

E-Invoicing System in 'The Accounting Professionals' View - An Empirical Research

Marian Socoliuc¹

DOI: <https://doi.org/10.29358/10.29358/sceco.v0i40.600>

How to cite: Socoliuc, M. (2024). E-Invoicing System in 'The Accounting Professionals' View - An Empirical Research. *Studies and Scientific Researches. Economics Edition*, 40. <https://doi.org/10.29358/sceco.v0i40.600>

Received: November 2024

Accepted: December 2024

Abstract

The digital transformation of the relationship between the private sector and the tax administration, through the implementation of the electronic invoicing system (RO e-Factura) represents a huge leap in the reform of public administration in Romania, with the potential to improve efficiency, reduce costs and simplify invoicing processes. In this context, the purpose of this study is to survey respondents' opinion on the implementation and application of RO e-Factura on operational efficiency, costs, tax compliance and environmental sustainability, highlighting the benefits for both companies and the business environment, ahead of the mandatory implementation, as of July 1, 2024. Thus, through the questionnaire, we aimed to obtain information on the level of familiarization with the e-invoicing concept, perceived benefits, obstacles encountered in the implementation of this system, as well as the level of readiness and interest in adopting e-invoices. The results obtained can provide useful guidance and information for the state and regulatory bodies that can use them in order to optimize the use of e-invoices in the public and private sector in Romania.

Keywords

e-invoicing system, digitalization, perception of accounting professionals, tax fraud, operational efficiency

Introduction

In recent years, both the business environment as well as business information systems and activities have evolved and have been undergoing continuous change due to digitalization. Globalization has also opened new avenues of technology development, which has virtually transformed various business sectors, including accounting.

This digitization of accounting, has in the foreground the electronic invoice (e-invoicing) which is one of the applications that contribute to the improvement of the activities carried out by companies, facilitating the automatic issuance and receipt of information on the commercial transactions carried out. Thus, in this section, we aim to present the concept of e-invoicing and the context of its emergence, to present its evolution, as well as to highlight its main implications on the relationship between the state and the business environment, private both from the perspective of the relevant literature and European and national legislation incident to the adoption of e-invoicing system.

Thus, in the study by Yang C et al. (2023), it is stated that to solve the problems of paper invoices, electronic invoices have emerged because paper invoices are prone to damage, loss or tampering, increasing the risk and uncertainty of transactions, require time, space and labor costs for storage and management, and last but not least, cannot realize real-time information exchange and tracking, resulting in an inefficient information process.

¹ Corresponding author: Marian Socoliuc, email: marian.socoliuc@usm.ro

Therefore, e-invoicing enables companies to efficiently generate and track electronic invoices in real time, reducing fraud and minimizing data entry errors (Hoblos N et al., 2024).

From the perspective of European regulatory institutions, the study conducted by Pham T. M. L. et al. (2020), shows that over time, governments have been concerned about the adoption of e-invoicing as an efficient and transparent tool for tax administration and helps to strengthen the inspection of tax returns, tax payments and tax refunds of firms. Thus, we highlight below the role played by European regulatory institutions in the adoption of e-invoicing.

The European Union has made considerable efforts since the early 2000s on the adoption and standardization of e-invoicing (Puşu, 2024). Thus, as early as 2001, the Council Directive (2001/115/EC) on Invoicing Requirements for Member States was introduced, which was intended to simplify and harmonize VAT regulations in the Member States. Therefore, through a more systematic introduction of e-invoicing, tax administrators may be able to implement new tools and procedures to perform alternative controls that are less intrusive for trading partners.

To reap the economic and social benefits of a digital society, electronic invoicing (e-invoicing) is part of the European Commission's flagship initiative, A Digital Agenda for Europe, which attaches importance to the realization of a digital single market and calls for the removal of regulatory and technical barriers that prevent mass adoption of invoicing (European Commission, 2010). However, following the introduction of Directive 2014/55/EU of the European Parliament and of the Council on e-invoicing in public procurement in the internal market and on the uptake of e-invoicing in the European Union, two years after its introduction, the EU e-invoicing landscape in public procurement had not changed significantly (European Commission, 2024). Subsequently, in public procurement, the findings showed that 100% adoption of e-Invoicing is only achieved in Member States that have mandated B2G e-Invoicing to their suppliers or in digitally mature Member States. As a conclusion to the above in the European context, e-Invoicing adoption in general has increased, across member states, but is not yet used in the majority of transactions. As mentioned above, of interest for our research in this section is the status of e-invoicing adoption in Romania.

Thus, in Romania in 2022, e-Factura was implemented for Business to Government (B2G) transactions, i.e. the contract between the state and companies. As of January 1, 2024, the authorities prepared a tax reform as a result of the mandatory implementation of e-Invoice, it became mandatory in business-to-business (B2B) commercial relations, and as of July 1, 2024, it constitutes the only form of legal B2B invoice in Romania, except for foreign transactions, including EU.

Therefore, the Government Emergency Ordinance No. 138/2024 (GEO No. 138/2024) brought a series of legislative changes regarding RO e-Factura in our country, namely the entry into force on July 1, 2024 of the legal provisions regarding the mandatory transmission of invoices through the national system on electronic invoicing RO e-Factura.

So, from the above, we deduce that the applicability of e-Invoice is vast and can bring significant advantages in terms of costs, operational efficiency, sustainability, security and compliance, being a useful solution for companies in various industries.

It also follows that the implementation of e-invoicing involves putting into practice the process of issuing, sending, receiving and managing invoices electronically. By applying e-invoicing effectively, companies can reap a number of benefits, such as reducing costs, increasing operational efficiency and improving business relationships with partners and customers.

The following section of the study is dedicated to reviewing the literature relevant to our research and aims to frame our research within this research topic.

