

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge or permission. The thesis cannot be reproduced or quoted as a whole without permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



**CHALLENGES IN ADOPTION OF E-INVOICING IN  
NORTHERN SMES IN MALAYSIA**

**NOOR DASRUBEENA SHUKRIA BINTI ABDUL SHUKUR**



**MASTER OF SCIENCE  
(INTERNATIONAL ACCOUNTING)  
UNIVERSITI UTARA MALAYSIA  
MARCH 2025**

**CHALLENGES IN ADOPTION OF E-INVOICING IN  
NORTHERN SMES IN MALAYSIA**

**By:  
NOOR DASRUBEENA SHUKRIA  
BINTI ABDUL SHUKUR**



**Thesis Submitted to  
Tunku Puteri Intan Safinaz School of Accountancy  
Universiti Utara Malaysia  
In Partial Fulfilment of the Requirement for the Master of Science  
(International Accounting)**



**Kolej Perniagaan**  
(College of Business)  
**Universiti Utara Malaysia**

**PERAKUAN KERJA DISERTASI/KERTAS PENYELIDIKAN/KERTAS PROJEK**  
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa  
(We, the undersigned, certify that)

**NOOR DASRUBEENA SHUKRIA BINTI ABDUL SHUKUR@HARJINDER (833174)**

calon untuk Ijazah **MASTER OF SCIENCE (INTERNATIONAL ACCOUNTING)**  
(candidate for the degree of)

telah mengemukakan tesis / disertasi yang bertajuk:  
(has presented his/her thesis / dissertation of the following title):

**CHALLENGES IN ADOPTION OF E-INVOICING IN NORTHERN SMES IN MALAYSIA**

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.  
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada:

(That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:

Pengerusi Viva :  
(Chairman for Viva)

Tandatangan  
(Signature)

Pemeriksa Dalam :  
(Internal Examiner)

**PROF. MADYA DR. MARHAIZA IBRAHIM**

Tandatangan  
(Signature)

Tarikh: **29 MEI 2025**  
(Date)

Nama Pelajar  
(Name of Student)

: **NOOR DASRUBEENA SHUKRIA BINTI ABDUL SHUKUR@HARJINDER  
(833174)**

---

Tajuk Tesis / Disertasi  
(Title of the Thesis / Dissertation)

: **CHALLENGES IN ADOPTION OF E-INVOICING IN NORTHERN SMES IN  
MALAYSIA**

---

Program Pengajian  
(Programme of Study)

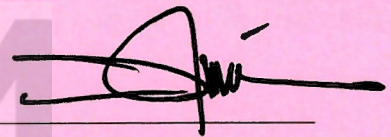
: **M20D – MASTER OF SCIENCE (INTERNATIONAL ACCOUNTING)**

---

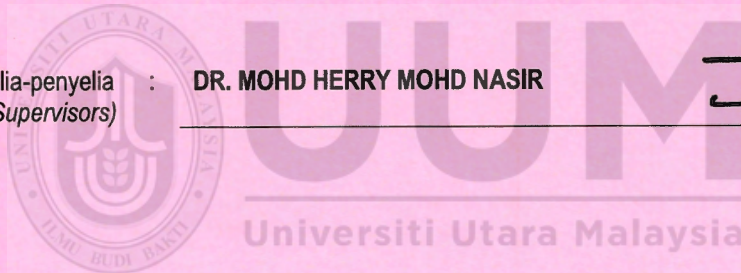
Nama Penyelia/Penyelia-penyelia  
(Name of Supervisor/Supervisors)

: **DR. MOHD HERRY MOHD NASIR**

---



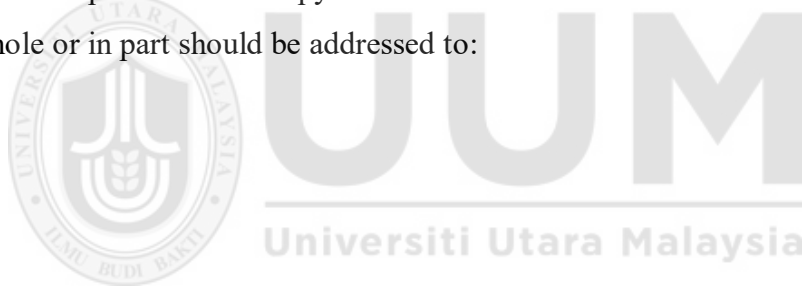
Tandatangan



## **PERMISSION TO USE**

In presenting this project paper in partial fulfillment of the requirements for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the library of this university may make it freely available for inspection. I further agree that permission for copying this project paper in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or, in their absence, by the Dean of Tunku Puteri Intan Safinaz School of Accountancy (TISSA) where I did my project paper. It is understood that any copying or publication or use of this project paper or parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and the UUM for any scholarly use which may be made of any material in my project paper.

Request for permission to copy or to make other use of materials in this project paper in whole or in part should be addressed to:



Dean of Tunku Puteri Intan Safinaz School of Accountancy

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman

## ABSTRACT

Small and medium-sized businesses (SMEs) in Malaysia are crucial to the nation's economy, making up more than a third of the GDP. However, they face significant challenges because they need to start using electronic invoicing (e-invoicing) by 2027. This requirement is particularly difficult for businesses in Northern Malaysia. While e-invoicing can improve tax compliance, efficiency, and business transparency, many SMEs find it hard to adopt due to a lack of understanding. Research has identified several hurdles that SMEs encounter in adopting e-invoicing. These include financial issues, regulatory complexities, technological readiness, human resistance, and perceptions of complexity. To gather insights, a survey collected data from SME owners, financial officers, and accountants from regions such as Kedah, Perlis, and Penang. The study highlights those insufficient financial resources, confusion regarding regulations, limited access to IT infrastructure, and resistance to change are significant barriers. Moreover, many SMEs perceive e-invoicing as complicated and hard to integrate, which slows down its adoption. On the other hand, when SMEs are technologically prepared and view e-invoicing as beneficial and user-friendly, they are more inclined to adopt it. For successful implementation of e-invoicing, comprehensive support is needed. This includes government incentives, improvements in digital infrastructure, training programs, and simplified regulatory guidelines. These findings offer valuable insights for policymakers, tax authorities, software providers, and SME owners, seeking to facilitate digital transformation and ensure smooth compliance with Malaysia's e-invoicing mandate.

Universiti Utara Malaysia

**Keywords:** E-Invoicing; Small and Medium-Sized Enterprises; Regulatory Compliance; Technology Adoption; Digital Transformation

## ABSTRAK

Perusahaan kecil dan sederhana (PKS) di Malaysia merupakan tunjang penting kepada ekonomi negara, menyumbang lebih daripada satu pertiga kepada Keluaran Dalam Negara Kasar (KDNK). Namun, PKS kini berdepan cabaran besar apabila kerajaan mewajibkan penggunaan sistem e-invoicing menjelang tahun 2027. Keperluan ini ternyata lebih mencabar bagi perniagaan yang beroperasi di wilayah Utara Malaysia. Walaupun sistem e-invoicing dapat meningkatkan pematuhan cukai, kecekapan operasi dan ketelusan perniagaan, ramai usahawan PKS masih bergelut untuk memahami dan menyesuaikan diri dengan perubahan ini. Hasil kajian mendapati beberapa halangan utama yang menghambat proses pelaksanaan e-invoicing dalam kalangan PKS. Antaranya termasuk isu kewangan, peraturan yang kompleks, tahap kesediaan teknologi yang rendah, penolakan daripada aspek sumber manusia serta persepsi bahawa sistem ini rumit dan sukar diguna pakai. Bagi mendapatkan gambaran yang lebih jelas, kaji selidik telah dijalankan melibatkan pemilik perniagaan, pegawai kewangan dan akauntan dari negeri Kedah, Perlis dan Pulau Pinang. Dapatan menunjukkan bahawa kekurangan sumber kewangan, kekeliruan terhadap garis panduan peraturan, kekangan akses kepada infrastruktur teknologi maklumat, dan keengganan menerima perubahan menjadi antara punca utama kelewatan dalam pematuhan. Malah, ramai yang melihat sistem e-invoicing sebagai sukar untuk diintegrasikan ke dalam operasi sedia ada. Sebaliknya, PKS yang lebih bersedia dari segi teknologi dan mempunyai pandangan positif terhadap kemudahan dan manfaat sistem ini menunjukkan kecenderungan lebih tinggi untuk melaksanakannya. Justeru, bagi memastikan pelaksanaan e-invoicing berjaya, sokongan menyeluruh amat diperlukan termasuk insentif daripada kerajaan, penambahbaikan infrastruktur digital, program latihan khusus, serta penyediaan garis panduan yang lebih jelas dan mudah difahami. Penemuan ini memberi panduan penting kepada pembuat dasar, pihak berkuasa cukai, pembangun perisian, serta komuniti PKS dalam mempercepatkan transformasi digital dan memastikan pematuhan yang lancar terhadap dasar negara.

