

E-Invoicing: Digital Transformation for Operational Efficiency

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Abstract—This research aims to identify the benefits of E-Invoicing in improve operational efficiency and explore the challenges faced in implementation process. By understanding its aspects, it is hoped that the company be better prepared to adopt E-Invoicing and gain benefits from the transformation digital it offers. The data analysis method used in this research is the descriptive method quantitative and qualitative. A combination of quantitative and qualitative approaches is possible us to gain a comprehensive understanding of the impact of E-invoicing on operational efficiency. this research design uses a survey (questionnaire) and direct interviews. The result of analysis by SPSS 16 found that the benefit of E-Invoice has sig.Levene's Test for Equity of Variance is > 0.05 which mean the data between group A is homogeneous or same. Based on the interview with the user of E-Invoicing, the respondent inform that the method of E-Invoicing has a good impact for providing the benefit, experiences, faster of processing and more efficient because its no longer use paper anymore instead of organize by system. The research found that the analysis were match among analysis by SPSS 16 and interview the respondent, it's found that the respondents agree by applying the E-invoicing deeply give a benefit and increase the productivity in order impact the operational efficiency.

Keywords: E-Invoicing; Digital Transformation; Operational; Productivity; Efficiency

1. INTRODUCTION

Digital transformation is something that we cannot avoid, the global changing and technologies has giving massive movement to the industry to conduct the improvement. The world has experienced an unprecedented technological revolution (Tenardi & Putranti, 2020). In an increasingly advanced digital era, digital transformation and Operational efficiency is one of the key factors that determines the success of a company business. Digital transformation refers to fundamental changes in traditional patterns business implementation. Digital transformation is an ongoing process, where digital capabilities fundamentally change business processes, business models, as well relationships within and outside organizational boundaries (Borštnar & Pucihar, 2021).

Technology is an essential thing for this era, every activity that involved in a company is supported by the technology. The companies and technologies described here show how essential information systems are today (Laudon & Laudon, 2022). What makes information systems and technology so essential today? why are businesses investing so much in information systems and technologies? in the United States more than 25 million business and financial managers and 36 million professional's worker in the labor force rely on information systems to conduct businesses (Laudon & Laudon, 2022).

The use of information technology in various fields certainly helps organizations to achieve their desired goals. One of the first steps in every organization's digital transformation journey is to digitize business documents and business processes that have been digitized (Verhoef et al., 2021). Documents in a business are basically related to documents purchasing, selling, sending and receiving goods, company finances, business administration and other documents that are basically used and implemented as support for a business process. Benefits of digitalization and digitization has also been recognized by the European Commission. For example, according to the Directorate General European Commission Informatics (DG DIGIT), use of electronic invoices (invoice exchange in standard electronic format) in the public sector can make a significant contribution towards economic prosperity (Connecting Europe Facility Stakeholder Management Office., 2019).

Operational efficiency not only impacts cost reduction and increasing productivity, but also playing an important role in increasing competitiveness companies in an increasingly competitive market. Effectiveness indicators that include accuracy of use includes what has been determined in use, which has been in accordance with previous expectations related to the process. Managing information is crucial for the efficiency and competitiveness of the business supply chain. Structured strategic and transactional data of businesses must flow consistently among supply chain partners for a healthy and competent supply chain (Tiwari et al., 2023). In this case, indicators this effectiveness ensures that the process has run effectively and in accordance with the stated objectives (Sulistiyowati et al., 2020). The most profit significant include business process automation, faster invoice processing, faster delivery of invoices, increased business effectiveness, and process monitoring better business (Bojanc et al., 2024). E-Invoices can be handled and processed automatically more efficient compared to paper invoices (Bellon et al., 2022).

After the introduction of mandatory use of E-Invoices among companies and public sector, various stakeholders expect that widespread use of E-Invoicing will easily extend to transactions between businesses. The company that issuing E-Invoices for the public sector has a software solution that appropriate to prepare and issue E-Invoices, as well as their employees have acquired the skills and competencies necessary to carry out procedures (Bojanc et al., 2024).

