of accounting offices. To this end, the following research questions were formulated:

1) Will entities providing accounting services issue structured invoices on behalf of their clients (businesses)?
2) Are entities providing accounting services inclined to change the circulation and processing of documents from traditional to digital?
3) What collaboration scenarios between entities providing accounting services and their clients (businesses) are considered in the context of implementing structured invoices?

The conducted study enabled the development of collaboration scenarios between accounting offices and their clients, which is particularly crucial for the effective implementation of the e-invoicing system. The article is divided into several sections, including an introduction with methodology, results, conclusions, literature, and limitations and suggestions for further research, aiming to provide the reader with a comprehensive understanding of the researched issue. In the introduction, the background of the problem and the research objective have been presented, serving as a starting point for further analysis. The literature review section encompasses an analysis of existing research and literature on the digitization of accounting processes and the introduction of structured electronic invoices. The methodology section presents the research design and the questionnaire survey, which was used to collect data. The results section includes an analysis of the data collected during the study, with an emphasis on identifying main trends and findings. The discussion section will interpret the research results in a theoretical context and discuss potential challenges and solutions related to the implementation of structured electronic invoices. The concluding section of the article, summarizes the main points of the discussion and suggests directions for further research. The study is designed with a focus on understanding and analyzing the role of entities providing accounting services in the process of implementing structured electronic invoices. It is based on a combination of literature analysis and empirical research, which includes a questionnaire survey among enterprises providing accounting services.

2. Scope of documents included in the KSeF and possibilities for their digital processing

The National e-Invoice System encompasses the following types of documents (Fig. 1).
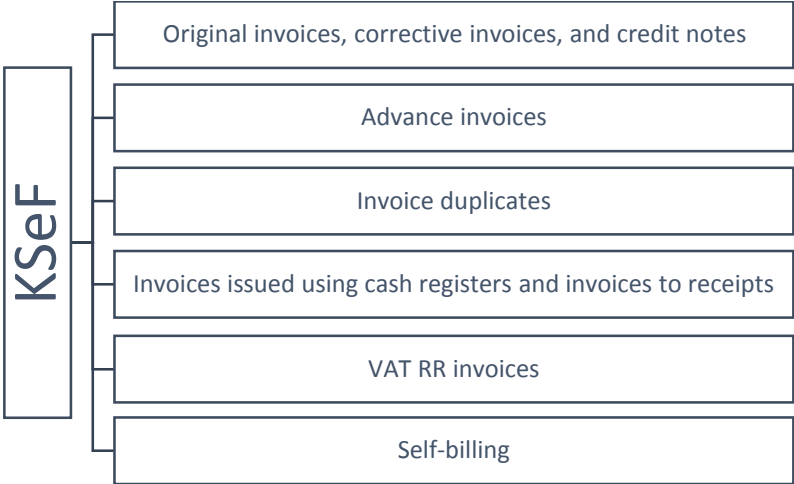

Figure 1. Scope of the National e-Invoice System.
Source: Own study.