Literature review

In the accounting services sector, the speed of information generation is crucial. One solution to this is the widespread adoption of digitization in accounting, i.e. the use of digital applications and platforms.

Under this aspect, e-invoicing has become a key tool for companies that want to streamline processes, reduce costs, increase the efficiency of business operations and competitiveness, marking a paradigm shift in the financial-accounting sector.

Thus, in the following we will review some relevant papers on our research topic in order to locate the research in the context of research in the field.

A first study that we will refer to is the study by Ozor C.C et al. (2024), in the context of e-invoice adoption in Nigeria. The author shows that the automation of e-invoicing in Nigeria has gained popularity due to the benefits of reduced costs and improved efficiency.

In the same context, the authors Asender R and Sapkota G (2024), also reveal, that e-invoicing offers substantial operational benefits by reducing administrative expenses and speeding up payment processing, and that for companies to increase competitiveness and simplify financial management processes, it is necessary for them to fully transition to e-invoicing.

And the study conducted by Nguyen A. H et al. (2020), focused on investigating the effect of factors on early-stage e-invoice adoption in the context of Vietnam using a questionnaire delivered to a sample of 318 managers and accountants in Vietnamese companies, revealed that usefulness and ease of use had a statistically significant impact on e-invoice adoption, measured at the behavioral level and perceived behavioral control, respectively.

The results of the study conducted by Chen H et al. (2024) revealed that accelerating the popularization of e-invoices is an inevitable choice for the development of an economy and the deepening of tax reform. This paper explores the adoption of e-invoicing in the context of SMEs, focusing on the implementation of Platform as a Service (PaaS) models to ensure compliance, ongoing maintenance and operational optimization.

While the aforementioned studies present the advantages of e-invoicing adoption, our literature review also revealed that there are also studies where the results are at the opposite pole, in that the authors also present the disadvantages or challenges that e-invoicing brings to companies and the state.

A first study in this regard is the study by Hoblos N et al. (2024), which shows that despite its inherent advantages, e-invoicing comes with new challenges such as compliance with rapidly changing regulations, cross-border issues (electronic archiving and reporting), data heterogeneity and error identification in complex systems.

In the same context, Cuylen A et al. (2016), demonstrate that digitization also faces a number of limitations caused by a variety of software solutions, legal uncertainties, heterogeneous requirements, lack of know-how and incompatibilities of information system infrastructure.

Another study conducted by San A. N. C et al. (2023) focused on the impact of e-invoice adoption on Malaysian SMEs and the readiness of technology and employees using a survey administered to 235 eligible respondents, highlights that respondents also have optimistic beliefs regarding e-invoicing, but there are also respondents with high level of uncertainty when using e-invoicing software application.

As mentioned above, by reviewing some of the most current literature on this research topic (Hoblos N et al., 2024; Pucihar A and Lenart G, 2024; Telukdarie A et al., 2024), we were able to identify the main challenges faced by SMEs in adopting e-invoicing, mainly materialized in financial constraints, limited skills, lack of technical expertise, lack of knowledge on how to implement e-invoicing and insufficient awareness of its benefits.

Remarkable findings on this research topic were also made by Sudhakar S et al. (2024) following their study of 107 qualified respondents, three years after the adoption of e-invoicing in India (e-invoice adoption occurred in 2020) and show that the industry is currently in the middle of the readiness spectrum, i.e. between explorers and skeptics.

As can be seen from the studies cited above, all of these have been conducted in different economic and fiscal contexts than Romania.

As is only natural, we were also interested in the context of the research conducted on this research topic in Romania. Thus, a first study conducted, on this research topic, in a national context, is the one conducted by Bahramov (2024) who concludes that the adoption of e-invoicing in Romania is promising for transforming first of all the tax administration, making it more efficient, transparent and effective. The author believes that Romania can use e-invoicing to improve tax collection processes, stimulate economic growth and strengthen its position in the global digital economy, taking into account the increase in tax collection observed after e-invoicing implementation in other countries.

Another relevant study in this field of research is also conducted by, Isip (2024) which is of the opinion that e-invoicing and cloud technology may lead more large companies to outsource their accounting. Here comes the opportunity for accounting firms that can provide on-site, hybrid or remote services to their clients due to the benefits of digitalization.

From the literature search we conducted, we noticed that there are few studies conducted on this research topic in the Romanian context, this representing, for us, an additional motivation for this research. This is due to the timeliness of this tax reform (July 1, 2024) and the lack of time for researchers to quantify the impact of its implementation on the economy and economic agents alike.

Therefore, these aspects have motivated us to propose a research in which to analyze a first perception of the economic agents towards the adoption of e-invoicing but also to assess the knowledge, attitudes and acceptance of e-invoicing among these entities.

To accomplish this purpose, we propose an empirical research methodology, quantitative in nature, carried out through a structured questionnaire. The methodological details of the research are presented in the following section of this research.

Research methodology

Considering the purpose of the present research, we realized a questionnaire that was developed in online format, through Google Forms and addressed to professionals in the financial-accounting field, who work as professionals at the level of entities in Suceava County. The online version of the questionnaire was sent to companies operating in Suceava County, with a total of 203 respondents answering and completing the entire questionnaire, which also represented the study sample of this research.

Thus, the purpose of the questionnaire on the perception of Suceava County entities regarding e-invoicing is to obtain feedback and relevant information regarding the understanding, acceptance and use of e-invoices among these entities, before they become mandatory, as of July 1, 2024.

Through this research tool, we aimed to gauge respondents' opinions on the implementation and application of e-Invoicing on operational efficiency, costs, tax compliance and environmental sustainability, highlighting the benefits to both companies and the business environment before the mandatory implementation on July 1, 2024 as well as to identify possible ways to promote this invoicing system in the region.