E-Invoicing is a digital system for creating, sending, receiving, and store invoices electronically, replacing traditional based methods paper. With E-Invoicing, companies can automate the invoicing process, reducing costs human error, and speed up payment completion times. Implementation of E-Invoicing has been proven to provide a variety of benefits, including cost savings administration, increased data accuracy, and better cash flow management. Wrong One technology that can support operational transformation is E-Invoicing or E-Invoice. E-Invoicing and e-payment are mandatory to adapt to the model digital business in the era of industrial revolution 4.0 (Putra Hrp et al., 2023). E-Invoice must be capable generate invoices and their associated records in XML format or PDF/A-3 format (with embedded XML) in accordance with the requirements of the Electronic Invoice format (Governor of Saudi Arabia Article, 2022).

The phenomenon of using E-Invoices has become global and recent experiencing increasing adoption by governments, organizations and large companies medium and large (Olaleye et al., 2023). However, despite the benefits of E-Invoicing already clearly, many companies are still hesitant to adopt this technology. Obstacle, technical issues, initial implementation costs, and resistance to change are some challenges frequently faced. The inclusion of value creation implies that Companies should focus on practical relationships between socio-cultural resources available in the market space called everyday life (Oskar Korkman et al., 2010). Therefore, it is important to understand how E-Invoicing can be implemented effectively and how this technology can bring significant digital transformation in company operations.

In Indonesia, the electronic transaction in stated on government regulation of “Undang-Undang Nomor 11 Tahun 2008 Tentang ITE Pasal 17”. On the regulation inform that electronic transaction organizers can operate within either public or private sectors. In the other hand the information of electronic transactions is in conjunction with Article 11 of the ITE Law, which governs Electronic Signatures, these signatures hold valid legal authority (Pemerintah Indonesia, 2008).

PT. XYZ is a company that levelling in tier 1 of automotive company that produce car and supplying by so many suppliers for continuing their business. Same as PT XYZ, PT. ABC is an international company which operates in the automotive manufacturing sector located in the Greenland Region International Industrial Center (GIIC) which will be in 2024 implementing E-Invoicing as one of the methods used in the process billing an invoice to one of its customers, namely PT. XYZ.

Currently the invoicing implementation process is carried out by PT. ABC, where every time the billing process is carried out, it will be printed, and the signature also includes manual addition of the stamp which is then finalized the invoice is sent to the customer to check and confirm. With This manual method, of course, costs a lot of money, time and energy so it was felt that this was no longer effective to do. The background of PT. ABC implement E-Invoicing is about to implement paperless policy which one of the target to eliminate invoice paper submission and in line with the background of government regulation (Undang-Undang Republik Indonesia Nomor 11 Tahun 2008 about ITE, Improve invoice data verification by improve accuracy and lead time for invoice submission, reduce expense cost for paper usage, ink, document courier or transport and go green environment.

This research aims to identify the benefits of E-Invoicing in improve operational efficiency and explore the challenges faced in implementation process. By understanding these aspects, it is hoped that the company can be better prepared to adopt E-Invoicing and gain benefits from the transformation digital it offers. By having E-Invoice management system can assist in reducing the risk of problems recording invoice, and by using technology the process of recording to producing report can be streamlined with an information system that can connect interested parties in this topic (Diantoro et al., 2023).

Through this study, it is hoped that supporting empirical evidence can be found the advantages of E-Invoicing as well as providing practical guidance for companies who want to switch to an electronic invoicing system. Apart from that, this research will also provide insight into future trends and developments in E-Invoicing technology, as well its impact on international regulations and standards.

2. RESEARCH METHODS

2.1 Basic Research Framework

The data analysis method used in this research is the descriptive method of quantitative and qualitative. Mixed methods research has gained traction alongside the growing popularity of qualitative methods. As researchers have come to value qualitative approaches more, they have been encouraged to combine both quantitative and qualitative methods to enhance their understanding of the phenomenon (Setiawan et al., 2022). A combination of quantitative and qualitative method approaches is possible us to gain a comprehensive understanding of the impact of E-invoicing on operational efficiency.

