



ELECTRONIC INVOICE – BENEFITS OR COSTS FOR PUBLIC AND PRIVATE SECTOR ENTITIES IN REPUBLIC OF SERBIA

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Abstract: *The process of digitization of business inevitably requires the exchange of documents electronically. The electronic invoice is one of the documents in internal traffic in Serbia, which is sent from May 1, 2022 through the system of electronic invoices by the issuer to the recipient directly through the system of electronic invoices or indirectly through information intermediaries. The aim of the paper is to identify the benefits and costs for the introduction of electronic invoices by public and private sector entities. Respecting the set goal, the research will be carried out on the territory of Sumadija and Western Serbia using questionnaires, as well as on the basis of available and current scientific and professional literature and officially published data. The results of the survey provide an answer as to when the benefits exceed the investment costs related to the use of electronic invoices and when it is time to switch to the use of electronic dispatch notes in transactions between private and public sector entities.*

Keywords: *electronic invoice, system of electronic invoices, private sector, public sector, electronic delivery note*

1. INTRODUCTION

Digitization of business can be seen as an auxiliary tool for the business process that is carried out outside the borders of Serbia and as a business process that is carried out between entities within the borders of Serbia. In accordance with the set goal, the paper analyzes the cost-benefit ratio through the observation of a part of the digitization of business in Serbia, which is the result of the requirements of the Law on Electronic Invoicing and other regulations derived from this regulation.

The questionnaire itself is structured in three parts. The first two relate to general data on the research sector and respondents, and the third unit is the core of the research and it provides answers to questions related to the process of using electronic invoices, which results in certain benefits from this system, but also costs, the amount and justification of which can be discussed at this moment.

The main question is whether when the user of the system receives an electronic invoice in electronic form, he prints the same or uses it as an electronic document in his organization, and whether the process of receiving and sending electronic invoices is recorded in an internal act.

In order to understand the answers received in the survey, it is necessary to highlight the basic information related to the regulation that has a direct impact on the field of electronic invoicing.

2. BASIC NOTES RELATED TO ELECTRONIC INVOICING REGULATIONS

The impact of regulations on the field of electronic invoicing is best seen in the following table, with a note that special attention will only be devoted to the Law on Electronic Invoicing, and internal regulations may be the subject of some future research by the author or other interested parties.

Table 1: The impact of regulations in the field of electronic invoicing

Regulation		
Direct impact		Indirect impact
Legislation		Internal regulation
Laws	By-laws	Regulation written in a separate act or part of the Rulebook on Accounting
Law on Electronic Invoicing	<ul style="list-style-type: none"> • Rulebooks • Regulations • Internal instructions • Opinions 	
		All other laws and by-laws

Source: Authors

The Law on Electronic Invoicing [1] has a key impact on the process of electronic invoicing. The Law on Electronic Invoicing requires two types of activities from those obliged to implement it, namely:

1. Issuance of electronic invoices, which includes the following types of documents: Invoice, Debit notes, Credit notes, Advance invoice
2. Special obligation of electronic recording of VAT calculations (collective and individual records).

It should be noted that in addition to the documents that must be submitted through the electronic invoice system, other documents may be submitted, but only as attachments, and other documents whose submission is optional, such as e.g. Offer, Estimate, Contract, Temporary situation, Final situation, Delivering note, etc.

Collective and individual VAT records require special elaboration, but it is important to note here that the same is performed by the tax debtor who has the obligation to record the calculated (output) VAT that has not been recorded in one of the following ways: through a fiscal device, through an electronic invoice and on customs invoice issued by the Customs Administration.

From the above, there is a need to separate two types of activities: the first is the identification of those obliged to use the Electronic Invoice System and the second is the definition of the way, that is, the path for the electronic invoice from the issuer to the recipient of the electronic invoice. It is also necessary to mention the fact that private sector entities that wish to provide services or sell goods to public sector entities must be obliged to use the Electronic Invoice System.

