



Research Article

Electronic Invoice System as a Driver to Enhance Efficiency and Competitiveness: The Case of Tabique Engenharia Enterprise

Anabela FERNANDES and Isabel FERREIRA

Polytechnic Institute of Cávado and Ave, Portugal

Correspondence should be addressed to: Isabel FERREIRA; iferreira@ipca.pt

Received date: 25 March 2021; Accepted date: 2 March 2022; published date: 14 June 2022

Copyright © 2022. Anabela FERNANDES and Isabel FERREIRA. Distributed under Creative Commons Attribution 4.0 International CC-BY 4.0

Abstract

As a result of EU legislation, in 2018, Portugal made it mandatory for invoices to be issued electronically to the Public Administration. This step accelerated the adoption of electronic invoicing in public procurement and the consequent electronic filing. For companies, it meant the elimination of costs with paper, printing, postage, storage, among others, which promotes an environmentally friendly technological upgrade and faster and more efficient processes. For Public Administration, it has meant the possibility of automatically posting incoming invoices in XML format. This avoids consuming human resources in routine tasks, speeds up processes and reduces accounting errors. The Portuguese Public Administration, by requiring electronic invoicing from suppliers, is being a driver of innovation and debureaucratization of companies. Through a case study, in a state-owned supplier company, it is intended with this paper to present and discuss the implementation process of electronic invoicing and the associated gains. As a result, it is presented how the company has adapted to electronic invoicing, to follow the market with economic and financial information, helping in decision making for the future of the company and improving digital knowledge.

Keywords: e-government; electronic invoices; case study.

Introduction

To cope with the acceleration of the ongoing digital transformation, marked by the already dubbed Fourth Industrial Revolution (Schwab, 2016), several national organizations, had to redesign, redesign to be able to keep up with this digital change.

In the search for efficiency gains, good management and transparency in procurement processes with the State,

Community Directive 2014/55 recommends that Member States take the adoption of technologically neutral electronic invoicing compatible with international standards. On the other hand, electronic invoicing must comply with the legal requirements for the protection of personal data. Moreover, the implementation of e-invoicing should follow a 'design-based' 'data protection' approach and the application of the principles of proportionality, data minimization and purpose limitation. The

Cite this Article as: Anabela FERNANDES and Isabel FERREIRA (2022), "Electronic Invoice System as a Driver to Enhance Efficiency and Competitiveness: The Case of Tabique Engenharia Enterprise", *Journal of e-Government Studies and Best Practices*, Vol. 2022 (2022), Article ID 607448, DOI:10.5171/2022.607448

aim is to create practical, convenient, flexible and cost-effective e-invoicing systems taking into account: (i) the special needs of small and medium-sized enterprises; (ii) the needs of contracting authorities; and that it is suitable in business-to-business transactions. In compliance with European Union measures, and inserted in an e-government policy in Portugal, with the aim of making the invoicing process simpler, more efficient and flexible, the following legal diplomas were published: Decree-Law no. 123/2018 of 28 December, amended by DL no. 14-A/2020 of 7 April. These diplomas, in force since January 2021, establish new invoicing rules, making it mandatory to issue electronic invoices (FE) for companies working with public entities.

The electronic invoice is an invoice like any other, but electronically signed. This digital signature is used as an identification of the authorship of electronic documents and has the same validity as a paper signature. To be valid, it is necessary to meet the conditions required by applicable law to ensure the integrity of your content. By the end of 2021, all state and private suppliers and buyers will be issuing electronic invoices. Electronic invoicing, as a system, should provide various functionalities from integration with invoicing systems, receiving and sending digital invoices, both for customers and suppliers. These requirements are intended to ensure interoperability between systems. Throughout the research, theoretical concepts based on studies are addressed, as well as questions and doubts about the applicability of the electronic invoicing system. The aim of this article is to prove the undisputed added value of the applicability of electronic invoicing for an effective and proven increase in the company's productivity. For the conduction of this study, the case study is adopted as a research methodology, studying and understanding the organizational reality of Tabique Engenharia.