Our reserach aimed to investigate E-Invoicing adoption for business operational. The population for this study is PT. ABC, a company that has implemented E-Invoice as part of its efficiency measures. The study focuses on the sales and finance departments, which are involved in the E-Invoicing process. The study's population consisted of 18 individuals, all of whom were chosen to participate in the research.

This study focuses on gathering data, making the data collection method a critical part of the research. Collecting data is a key step in the research process, as the primary goal of the study is to acquire relevant information (Ramdhan, 2021). The primary data for this study were collected through a survey (questionnaire) by distributing research instruments

to the person in charge (PIC) of E-invoice in both the sales department and finance departments at PT ABC. Meanwhile, the secondary data were gathered by the researchers from prior literature reviews and other relevant sources, including books, journals, and websites offering investment information.

Overall, the research method was design to know answer the questions of the research. In its preparation, comprehensive and accurate data and information are required to ensure that the data collected aligns with the identified issues. The research design is as follows:

1. Based on the research objectives, the design aims to evaluate the benefits and challenges of E-Invoice implementation.
2. From a methodological perspective, the research utilizes surveys (questionnaires) and direct interviews.
3. Regarding the type of data analyzed, the study employs both quantitative and qualitative descriptive analysis.

The required information includes a general overview of the company and an explanation of the E-Invoice implementation based on prior research. Understanding these two aspects will help identify the necessary parameters for analyzing the E-Invoice in relation to Digital Transformation for Operational Efficiency.

In the analysis phase, data analysis was conducted using qualitative and quantitative approaches. The collected data was then transferred to SPSS 16 software to perform frequency analysis and descriptive statistics to calculate the proportion of use of various E-Invoicing categories., to perform evaluation of validity, reliability and normality. The information of analysis data using SPSS 16 is as follow:

1. Validity test

Validity testing is carried out by using the Bivariate Person (Moment Product Person) test. The validity test is carried out by correlating each item score with the total score of the existing instrument. Two-tailed test examiners with a significance level of 0.05 have testing criteria: if $r_{count} > r_{table}$ (two-sided test with a significance of 0.05). The instrument or question item correlates significantly with the total score declared valid. If $r_{count} < r_{table}$ (two-tailed test with a significance of 0.05), the instrument or question item correlated with significance to the total score is declared invalid (Sugiarta et al., 2023).

2. Reliability test

The reliability test determines the extent to which the measurement results will remain consistent or basic if the measurement is carried out twice or more for the same symptoms using the same measuring instrument. Reliability calculations should be performed only on questions that already have validity. The test results using Cronbach's alpha with a questionnaire measuring tool are reliable if Cronbach's alpha value is greater than or equal to (0.70) (Sugiarta et al., 2023).

3. Normality test

Normality testing starts by drawing hypothesis where a null statement, assuming that the studied data is not statistically different than normal versus an alternate statement that the normal distribution and the data are not compatible (Hatem et al., 2022).

4. T-test

The t-test belongs to the parametric method. It aims to determine the significant impact gained from the average difference in the two compared data. This test can be used when the sample satisfies the conditions of measured values on an interval scale or ratio scale, simple random extraction, homogeneity of variance, normality data distribution, and appropriate sample size. The t-test can be used although the samples are extremely small ($n \leq 5$). In the calculation, the t-test analysis is divided into two types: independent and paired t-test, depending on the type of dependency of the data. Both types of t-tests can be analyzed using manual or computational analysis (Nandiyanto & Hofifah, 2024).

The result of the analysis is providing by descriptive method. Next, a one-sample t-test was conducted to assess the importance (using a 5-point Likert scale, where 1 is "not important at all" and 5 is "very important") of identified advantages, barriers, and incentives for e-invoicing usage. If the mean value of a variable was not significantly lower than 4, with a 95% confidence level, the variable was considered important. After determining which benefit and productivity were significant for organizations adopting e-invoicing, an independent sample t-test was performed to identify any statistically significant differences in important benefit and productivity between organizations with varying levels of e-invoicing usage. After evaluating the key benefits and challenges organizations face in adopting E-Invoicing, the researcher performed an independent sample t-test to determine if there are statistically significant differences in the importance of these benefits and challenges between organizations with low and high levels of E-Invoicing adoption. The researcher also conduct an interview to conform and adding the evidence of the research.