Taxpayers subject to the obligation of using the National e-Invoice System (KSeF), through its aid, will be able to issue not only original invoices but also corrective invoices. Both types must, in principle, take the form of a structured invoice (Art. 106ga and Art. 106j para. 4 of the VAT Act). For advance invoices, starting from September 1, 2023, a regulation applies according to which taxpayers are not obliged to issue an advance invoice if the entire payment or part of the payment received before the transaction was made in the month in which the transaction took place (Art. 106b para. 1a of the VAT Act). In such a situation, the taxpayer merely issues one sales invoice for the entire amount due. With the introduction of the obligatory KSeF, it is assumed that invoices will not be destroyed or lost. A duplicate of the invoice will only be possible for invoices issued outside the National e-Invoice System. In relation to invoices issued using cash registers and invoices to receipts, it is assumed that from January 1, 2025, all of them will have to be issued via KSeF. In general, the obligation to self-invoice through the National e-Invoice System also includes documents issued in the self-invoicing mode, where the buyer issues the invoices, and invoicing on behalf, where a third party issues the invoices. As results from Fig. 1, the scope of the KSeF includes most of the documents in economic circulation. Hence, the challenge is to implement solutions ensuring their efficient processing. Digital invoice processing is a procedure that is gaining popularity in the context of global digitization. Thanks to modern technologies, companies can automate many aspects of the invoicing process, which translates into increased efficiency and error reduction (Zniszczoł, 2016). Digital invoice processing can be defined as a process in which traditional paper invoices are replaced by their electronic equivalents. This process encompasses not only the invoices themselves but also other documents related to commercial transactions, such as orders or delivery confirmations (Pieńkosz, 2022). In recent years, a dynamic development of technologies related to digital invoice processing has been observed. Initially, this process was limited to scanning paper invoices and storing them in a digital form. Currently, thanks to technological advancement, it is possible to automatically generate, send, and process invoices electronically, which significantly accelerates and simplifies the invoicing process (Hellich, Wielgórska-Leszczyńska, 2021). Modern technologies, such as OCR (Optical Character Recognition), AI (Artificial Intelligence), or blockchain, significantly support the digital invoice processing procedure, enabling automation of many processes and increasing the security and reliability of systems (Sokołowski, Niedbał, 2022). While digital invoice processing brings a number of benefits, including increased efficiency and error reduction, it also poses certain challenges. Among the most important are the need to adapt new technologies and ensure data security (Zakrzewska, Jarosz, 2022). One of the key aspects of digital invoice processing is its automation. With tools like Optical Character Recognition (OCR), companies can automatically capture data from invoices, significantly speeding up the processing procedure (Grządka, 2021). Among the tools supporting process automation, the ERP (Enterprise Resource Planning) systems stand out. They integrate various business functions, including finance and accounting management, into one system. Other tools include

the OCR systems (Optical Character Recognition) for automatic data capture from invoices and the Robotic Process Automation (RPA) for automating routine tasks (Januszewski et al., 2021). Automation allows for a significant acceleration of processes related to invoicing. Thanks to automatic data capture from invoices, companies can significantly shorten the time needed to process an invoice, which translates into faster closing of accounting months and improved cash flow (Spoz, 2014). Process automation also allows for the reduction of errors, which often occur in manual invoice processing. With automatic data capture, the risk of data entry errors is significantly reduced, resulting in greater accuracy of accounting data (Nykiel, 2018). Process automation can also bring significant cost savings. By reducing the time needed to process invoices and reducing the number of errors, companies can significantly reduce operational costs related to the invoicing process (Glogić et al., 2023). Despite many benefits, process automation also comes with certain challenges. The introduction of automation tools may require significant financial investment and time for implementation and employee training. Additionally, companies must also pay attention to issues related to data security and compliance with legal regulations (Łuczak, 2016). Digital invoice processing enables the integration of various accounting and financial systems, allowing for easier data and process management. Selected literature emphasizes that system integration is a key element in the digitalization process (Kiełtyka, Charciarek, 2019). Through process automation, digital invoice processing increases data accuracy and reduces errors, which is often highlighted in international literature (Kokina, Blanchette, 2019). Digital invoice processing allows for real-time data access, enabling faster decision-making and better financial management of the company (Avira et al., 2023). Both national and international literature also highlight the aspect of sustainable development. Digital invoice processing allows for a reduction in paper usage, which is in line with global trends towards sustainable development (Warke et al., 2021). Despite many benefits, digital invoice processing also comes with certain challenges. The literature points to barriers such as lack of appropriate digital skills, resistance to change, or concerns related to data security (Marcon et al., 2019).

3. Research methodology

The aim of the study was to enhance the functioning of accounting offices (reduce processing time, improve management) in the implementation of structured electronic invoices in Poland. The opinions of accounting office owners regarding the transition from traditional paper invoices to electronic invoices were analyzed, and the benefits, challenges, and solutions associated with their involvement in this process were identified. The research tool used was a survey questionnaire (Google Forms) directed to owners and management of accounting offices through social media in the third quarter of 2023. Semi-open-ended questions were

employed with an "other" response option (if any?), closed-ended questions, and measurement scales including, among others, nominal scales (including Likert scales). The assumed number of accounting offices in Poland was 70 thousand (GUS, 2023), for which the required sample size in the research was determined to be 96 (https://www.naukowiec.org/dobor.html). The survey questionnaire was posted on the Facebook social media platform in a group dedicated to accounting office owners, which had 3.6 thousand members. In total, 74 completed survey forms were received. Upon receiving the returned questionnaires, their correctness was verified. Numerical data were encoded in a matrix in the form of an Excel file, which also included data from the electronic survey collection system.