Theoretical Background

This section presents the results of the literature review on e-invoicing and its

benefits anchored on the following question: - "Is it advantageous to make e-invoicing mandatory in all public or private organisations with fixed annual costs?". The strategy adopted for literature review was based on searches conducted on websites, Google Academic through keywords such as: electronic invoices, platforms, Primavera Software Company, YET - Your Electronic Transactions and Blue-Aim (Advanced Management Information Systems), partners of computer and digital technology of Tabique Engenharia enterprise.

After the implementation of electronic invoicing, it is important to understand the difference between an electronic invoice and a PDF invoice sent via email. Electronic invoices must meet several requirements to become a valid digital document complying with legal and tax rules. With the requirement in the public sector of electronic invoicing, the PDF format is no longer valid at tax level. And in accordance with European legislation, it is not enough to email a PDF invoice to the customer since it is not a legally approved electronic invoice. The monitoring and management of electronic invoicing is supported through a platform, which manages the entire process of exchanges between the seller and the buyer; in this way, the invoice is sent and imported directly into the system.

Electronic invoicing is a commercial document like that of the physical one, converted into an electronic format, i.e., dematerialized. Electronic invoicing has the same amount as the paper invoice, if it contains the required content for any such document and meets the requirements required by law, guaranteeing the integrity of the data and authenticity.

E-invoicing in public procurement has been mandatory since the beginning of 2019 and will soon be implemented in all companies. It should be noted that, in the field of public procurement, invoices in PDF format, as well as unstructured invoices issued in PDF or Word, invoice images, in jpg, tiff or another format, will not be considered. Considering that the legislation is relatively recent, there are still some doubts. Under

Decree-Law No. 28/2019 of 15 February, which regulates the obligations related to invoice processing, the legislator aims to harmonise rules, simplify invoicing and create conditions for tax documents to be issued and stored digitally. This law has thus consolidated all the rules related to digital invoicing, making procedures less bureaucratic. On the other hand, with the publication of this law, the legislator created an important measure to fight fraud and tax evasion.

The addition to electronic invoicing in the business world, in addition to the valuable contribution to a more sustainable world, transmits an image of innovation and modernity to customers, thus gaining advantages such as:

1. Increased efficiency and administrative productivity with the elimination of manual tasks.
2. Reduction of costs with paper, inks, toner, and mailing.
3. The invoicing process becomes faster and more efficient, allowing: (i) an increase in the probability of receiving payments on time; (ii) reducing the occurrence of errors; and (iv) eliminating the undue loss of invoices..
4. Greater security and confidentiality of information.
5. Accessibility of documentation, because it allows not only to issue but also receive and consult invoices from a device with a web connection.
6. Saving physical space; there is no longer a need for the traditional paper file.
7. Environmental responsibility; contributing for the reduction of tree felling and for the reduction of CO2 emissions, making it an environmentally more responsible company.

The use of electronic invoicing implies the acquisition of a computer system that allows the issuing of invoices electronically. This system should allow the issuance and receipt of invoices, as well as signing them electronically. For a certified signature, you are required to have a digital certificate which must be renewed annually as well as the purchase of credits for issuing invoices, with an annual cost varying depending on

the number of documents issued in that period. The process of convergence and integration of systems can be complex and time consuming, and it is also necessary to empower employees for this new reality.

The electronic invoice is "(...) an invoice that has been issued, transmitted and received in a structured electronic format which enables its automatic and electronic processing", as defined in article 2 of Directive 2014/55/EU. ", This EU Directive determines the obligation of electronic invoicing in public procurement, throughout the European Union, since 2014. However, the effective implementation of these rules has been amended regarding their deadline for the implementation of electronic invoicing, as will be addressed later.

It should be noted that in the case of the mentioned Community Directive, the essential elements of an electronic invoice relate to the: (i) process and invoice identifiers, its billing period and a set of essential information on the seller, the buyer, the beneficiary, the seller's tax representative; (ii) references to the contract, the conditions of delivery as well as payment instructions, information on adjustments or charges, the items and totals of the invoice, and the breakdown of IVA.

As we said earlier, there is a new timetable for the adoption and implementation of electronic invoicing in public procurement, established according to the size and nature of public entities and economic operators that should be incorporated into the new billing system by 2020, according to the publication of Decree-Law 123/2018 of December 28. Moreover, Decree-Law No 14-A/2020 reinforces this will; the legislator mentioned that the implementation of electronic invoicing in public contracts should not be delayed, and it is highly recommended that companies voluntarily anticipate the obligation, not least because many advantages are identified in the adoption of this system.