**Kata kunci:** *E-Invoicing*; Perusahaan Kecil dan Sederhana; Pematuhan Peraturan; Penerimaan Teknologi; Transformasi Digital

## ACKNOWLEDGEMENT

First and foremost, I would like to express my deepest gratitude to Allah SWT for granting me the strength, patience, and perseverance to complete this project paper. Without His guidance and blessings, this accomplishment would not have been possible.

I would like to extend my heartfelt appreciation to my supervisor, Dr. Mohd Herry bin Mohd Nasir, for his valuable guidance, constructive feedback, and continuous encouragement throughout the preparation of this paper. His expertise and support have been instrumental in shaping the direction of my work.

My sincere thanks also go to all lecturers and academic staff at Universiti Utara Malaysia (UUM) for their dedication, academic support, and the knowledge they have imparted throughout my studies.

Special appreciation is extended to the SME owners, managers, and staff in Kedah, Perlis, and Penang who participated in this study and generously shared their time and insights.

To my beloved family especially my parents for their unconditional love, prayers, and unwavering support, I am forever thankful. To my precious children, Sumaiyah, Luqman, and Adriana thank you for being my greatest source of strength and inspiration. Your love, patience, and understanding have kept me going through every challenge.

Lastly, I would like to thank my friends and classmates for their constant encouragement, thoughtful discussions, and moral support throughout this academic pursuit.

Thank you all for being part of this meaningful journey.

## Table of Contents

<b>PERMISSION TO USE .....</b>	<b>ii</b>
<b>ABSTRACT .....</b>	<b>iii</b>
<b>ABSTRAK .....</b>	<b>iv</b>
<b>ACKNOWLEDGEMENT .....</b>	<b>v</b>
<b>Table of Contents.....</b>	<b>vi</b>
<b>LIST OF TABLES.....</b>	<b>xi</b>
<b>LIST OF FIGURES.....</b>	<b>xii</b>
<b>LIST OF ABBREVIATIONS.....</b>	<b>xiii</b>
<b>CHAPTER 1 INTRODUCTION.....</b>	<b>1</b>
<b>1.0 Introduction.....</b>	<b>1</b>
<b>1.1 Background of the Study.....</b>	<b>3</b>
<b>1.2 Problem Statement .....</b>	<b>7</b>
<b>1.3 Research Questions .....</b>	<b>10</b>
<b>1.4 Research Objectives .....</b>	<b>11</b>
<b>1.5 Significance of the Study .....</b>	<b>11</b>
<b>1.6 Scope of the Study .....</b>	<b>12</b>
<b>1.7 Definition of Key Terms .....</b>	<b>13</b>
<b>1.8 The Organisation of the Study .....</b>	<b>14</b>
<b>CHAPTER 2 LITERATURE REVIEW .....</b>	<b>16</b>
<b>2.1 Introduction.....</b>	<b>16</b>
<b>2.2 E-Invoicing and its Benefits .....</b>	<b>19</b>
<b>2.3 Challenges Faced by SMEs .....</b>	<b>20</b>
<b>2.4 Comparative Analysis of Global Case Studies .....</b>	<b>22</b>
<b>2.5 Government Initiatives and Policy Interventions in Malaysia.....</b>	<b>22</b>

2.6 Theoretical Framework.....	23
2.6.1 Technology Adoption Model (TAM).....	23
2.6.2 Diffusion of Innovations (DOI) Theory.....	26
2.7 Hypothesis Development .....	28
2.7.1 Financial Constraints and E-Invoicing Compliance .....	28
2.7.2 Regulatory Complexity and E-Invoicing Compliance.....	29
2.7.3 Technological Readiness and E-Invoicing Compliance.....	29
2.7.4 Human Resistance and E-Invoicing Compliance .....	30
2.7.5 Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) in E-Invoicing Compliance.....	31
2.8 Summary of Literature Review .....	32
<b>CHAPTER 3 RESEARCH METHODOLOGY .....</b>	<b>33</b>
3.1 Research Design.....	33
3.2 Operational Definition.....	34
3.2.1 E-Invoicing.....	34
3.2.2 Small and Medium Enterprises (SMEs) .....	34
3.2.3 Financial Constraints .....	35
3.2.4 Regulatory Complexity.....	36
3.2.5 Technological Readiness.....	37
3.2.6 Human Resistance .....	37
3.2.7 Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) .....	38
3.3 Measurement of Variables/Instrumentation .....	39
3.3.2 Regulatory Complexity (RC).....	40
3.3.3 Technological Readiness (TR).....	41
3.3.4 Human Resistance (HR).....	41
3.3.5 Perceived Complexity (Combined PU & PEOU) .....	42
3.3.6 E-Invoicing Adoption (EIA) (Dependent Variable) .....	44
3.4 Data Collection .....	48

3.4.1 Primary Data Collection.....	48
3.4.2 Secondary Data Collection .....	49
3.5 Population and Sampling .....	50
3.5.1 Population.....	50
3.5.2 Sampling .....	50
3.5.2.1 Sampling Method.....	50
3.5.2.2 Sample Size Determination .....	51
3.5.3 Justification of Sampling Approach.....	52
3.6 Data Collection Procedures.....	53
3.6.1 Questionnaire Development .....	53
3.6.2 Pilot Testing .....	56
3.6.3 Survey Distribution .....	56
3.6.4 Ethical Considerations .....	57
3.7 Techniques of Data Analysis .....	57
3.7.1 Descriptive Analysis.....	58
3.7.2 Reliability Testing.....	59
3.7.3 Regression Analysis .....	59
3.8 Summary.....	60
<b>CHAPTER 4 RESULTS AND DISCUSSION .....</b>	<b>62</b>
4.1 Introduction.....	62
4.2 Descriptive Analysis .....	62
4.2.1 Demographic Profile of Respondents.....	62
4.2.2 Summary of Variables.....	63
4.2.2.1 Financial Constraint.....	64
4.2.2.2 Regulatory Complexity.....	65
4.2.2.3 Technological readiness.....	66
4.2.2.4 Human Resistance .....	67

4.2.2.5 Perceived Complexity (Combined PU & PEOU).....	68
4.2.2.6 E-invoicing adoption (Dependent Variable) .....	69
4.3 Reliability and Validity Analysis.....	70
4.3.1 Reliability Test for Financial Constrain .....	71
4.3.2 Reliability Test for Regulatory Complexity.....	72
4.3.3 Reliability Test for Technology Readiness.....	72
4.3.4 Reliability Test for Human Resistance .....	73
4.3.5 Reliability Test for Perceived Complexity (Combined PU & PEOU)	74
4.4 Validity Analysis.....	76
4.5 Hypothesis Testing and Inferential Analysis .....	77
4.5.1 Correlation Analysis .....	77
4.5.2 Regression Analysis .....	79
4.5.3 Multiple Regression Analysis .....	81
4.5.4 Hypothesis Testing.....	84
4.6 Discussion of Findings .....	85
4.6.1 Financial Constraints and E-Invoicing Adoption.....	86
4.6.2 Regulatory Complexity and Compliance .....	86
4.6.3 Technological Readiness and Adoption Rates .....	86
4.6.4 Human Resistance to Change.....	87
4.6.5 Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) .....	87
4.7 Summary of the Chapter.....	88
<b>CHAPTER 5 CONCLUSION AND RECOMMENDATIONS .....</b>	<b>89</b>
5.1 Introduction.....	89
5.2 Summary of Findings .....	89
5.3 Implications of the Study.....	90
5.3.1 Theoretical Implications.....	90
5.3.2 Practical Implications.....	91

<b>5.3.3 Policy Implications .....</b>	<b>91</b>
<b>5.3.4 Regulatory Implications .....</b>	<b>92</b>
<b>5.4 Recommendations.....</b>	<b>93</b>
<b>5.5 Limitations of Study .....</b>	<b>94</b>
<b>5.6 Suggestions for Future Research .....</b>	<b>94</b>
<b>5.7 Conclusion .....</b>	<b>95</b>
<b>REFERENCES .....</b>	<b>97</b>
<b>APPENDIX .....</b>	<b>114</b>
<b>APPENDIX A: Research Questionnaire.....</b>	<b>114</b>
<b>APPENDIX B: SPSS Output.....</b>	<b>119</b>
<b>Section A: Descriptive Analysis .....</b>	<b>119</b>
<b>Section B: Reliability and Validity Analysis.....</b>	<b>121</b>
<b>Section C: Hypothesis Testing and Inferential Analysis.....</b>	<b>130</b>