Table 2: Taxpayers to implement the Law on Electronic Invoicing

Public sector subject: is an entity that belongs to the state sector, in the sense of the law governing the budget system, as well as a public company, in the sense of the law governing the legal position of public enterprises, regardless of whether it is included in the state sector		
Description of the obligation	Date	Note
Receives an electronic invoice	May 1, 2022	Jobs for electronic invoices
Saves the electronic invoice	May 1, 2022	
Issues an electronic invoice to another public sector entity	May 1, 2022	
Issues an electronic invoice to a private sector entity	July 7, 2022	
Electronically records the calculation of VAT	May 1, 2022	Jobs for electronic recording of calculated VAT
A private sector entity: is a taxpayer for value added tax, except for a public sector entity		
Description of the obligation	Date	Note
Issues an electronic invoice to a public sector entity	May 1, 2022	Jobs for electronic invoices
Receives an electronic invoice from a public sector entity	July 7, 2022	
Stores an electronic invoice from a public sector entity	July 7, 2022	
Receive and store an electronic invoice from a private sector entity that is in the electronic invoice system (if it is sent electronically, it must be received)	July 7, 2022	
Issues and stores electronic invoices in transactions between private sector entities	January 1, 2023	
Electronically records the calculation of VAT	January 1, 2023	Jobs for electronic recording of calculated VAT
A voluntary user of the electronic invoice system: is a taxpayer on self-employment income in the sense of the law governing personal income tax and a corporate income taxpayer in the sense of the law governing corporate income tax, except for public and private sector entities, which in accordance with this law, applied for the use of the electronic invoice system		
Description of the obligation	Date	Note

Accepts obligations as a private sector entity from the day of voluntary entry into the system of electronic invoices	The same deadlines as for private sector entities when they join the system	They remain in the system for the current and next year
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Source: Law on Electronic Invoicing ("Official Gazette of RS", No. 44/2021, 129/2021 and 138/2022, Article 2 and 24) [1]

An electronic invoice from the issuer to the recipient of the invoice can be delivered directly or indirectly. Subjects can submit an electronic invoice directly in one of two ways: by direct access to the portal of the Electronic Invoice System and manual entry where the invoice is created on the system, or by directly creating an electronic invoice in the software of the issuer of electronic invoices, and then importing it electronically with the help of the appropriate keys between the issuer's software and the Electronic Invoice System. Also, the electronic invoice from the issuer to the recipient can be delivered through information intermediaries, that is, specially authorized companies for these activities.

By-laws in the field of electronic invoicing that are currently in force in the Republic of Serbia can be grouped into four units [2, 3, 4, 5, 6, 7, 8]:

1. Regulations based on the Law on Electronic Invoicing
 - Rulebook on the method and procedure of registration for access to the system of electronic invoices, the method of accessing and using the system of electronic invoices and the method of using the data available in the system of electronic invoices
 - Rulebook on the elements of an electronic invoice, the form and method of submitting supporting and other documentation through the electronic invoice system, the method and procedure of electronic recording of value added tax calculations in the electronic invoice system and the method of application of electronic invoicing standards
 - Rulebook on the procedure of the Central Information Intermediary
2. Regulations based on the Law on Electronic Invoicing
 - Regulation on the procedure and conditions for granting and withdrawing consent for the performance of information intermediary activities
 - Regulation on the conditions and method of storing and making available for inspection electronic invoices and the method of ensuring the credibility and integrity of the content of invoices in paper form
 - Regulation on the conditions and manner of using the invoice management system
3. Internal instructions based on the Law on Electronic Invoicing
 - Updated internal technical instructions from March 31, 2023
4. Opinions of the Ministry of Finance on the basis of the Law on Electronic Invoicing, which were not listed due to the need for more detailed explanations, which would exceed the limits of this paper.

3. RESEARCH METHODOLOGY

The research was conducted on the basis of a previously set questionnaire that aimed to examine the advantages and disadvantages of the electronic invoice system. The questionnaire consists of three parts. The first part of the questionnaire refers to the general characteristics of the company, and the second part presents the profile of the respondents. The third part refers to general questions about the electronic invoice system, which aims to measure the costs related to the introduction of the electronic invoice system and the time period necessary to acquire knowledge and qualifications for handling the said system, as well as the advantages of the introduction of the electronic invoice system.

The questionnaire was sent to a total of 500 email addresses. Of these, a total of 40 companies gave a valid answer. An overview of the structure of the sample is given in Table 3. From Table 3, it can be seen that private companies (24), companies with domestic capital (40), as well as service companies (22) predominate. As for regional affiliation, the sample included companies from the region of Šumadija and Western Serbia (62).