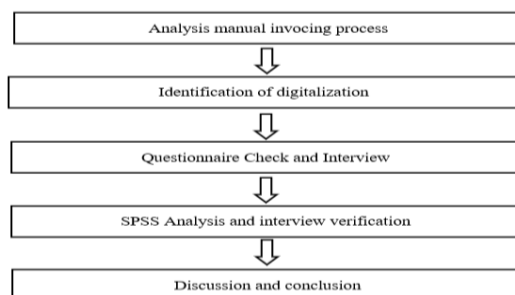


Figure 1. Research Framework

Following figure is the scheme of the research starting from the analysis of the root cause of manual invoicing as the first step of implement digitalization of E-Invoicing until the analysis by SPSS to find the conclusion and complete with the suggestion.

To analyse the development of how the company of PT ABC conducting a fullset invoice by E-Invoice, we should now how it is impacted to the performance of the employee (especially the effective of productivity). The literature of the study is necessary to know the current situation and a questionnaire was prepared in cooperation between the method of manual invoicing and the digitalization of invoicing. The questionnaire was prepared based on a literature review and the participation of the research in the field of the related job of digitalization and transformation that coming from Sales and finance department.

2.2 Operational Variable

Based on the basic research framework in the previous section, this study is to investigate the effectiveness of implemmentation of E-Invoicing adoption for business operational. The effectiveness is divide into two variable which mean the benefit of E-Invoicing and the productivity as an impact to the employee as the person incharge of this process E-Invoicing. The characteristic operational variable on this research is following below table.

Table 1. Operational Definition of The Research Variable

Information	Indicator	Scale
Benefit of E-Invoicing	Business Process Automation	Likert
	Speed In Invoicing process	
	Convenience in Sending Fullset Invoices	
	Speed In Delivery of Fullset Invoice	
Productivity	Business Process Automation	Likert
	Improvement in Business Effectiveness	
	Reduction in Work Time	
	Cost Reduction	
	Minimizing Errors	
	Improvement in Cash Flow	

Recent literature clearly outlines many potential benefits of e-invoicing compared to paper on manual invoicing, both for the economy and society due to increased efficiency and simplicity and for the environment due to reduced paper consumption and CO2 emissions (Bojanc et al., 2024). The E-Invoicing can be handled and processed more efficiently than paper invoices (Bellon et al., 2022).

3. RESULTS AND DISCUSSION

3.1 Characteristics of Respondents

Characteristic of respondents on this result is based on the distribution questionnaire to every person that in charge in the process of invoicing at PT. ABC. The profile of respondents in this research can be explained in the table 2 as following:

Table 2. Characteristics of Respondents

Characteristics	Quality	Percentage (%)
Gender		
Male	3	17.00
Female	15	83.00
Job Level		
Staff	13	72.00
Leader	4	22.00
Supervisor	1	13.00

The information of the table 2 has informed that the most respondents are gender Female, namely 15 people or 83% and respondents of all genders 3 men or 17%. Meanwhile, who work at level staff is 13 people or 72%, as many respondents working at leader level 4 people or 22% and 1 respondent working at supervisory level or 13%. Following up table above, it mean that the distribution of the user on this research is variatif and could be get more interested result of the questionnaire,

3.2 Validity and Reliability Test

Test of validity and reliability is a test that shows the extent of the accuracy and accuracy of a measuring instrument in carrying out its measurement function. This test is done by correlating the score of the item with the total score of the variable. By using SPSS 16 tools, researchers can find out that the questionnaire is valid or invalid.

3.2.1 Validity Test

In table 3 below it is the results of testing the validity of each questionnaire item are grouped based on variables testing which mean the benefit of E-Invoicing and productivity.