Results and discussion

In the following, we will present the results of our study, obtained following the application of the questionnaire addressed to financial-accounting professionals in Suceava County, in order to test the perception of entities in Suceava County regarding electronic invoicing, more specifically how financial-accounting professionals perceive the implementation of electronic invoicing on operational efficiency, costs, tax compliance and environmental sustainability, highlighting the benefits for both companies and the business environment.

As can be seen in Figure 1, out of the 203 responses received following the distribution of the questionnaire, the majority of financial-accounting professionals are female, specifically 92.6% of them and 7.4% of our sample are male. These figures reflect the gender distribution among the respondents and indicate a predominance of females in the responses collected.

When asked about the age of the respondents, it can be seen that the majority of them fall in the age category 18-29 years, i.e. 92.60%, which means that they are young people, the vast majority of them have no experience in the economic-financial field, they are people who are in primary accounting and invoicing or not only. As for the age category 30-39 years they answered 4.9%, in the age category 40-49 a percentage of 1.5% and in the age category over 50 years we got a percentage of 1%.

On the basis of the information obtained, we can conclude that people over the age of 30 already have more experience, are mostly in managerial positions, or in positions involving higher level activities, and therefore no longer deal with simple invoicing operations. The result is that the process of issuing an invoice and forwarding it is carried out by young people without much experience in the field and not in managerial positions.

Figure 1 also shows that the vast majority of respondents have higher education, 99% have bachelor and master degrees. Interpretation of the data reveals that, in terms of the last cycle of education completed, 75.4% of the respondents have a Master's degree, while 24.1% have a Bachelor's degree. These data show that young people, graduates of higher education, adapt more easily to daily challenges, the vast majority of them are given tasks related to digitalization, information systems and new accounting software.

As can also be seen in figure no. 1, it can be observed that the vast majority of respondents are economists with a percentage of 87.2% and are represented by people who deal with issuing and transmitting an invoice in the virtual private space (VPS).

The percentage of chartered accountants who are members of CECCAR is 1%, authorized accountants is 2%, financial auditors is 0.5%, tax consultants 3.4%, economic directors 0.5%, chief accountants 3.4%, and administrators 2%.

We can conclude, as we specified when analyzing age, that young people in the 18-29 age group do not occupy management positions, as is also evident from the answers to this question on profession. Also, as can be seen in the figure below on the respondents' experience in the financial accounting field, the majority of the respondents have up to 5 years of experience in this field with 70.4%. Between the category of experience between 5 and 10 years 25.6% of the respondents fall in this category, between 20 and 25 years a percentage of 0.5%, and more than 25 years of experience a percentage of 1%.