## LIST OF TABLES

<b>Table 3.1:</b> List Of Measurement.....	45
<b>Table 3.2:</b> Sections in questionnaire .....	55
<b>Table 4.1:</b> Business Industry .....	62
<b>Table 4.2:</b> Business Location .....	63
<b>Table 4.3:</b> Mean Score Interpretation .....	64
<b>Table 4.4:</b> Descriptive Statistics for FC.....	64
<b>Table 4.5:</b> Descriptive Statistics for RC .....	65
<b>Table 4.6:</b> Descriptive Statistics for TR.....	67
<b>Table 4.7:</b> Descriptive Statistics for HR .....	68
<b>Table 4.8:</b> Descriptive Statistics for Perceived Complexity .....	69
<b>Table 4.9:</b> Descriptive Statistics for Adoption of E-Invoicing.....	70
<b>Table 4.10:</b> Reliability Test for Actual Data.....	70
<b>Table 4.11:</b> Reliability Test for FC.....	71
<b>Table 4.12:</b> Reliability Test for RC .....	72
<b>Table 4.13:</b> Reliability Test for TR .....	73
<b>Table 4.14:</b> Reliability Test for HR.....	74
<b>Table 4.15:</b> Reliability Test for Perceived Complexity (Combined PU & PEOU)....	75
<b>Table 4.16:</b> Factor Loadings of Key Variables in E-Invoicing Adoption .....	76
<b>Table 4.17:</b> Correlation Analysis .....	78
<b>Table 4.18:</b> Model Summary.....	79
<b>Table 4.19:</b> Regression Coefficients.....	80
<b>Table 4.20:</b> Collinearity Statistics .....	82

**Table 4.21:** Hypothesis Testing..... 85

**LIST OF FIGURES**

**Figure 1.1:** Detailed definition of category, namely micro, small and medium ..... 2

**Figure 1.2:** e-Invoice Implementation Timeline ..... 6

**Figure 2.1:** Proposed research model for e-invoicing adoption applying the TOE framework..... 18

**Figure 3.1:** Krejcie and Morgan Table ..... 52

**Figure 4.1:** Regression Standardized Residual ..... 83

**Figure 4.2:** P-P Plot of Regression Standardized Residual..... 83

**Figure 4.3:** Scatterplot ..... 83



## LIST OF ABBREVIATIONS

e-Invoicing	Electronic Invoicing
SMEs	Small and Medium-sized Enterprises
GDP	Gross Domestic Product
LHDN	Lembaga Hasil Dalam Negeri (Inland Revenue Board of Malaysia)
IT	Information Technology
TAM	Technology Adoption Model
DOI	Diffusion of Innovations
TOE	Technological-Organizational-Environmental
PU	Perceived Usefulness
PEOU	Perceived Ease of Use
MDEC	Malaysia Digital Economy Corporation
OECD	Organisation for Economic Co-operation and Development
FC	Financial Constraints
RC	Regulatory Complexity
TR	Technological Readiness
HR	Human Resistance
EIA	E-Invoicing Adoption
MyDIGITAL	Malaysia Digital Economy Blueprint

# CHAPTER 1

## INTRODUCTION

### 1.0 Introduction

The growth of digital technologies has brought rapid changes in most business processes and practices, including the way these organizations maintain their invoicing systems. Governments worldwide are progressively mandating electronic invoicing (e-invoicing) to improve tax compliance, operational efficiency, and financial transparency (PwC Malaysia, 2024).

E-invoicing, also known as electronic invoicing, refers to the process of electronically sending, receiving, and processing invoices automatically between customer and supplier organizations and tax administrations in a structured electronic invoice format. The technique will replace paper-based invoicing in which information will be conveyed much more accurately, while everything regarding the whole invoicing process is transparent. Apart from this, e-invoicing decreases administrative burdens, which may even enable organizations to save up to 80% on processing costs (Hesami, Jenkins, & Jenkins, 2024).

In Malaysia, the government has announced that e-invoicing will be mandatory by 2027, aligning with global efforts to digitize taxation and financial reporting (Lembaga Hasil Dalam Negeri Malaysia, 2023). The implementation of e-invoicing is expected to streamline business transactions, enhance tax enforcement, and promote digital adoption. While large corporations may transition seamlessly, small and medium-sized enterprises (SMEs), which account for 97.4% of all businesses in Malaysia and contribute approximately

## REFERENCES

- 10 Key challenges of e-invoicing for global Businesses. (2024, May 10). <https://www.comarch.com/trade-and-services/data-management/news/10-key-challenges-of-e-invoicing-for-global-businesses/>
- Abdulahakeem, I., Edwards, H., & McDonald, S. (2017). E-commerce adoption in Developing Countries SMEs: What Do the Prevailing Theoretical Models Offer Us? International Conference on E-Commerce. <https://sure.sunderland.ac.uk/8301/>
- Abdullah, S. N., Aziz, A. A., & Saifulazri, B. Q. (2023). The impact of information technology on accounting systems towards SME performance in Malaysia. *Journal of Social Economics Research*, 10(2), 69–80. <https://doi.org/10.18488/35.v10i2.3406>
- Advintek. (2024, August 8). E-Invoicing vs. Traditional Invoicing: Why Switch in Malaysia. <https://www.linkedin.com/pulse/e-invoicing-vs-traditional-invoicing-why-switch-malaysia-advintek-3ft5f/>
- Advintek. (2024). The role of e-invoicing in enhancing transparency in financial transactions. <https://einvoice.advintek.com.my/>
- Advintek. (2024). Digital adoption among SMEs: A study of e-invoicing and operational efficiency. *Journal of Enterprise Information Management*, 37(2), 189-204
- Ahmad, A. Y. a. B. (2024). E-invoicing and cost reduction: A case study of multinational corporations. *Journal of Information Systems Engineering & Management*, 9(2), 25009. <https://doi.org/10.55267/iadt.07.14746>
- Ahmad, N., & Lim, J. (2024). Public-private partnerships in digital transformation: The case of e-invoicing. *Economic Development Quarterly*, 32(1), 45-60
- Alam, M. M. D., & Noor, N. A. M. (2020). The Relationship between Service Quality, Corporate Image, and Customer Loyalty of Generation Y: An Application of S-O-R Paradigm in the Context of Superstores in Bangladesh. *Sage Open*, 10, 1-19.
- Alam, S. S., Ali, M. Y., & Jani, M. F. M. (2011). AN EMPIRICAL STUDY OF FACTORS AFFECTING ELECTRONIC COMMERCE ADOPTION AMONG SMES IN MALAYSIA / VEIKSNIŲ, TURINČIŲ ĮTAKOS ELEKTORINEI PREKYBAI, STUDIJA: MALAIZIJOS PAVYZDYS. *Journal of Business Economics and Management*, 12(2), 375–399. <https://doi.org/10.3846/16111699.2011.576749>
- Ali, N. (2016). Adapting e-invoicing: Benefits, challenges and future strategies to overcome challenges: A comparative case study of Finnish companies [Bachelor's thesis, Vaasan Ammattikorkeakoulu University of Applied

Sciences]. Retrieved from <http://urn.fi/URN:NBN:fi:amk-201603103212>

- Amalina, D., & Suryani, E. (2022). Evaluating the Success of E-Invoice Implementation at a State-Owned Enterprise Using DeLone & McLean IS Success Model. *IPTEK Journal of Proceedings Series*, 0(1), 388. <https://doi.org/10.12962/j23546026.y2020i1.11937>
- Ammeran, M. Y., Noor, S., & Yusof, M. (2022b). Digital Transformation of Malaysian Small and Medium-Sized Enterprises: A Review and Research direction. *Lecture Notes in Networks and Systems*, 255–278. [https://doi.org/10.1007/978-3-031-08090-6\\_16](https://doi.org/10.1007/978-3-031-08090-6_16)
- Ardolino, M., Rapaccini, M., Saccani, N., Gaiardelli, P., Crespi, G., & Ruggeri, C. (2017). The role of digital technologies for the service transformation of industrial companies. *International Journal of Production Research*, 56(6), 2116–2132. <https://doi.org/10.1080/00207543.2017.1324224>
- Aremu, A. Y., & Arfan, S. (2023). Factors influencing the usage of E-Business to improve SME performance. *International Journal of E-Business Research*, 19(1), 1–16. <https://doi.org/10.4018/ijebr.324065>
- Arshad, Y., Chin, W. P., Yahaya, S. N., Nizam, N. Z., Masrom, N. R., & Ibrahim, S. N. S. (2018). Small and medium enterprises' adoption for E-Commerce in Malaysia Tourism State. *International Journal of Academic Research in Business and Social Sciences*, 8(10). <https://doi.org/10.6007/ijarbss/v8-i10/5311>
- Awa, H. O., Ukoha, O., & Emecheta, B. C. (2016). Challenges faced by SMEs in understanding regulatory requirements often result in increased risks of penalties due to errors or delayed submissions. *Cogent Business & Management*, 3(1), Article 1196571.
- Awa, H. O., Ukoha, O., & Emecheta, B. C. (2016). Using the Diffusion of Innovations (DOI) theory to predict e-commerce adoption by SMEs in Nigeria. *Journal of Internet Banking and Commerce*, 21(1), 1-20.
- Awa, H. O., Ukoha, O., & Emecheta, B. (2012). Integrating TAM and TOE Frameworks and Expanding their Characteristic Constructs for E-Commerce Adoption by SMEs. *Informing Science and IT Education Conference*, 571–588. <https://doi.org/10.28945/1676>
- Awa, H. O., Ukoha, O., & Emecheta, B. C. (2016). Using T-O-E theoretical framework to study the adoption of ERP solution. *Cogent Business & Management*, 3(1), 1196571. <https://doi.org/10.1080/23311975.2016.1196571>