Legal framework

Decree-Law No. 123/2018 of December 28 – Defines the governance model for the implementation of electronic invoicing in public contracts and Decree-Law No. 14-A/2020 of April 7 – Changes the deadline for implementing electronic invoicing in public procurement.

Deadlines for complying with the obligation to implement electronic invoicing:

(a) Public contracting agents shall be required to receive and process electronic invoices by 18 April 2020. Within these, the State and public institutes will have the same obligation, starting from April 18, 2019.

(b) Co-contractors (large companies) will have to adopt an electronic invoicing system by 31 March 2021 (adjustment of the fiscal calendar by the order of the Deputy Secretary of State and Tax Affairs (SEAAF - of 9 November 2020). However, for micro, and small and medium-sized enterprises, as well as for public entities, to the extent that they act as co-contractors, that deadline shall be made to 31 December 2021 (micro-enterprises), 30 June 2021 (small and medium-sized enterprises) and 31 March 2021 (public entities as co-contractors), respectively.

After this introductory framework, section 2 presents the results of the literature review on the phenomenon under study – electronic invoicing. In section 3, the results of the case study are presented: implementation of FE in the company Tabique Engenharia. Finally, section 40 presents the final considerations.

Case study - implementation of electronic invoicing in the company - Tabique Engenharia

Introduction

The study of the implications, advantages and challenges associated with the implementation of electronic invoicing in state supplier companies is made through a case study of the organizational reality of Tabique Engenharia, a company in Braga, in the northern region of Portugal. This case

study aims to demonstrate the strategies and decisions taken by the company under study, to overcome certain obstacles in the process of implementing electronic invoicing.

In this context, in the following subsection, a brief presentation of the reference company is made; in subsection 4.3, the results obtained with the case study are presented; finally, in subsection 4.4, the conclusions of the case study are presented.

The Company Tabique – Engineering

Tabique Engenharia (hereinafter referred to as TABIQUE) was founded in 1997, with the objective of developing inspection engineering services, coordination of health safety in the construction phase, quality management, environment, safety and hygiene and safety service at work for the various sectors of activity, public and private.

TABIQUE has achieved a strong impact at national level, as it is a company that employs people in all districts, with the participation of about 88 employees in 2020. The employability rate is practically equivalent in both sexes, with 96% of human resources licensed in the various branches of Engineering. The recognition of excellence of this company is also mirrored by the integrated certification of quality, environment and safety systems according to the references of ISO 9001:2015, ISO 14001:2015, ISO 4500:2018, respectively, whose certifying entity is LUSOENOR.

Tabique, regarding its commercial relationship, has been concluding contracts with companies in the corporate sector, as well as with the Portuguese state in the area of supervision and coordination of contracts. These awards have been translated into an increase in the company's invoicing by about 2/3 for the public sector, compared to the previous year, for example the TABIQUE in 2020 earned about 2,100,000.00€, namely for infrastructure in Portugal, municipal councils, school park, municipal enterprises, regional health administration and Urban Rehabilitation Institute and housing.

Digital change: electronic invoicing

TABIQUE is a company that has been presenting sustained growth from year to year. This same growth triggered the need for improvement in its billing system and dematerialization of processes, to ensure better economic performance and profitability.

As already mentioned in the previous section, TABIQUE, as a specialist company in the area of civil engineering, has been positioning itself at the national level as one of the main service providers in the area of management and supervision of works for the most diverse owners of work, both public and private. The exercise of its activity in the public sector is, in most cases, subject to public procurement procedures, thus obliging the company to follow all the procedures defined under the Public Procurement Code. In view of the obligation in the Public Sector of the implementation of the electronic invoicing, it has forced TABIQUE since it provides services in the public sector to its implementation.

Thus, TABIQUE understood with these new procedures to also optimize its resources, both logistics and human resources, which are related to invoicing/financial management. Moreover, this new measure contributes to the change in which we live both from the point of view of working conditions and from the point of view of information technology. Taking into account the certification in the scope of quality, it understood the same, extend this tool to its entire portfolio of customers, both public and private, in a perspective of dematerialization of the process associated with the invoicing of the company, thus complying with the requirements of standard 9000/2005, as well as the standard 14001 with regard to good environmental management practices.