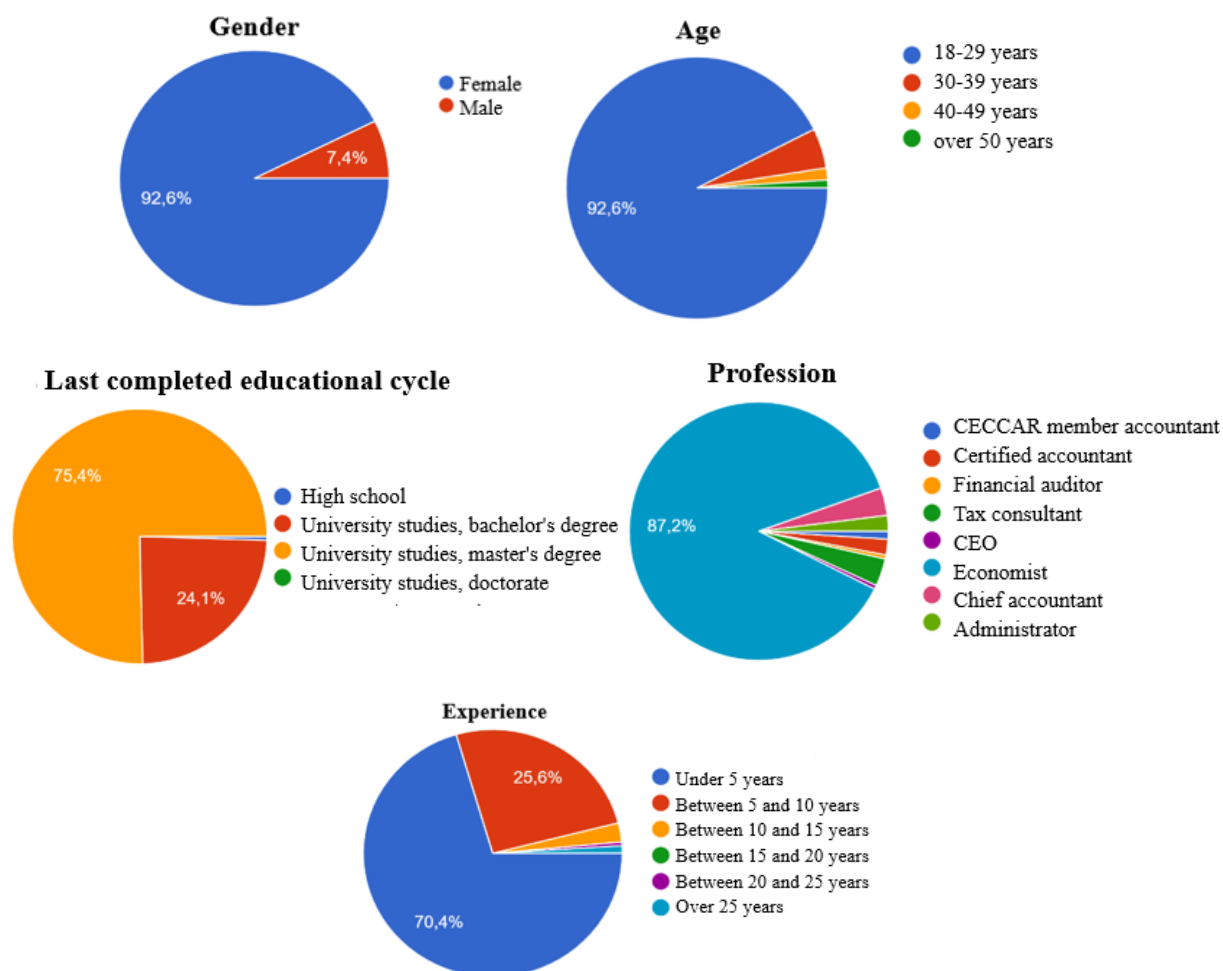


Figure 1 Profile of respondents

Source: Authors' own processing

When asked about the statement that: the implementation of e-invoicing will contribute to increased transparency, accurate monitoring of transactions and real-time reporting to tax authorities and that this tool will strengthen the state's efforts to protect the public budget and ensure a level playing field between taxpayers, 98% of the respondents agreed with this statement and only 2% disagreed with this statement. Thus, based on these answers, we can conclude based on the data collected from the respondents that the majority agree with the implementation of e-Invoice and believe that it will bring future benefits to both public institutions, the state budget and private institutions.

Regarding the role of e-Invoice, it was perceived differently by the respondents as can be seen in Figure 2.

A first category, considers that the primary role of e-invoicing will materialize in avoiding tax fraud. In this sense, 89.1% of the respondents gave the highest value to this value, being categorized as a very important role of e-Invoicing, while 6.9% of them gave a significantly lower level of importance to this role. A percentage of 2% of the respondents, assigned a medium value to the role analyzed, while 2% assigned a low value, being categorized by them as a low role that e-Invoice can play.

Another important variable of our questionnaire referred to the role of the e-Invoice in making accountants' work easier. For this variable 84.7% of the respondents opted for this variable, which gave the highest value being categorized as a very important role in the economic-financial profession. A percentage of 9.4% of the respondents gave a lower value to this advantage of e-Invoicing, most likely they have had a harder time adjusting to this change, and a percentage of 2.4% of the respondents gave a medium value to this role, these respondents most likely have had a harder time switching to e-Invoicing. 1.5% of respondents placed an even lower value on this role and 2% placed the lowest value on this role. These latter results show that the latter are represented by older people who have not yet adapted to this change and have most likely left room for digitalization to the young. Another variable is about making it easier for shoppers to download their incoming invoices more quickly and to register them in a timely manner. For this variable, 84.7% of the respondents gave a high value to this role, as it is one of the most handy methods when it comes to not sending an invoice, receiving it physically late or even losing it. Some 8.9% assigned a slightly lower value to this role, 2.4% assigned a medium value, 3% assigned a low value, and 1% assigned the lowest value on this role. The latter may be represented by people who have always received their invoices by various methods such as mail, or by courier, so they did not have to go to the SPV to download the e-invoice. The next variable concerns easier issuing of invoices. Thus, 86.7% of the respondents placed the highest value on this role, as it is a process that simplifies a lot of operational work, such as issuing a manual invoice, entering it into the accounting program, and then sending it to e-Invoice. Thus, e-invoicing eliminates physical invoicing, which implies that the risk of human error is lower, 7.9% of the respondents gave a slightly lower value on this role, 1% gave an even lower value, 2% voted a middle value, and 2.4% gave the lowest value on this role. We believe that people who gave lower scores for this variable are people who have not yet adapted to this change and are not open to further change.

Another variable refers to the possibility that e-invoicing could eliminate the existence of false or duplicate invoices. Thus 88.2% of the respondents gave the highest value to this variable, 8.3% of the respondents gave a slightly lower value to this role, 2% of the respondents gave a medium value and 1.5% gave the lowest value.

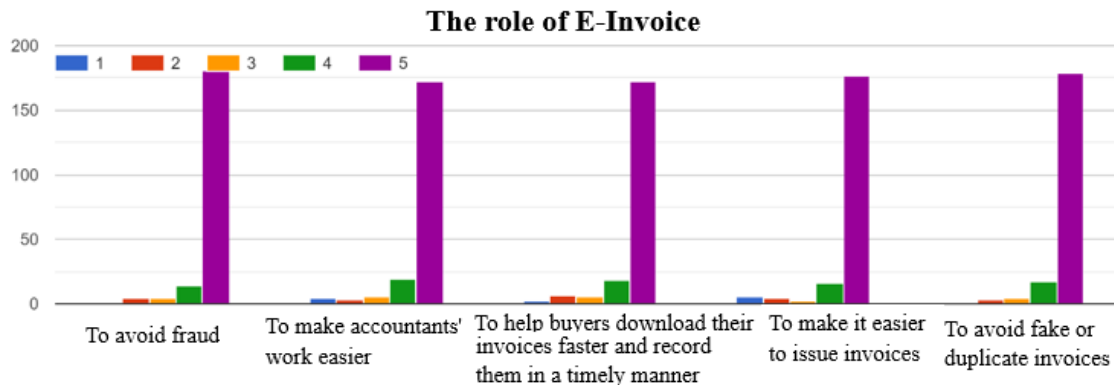


Figure 2 Role of e-Invoice

Source: Authors' own processing

Our study also looked at the issue of e-invoicing and the use of virtual private space also for non-VAT paying businesses. Respondents were also questioned on this issue. Thus 93.1% of them believe that it is essential to send invoices to the VPS also for those firms which are not VAT payers. In this respect, it should be noted that the failure by these firms to send invoices leads to numerous errors in the D300 declaration and in the ANAF's e-Invoice records. Only 6.9% of them do not agree with the submission of invoices to the VPS by non-VAT paying firms.