Table 3. Result Validity Test

Variable	Item	Pearson Correlation
Benefit of E-Invoicing	Business Process Automation	0.641
	Speed In Invoicing process	0.809
	Convenience in Sending Fullset Invoices	0.543
	Speed In Delivery of Fullset Invoice	0.576
	Improvement in Business Effectiveness	0.747
Productivity	Reduction in Work Time	0.825
	Cost Reduction	0.781
	Minimizing Errors	0.845
	Improvement in Cash Flow	0.737

The validity test results refers to table 3 show that 2 variable with 9 items the statement of the benefits of using E-Invoice is declared valid because it has a value r calculate 0.468. So the validity test of the item variable confirming as a valid data.

3.2.2 Reliability Test

In table 4 below it is the results of testing the reliability of variables testing which mean the benefit of E-Invoicing and productivity.

Table 4. Result Reliability Test

Variable	Cronbach's Alpha
Benefit of E-Invoicing	0.691
Productivity	0.840

The reliability test results refer to table 4 show for 2 variables is stated to be reliable because it has value > 0.6 and its mean that the consistency and dependability of the research could be continue to the next process and stated have a good reliability.

3.3 Normality Test

Testing the normality of the data in this research uses Kolmogorov Smirnov contained in SPSS 16 software . Testing data normality, resulting in the following results:

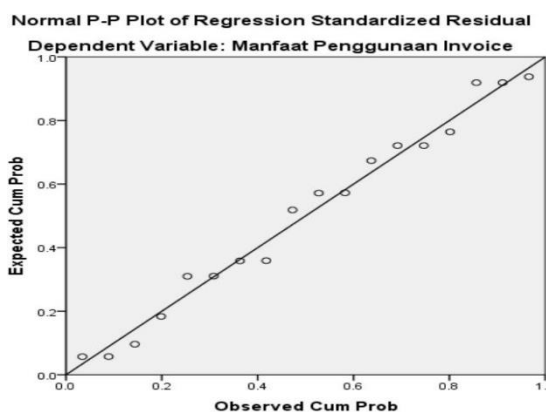


Figure 1. Normality test

From the figure 1, the observation values of the residuals are standardized spread around the diagonal line and follow the direction of the diagonal line so that it can it was concluded that the assumption of normally distributed data was met.

3.4 T-Test

The t test was carried out to determine variables that had a significant effect partial analysis is carried out by testing the regression coefficient using test statistics t. Determining test results can be done by comparing t_{count} with t_{table} and can be seen from its significance value.

To analyze the importance of the benefits of using E-Invoice and the obstacles for adoption, researchers conducted a one-sample t test to test statistical significance of importance (test value 4 – which means importance on a 5-point Likert scale) for each defined variable. With the one sample t test, the researcher tests whether the value variable means

are statistically significantly different (at the 95% confidence level) and lower than a value of 4 as a specified criterion for interest in 5-point Likert scale (Bojanc et al., 2024).

Partial test results with the help of SPSS software on the benefit t-test The use of E-Invoice of variable benefits of E-Invoicing is as follows.

Table 5. Result T-test of Benefit of E-Invoicing

Variable	Levene’s Test for Equality of Variance	95% Confidence Interval of the Difference	
		Lower	Upper
Benefit of E-Invoicing	0.8041	-0.440	3.329

Based on the SPSS test data above, the sig. Levene's Test for Equity of Variances is $0.804 > 0.05$, which means it can be concluded that the data between groups A and B is homogeneous or the same. So the interpretation of the table, the output of the independent samples test above is based on the values contained in the table "Equal variance assumed". The t test for the excess use of E-Invoices confirmed that organizations through implementers who use E-invoice as one of the work methods consider all the advantages investigated as important statistics. Advantages of using E-Invoices that are considered important (in order ratings) are: ease of sending invoices, speed of delivery full set invoice, speed in the invoicing process and automation of business processes. Partial test results with the help of SPSS 16 software in the t-test the productivity of using E-Invoice of productivity is as follows.