- Azmi, E. a. a. E. M. (2020). Small Medium Enterprises (SMEs) business owner's wellbeing and business growth in Malaysia. *Malaysian Journal of Society and Space*, 16(4). <https://doi.org/10.17576/geo-2020-1604-22>
- Baker, J. (2012). The Technology–Organization–Environment framework. *Information Systems Theory*, 231–245. [https://doi.org/10.1007/978-1-4419-6108-2\\_12](https://doi.org/10.1007/978-1-4419-6108-2_12)
- Bank Negara Malaysia. (2021). Annual report 2021: Economic and SME performance. Retrieved from <https://www.bnm.gov.my/>
- 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, 104661. <https://doi.org/10.1016/j.jpubeco.2022.104661>
- Bellon, M., Dabla-Norris, E., & Khalid, S. (2023). Technology and tax compliance spillovers: Evidence from a VAT e-invoicing reform in Peru. *Journal of Economic Behavior & Organization*, 212, 756–777. <https://doi.org/10.1016/j.jebo.2023.06.004>
- Benefits of e-Invoice | Lembaga Hasil Dalam Negeri Malaysia. (n.d.). Lembaga Hasil Dalam Negeri Malaysia. <https://www.hasil.gov.my/en/e-invoice/benefits-of-e-invoice/>
- Bojanc, R., Jerman-Blažič, B., & Rosi, K. (2024). E-invoicing automation and integration with accounting and tax systems: Facilitating seamless business transactions.
- 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>
- Borselli, F. (2020). Electronic invoicing in Italy: Reducing tax fraud and administrative costs through mandatory implementation. *International Tax Studies*, 3(2), 110–125.
- Bradburn, N. M., Sudman, S., & Wansink, B. (2004). Asking questions: The definitive guide to questionnaire design. Jossey-Bass.
- Bryman, A. (2015). *Social research methods* (5th ed.). Oxford University Press.
- Chai, L. H. (2024). Human resistance factors affecting the adoption of electronic invoicing: The role of familiarity and cybersecurity concerns. *International Journal of Business Technology and Innovation*, 7(2), 45–59
- Choong, Y. O., Ng, A. N. C., Wong, T. S., Choy, J. Y., Ong, H. S., Norhusnaida, C. H., & Tan, M. K. (2023). Preparing SMEs for E-Invoice Adoption: Assessing Technology Readiness and Its Segmentation. In *Proceedings of the 11th International Conference on Business*,

Accounting, Finance and Economics (BAFE 2023) (pp. 272-283).  
[https://doi.org/10.2991/978-94-6463-342-9\\_22](https://doi.org/10.2991/978-94-6463-342-9_22)

Choong, Y. S., Tan, C. H., & Wong, L. K. (2023). The impact of e-invoicing on SMEs in Malaysia: Financial and operational perspectives. *International Journal of Business and Technology*, 15(3), 124-139.

Connelly, L. M. (2008). Pilot studies. *Medsurg Nursing*, 17(6), 411-412.

Cover Story: Are SMEs ready for e-invoicing? (2024, June 23). *The Edge Malaysia*. <https://theedgemalaysia.com/node/716149>

Creswell, J. W., & Creswell, J. D. (201). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334.

Crosbie, T., Broderick, J., Short, M., Charlesworth, R., & Dawood, M. (2018). Demand response technology readiness levels for energy management in blocks of buildings. *Buildings*, 8(13).  
<https://doi.org/10.3390/buildings8010013>.

Daud, D. (2024, August 9). SMEs Urged to Embrace e-Invoicing for Significant Business Advantages. *SME & Entrepreneurship Magazine*.  
<https://sme.asia/smes-urged-to-embrace-e-invoicing-for-significant-business-advantages/>

Davis, F. D. (1985). *A technology acceptance model for empirically testing new end-user information systems: Theory and results* (Ph.D. dissertation). Massachusetts Institute of Technology, Cambridge, MA, USA.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance. *MIS Quarterly*, 13(3), 319-340.  
<https://doi.org/10.2307/249008>.

Dhamija, P., & Bag, S. (2020). Role of artificial intelligence in operations environment: a review and bibliometric analysis. *The TQM Journal*, 32(4), 869-896. Amalina, D., & Suryani, E. (2022). Evaluating the Success of E-Invoice Implementation at a State-Owned Enterprise Using DeLone & McLean IS Success Model. *IPTEK Journal of Proceedings Series*, 0(1), 388.  
<https://doi.org/10.12962/j23546026.y2020i1.11937>

Dosm. (n.d.). Department of Statistics Malaysia.  
<http://www.dosm.gov.my/portal-main/release-content/micro-small-medium-enterprises-msmes-performance-2022>

E-Invoice Implementation Timeline | Lembaga Hasil Dalam Negeri Malaysia. (n.d.). Lembaga Hasil Dalam Negeri Malaysia.  
<https://www.hasil.gov.my/en/e-invoice/e-invoice-implementation-timeline/>

- E-Invoice | Lembaga Hasil Dalam Negeri Malaysia. (n.d.). Lembaga Hasil Dalam Negeri Malaysia. <https://www.hasil.gov.my/en/e-invoice/>
- E., Suhendra, E., Purnama, D. G., & Faculty of Economic and Business, Department of Management, University of Paramadina, Jakarta. (2024). E-Invoicing: Digital transformation for operational efficiency. In *Journal of Business and Economics Research (JBE)* (Vol. 5, Issue 3, pp. 428–435). <https://ejurnal.seminar-id.com/index.php/jbe>
- Egwu, C. K., Garba, M. A., & Kalu, I. I. (2024). Achieving transparency in e-invoicing systems through blockchain integration among multinational corporations. *International Journal of Innovative Studies*, 5(1), 70–86. Retrieved from <http://www.cescd.com.ng>
- El-Haddadeh, R. (2019). Digital innovation dynamics influence on organisational adoption: the case of cloud computing services. *Information Systems Frontiers*, 22(4), 985–999. <https://doi.org/10.1007/s10796-019-09912-2>
- Embassy of Switzerland in Malaysia. (2023). [Economic Report 2023 - Malaysia]. In Embassy of Switzerland in Malaysia [Report]. <https://www.eda.admin.ch/countries/malaysia>
- Etikan, I. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, 5, 1-4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Evans, J. R., & Mathur, A. (2018). The value of online surveys: a look back and a look ahead. *Internet Research*, 28(4), 854–887. <https://doi.org/10.1108/intr-03-2018-0089>
- Fazal, H., Muhammad, J., & Zahoor, U. H. (2020). Operational Perspective of SMEs Performance and Competitive Priorities Practices: Path Analytic approach. *Studies in Business and Economics*, 15(1), 55–67. <https://doi.org/10.2478/sbe-2020-0006>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications.
- Fillis, I., Johansson, U., & Wagner, B. (2003). A conceptualisation of the opportunities and barriers to e-business development in the smaller firm. *Journal of Small Business and Enterprise Development*, 10(3), 336–344. <https://doi.org/10.1108/14626000310489808>
- Fink, D., Organisation for Economic Co-Operation and Development, Fink, D., Loughton, K., & Kazakoff, K. (1998). *Guidelines for the Successful Adoption of Information Technology in Small and Medium Enterprises*.

In International Journal of Information Management (Vol. 18, Issue 4, pp. 243–253). Elsevier Science Ltd.