Another aspect that we followed through our research refers to the errors encountered in receiving and transmitting invoices in the VPS. Under this aspect, following the collection of answers from the respondents on the errors encountered in the receipt and transmission of invoices, several conclusions were drawn, which we will present below.

Thus, the most common errors in the receipt and transmission of invoices in the VPS, in the opinion of our respondents, concern errors related to the ANAF website, i.e. technical errors in the functioning of the electronic platform, for which the vast majority of respondents, 93% of them gave a score of 4 or 5 for the high frequency of errors related to the ANAF website, indicating that these

problems affect the process of receiving and transmitting invoices through the VPS. These results show that the State must continue to invest in the maintenance of the ANAF website to ensure its optimal functioning. Without these investments, economic agents and public institutions will not be able to report the required information.

Another category of errors, which respondents indicated as common, is related to the failure to fill in partner data completely. Thus, 87% of the respondents gave a score of 4 or 5 for the high frequency of this error, indicating that the incompleteness of partner data (CUI, city, county, IBAN, etc.) is a significant problem in the process of receiving/transmitting invoices via the VPS.

Also, the late submission of invoices is another common category of errors, with 84% of the respondents answering for this type of error, giving a score of 4 or 5 for this category, highlighting that late submission of invoices is a significant problem encountered in the VPS invoicing process.

In descending order of the weight of responses for our variables, another common error follows. This concerns VAT rates without a standard e-invoice category or misconfigured, for which about 68% of the respondents gave a score of 4 or 5 for this category, signaling that errors related to VAT rates without a standard e-invoice category or misconfigured are frequently encountered in the VPS invoicing process. These aspects show that the level of knowledge and digital and tax literacy of the respondents is still low, which implies that the management of these companies needs to allocate resources for the training of the human resources responsible for these activities. In our opinion, these answers are also due to the relative timeliness of these reports and the lack of experience of accounting professionals with these reporting methods.

Last but not least, 57% of the respondents in the other errors category gave a score of 4 or 5 for other errors encountered in the VPS billing process, highlighting the diversity and frequency of other problems that may occur in this context. The issues described above can be visualized in Figure 3, reproduced below.

If we analyze the categories of errors indicated above, we can conclude that technical errors in the functioning of the ANAF website, failure to complete the partner data, late transmission of invoices, VAT rates without standard e-invoice category or wrongly configured, as well as other categories of errors, are the most frequently encountered categories of errors in the process of receiving and transmitting invoices through the VPS. What we note is that the correction of these errors lies both in the power of the State and the management of the entities, which must identify the most appropriate measures so that these errors are eliminated.

We also believe that it is important to identify and correct these errors in order to ensure correct and efficient recording of invoices in the system.

In our opinion, the measures that need to be taken by the state are those related to massive investments in terms of increasing data storage capacity, and economic agents need to invest in specialized training courses and trainings to train human resources capable of working with these technologies.

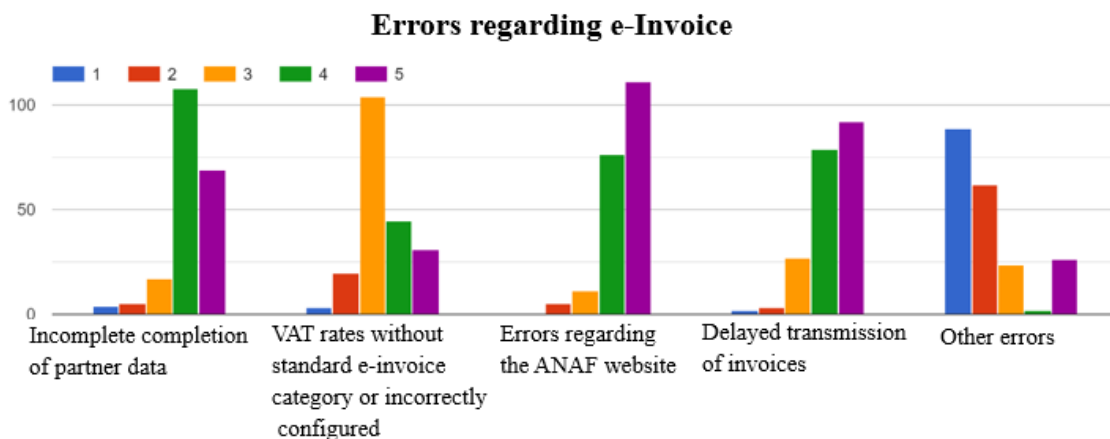


Figure 3 E-Invoice errors
Source: Authors' own processing

Analyzing the way of sending invoices by economic agents before e-Invoicing was implemented in our country, the vast majority of the respondents represented by 62.1%, stated that the company they work for sent invoices both electronically and on paper, 27.1% stated that they used the post/courier service for sending invoices to customers, and 10.8% sent invoices only

electronically. These results show that the vast majority of respondents were already accustomed to electronic invoicing before e-Invoicing appeared in our country, although they stated that the transition from traditional paper to electronic invoicing was a challenge for them at the beginning, in the opinion of 82.3% of them, with only 17.7% adapting quickly to this way of working. The aspects described above can also be seen in Figure 4 and Figure 5 below.