4. Research results

The research was conducted on a group of 74 owners and management of entities providing accounting services, of which 48 individuals (64.9%) were women and 26 were men (35.1%). In response to their professional experience, the majority of respondents (42.3%) indicated a range of 11-15 years of operation, 16 years or more (28.6%), 6-10 years (11.7%), 3-5 years (7.8%), and 0-2 years (9.6%). The aim of the subsequent question was to assess the degree of digitization of accounting services (Fig. 2).
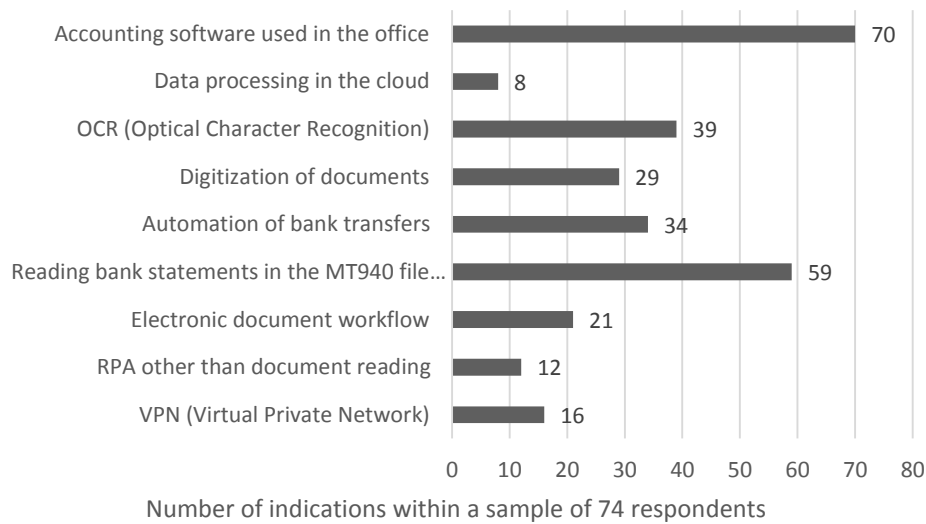

Figure 2. Digitalization tools used by entities providing accounting services.
Source: Own study.

Thereafter, respondents were asked about the benefits of digitization (Fig. 3).
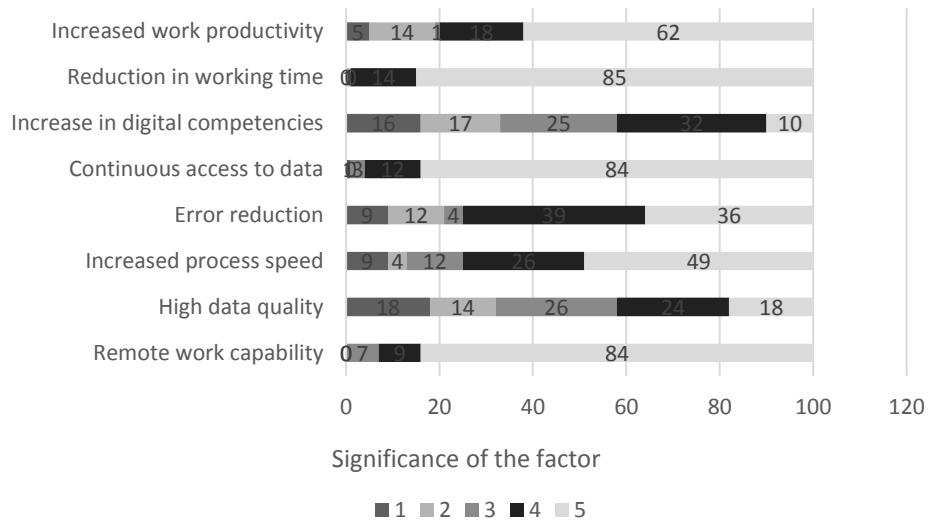
Figure 3. Benefits of digitization in accounting service entities.

Source: Own study.