Table 6. Result T-test of Productivity of Using E-Invoice

Variable	Levene’s Test for Equality of Variance	95% Confidence Interval of the Difference	
		Lower	Upper
Productivity	0.4572	0.727	6.385

Based on the SPSS 16 test data above, the sig. Levene's Test for Equity of Variances is $0.457 > 0.05$, which means it can be concluded that the data between groups A and B is homogeneous or the same. So the interpretation of the table, the output of the independent samples test above is based on the values contained in the table "Equal variance assumed". The t test for productivity of E-Invoice usage confirms that the organization through implementers who use E-invoice as one of the work methods consider all the advantages investigated as important statistics. Advantages of using E-Invoices that are considered important (in order ranking) are: improvement in business effectiveness, cost reduction, reduction in processing time, improvement in cash flow and finance, Minimize mistakes or errors.

3.5 Discussion

The benefit of E-Invoicing and productivity already follow the criteria of testing by SPSS 16 for the test of validity, reliability and T-test. It’s shown that the respondent that included in this research has been agree if implement the E-invoicing give the benefit and impact of the productivity. The reason why its give the benefit is this implementation give more knowledge and experience. In the other hand, this implementation has new opportunities for the colleagues to improve and contribute to the management of the company by conducting continuous improvement for cost effectiveness and effectiveness productivity.

Based on the results of research conducted, as a new company carry out E-Invoice activities as a means of the E-Invoicing process. PT ABC agrees that these changes have provided deep benefits E-Invoicing process. Based on interviews conducted together with the document team (Domestic and Export Document Sales Leader) confirmed that the E-Invoice was implemented at PT ABC needs to continue to be developed and is still in process monitoring, however, digitalization of the E-Invoicing process has certainly provided benefits and new experiences for her. Other interviews were also conducted with representatives According to him, the implementation of E-Invoice can be carried out in finance (Accounting leader) is an example of the digitalization process where this can help the process Invoicing is faster and more efficient because it no longer uses paper part of the billing process. This result of the study has similarity with the research that conducting by (Amalina & Suryani, 2020) that the format of E-Invoicing of information quality and system quality give significant impact on user satisfaction, while user satisfaction gives significant impact on intention to use and net benefits. The user impressed by the benefit after they gain the satisfaction after using E-Invoice. However, it is recommended that the company or cooperation to try to implement the E-Invoicing. In line with the results of interviews and surveys conducted, most respondents agree that the digitization of E-invoices has had an important impact on implementation so that it can be concluded that the Likert scale for the benefit variable The use of e-invoice is as follows:

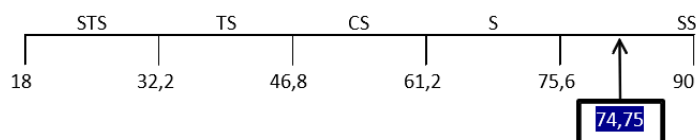


Figure 2. Bar Scale Regarding the Benefits of Using E-Invoices

The figure 2 shows that the benefits of using E-Invoice have an impact positive and is in the scale range between 61.2 – 75.6, which means it is at criteria Agree. Thus, it can be concluded that, E-Invoice users on PT ABC agrees with

system changes or digitalization in the E-Invoicing process has positive benefits. Same as Benefits of Using E-invoices, Likert scale for productivity in using E-Invoices also has conducting the test as follows:

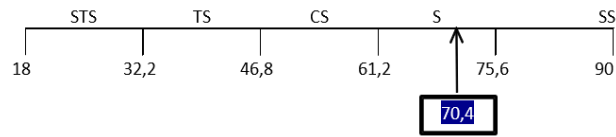


Figure 3. Bar Scale Regarding the Productivity Using E-Invoice

Figure 3 shows that the productivity of using E-Invoice has positive impact and is in the scale range between 62.2 – 75.6, which means it is on the Agree criteria. Thus, it can be concluded that, E-Invoice users PT ABC agrees if there are system changes or digitalization in processes can increase work productivity at PT ABC.