How to send invoices before implementing e-Invoice

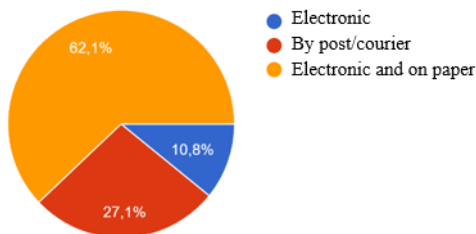


Figure 4 How to send invoices
Source: Authors' own processing

Problems regarding e-Invoice

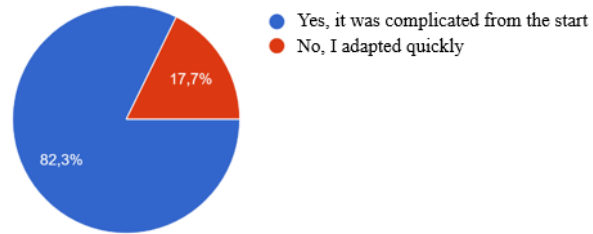


Figure 5 E-Invoice issues
Source: Authors' own processing

The results described above denote, on the one hand, that accounting professionals understood the advantages of e-invoicing and voluntarily accepted to work in this way before the process became compulsory according to the national legislation, even if this was not very simple, and on the other hand, there is a need for specialized training sessions or trainings so that the human resource is thoroughly prepared for the accounting and tax digitalization that will develop rapidly in the near future.

Our survey also aimed to identify the challenges or difficulties encountered by respondents in relation to e-invoicing. Thus, in this respect, as we noted earlier, adapting to the new way of working was the biggest challenge for 85.2% of respondents, who gave the highest rating to this challenge. This denotes that one of their biggest challenges was to get out of their comfort zone and work differently, which denotes that although the change was not easy for them, they tacitly accepted the change, realizing the advantages that come from moving to e-invoicing.

Another challenge of e-invoicing materialized in the lack of sufficient information for 78.3% of the respondents, while for 21.7% of the respondents this change was easy. This denotes the presence of information gaps, especially for young, inexperienced people, who are the age group most often involved in these activities, to the detriment of more experienced people involved in activities involving higher levels of knowledge and skills or involved in entity management.

Another challenge reported by respondents concerns the late updating of management programs, for which 75.1% of the respondents gave the highest score for this challenge. This is due to the fact that updating management programs involves additional costs and a longer time to resolve. For 24.9% of respondents this was a less significant problem.

Failure to update programs can lead to errors in accounting entries, with negative consequences for accurate financial reporting or making important decisions for the business and therefore for tax reporting. The issues described above can be visualized in Figure 6, shown below.

E-Invoice Challenges

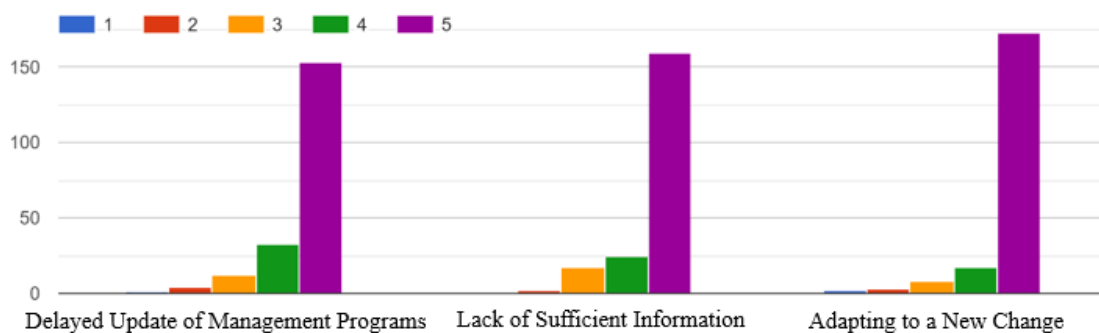


Figure 6 E-Invoice challenges
Source: Authors' own processing

Regarding the respondents' adaptation to e-invoicing, as can be seen in figure no.7, 93.1.% of the respondents found the adaptation to e-invoicing easy and considered that their work was facilitated, while 6.9% of the respondents found the process difficult as they had difficulties in terms of its operation. We also explain this by the fact that the vast majority of our respondents have been using electronic invoices and sending them online to their business partners since before the mandatory adoption of e-invoicing in our country.

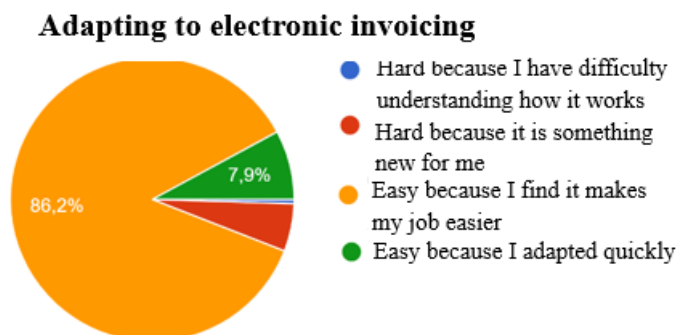


Figure 7 Adaptation to electronic invoicing
Source: Authors' own processing

Respondents were also questioned on the impact of e-invoicing in Romania on increasing the transparency of contracts between economic agents and making the whole process more efficient. Thus, 95.6% of the respondents considered that the implementation of e-invoicing has led to a higher transparency of the transactions between economic agents and to the streamlining of the whole economic process, while only 4.4% of the respondents considered the opposite. Thus, in line with the previous results, we also consider that the implementation of e-invoicing in Romania has contributed to increasing the transparency of contracts between economic agents, as it allows a more accurate tracking of transactions and payments made between parties. E-invoicing also makes it easier for economic operators to comply with tax obligations, with important effects in terms of reducing the risk of tax evasion. As this process is relatively recent, we believe that these effects will be felt more considerably in the coming years, when further research is needed to quantify these aspects.