Table 3: Structure of the sample

Criterion of division	Company category	Number
Size	Micro	8
	Small	16
	Medium	12
	Large	1
Sector	Private	24
	Public	16
Origin of capital	Domestic	40
	Foreign	0
Predominant activity	Manufacturing	9
	Trade	5
	Service	22

Source: Authors

4. RESEARCH RESULTS

When analyzing the answers from the first part of the questionnaire, it was found out that 95% of the respondents are mandatory users of the electronic invoice system, while only 5% of the respondents introduced the electronic invoice system voluntarily, due to their work with the public sector. The most common way of working with electronic invoices is directly through the electronic invoice system. In the structure of the total sample, 50% of respondents introduced the system of electronic invoices on May 1, 2022, 20% of respondents on July 1, 2022, while 30% of respondents started using the electronic invoice system on January 1, 2023.

Table 4: Overview of general data on users of the electronic invoice system

	% response
1. User of the electronic invoice system	
Mandatory	95%
Voluntary	5%
2. The reason for the voluntary introduction of the electronic invoice system	
By mistake	/
Due to work with the public sector	100
At the request of business partners	/
3. How to work with electronic invoices	
Directly through the electronic invoice system	72,5%
Through an information intermediary	27,5%
Through an external accountant	/
4. User role related to working with electronic invoices	
Administrator	72,5%
User	17,5%
User for incoming invoices	5%
User for outgoing invoices	5%
Auditor	/
5. Method of sending invoices	
By importing and exporting from the software	55%
By manually entering and downloading data from the portal of electronic invoices	45%
6. How to handle received invoices	
Printing	87,5%
Electronic submission	12,5%

Figure 1 shows the cost of introducing the electronic invoice system. The mentioned costs range from RSD 2,300.00 to RSD 24,000.00. The average cost of introducing the electronic invoice system is RSD 11,887.50. The cost of the software overhaul ranged from RSD 1,100.00 to RSD 90,000.00, making the average cost RSD 31,810.00. Employee training costs ranged from RSD 7,000.00 to RSD 25,000.00, which is an average of RSD 15,666.67.

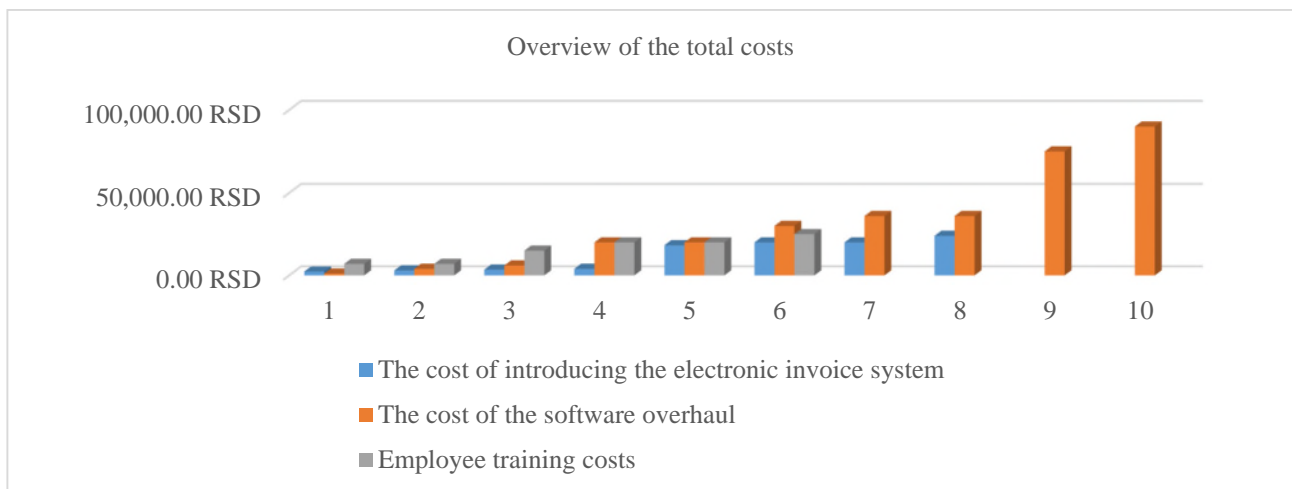


Figure 1: Presentation of the total costs associated with the electronic invoice system (in RSD)

Source: Authors

Figure 2 shows the costs of processing invoices in paper form. In the structure of the observed sample, PTT costs of sending invoices in paper form ranged from RSD 2,000.00 to RSD 110,000.00 on a monthly basis. Current costs related to receiving, printing and sending invoices in paper form ranged from RSD 4,000.00 to RSD 50,000.00 per month.