- Gelderman, C. J., Paul, W., & Van Diemen, R. (2011). Choosing self-service technologies or interpersonal services. The impact of situational factors and technology-related attitudes. *Journal of Retailing and Consumer Services*, 18(5), 414-421.
- Ghobakhloo, M., Arias-Aranda, D., & Benitez-Amado, J. (2011). Adoption of e-commerce applications in SMEs. *Industrial Management & Data Systems*, 111(8), 1238-1269. <https://doi.org/10.1108/02635571111170785>
- Godoe, P., & Johansen, T. S. (2012). Understanding adoption of new technologies: Technology readiness and technology acceptance as an integrated concept. *Journal of European psychology students*, 3(1), 38-52.
- Haag, S., Born, F., Kreuzer, S., & Bernius, S. (2013). Organizational Resistance to E-Invoicing – Results from an Empirical Investigation among SMEs. In *Lecture notes in computer science* (pp. 286–297). [https://doi.org/10.1007/978-3-642-40358-3\\_24](https://doi.org/10.1007/978-3-642-40358-3_24)
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (Vol. 6).
- Hameed, M. A., Counsell, S., & Swift, S. (2012). A conceptual model for the process of IT innovation adoption in organizations. *Journal of Engineering and Technology Management*, 29(3), 358–390. <https://doi.org/10.1016/j.jengtecman.2012.03.007>
- Hameed, M. A., Counsell, S., & Swift, S. (2012). A meta-analysis of relationships between organizational characteristics and IT innovation adoption in organizations. *Information & Management*, 49(5), 218-232. <https://doi.org/10.1016/j.im.2012.05.002>
- Hashim, N. A. (2020). E-commerce and government policy initiatives for Malaysian SMEs: the need for assessment. *Science and Public Policy*, 38(10), 807–816. <https://doi.org/10.1093/spp/38.10.807>
- Hassan, R., & Nor, M. (2020). Exploring the factors influencing e-invoicing adoption in Malaysia: Evidence from SMEs. *International Journal of Accounting and Financial Reporting*, 10(3), 125-139. <https://doi.org/10.5296/ijafr.v10i3.18282>
- Hernandez-Ortega, B. (2012). Key factors for the adoption and subsequent use of e-invoicing. *Academia-revista Latinoamericana De Administracion*, 50, 15–30. <http://www.redalyc.org/articulo.oa?id=71624352003>
- Hernández, B., Gómez, F., & Serrano-Cinca, C. (n.d.). The firm's continuance intentions to use inter-organizational ICTs: The influence of

- contingency factors and perceptions. In *Information & Management* (Issue 6, pp. 747–761).
- Hertzog, M. A. (2008). Considerations in determining sample size for pilot studies. *Research in Nursing & Health*, 31, 180-191.
- Herwanis, D., Alianur, M., Maulida, N., & Nasir, K. (2025). Quantitative Research: Data Collection and Data Analysis for Beginner Researcher in Discussion. *Jurnal Integrasi Pendidikan Islam Dan Global*, 1(3), 54–71. <https://doi.org/10.63142/educompassion.v1i3.88>
- Hesami, S., Jenkins, H., & Jenkins, G. P. (2024). Digital Transformation of Tax Administration and Compliance: A Systematic Literature Review on E-Invoicing and Prefilled Returns. *Digital Government Research and Practice*, 5(3), 1–20. <https://doi.org/10.1145/3643687>
- Hong, K. C., & Shibghatullah, A. (2024). Optimizing E-Invoicing rollout: Adaptive E-Invoicing Rollout (AER) framework for navigating Malaysia’s digital transformation. *Proceedings of International Conference on Artificial Life and Robotics*, 29, 1061–1065. <https://doi.org/10.5954/icarob.2024.gs7-2>
- Hossain, M. A., Tiwari, A., Saha, S., Ghimire, A., Imran, M. a. U., & Khatoun, R. (2024). Applying the Technology Acceptance Model (TAM) in information technology system to evaluate the adoption of decision support system. *Journal of Computer and Communications*, 12(08), 242–256. <https://doi.org/10.4236/jcc.2024.128015>
- Hox, J. J., & Boeije, H. R. (2005). Data collection, primary versus secondary. *Encyclopedia of social measurement*, 1, 593.
- Iacovou, C. L., Benbasat, I., & Dexter, A. S. (1995). Electronic Data Interchange and Small Organizations: adoption and Impact of technology. *MIS Quarterly*, 19(4), 465. <https://doi.org/10.2307/249629>
- INLAND REVENUE BOARD OF MALAYSIA. (2025). E-INVOICE SPECIFIC GUIDELINE (VERSION 4.1).
- INLAND REVENUE BOARD OF MALAYSIA. (2025a). E-INVOICE GUIDELINE (VERSION 4.3).
- Investigating the Factors on E-commerce Adoption among SMEs: A View of Technology Acceptance Model. (2023). *Journal of International Business Economics and Entrepreneurship*, 8(1). <https://doi.org/10.24191/jibe.v8i1.24030>
- IRBM. (2024). IMPLEMENTATION OF E-INVOICE IN MALAYSIA FREQUENTLY ASKED QUESTIONS (FAQs). <https://www.hasil.gov.my/media/0xqitc2t/lhdnm-e-invoice-general-faqs.pdf>

- Jaish, A. A., Murdipi, R., Razak, D. A., & Alwi, N. M. (2023). The effect of digitalization on the sustainability of Malaysian SMEs. *International Journal of Academic Research in Business and Social Sciences*, 13(1). <https://doi.org/10.6007/ijarbss/v13-i1/15994>
- Johanson, G., & Brooks, G. (2010). Initial Scale Development: Sample Size for Pilot Studies. *Educational and Psychological Measurement*, 70, 394 - 400. <https://doi.org/10.1177/0013164409355692>.
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British journal of applied science & technology*, 7(4), 396-403.
- Kartiwi, M., Hussin, H., Suhaimi, M. A., Jalaldeen, M. R. M., & Amin, M. R. (2018). Impact of external factors on determining E-commerce benefits among SMEs in Malaysia. *Journal of Global Entrepreneurship Research*, 8(1). <https://doi.org/10.1186/s40497-018-0105-7>
- Kaur, C., & Ali, M. K. M. (2025). Review on pro and con of development in E-Invoicing. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.5050254>
- Kerlinger, F. N., & Pedhazur, E. (1973). *Multiple regression in behavioral research*.
- Koch, B. & Billentis. (2017). *E-Invoicing / E-Billing*. [https://billentis.com/assets/reports/einvoicing\\_ebilling\\_market\\_report\\_2017.pdf](https://billentis.com/assets/reports/einvoicing_ebilling_market_report_2017.pdf)
- Koch, B. & Billentis. (2019). *The e-invoicing journey 2019-2025 (Fourth)*. [https://www.billentis.com/assets/reports/The\\_einvoicing\\_journey\\_2019-2025.pdf](https://www.billentis.com/assets/reports/The_einvoicing_journey_2019-2025.pdf)
- Koe, W. (2020). The motivation to adopt e-commerce among Malaysian entrepreneurs. *Organizations and Markets in Emerging Economies*, 11(1), 189–202. <https://doi.org/10.15388/omee.2020.11.30>
- KPMG. (2018). The mandate is growing for e-invoicing adoption. <https://assets.kpmg.com/content/dam/kpmg/za/pdf/2018/August/mandate-for-e-invoicing-adoption-kpmg-tax.pdf>
- KPMG. (2021). *E-Invoicing: What You Need to Know in Malaysia*
- Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30, 607-610.
- Krieger, F., Drews, P., & Funk, B. (2023). Automated invoice processing: Machine learning-based information extraction for long tail suppliers. *Intelligent Systems With Applications*, 20, 200285. <https://doi.org/10.1016/j.iswa.2023.200285>

- Ksamarmarina4dev. (2024b, November 16). Malaysia: E-Invoicing adoption challenges and success Strategies for SMEs - Marmin Easy E-Invoicing. Marmin Easy E-Invoicing. <https://marmin.ai/2024/10/03/malaysia-e-invoicing-adoption-challenges-and-success-strategies-for-smes>
- Kurnia, S., Alzougool, B., Ali, M., & Alhashmi, S. (2009). Adoption of Electronic Commerce Technologies by SMEs in Malaysia. Hawaii International Conference on System Sciences (HICSS), 1–10. <https://doi.org/10.1109/hicss.2009.4>
- Lahtinen, M. (2012). E-Invoice adoption in organizations (By Hanken School of Economics).
- Larasati, N. W., & Santosa, P. (2017). Technology readiness and technology acceptance model in new technology implementation process in low technology SMEs. *International Journal of Innovation, Management and Technology*, 8:113–117. <https://doi.org/10.18178/ijimt.2017.8.2.717>.
- Li, C. (2013). The revised technology acceptance model and the impact of individual differences in assessing internet banking use in Taiwan. *International Journal of Business and Information*, 8 (1), 96–119.
- Lian, J. (2014). Critical factors for cloud-based e-invoice service adoption in Taiwan: An empirical study. *International Journal of Information Management*, 35(1), 98–109. <https://doi.org/10.1016/j.ijinfomgt.2014.10.005>
- Liljander, V., Gillberg, F., Gummerus, J., & Van Riel, A. (2006). Technology readiness and the evaluation and adoption of self-service technologies. *Journal of Retailing and Consumer Services*, 13(3), 177-191.
- Lin, C.Y., Xu, N. (2021). Extended TAM model to explore the factors that affect intention to use AI robotic architects for architectural design. *Tech. Anal. Strat. Manag.* 1–14 <https://doi.org/10.1080/09537325.2021.1900808>.
- Lunney, A., Cunningham, N.R., Eastin, M.S. (2016). Wearable fitness technology: A structural investigation into acceptance and perceived fitness outcomes. *Computer Human Behavior* 65, 114–120. <https://doi.org/10.1016/j.chb.2016.08.007>.
- Mahroeian, H. (2012). A study on the effect of different factors on e-Commerce adoption among SMEs of Malaysia. *Management Science Letters*, 2(7), 2679–2688. <https://doi.org/10.5267/j.msl.2012.08.021>
- Malaysia Digital Economy Corporation (MDEC). (2023). MyDIGITAL blueprint: Empowering SMEs for a digital economy. Retrieved from <https://www.mdec.my/>
- Malaysian Institute of Certified Public Accountants (MICPA). (2023, December). TMA Nov–Dec 2023. <https://www.micpa.com.my/v2/wp-content/uploads/2023/12/TMA-Nov-Dec2023-Public.pdf>