We also believe that in terms of streamlining the process, the implementation of e-invoicing reduces the time and cost of administering invoices in physical format, eliminating the need for manual preparation of invoices and thus reducing the risk of human error. Another advantage that e-invoices offer is aimed at accelerating the payment confirmation process and contributing to increasing operational efficiency within companies, with positive effects on companies' cash flow. Another aspect targeted by our research refers to the identification of the advantages that electronic invoicing implies. Thus, following the analysis and interpretation of the results obtained, we have made a hierarchy of them, depending on the percentage recorded by each variable in particular, from the perspective of the respondents.

Thus, the advantages of electronic invoicing consist in ensuring an overview, in real time, of the transactions carried out, saving the time of entry by automatically taking over the information, which leads to an increase in the work efficiency of the staff involved and to superior benefits of an automated invoicing process.

Another important advantage of electronic invoicing lies in its ability to reduce VAT fraud, with important effects on combating tax evasion and implicitly the increase in collected fiscal-budgetary revenues.

Also, electronic invoicing leads to increased efficiency, predictability and transparency in the invoicing process, with positive effects on both the state and economic agents. Thus, the state aims, through this system, to collect more money for the state budget and thus reduce or even eliminate tax fraud and implicitly ensure the principles of good tax equity for economic agents. For economic agents, the use of electronically collected data will constitute a support for predictive analyses and for the implementation of pertinent managerial and fiscal-accounting policies, adopted according to the analyses carried out on the basis of these data.

Another group of advantages derives from the interconnection of the electronic invoicing system with the other systems owned by the EU member states, with important effects on the interoperability of transactions and the reduction of cross-border tax evasion, respectively the

possibility of participation in public procurement of any entity in the EU, which denotes the openness and accessibility of this system.

Also, electronic invoicing contributes to the development of the documentary verification mechanism, with important effects on ensuring functionality in the tax administration process, verification which is also facilitated by the elimination of the vulnerabilities of the paper-based invoicing system, represented by the possibility of their easy destruction, the need for physical archiving (contributing to the reduction of the required space or associated costs) or the possibilities of their duplication.

From the analysis of the aforementioned advantages, we deduce that the respondents included in our study positively appreciate the advantages of electronic invoicing, an aspect that resulted from the early use of electronic invoicing in their activity, before its mandatory introduction. In our view, the advantages of using electronic invoicing are obvious, both for international regulatory bodies, national states, national regulatory bodies, economic agents, and for citizens, which denotes that all these important actors in this process must join their efforts so that this process develops even more in the near future.

Conclusions

On the basis of the aim set and the results recorded in our research, we can draw some pertinent conclusions from them. Thus, we are of the opinion that the adoption of e-invoicing presents real advantages for companies of all sizes, providing an opportunity to optimize financial processes and align with the current technological trend, can achieve a higher level of efficiency, transparency and sustainability, preparing for the digital future and contributing to modernize and streamline processes in the contemporary business environment.

The survey revealed a high degree of acceptance of e-invoicing, both in the period of voluntary adoption and after mandatory implementation, with the majority of respondents agreeing with the benefits of e-invoicing, such as increased transparency, efficiency and accuracy of financial transactions.

In terms of challenges associated with this approach, respondents identified incomplete partner data, errors in VAT classification, technical problems associated with the functioning of the ANAF website.

In terms of respondents' opinion associated with e-invoicing, the vast majority of respondents stated that the implementation of e-invoicing in Romania will lead to an increase in the transparency of contracts between economic agents and will streamline the whole process. Only a small proportion of respondents believe that e-invoicing will not have this effect. It is important that efforts are made to ensure that e-invoicing is properly implemented and that its benefits are maximized.

One aspect to be mentioned here is that the mandatory adoption of e-invoicing is of recent date so that the real benefits on the status and economic agents can be judged after at least two years when further research can be resumed to test this aspect. This is also a future research direction for us.

Regarding the advantages of e-invoicing, the majority of the respondents positively assessed the advantages of e-invoicing, highlighting its benefits in providing a real-time overview of the transactions carried out, saving time of input by automatic data capture, reducing VAT fraud, increasing efficiency, predictability and transparency in the invoicing process, the use of electronically collected data will support predictive analysis and the implementation of relevant managerial and fiscal accounting policies, interconnectivity of the e-invoicing system with other systems held by EU Member States, with important effects on the interoperability of transactions and the reduction of cross-border tax evasion, i.e. the possibility for any EU entity to participate in public procurement, the development of the documentary verification mechanism, the elimination of vulnerabilities in the paper-based invoicing system, the reduction of time and costs allocated to the administration of invoices in physical format, eliminating the need for manual preparation and reducing the risk of human error, speeding up the payment confirmation process and potentially contributing to increased operational efficiency within companies.

Thus, from the advantages listed above, we can deduce that the benefits of e-invoicing are multifaceted and that it has the potential to bring significant benefits both at the institutional level and at the national and European level.

In conclusion, the implementation of e-invoicing in Romania leads to a greater transparency of contracts between economic agents, with effects on the efficiency of the whole process, improving the flow of information and facilitating administrative processes. These effects have been felt for

several years by those companies that have voluntarily adopted e-invoicing as a way of working, and their transition to mandatory e-invoicing was natural for them.

We believe that our study can be useful to European and national re-regulatory bodies with responsibilities in this area, and to national states, which can base their public policies on these results. Thus, for our country, in view of the high level of tax fraud, we believe that the large-scale extension of tax digitization through massive investment in this sector can be a saving solution for reducing tax fraud and for reducing the budget deficit and external public debt.

We aim, at least two years after the mandatory implementation of e-invoicing in Romania, to resume research to quantify the impact of e-invoicing on the level of tax fraud as well as on the reduction of the budget deficit and external public debt. These findings provide valuable insights into the perspectives, experiences and challenges related to e-invoicing among respondents, which can be taken into account by the state in informing public policy based on these findings.