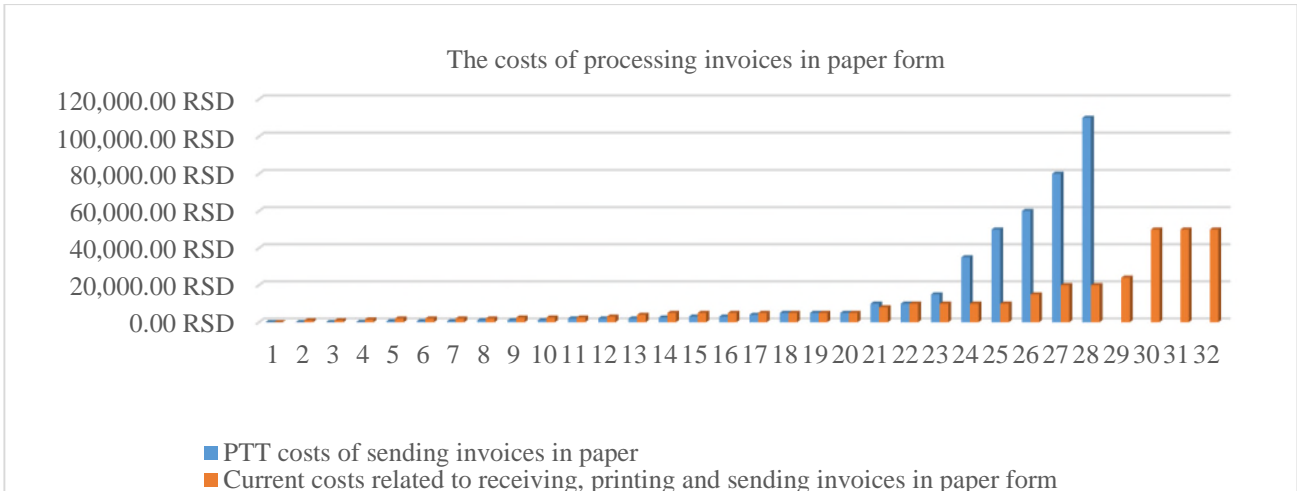


Figure 2: Presentation of invoice processing costs in paper form (in RSD)

Source: Authors

In addition, the respondents answered that a significant amount of time was spent on training for working with electronic invoices, from one day to even two months. A significant period of time was also spent listening to free webinars of the Ministry of Finance and consulting firms (from four hours to ten days). The respondents also pointed out the necessary period of time for familiarization with the Law, by-laws and Internal Technical Instructions (from one hour to 48 hours). Respondents' opinions are divided when it comes to costs and benefits related to the electronic invoice system (Figure 3). A slightly higher number of respondents pointed out that the benefits of the electronic invoice system are greater than the costs (55.3%), while 44.7% of the respondents pointed out that the costs are greater than the benefits, with the expectation that the benefits will exceed the costs in a few years. The majority of respondents explicitly emphasized the importance of introducing the topic of electronic invoices into teaching processes, as well as the necessity of educating both accountants and programmers in this area, in order to achieve continuous business with domestic and foreign partners. As the most common problems faced by the employees of the considered companies, they pointed out: overbooking of the system, slow sending of invoices, a portal that is often out of order, inconsistency and unclear functioning of the entire system, etc.