The aim of the subsequent question was to understand the role that accounting service entities plan to adopt in the process of handling structured electronic invoices. Respondents were asked whether they currently issue or are considering issuing sales invoices on behalf of their clients (Fig. 4).
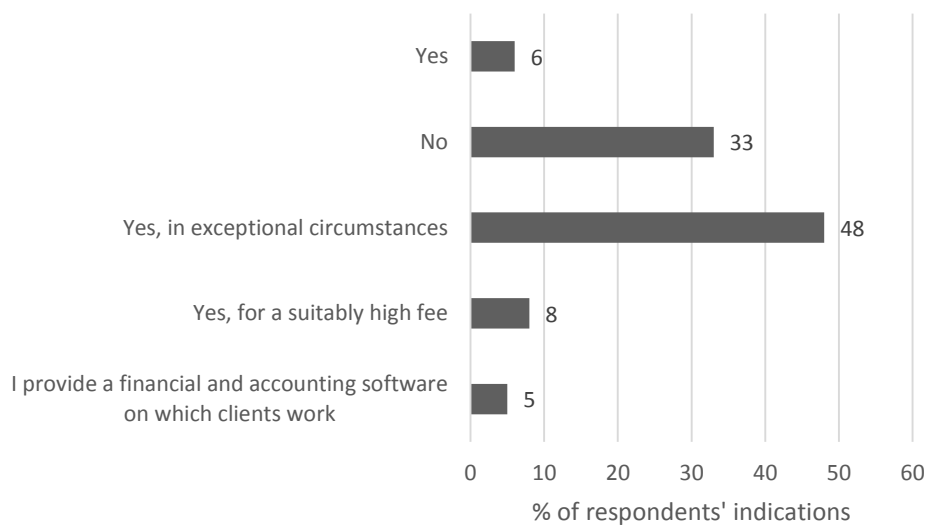

Figure 4. Handling Sales Invoices on Behalf of Clients in Accounting Service Entities.

Source: Own study.

In the last question, respondents expressed their opinion on the most appropriate model of cooperation with clients when handling structured electronic invoices. Several proposed cooperation models were presented in the question, and respondents were also allowed to indicate their own solutions (Table 1).

Table 1.

Scenario of Handling Clients in the Context of Structured Electronic Invoices Service

Proposed Client Interaction Scenario	% of Respondent Selections
Client independently retrieves invoices from KSeF, verifies, accepts, and sends them to the accounting office	56
The office, acting on behalf of the client, retrieves, accepts, and sends them for substantive approval	3
The office retrieves invoices from KSeF on behalf of the client and immediately books them, assuming they are related to the conducted business activity	4
The office retrieves invoices from KSeF on behalf of the client, with their authorization, and obtains approval for invoices that raise concerns	5
I am considering a mixed model, where some clients will provide invoices themselves, while for others, the office will retrieve them	17
I am still uncertain	11
After the client verifies and approves sales and purchase invoices, the accounting office imports the invoices from KSeF into the F-K system	4

Source: Own study.

Respondents, in response to the question, mostly (56% of responses) adopted a cautious scenario for dealing with clients in the process of handling electronic invoices. 17% of respondents consider a mixed scenario of action, where the chosen approach will depend on the quality of the existing cooperation with the client. The following Conclusions section provides scenarios for the accounting offices dealing with clients while implementing structured invoices, which are based on the conducted research by the author.

5. Conclusions

Accounting offices are external entities in relation to their clients. Mutual relations here primarily involve responsibility for the quality of the source documents (clients) and responsibility for processing documents (accounting offices). The implementation of electronic invoices will affect the transfer and acquisition of invoices for the purpose of their inclusion in tax and accounting records. However, accounting offices will still be obligated to analyze and determine elements such as the moment of VAT tax liability, the date of revenue recognition, the date of cost incurrence, or the place of its origin. One of the fundamental issues that accounting offices must consider is who and to what extent will be responsible for retrieving documents from the KSeF and forwarding them to the accounting office. The research indicates that accounting offices will not take on the obligation of issuing electronic invoices on behalf of their clients. The affirmative response to the research question about the willingness to change the circulation and processing of documents in accounting offices was confirmed. Among the factors that imply a change, remote work opportunities (84% significance), continuous access to data (84% significance), and reduced working time (85% significance) should be mentioned. In response to the final research question, three scenarios of cooperation

between accounting offices and clients in the implementation of electronic invoices can be distinguished.