Tabique's top management strategy involves implementing/extending electronic invoicing to all sales associated with the provision of services, since the fixed costs for the implementation of the FE for only the public sector would not be at all advantageous. Therefore TABIQUE, after

analyzing its own client portfolio, concludes that including its entire customer portfolio, about 59, in this new billing regime, would bring an optimization of resources to the company itself, taking into account the annual fixed costs that the use of electronic invoicing requires. This is the only way to make it feasible, in terms of costs, to use the digital format for all the documentary support necessary for the relationship between companies/customers/suppliers. Aware that electronic invoicing is uniquely and exclusively mandatory for the public sector, TABIQUE understood, for the reasons described above, to evaluate the advantages and disadvantages of extending this practice to all its customers, regardless of the sector to which they belong, whether public, private or corporate public.

From January 2021, TABIQUE opted for the implementation of electronic invoicing in the company with the objective of its completion at the beginning of the 2nd quarter. Tabique's strategy involves process dematerialization as well as innovation and digital development.

Conclusion

The present case study made it possible to assess the validity of the implementation of electronic invoicing in the daily life of TABIQUE. After analyzing the advantages and disadvantages of this same practice, it was verified the clear added value of its adoption as a tool that enhances greater effectiveness and efficiency in the administrative performance of the company. The sum of all the favorable points provided using this new model shows an evident upgrade in the good practices used hereafter by the entity under study.

Thus, we believe that the advantages associated with the implementation of electronic invoicing are verified in the short term, in particular with regard to cost reduction, optimization, dematerialization of processes, screening of invoices, reduction of resources associated with the billing process and improvement of environmental management. However, TABIQUE is aware that this process, while

beneficial to the company, may bring some obstacles to its implementation, as not all customers at this stage are prepared for e-invoicing. Still, TABIQUE and because it believes that this is the future, decided to incur at this initial stage an investment of around 1,000.00€.

Final considerations

The implementation of electronic invoicing is an opportunity to enhance technological innovation in organizations, which is decisive in sustainable growth, improving organization and working methods, supporting decision-making, and promoting business transparency. This new model will allow a drastic reduction of administrative errors and possible tax evasion.

As part of a process of dematerialization and digitization of business processes that TABIQUE is implementing, with the aim of improving the efficiency of your customers' interaction, as well as contributing to the sustainability goals established, it is now able to move forward with the dematerialization and automatic integration into the respective invoice systems to be issued to its customers.

In the future, it is considered that the improvement in the implementation of e-invoicing in TABIQUE will be very well accepted and supported by the entire executive board, and will therefore be implemented, with full use expected to be used by mid-April 2021. It is estimated that the total implementation of this tool will allow a growth in the efficiency of the company placing it in the reference companies when it comes to digital innovation.

In summary, the following strong bridges stand out in the implementation of this new

tool associated with billing, namely, the dematerialization of processes, the reduction of administrative costs, the traceability of documents, as well as environmental improvements.

References

- Schwab, K. (2016) A Quarta Revolução Industrial, Fórum Económico Mundial.
- Legislation:
- Diretiva Comunitária 2014/55 do Parlamento Europeu e do Conselho, de 16 de abril de 2014, relativa à faturação eletrónica nos contratos públicos (electronic invoicing in public procurement).
- Decreto-Lei 123/2018 de 28 de dezembro: define o modelo de governação para a implementação da faturação eletrónica nos contratos públicos (defines the governance model for the implementation of electronic invoicing in public procurement).
- Decreto-Lei n.º 14-A/2020, de 7 abril: altera o prazo de implementação da faturação eletrónica nos contratos públicos (modifies the deadline for the implementation of electronic invoicing in public procurement).
- Decreto-Lei n.º 28/2019, de 15 de fevereiro: procede à regulamentação das obrigações relativas ao processamento de faturas e outros documentos fiscalmente relevantes bem como das obrigações de conservação de livros, registos e respetivos documentos de suporte que recaem sobre os sujeitos passivos de IVA (regulation of obligations relating to the processing of invoices and other tax relevant documents).