E-Invoice minimizes the need for manual tasks such as data entry, validation, and reconciliation, saving both time and resources for the sender and recipient. It eliminates the repetitive tasks involved in invoice processing, like printing, sending, scanning, filing, and storing, which enhances employee satisfaction, productivity, and reduces labor costs and errors. E-Invoice is a significant driver of digitalization and sustainable development for businesses and the economy. By adopting E-Invoice, companies can boost efficiency, profitability, customer satisfaction, and reduce environmental impact, leading to not only more profitable but also more sustainable operations.

Despite these advantages and productivity gains, interviews with the sales team of OEM Sales Assistant revealed several challenges that implementers must address during E-Invoice implementation, including:

1. Internal challenges, as adopting a new system requires time for employees to learn and adapt.
2. In the initial phase, close coordination with the legal, general affairs, and document teams is necessary to ensure the feasibility of E-Invoice implementation at PT Maxxis International Indonesia.
3. Concerns about the use of E-Stamp, which is crucial for validating invoices with a value exceeding 5 million rupiah.
4. Data security concerns, as the transmission of sensitive financial data electronically raises issues of data privacy and security that companies must manage effectively.

The other research that conducting by (Bojanc et al., 2024) has informed that the organizations recognize the benefits of e-invoicing well and perceive them as important. The most important barriers to e-invoicing adoption are related to the business environment, unawareness and lack of knowledge about how to implement e-invoicing. Desired incentives for wider e-invoicing adoption are related to easier and lower costs of technical implementation, provided training and education, including best practices, as well as the availability of government grants and other support measures on the state level, including legislation, public directory of business entities using electronic document exchange and service providers.

4. CONCLUSION

In this paper we aimed to investigate E-Invoicing adoption for business operational. Based on test data conducted for the benefits of using E-Invoice and productivity in using E-Invoice has a sig value. Levene's Test for Equity of Variances are greater than 0.05, which means it is concluded that the data is between groups A and B are homogeneous or the same. The likert scale in tests carried out for the benefits of using E-Invoice and productivity in using E-Invoices is in the scale range between 61.2 – 75.6 meaning it is in the Agree criteria. Based on qualitative tests through interviews with representatives of E-invoice implementers at PT. ABC stated that the use of E-Invoice This is a good first step and can continue to be developed consider several challenges that also need to be taken into consideration and in monitoring during the implementation process. In the other hand, the implementation of E-Invoicing has good impact and the information coming from the user of the Invoicing, the first respondents informed that the E-Invoice was implemented at PT ABC needs to continue to be developed and is still in process monitoring, however, digitalization of the E-Invoicing process has certainly provided benefits and new experiences for her. The second respondent informed that the process Invoicing is faster and more efficient because it no longer uses paper part of the billing process. The third respondent has some concern that need more attention while using E-Invoicing likes internal challenges, initial phase of digitalization, and data security. This study might not be complete and need more data to find the real impact of invoice implementation. However, we suggest for the next researcher could conduct the study not only the benefit and productivity of impelement E-Invoicing but also some item for example: barriers and incentives for E-Invoicing implementation. To ensure the data using more tooling analysis for example Partial Least Square (PLS) and the measurement could adding the R-Square test and compare it as implication.

REFERENCES

- Amalina, D., & Suryani, E. (2020). Reference Evaluating the Success of E-Invoice Implementation at a state-owned. The 1st International Conference on Business and Engineering Management.
- Bellon, M., Dabla-Norris, E., Khalid, S., & Lima, F. (2022). Digitalization to improve tax compliance: Evidence from VAT e-Invoicing in Peru. *Journal of Public Economics*, 210. <https://doi.org/10.1016/j.jpubeco.2022.104661>
- Bojanc, R., 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>