The first scenario involves the direct retrieval of documents by companies and their transfer to the accounting office in a mutually agreed-upon form. The advantage of this solution is the minimization of obligations on the part of accounting offices and the certainty that the company (the client of the accounting office) provides only those documents that will actually be related to its business activity. It is worth noting here that the KSeF system may include invoices documenting expenses that do not constitute deductible costs or those that were issued by mistake. The disadvantage of the proposed solution is the complete dependence of accounting offices on clients in terms of providing documentation for processing in financial and accounting systems (as is currently the case). The visualization of the first scenario is included in Figure 5.
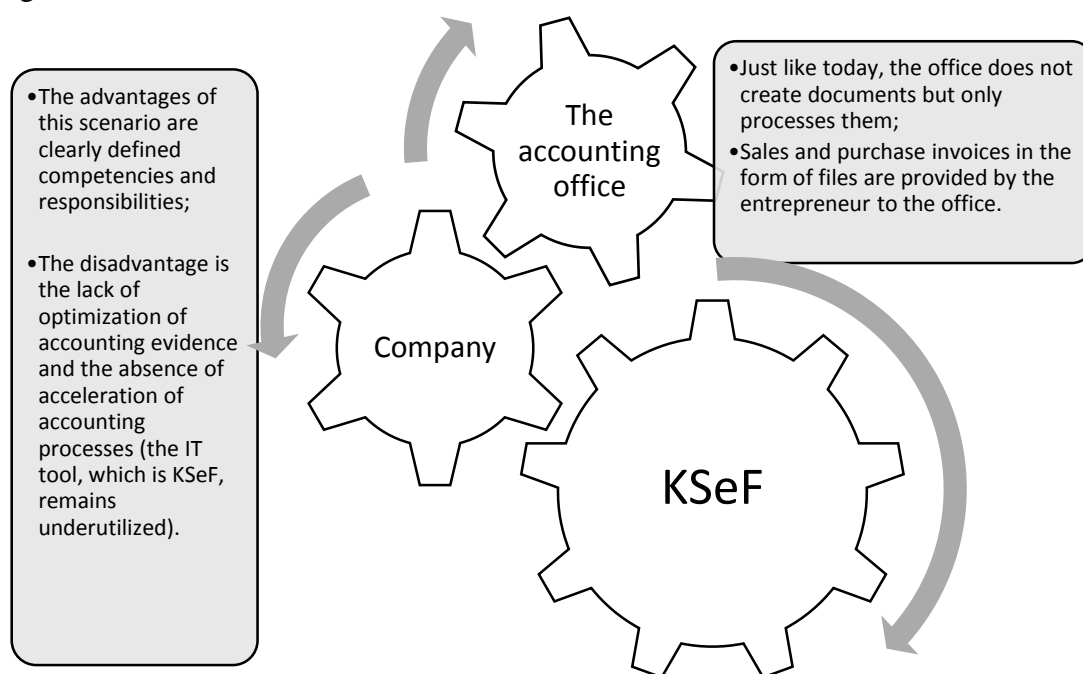

Figure 5. First scenario for implementing KSeF in accounting offices.
Source: Own study.

The second scenario, which is the most demanding for accounting offices, assumes that accounting offices, based on special authorization to handle KSeF, log in and independently retrieve or even issue documents. This scenario gives accounting offices the greatest freedom but also consumes a lot of time. Accounting offices bear various risks in this scenario, including errors in issued invoices on the part of businesses and the risk of generating payment identifiers. The graphical representation of this scenario is shown in Fig. 6.
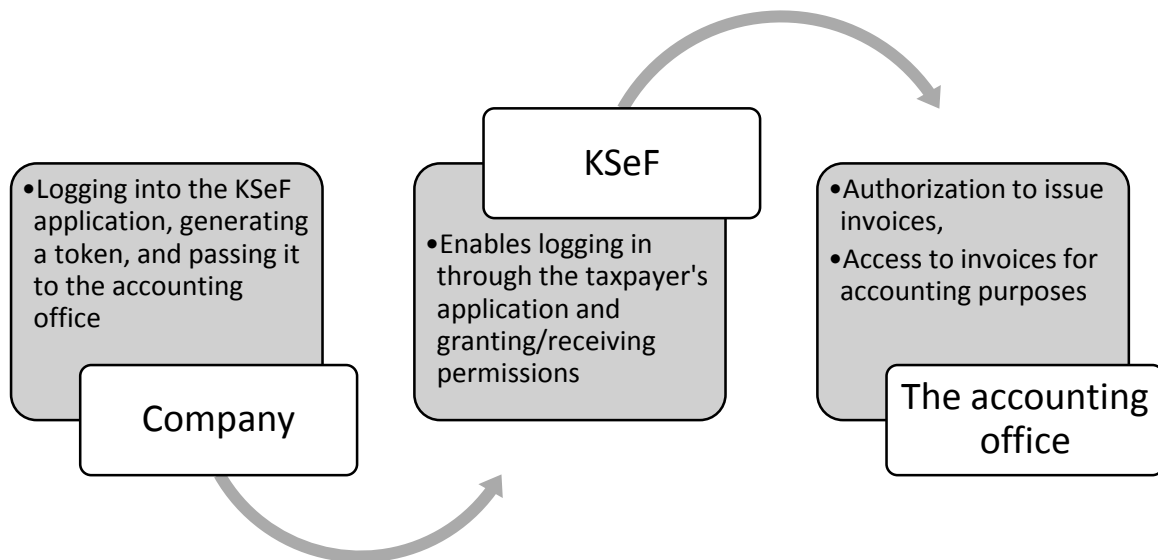
Figure 6. Second Scenario of Implementing KSeF in Accounting Offices.