- Marmin Easy E-Invoicing - for global businesses. (n.d.). Marmin Easy E-Invoicing. <https://marmin.ai/2024/>
- Millenia, S., Kristianti, T., & Prawati, L. D. (2022). The Success Factors of e-Filing Tax Reporting in Indonesia: An Empirical Analysis Using the DeLone & McLean IS Success Model. *Cross Mark*, 90–97. <https://doi.org/10.1145/3512676.3512691>
- Ministry of Finance Malaysia. (2022). Malaysia's digital economy: Blueprint for growth. Ministry of Finance, Government of Malaysia
- Mitra, S., & Pathak, P. (1984). The Nature of Simple Random Sampling. *Annals of Statistics*, 12, 1536-1542. <https://doi.org/10.1214/AOS/1176346810>.
- Motlagh, S. M. (2012). Critical factors influencing the performance of E-Business in SMEs. *IOSR Journal of Business and Management*, 3(1), 18–22. <https://doi.org/10.9790/487x-0311822>
- Mun, Y.Y., Jackson, J.D., Park, J.S., Probst, J.C. (2006). Understanding information technology acceptance by individual professionals: toward an integrative view. *Inf. Manag.* 43 (3), 350–363. <https://doi.org/10.1016/j.im.2005.08.006>.
- Musa, H., Rahim, S. A., & Bakar, N. A. (2022). Cost efficiencies through e-invoicing adoption: Achieving significant administrative and payment processing savings. *Journal of Financial Technology and Management*, 9(3), 122–135
- Musyaffi, A. M., Gurendrawati, E., Afriadi, B., Oli, M. C., Widawati, Y., & Oktavia, R. (2022). Resistance of traditional SMEs in using digital payments: Development of innovation resistance theory. *Human Behavior and Emerging Technologies*, 2022, Article 7538042. <https://doi.org/10.1155/2022/7538042>.
- Mutula, S. M., & Van Brakel, P. (2006). E-readiness of SMEs in the ICT sector in Botswana with respect to information access. *The Electronic Library*, 24(3), 402–417. <https://doi.org/10.1108/02640470610671240>
- Mutunga, J. M., & Makhamara, F. H. (2020). E-INVOICING AND THE PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN NAIROBI CITY COUNTY KENYA. *Strategic Journal of Business & Change Management*, 7(3). <https://doi.org/10.61426/sjbcm.v7i3.1749>
- Ng Cheng San, A., Seng, W. T., Yee, C. J., Siong, O. H., Che Hussain, N., & Min Khen, T. (2023). Preparing SMEs for E-Invoice Adoption: Assessing Technology Readiness and Its Segmentation. In Y. O. Choong et al. (Eds.), *Proceedings of the 11th International Conference on Business, Accounting, Finance and Economics (BAFE 2023)* (pp. 272-285). Atlantis Press
- Ng, J., & Chong, A. (2019). Understanding barriers to e-invoicing adoption in

- developing countries. *Information Systems Journal*, 29(1), 73-98.  
<https://doi.org/10.1111/isj.12242>
- Ng, K., Ahmad, A. R., Wei, K. C., & Rizad, S. H., MD. (2017). SMES are embracing innovation for business performance. *Journal of Innovation Management in Small and Medium Enterprises*, 1–17.  
<https://doi.org/10.5171/2017.824512>
- Nga, N. T. V., Xuan, V. N., Trong, V. A., Thao, P. H., & Doanh, D. C. (2023). Perceived barriers and intentions to receive COVID-19 vaccines: Psychological distress as a moderator. *Vaccines*, 11(289).  
<https://doi.org/10.3390/vaccines11020289>.
- Nguyen, A. H., Nguyen, T. P., & Dang, G. T. T. (2020). Determinants of E-invoice Adoption: Empirical Evidence from Vietnam. *Journal of Asian Finance Economics and Business*, 7(7), 311–321.  
<https://doi.org/10.13106/jafeb.2020.vol7.no7.311>
- Nikou, S. (2019). Factors driving the adoption of smart home technology: An empirical assessment. *Telematics and Informatics*, 45, 101283.  
<https://doi.org/10.1016/j.tele.2019.101283>.
- Nikou, S., Brännback, M., & Widén, G. (2018). The impact of multidimensionality of literacy on the use of digital technology: Digital immigrants & digital natives. In *Proceedings of WIS 2018, well-being in the information society—fighting inequalities*, turku, Finland.
- Nor, K. M., Pearson, J. M., & Ahmad, A. (2010). Adoption of Internet Banking: Theory of the Diffusion of Innovation. *International Journal of Management Studies*, 17. <https://doi.org/10.32890/ijms.17.1.2010.9984>
- 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. *Heliyon*, 9(3), e13726.  
<https://doi.org/10.1016/j.heliyon.2023.e13726>
- Ong, T. S., Teh, B. H., Kasbun, N. F., Mahroeian, H., & Hossain, M. I. (2020). Electronic Commerce Adoption among Malaysian SMEs. *Journal of Critical Reviews*, 7(19), 555–565. <http://shdl.mmu.edu.my/7787/>
- Online, S. (2024, July 10). Navigating e-Invoicing for SMEs. *The Star*.  
<https://www.thestar.com.my/starpics/2024/07/10/navigating-e-invoicing-for-smes>
- Organisation for Economic Co-operation and Development (OECD). (2021). *The impact of digitalization on SMEs: A global perspective*
- Organisation for Economic Co-operation and Development (OECD). (2021). *SME and entrepreneurship outlook 2021*. OECD Publishing.  
[https://doi.org/10.1787/eco\\_outlook-2021-en](https://doi.org/10.1787/eco_outlook-2021-en)

- Pallant, J. (2020). *SPSS survival manual: A step-by-step guide to data analysis using SPSS*. McGraw-Hill Education.
- Palupi, C., & Darwanto, D. (2017). Transaction cost on the implementation of E-Invoices in micro and small enterprises. *Signifikan Jurnal Ilmu Ekonomi*, 6(1), 139–158. <https://doi.org/10.15408/sjie.v6i1.4866>
- Parasuraman, A. (2000). Technology Readiness Index (TRI) a multiple-item scale to measure readiness to embrace new technologies. *Journal of service research*, 2(4), 307-320.
- Parasuraman, A., & Colby, C. (2015). An updated and streamlined technology readiness index: TRI 2.0. *Journal of Service Research*, 18(1), 59–74. <https://doi.org/10.1177/1094670514539730>.
- Parasuraman, A., & Colby, C. L. (2014). An updated and streamlined technology readiness index. *Journal of Service Research*, 18(1), 59–74. <https://doi.org/10.1177/1094670514539730>.
- Pease, W., & Rowe, M. (2005). Diffusion of Innovation - The adoption of Electronic commerce by small and medium Enterprises (SMES)- A comparative analysis. *AJIS. Australasian Journal of Information Systems/AJIS. Australian Journal of Information Systems/Australian Journal of Information Systems*, 13(1). <https://doi.org/10.3127/ajis.v13i1.78>
- Penttinen, E., & Tuunainen, V. K. (2010). Assessing the effect of external pressure in inter-organizational IS adoption – case electronic invoicing. In *Lecture notes in business information processing* (pp. 269–278). [https://doi.org/10.1007/978-3-642-17449-0\\_27](https://doi.org/10.1007/978-3-642-17449-0_27)
- Pham, L., Williamson, S., Lane, P., Limbu, Y., Nguyen, P. T. H., & Coomer, T. (2020). Technology readiness and purchase intention: Role of perceived value and online satisfaction in the context of luxury hotels. *International Journal of Management and Decision Making\**, 19(1), 91–117.
- Plt, C. M. (2024, April 29). Malaysia’s electronic invoice (e-Invoice) system. Crowe. <https://www.crowe.com/my/insights/malaysia-electronic-invoice-system>
- Portal Rasmi Kementerian Kewangan. (n.d.). <https://www.mof.gov.my/>
- Premkumar, G., & Roberts, M. (1999). Adoption of new information technologies in rural small businesses. *Omega*, 27(4), 467-484. [https://doi.org/10.1016/S0305-0483\(98\)00071-1](https://doi.org/10.1016/S0305-0483(98)00071-1)
- PricewaterhouseCoopers. (n.d.). e-Invoicing in Malaysia: Choosing the right integration model for your e-Invoice flow. PwC. <https://www.pwc.com/my/en/perspective/tax/230815-e-invoicing-malaysia-integration-model.html>