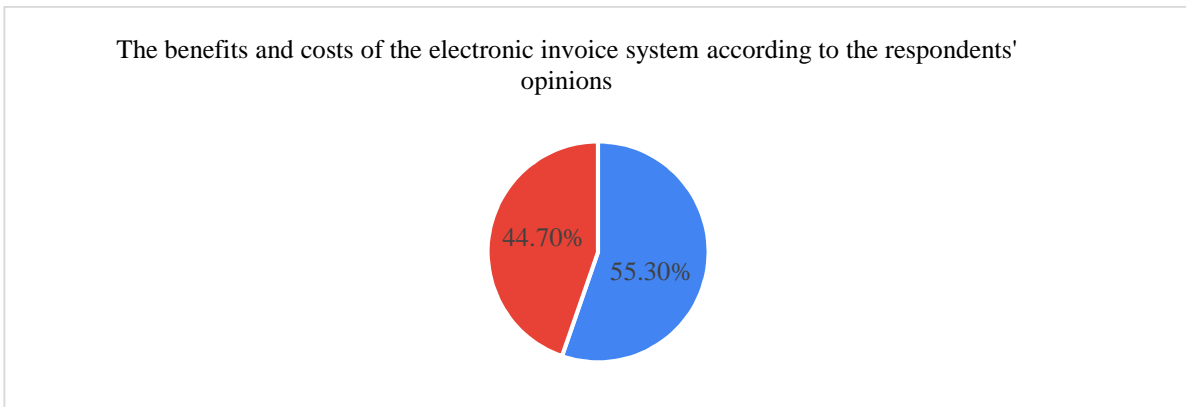


Figure 3: Presentation of the benefits and costs of the electronic invoice system according to the respondents' opinions

Source: Authors

Table 5: Overview of the costs, the most common problems and the time required to familiarize yourself with the system of electronic invoices, by sector and activity

Questions	SECTOR		ACTIVITY		
	PRIVATE	PUBLIC	MANUFACTURING	COMMERCIAL	SERVICE
Average cost of introducing the	35.222,00	38.877,00	31.814,00	32.428,00	34.982,00

electronic invoice system in RSD					
Average costs of processing invoices in paper form in RSD	17.417,00	16.953,00	12.432,00	11.268,00	15.078,00
Average costs related to receiving, printing and sending invoices in paper form in RSD	11.732,00	12.523,00	10.742,00	10.690,00	10.400,00
Average time period required for training to work with electronic invoices	11 days	10 days	11 days	9 days	10 days
Average cost of training for working with electronic invoices in RSD	3.895,00	6.133,00	5.182,00	5.143,00	5.632,00
The most common problems that arise when working with electronic invoices	Overbooking and slowness of the system, duplication of invoices, etc.	System unavailability, cancellation and reversal of e-invoices	Duplication of invoices, inconsistency of system	Functioning of the portal	System unavailability, cancellation and reversal of e-invoices, advance invoices
Average number of hours spent reading the Internal technical instructions	6	6	6	6	6
Average number of hours spent reading the Law	8	9	8	9	8
Average number of hours spent reading other by-laws	7	8	7	7	7

Source: Authors

5.CONCLUSION

The findings of this study aim to determine the manner in which companies in Serbia introduced the system of electronic invoices, the potential problems they face, the costs of processing invoices in paper form, as well as the costs and benefits they faced when introducing the system of electronic invoices. The research led to the conclusion that the electronic invoice system brings with it a number of benefits, such as savings in terms of PTT costs, printing costs, toner costs, etc. However, the fact is that the system still does not function at an adequate level for the following reasons: 1) unwillingness of employees to learn and acquire new qualifications; 2) aversion to technological innovations; 3) greater security when working with invoices in paper form, which is why electronic invoices are printed; 4) inadequate IT support in a large number of companies that would ensure the smooth operation of the electronic invoice system. Instead of electronic invoices circulating through businesses, they are still printed. This results in the high cost of printing the document, the cost of wasting time moving the paper document through the organization, and then the cost of re-finding the document for stakeholders in the organization. In general, this system led to an increase in energy consumption and employee time which did not achieve its main goal. In order to achieve better results, it is necessary to carry out training within the organization and training of future employees, students and unemployed persons. It is necessary to point out the limitations of the conducted research, which should be taken into account during certain future research. The first limitation concerns the sample size. The sample should be expanded with a larger number of respondents. Another limitation is related to regional affiliation. The sample refers to companies operating in the territory of Šumadija and Western Serbia. Subsequent research should be focused on companies that operate on the territory of the whole of Serbia.

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