- Borštnar, M. K., & Pucihar, A. (2021). Multi-Attribute Assessment of Digital Maturity of SMEs. <https://doi.org/10.3390/electronics>
- Connecting Europe Facility Stakeholder Management Office. (2019). D05.01 eInvoicing Benefits' Analysis.
- Diantoro, K., Rohman, A., & Sitorus, A. T. (2023). Optimizing Invoice Management: A Case Study of PT. Madina Mitra Teknik's Transition to a Laravel-Based Information System. In *Digitus : Journal of Computer Science Applications*.
- Governor of Saudi Arabia Article. (2022). Controls, Requirements, Technical Specifications and Procedural Rules for Implementing the Provisions of the E-Invoicing Regulation based on the decision of His Excellency the Governor-Decision No. (62738) dated 23/11/1443 H First: Scope of the application. https://zatca.gov.sa/en/E-Invoicing/Introduction/LawsAndRegulations/Documents/E-Invoicing%20Implementation%20Resolution_EN.pdf
- Hatem, G., Zeidan, J., Goossens, M., & Moreira, C. (2022). NORMALITY TESTING METHODS AND THE IMPORTANCE OF SKEWNESS AND KURTOSIS IN STATISTICAL ANALYSIS. *BAU Journal - Science and Technology*, 3(2). <https://doi.org/10.54729/ktpe9512>
- Laudon, K. C. ., & Laudon, J. P. . (2022). *Management information systems : managing the digital firm*. Pearson Education Limited.
- Nandiyanto, A. B. D., & Hofifah, S. N. (2024). How to conduct paired-t-test SPSS: comprehension in adsorption with bibliometric. *International Journal of Evaluation and Research in Education* , 13(1), 151–158. <https://doi.org/10.11591/ijere.v13i1.27541>
- Olaleye, S. A., Sanusi, I. T., Dada, O. A., & Agbo, F. J. (2023). A bibliometric review of global visibility, impact and adoption of electronic invoicing: The past and the future. In *Heliyon* (Vol. 9, Issue 3). Elsevier Ltd. <https://doi.org/10.1016/j.heliyon.2023.e13726>
- Oskar Korkman, Kaj Stobacka, & Bo Harald. (2010). Practices as Markets: Value Co-Creation in E-Invoicing. *Australian Marketing Journal*, 18(4).
- Pemerintah Indonesia. (2008). Undang-Undang Informasi dan Transaksi Elektronik asal 17 UU No 11.
- Putra Hrp, A., Harahap, M., & Muda, I. (2023). EXPENDITURE CYCLE: E-INVOICING AND E-PAYMENT TO SAVE TRANSACTION COSTS AND INCREASE THE NUMBER OF CUSTOMERS IN THE MANUFACTURING INDUSTRY. In *RUSSIAN LAW JOURNAL: Vol. XI* (Issue 6).
- Ramdhan, M. (2021). *Metode Penelitian* (A. A. Effendy, Ed.). Cipta Media Nusantara (CMN).
- Setiawan, J., Damanik, D., Saloom, G., & Banne, S. (2022). *Metodologi Penelitian Kuantitatif, Kualitatif dan Kombinasi*. <https://www.researchgate.net/publication/363094958>
- Sugiarta, R. D., Arofiati, F., & Rosa, E. M. (2023). Validity and Reliability of Research Instruments on the Effect of Motivation on Nurse Performance in Moderation with Nurse Credentials. *JMMR (Jurnal Medicoeticolegal Dan Manajemen Rumah Sakit)*, 12(1). <https://doi.org/10.18196/jmmr.v12i1.6>
- Sulistyowati, N., Amah, N., & Styaningrum, F. (2020). The Effectiveness Application of E-Invoice VAT to The Taxable Entrepreneurs in KPP Pratama Madiun. *Profita: Komunikasi Ilmiah Akuntansi Dan Perpajakan*, 13(3), 321–334. <https://doi.org/10.22441/profita.2021.v13i3.002>
- Tenardi, R., & Putranti, T. M. (2020). Administration Of E-Invoicing Value Added Tax (Comparative Study between Indonesia and Australia). <http://jurnal.unpad.ac.id/jmppCorrespondence>
- Tiwari, A. K., Marak, Z. R., Paul, J., & Deshpande, A. P. (2023). Determinants of electronic invoicing technology adoption: Toward managing business information system transformation. *Journal of Innovation and Knowledge*, 8(3). <https://doi.org/10.1016/j.jik.2023.100366>
- Verhoef, P. C., Broekhuizen, T. , Bart, Y. , Bhattacharya, A., Qi Dong, J. , Fabian, N. , & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122(July 18), 889–901.