- PwC Malaysia. (2024). E-invoicing readiness survey for Malaysian SMEs: Key findings and insights. PricewaterhouseCoopers. <https://www.pwc.com/my/en/assets/publications/2024/e-invoicing-readiness-survey-malaysia.pdf>
- Qi, Y., & Azmi, A. C. (2021). Factors affecting electronic invoice adoption and tax compliance process efficiency. *Transforming Government People Process and Policy*, 15(1), 150–168. <https://doi.org/10.1108/tg-04-2020-0070>
- Rahman, M. S., Ismail, A., & Rahman, R. (2020). Challenges in adopting electronic invoicing in Malaysian SMEs: A study of Northern Malaysia
- Ramayah, T., Mohamad, O., Omar, A., Marimuthu, M., & Leen, J. Y. A. (2013). DETERMINANTS OF TECHNOLOGY ADOPTION AMONG MALAYSIAN SMES: AN IDT PERSPECTIVE. *Journal of Information and Communication Technology*, 12. <https://doi.org/10.32890/jict.12.2013.8139>
- Ramdani, B., & Kawalek, P. (2007). SME adoption of enterprise systems in the Northwest of England: An environmental, technological, and organizational perspective. *Journal of Enterprise Information Management*, 20(6), 632-645. <https://doi.org/10.1108/17410390710830658>
- Resnik, D. B. (2020). Research ethics timeline (1932-present). National Institute of Environmental Health Sciences. Retrieved from <https://www.niehs.nih.gov/>
- Rogers, E. M. (1962). Diffusion of innovations. <https://blogs.unpad.ac.id/teddykw/files/2012/07/Everett-M.-Rogers-Diffusion-of-Innovations.pdf>
- Saleh, A. S., & Ndubisi, N. O. (2006). SME development in Malaysia: domestic and global challenges. In University of Wollongong & Monash University Malaysia, Faculty of Business - Economics Working Papers. <https://ro.uow.edu.au/commwkpapers/139>
- Salman, D., & Ismael, D. (2023). The effect of digital financial inclusion on the green economy: The case of Egypt. *Journal of Economics and Development*, 25, 120–133. <https://doi.org/10.1108/JED-10-2022-0029>
- San, A. N. C., Seng, W. T., Yee, C. J., Siong, O. H., Hussain, N. C., & Khen, T. M. (2023). Preparing SMEs for E-Invoice adoption: Assessing technology readiness and its segmentation. In *Advances in economics, business and management research/Advances in Economics, Business and Management Research* (pp. 303–315). [https://doi.org/10.2991/978-94-6463-342-9\\_22](https://doi.org/10.2991/978-94-6463-342-9_22)

- Sandberg, K. W., Wahlberg, O., & Pan, Y. (2009). Acceptance of E-Invoicing in SMEs. In *Lecture notes in computer science* (pp. 289–296). [https://doi.org/10.1007/978-3-642-02728-4\\_31](https://doi.org/10.1007/978-3-642-02728-4_31)
- Sani, A., Wiliani, N., Budiyantra, A., & Nawaningtyas, N. (2020). Pengembangan Model Adopsi Teknologi Informasi Terhadap Model Penerimaan Teknologi Diantara Umkm. *JITK (Jurnal Ilmu Pengetahuan Dan Teknologi Komputer)*, 5(2), 151–158. <https://doi.org/10.33480/jitk.v5i2.1055>.
- Sekaran, U. (2003), *Research Methods for Business: A Skill Building Approach*, (4th Ed), New York: Wiley & Sons.
- Sekaran, U. and Bougie, R. (2013). *Research Methods for Business: A Skill-Building Approach* (6th Ed.). New York: Wiley.
- Shemi, A. P., & Procter, C. (2018). E-commerce and entrepreneurship in SMEs: case of myBot. *Journal of Small Business and Enterprise Development*, 25(3), 501–520. <https://doi.org/10.1108/jsbed-03-2017-0088>
- Sidek, N. (2015). Determinants of electronic payment adoption in Malaysia: the stakeholders' perspectives. <https://doi.org/10.14264/uql.2015.696>
- Singh, P. K., & Chan, S. W. (2022). The Impact of Electronic Procurement Adoption on Green Procurement towards Sustainable Supply Chain Performance-Evidence from Malaysian ISO Organizations. *Journal of Open Innovation Technology Market and Complexity*, 8(2), 61. <https://doi.org/10.3390/joitmc8020061>
- Sirisomboonsuk, P., Gu, V.C., Cao, R.Q., Burns, J.R. (2018). Relationships between project governance and information technology governance and their impact on project performance. *Int. J. Proj. Manag.* 36 (2), 287–300. <https://doi.org/10.1016/j.ijproman.2017.10.003>.
- Small and Medium Enterprises Corporation Malaysia (SME Corp Malaysia). (2021). *State of SMEs in Malaysia: Digital readiness and challenges*. SME Corp. Retrieved from <https://www.smecorp.gov.my/>
- SME Corp. Malaysia. (2021). *LAPORAN TAHUNAN 2021*
- SMEs face huge challenges in implementing e-invoicing. (2024, July 30). *The Edge Malaysia*. <https://theedgemalaysia.com/node/721028>
- SME Definitions. (2020, February 11). <https://smecorp.gov.my/index.php/en/policies/2020-02-11-08-01-24/sme-definition>.
- Son, N. N., Nguyen, T. P. T., Ngo, Q. D., Bui, T. T. H., & Vu, N. X. (2023). Determinants of the sustained development of the night-time economy: The case of Hanoi, capital of Vietnam. *Journal of Risk and Financial Management*, 16, 351.

- Soong, K., Ahmed, E. M., & Tan, K. S. (2020). Factors influencing Malaysian small and medium enterprises adoption of electronic government procurement. *Journal of Public Procurement*, 20(1), 38–61. <https://doi.org/10.1108/jopp-09-2019-0066>
- Šoltésová, E. & University of Economics, Faculty of National Economy/Department of Finance. (n.d.). Electronic invoicing information system. University of Economics, Faculty of National Economy/Department of Finance. <https://doi.org/10.53465/EDAMBA.2021.9788022549301.496-506>
- Sundström, J. (2006). Adoption of electronic invoicing in SMEs [M A S T E R ' S T H E S I S, Luleå University of Technology; Computer Science and Engineering]. In MSc Programmes in Engineering. <https://www.diva-portal.org/smash/get/diva2:1019476/FULLTEXT01.pdf>
- Surana, E. (2025, January 15). Role of e-Invoicing in Malaysia for SME's in 2025. Cleartax. <https://www.cleartax.com/my/en/role-of-e-invoicing-malaysia-smes>
- Suki, N. M., & Suki, N. M. (2017). Flight ticket booking app on mobile devices: Examining the determinants of individual intention to use. *Journal of Air Transport Management*, 62, 146–154. <https://doi.org/10.1016/j.jairtraman.2017.04.003>.
- Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3205035>
- Taherdoost, H. (2022). Designing a Questionnaire for a Research Paper: A Comprehensive Guide to Design and Develop an Effective Questionnaire. *Asian Journal of Managerial Science*. <https://doi.org/10.51983/ajms-2022.11.1.3087>.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53-55. <https://doi.org/10.5116/ijme.4dfb.8dfd>
- taxPOD. (2024, December 6). 10 Benefits of Complying with e-invoicing in Malaysia 2024 | YYC taxPOD. TaxPOD. <https://taxpod.com.my/articles/10-benefits-of-complying-with-e-invoicing-in-malaysia-for-smes-and-mncs/>
- TECHNOLOGY ADOPTION AMONG SMEs IN MALAYSIA: DEVELOPMENT OF AN ASSESSMENT PROCESS. (2009). In Proceedings of PICMET '09: Technology Management in the Age of Fundamental Change. Portland.
- Tee, N., Wong, W., Ming, P., & Chee, H. (2023). Technology Acceptance Model to Unveil Factors Affecting E-Business adoption: A Small and

Medium Enterprise perspective. Hong Kong Journal of Social Sciences, 61. <https://doi.org/10.55463/hkjss.issn.1021-3619.61.7>

The Star. (2022). E-Invoicing to be mandatory by 2025.