Source: Own study.

The third of the proposed scenarios is an intermediate solution. Here, it is assumed that businesses generate a special token and provide it to accounting offices. Accounting offices then input the token into their financial and accounting systems and set up cycles in which invoices are automatically retrieved from KSeF. This scenario does not significantly involve the accounting offices in the KSeF activities. However, there is a risk of obtaining documents from the system that are not related to the business activities of the serviced companies or that have been generated due to errors or mistakes. As a disadvantage, there is also the issue of correctly allocating costs based on their justification, place of origin, or assignment to specific projects. The graphical representation of this scenario is shown in Fig. 7.
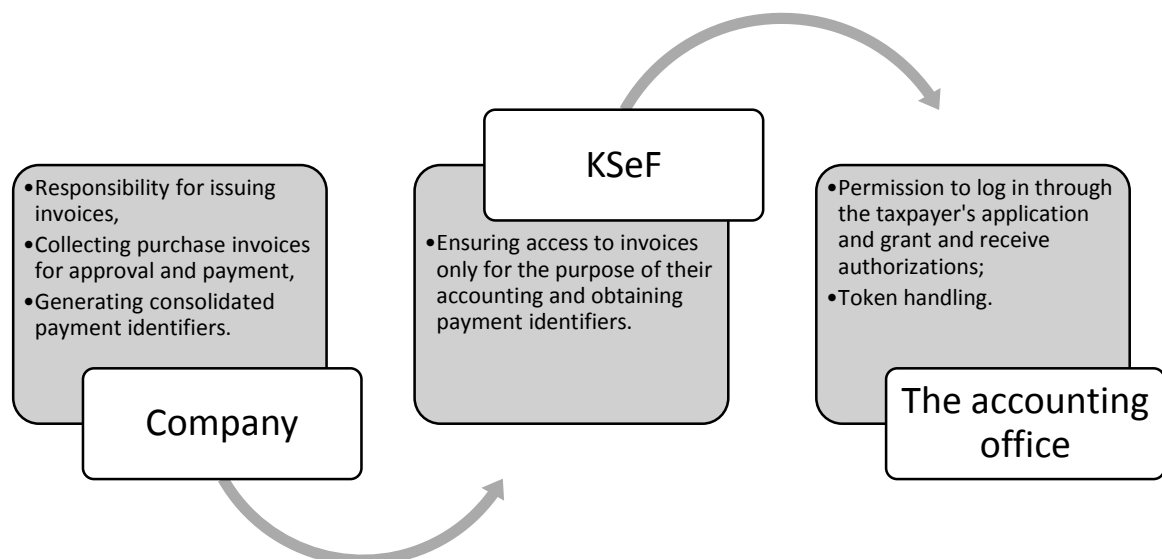

Figure 7. Third scenario of implementing KSeF in accounting offices.

Source: Own study.

According to the respondents (accounting offices), KSeF does not bring significant substantive changes. The obligation to issue and receive invoices from the National e-Invoice System still rests with the enterprises. Respondents see an opportunity in speeding up accounting processes through the retrieval of all invoices from KSeF. Undoubtedly, the implementation of an appropriate financial and accounting information system that supports communication between KSeF, the office, and the enterprises is essential. It enables the alignment with clients on the form of approval for cost invoices. The implementation of KSeF requires a revision of existing agreements for accounting services. It is worth noting that the agreement between the office and the enterprise is a B2B contract based on partnership, not a relationship of subordination.

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