References

- Asender, R., & Sapkota, G. (2024). The role of e-invoicing in enhancing business efficiency and promoting sustainability in Finland: exploring benefits, efficiency, and environmental impact. Bachelor of Business Information Technology. https://www.theseus.fi/bitstream/handle/10024/874204/Asender_Sapkota.pdf?sequence=2.
- Bahramov, F. (2024). The Possible Outcomes of E-Invoicing on Tax Collection and Impact on Future of Romanian Tax System. *Journal of Financial Studies*, 16(9), 23-37. <https://revista.isfin.ro/wp-content/uploads/2024/05/2.-Bahramov-Faud.pdf>.
- Chen, H., Wang, Y., & Xue, W. (2024). Information accuracy verification system of invoice metadata based on data warehouse. *International Journal of Business Intelligence and Data Mining*, 25(1), 34-51. <https://doi.org/10.1504/IJBIDM.2024.139451>.
- Cuylen, A., Kosch, L., & Breiten, M. H. (2016). Development of a maturity model for electronic invoice processes. *Electronic markets*, 26(2), 115-127. <https://doi.org/10.1007/s12525-015-0206-x>.
- European Commission. (2010). *Communication from the commission to the european parliament, the council, the european economic and social committee and the committee of the regions. Reaping the benefits of electronic invoicing for Europe*. Brussels, <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0712:FIN:en:PDF>.
- European Commission. (2024). *Report From The Commission To The European Parliament And The Council on the effects of Directive 2014/55/EU on the Internal Market and on the uptake of electronic invoicing in public procurement*. Brussels, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52024DC0072>.
- Hoblos, N., Joukhar, G., Rabhi, L., Rabhi, F., & Hussain, W. (2024). Addressing e-Invoicing Adoption Challenges using API Ecosystems. Australasian Conference on Information Systems 2024, Canberra. <https://aisel.aisnet.org/acis2024/102/>.
- Isip, A. (2024). How is the Adoption of E-invoicing System Affecting the Outsourcing of Accounting Services?. In *Proceedings of the... international conference on economics and social sciences*. (Vol. 6, No. 1, pp. 142-155). EDITURA ASE. <https://www.cceol.com/search/article-detail?id=1269736>.
- Nguyen, A. H., Nguyen, T. P., & Dang, G. T. T. (2020). Determinants of E-invoice adoption: Empirical evidence from Vietnam. *The Journal of Asian Finance, Economics and Business*, 7(7), 311-321. https://www.kci.go.kr/kciportal/landing/article.kci?arti_id=ART002607919.
- GEO 138/2024. Ordonanță De Urgență nr. 138 din 4 decembrie 2024 privind modificarea și completarea unor acte normative în domeniul fiscal-bugetar, precum și pentru reglementarea altor măsuri. <https://legislatie.just.ro/Public/DetaliiDocument/292029>.
- Ozor, C. C., Okafor, C. R., & Ohia, P. N. (2024). Exploring the Role of Blockchain in Promoting Transparency in E-Invoicing Systems Among Multinational Corporations in Nigeria. In *Indonesian Annual Conference Series* 131-139. https://www.researchgate.net/publication/382497460_Exploring_the_Role_of_Blockchain_in_Promoting_Transparency_in_E-Invoicing_Systems_Among_Multinational_Corporations_in_Nigeria.
- Pham, T. M. L., Le, T. T., Truong, T. H. L., & Tran, M. D. (2020). Determinants influencing tax compliance: The case of Vietnam. *The Journal of Asian Finance, Economics and Business*, 7(2), 65-73. <http://dx.doi.org/10.13106/jafeb.2020.vol7.no2.65>.
- Pucihar, A., & Lenart, G. (2024). E-invoicing: A Catalyst for Digitalization and Sustainability. *Organizacija*, 57(1), 3-19. <https://doi.org/10.2478/orga-2024-0001>.
- Pușu, A. (2024). Navigating the digital frontier: exploring the impact and evolution of electronic billing and invoice systems in modern accounting practices. ISSC 2024, Prospects Of Accounting Development: The Young Researcher's View. <https://doi.org/10.53486/issc2024.39>.
- San, A. N. C., Seng, W. T., Yee, C. J., Siong, O. H., Hussain, N. C., & Khen, T. M. (2023, December). Preparing SMEs for E-Invoice Adoption: Assessing Technology Readiness and Its Segmentation. In 11th International Conference on Business, Accounting, Finance and Economics (BAFE 2023), 303-315. Atlantis Press. https://doi.org/10.2991/978-94-6463-342-9_22.

- Sudhakar, S., Michael, T., & Sangeetha, P. (2024). The Road to E-Invoicing: Understanding Technology Readiness in Indian Industry. *Library Progress International*, 44(2s), 2258-2268. <https://doi.org/10.48165/bapas.2024.44.2.1>.
- Telukdarie, A., Dube, T., Munsamy, M., Murulane, K., & Mongwe, R. (2024). Navigating digital challenges for SMEs: a two-tier approach to risks mitigation and sustainability. *Sustainability*, 16(14), 5857. <https://doi.org/10.3390/su16145857>.
- Yang, C., Yang, L., Song, Y., & Fu, X. (2023). Paper Invoice Dilemma and Electronic Invoice Solution. *Frontiers in Business, Economics and Management*, 12(1), 12-21. <http://dx.doi.org/10.54097/fbem.v12i1.13620>.

Marian Socoliuc

Ștefan cel Mare University of Suceava, Romania

marian.socoliuc@usm.ro

ORCID: <https://orcid.org/0000-0001-6378-6686>