Thirosha. (2024b, September 24). E-Invoicing in Malaysia: Boosting business efficiency. InCorp Global Malaysia. <https://www.incorp.asia/malaysia/blogs/e-invoicing-in-malaysia-revolution/>

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 & Knowledge*, 8(3), 100366. <https://doi.org/10.1016/j.jik.2023.100366>

TMA. (2023). Phased implementation of e-invoicing in Malaysia: A strategic approach for SMEs.

Turing, A. M. (1950). Computing machinery and intelligence. *Mind*, 59, 443–460.

Usman, H., Projo, N.W.K., Chairy, C., Haque, M.G., 2022. The exploration role of Sharia compliance in technology acceptance model for e-banking (case: Islamic bank in Indonesia). *J. Islam. Mark.* 13 (5), 1089–1110. <https://doi.org/10.1108/JIMA-08-2020-0230>.

Van Eeuwen, M., 2017. Mobile conversational commerce: Messenger chatbots as the next interface between businesses and consumers [University of Twente]. <http://purl.utwente.nl/essays/71706>.

Venkatesh, N., Morris, N., Davis, N., & Davis, N. (2003). User acceptance of information Technology: toward a unified view. *MIS Quarterly*, 27(3), 425. <https://doi.org/10.2307/30036540>

Wagiman, A. N., Aspasya, G. S., & Prawati, L. D. (2023). Net Benefit on E-Invoice Implementation: Applying the Delone & McLean Information Systems Success Model. *E3S Web of Conferences*, 388, 04054. <https://doi.org/10.1051/e3sconf/202338804054>

Walczuch, R., Lemmink, J., & Streukens, S. (2007). The effect of service employees' technology readiness on technology acceptance. *Information & management*, 44(2), 206-215.

WEF (2019), A Framework for Developing a National Intelligence Strategy.

Wong, L. W., Tan, G. W. H., Lee, V. H., Ooi, K. B., & Sohal, A. (2020). Unearthing the determinants of Blockchain adoption in supply chain management. *International Journal of Production Research*, 58(7), 2100–2123.

World Bank. (2021). Digital Economy and SMEs in Malaysia: Opportunities and Challenge.

- Wp-Admin. (2024, October 21). The role of E-Invoicing in E-Commerce: A Comprehensive guide by Advintek - No. 1 E-Invoicing in Malaysia | No. 1 e-Invoicing in Malaysia | LHDN Compliant | Peppol Access Point Provider| Peppol Compliant. <https://invoice.advintek.com.my/the-role-of-e-invoicing-in-e-commerce-a-comprehensive-guide-by-advintek/>
- Wu, K., Zhao, Y., Zhu, Q., Tan, X., Zheng, H. (2011). A meta-analysis of the impact of trust on technology acceptance model: Investigation of moderating influence of subject and context type. *International Journal of Information Management*. 31 (6), 572–581.
- Yang, L. C., & Ming, C. W. (2024). Digital Transformation and its Effects on the Financial Performance of Malaysian SMEs. *Journal of Digitainability Realism & Mastery (DREAM)*, 3(08), 21–32. <https://doi.org/10.56982/dream.v3i08.263>
- Yang, L. C., & Ming, C. W. (2024d). The impact of digital transformation on financial outcomes in Malaysian small and medium enterprises. *Journal of Digitainability Realism & Mastery (DREAM)*, 3(09), 1–11. <https://doi.org/10.56982/dream.v3i09.254>
- Yap, S. S. & theedgemalaysia.com. (2024). E-invoicing: Is Malaysia falling behind? In DigitalEdge
- Yeng, S. K., Osman, A., Haji-Othman, Y., & Safizal, M. (2015). E-Commerce Adoption among Small and Medium Enterprises (SMEs) in Northern State of Malaysia. *Mediterranean Journal of Social Sciences*. <https://doi.org/10.5901/mjss.2015.v6n5p37>
- Zhu, K., Kraemer, K. L., & Dedrick, J. (2004). Information Technology Payoff in E-Business Environments: An International perspective on Value creation of E-Business in the Financial Services industry. *Journal of Management Information Systems*, 21(1), 17–54. <https://doi.org/10.1080/07421222.2004.11045797>
- Zaborek, P. & SGH Warsaw School of Economics. (2015). Elements of marketing research. <https://doi.org/10.13140/RG.2.1.4500.7128>
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business research methods* (9th ed.). Cengage Learning

## APPENDIX

### APPENDIX A: Research Questionnaire

#### Section A: Demographic Information

1.Name of Business / Nama Perniagaan:

2.Business Industry / Industri Perniagaan:

3.Number of Employees / Bilangan Pekerja:

4.Location of Business / Lokasi Perniagaan:

a.Penang

b.Kedah

c.Perlis

5.Is your business currently using an e-invoicing system? / Adakah perniagaan anda sedang menggunakan sistem e-invois?

a.Yes/Ya

b.No/Tidak

#### Section B: Financial Constraints

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1	The cost of implementing e-invoicing is too high for my business.	1	2	3	4	5
2	We lack financial resources to upgrade our accounting systems for e-invoicing.	1	2	3	4	5
3	Government financial incentives for e-invoicing adoption are insufficient.	1	2	3	4	5

4	The long-term financial benefits of e-invoicing do not justify the costs.	1	2	3	4	5
---	---------------------------------------------------------------------------	---	---	---	---	---

### Section C: Regulatory Complexity

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1	The government's e-invoicing regulations are complex and difficult to understand.	1	2	3	4	5
2	Our business lacks guidance on how to comply with mandatory e-invoicing requirements.	1	2	3	4	5
3	The process of integrating e-invoicing with tax compliance is burdensome.	1	2	3	4	5
4	There is a lack of training provided by authorities on e-invoicing compliance.	1	2	3	4	5

Universiti Utara Malaysia

### Section D: Technological Readiness

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

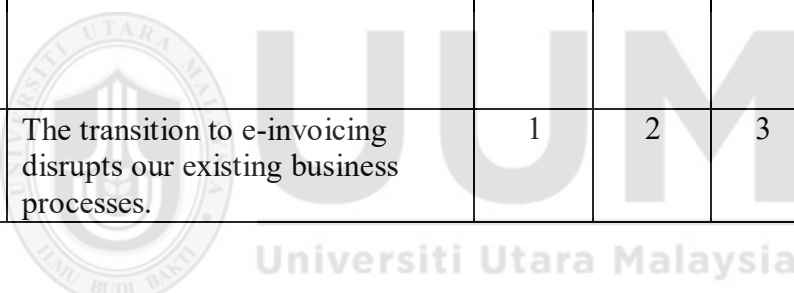
1	Our business has the necessary IT infrastructure to implement e-invoicing.	1	2	3	4	5
2	We have stable internet access to support e-invoicing.	1	2	3	4	5
3	Our existing accounting software is compatible with e-invoicing systems.	1	2	3	4	5

4	We lack technical expertise to manage e-invoicing software effectively.	1	2	3	4	5
---	-------------------------------------------------------------------------	---	---	---	---	---

**Section E: Human Resistance**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1	Our employees prefer manual invoicing over e-invoicing.	1	2	3	4	5
2	Concerns about cyber security risks discourage us from adopting e-invoicing.	1	2	3	4	5
3	Lack of training on e-invoicing makes it difficult to implement.	1	2	3	4	5
4	The transition to e-invoicing disrupts our existing business processes.	1	2	3	4	5



**Section F: Perceived Usefulness and Perceived Ease of Use**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1	E-invoicing improves the accuracy of our invoicing processes.	1	2	3	4	5
2	E-invoicing reduces the time required to process invoices.	1	2	3	4	5
3	E-invoicing enhances overall operational efficiency.	1	2	3	4	5

4	E-invoicing is straightforward and easy to use.	1	2	3	4	5
5.	Minimal training is required to effectively use e-invoicing.	1	2	3	4	5

### Section G: E-Invoicing Adoption

1. Our business currently uses e-invoicing for invoice management.

- Yes / Ya
- No / Tidak

2. At what stage is your business in the e-invoicing adoption process?

- a. Already fully implemented
- b. In the process of implementation
- c. Not yet started, but aware of the requirement
- d. Not aware of the requirement

3. E-invoicing has positively impacted our business performance.

- Yes / Ya
- No / Tidak

4. Our business is prepared for the mandatory e-invoicing implementation by 2027.

- Yes / Ya
- No / Tidak

### Section H: Open-Ended Questions

1. What are the biggest challenges your business faces in adopting e-invoicing? /

Apakah cabaran terbesar yang dihadapi oleh perniagaan anda dalam menggunakan e-invois?

2. What support or resources would help you transition to e-invoicing more effectively? / Apakah sokongan atau sumber yang diperlukan untuk membantu perniagaan anda beralih kepada e-invois dengan lebih berkesan?



## APPENDIX B: SPSS Output

### Section A: Descriptive Analysis

#### i. Demographic Profile of Respondents

Business Industry / Industri Perniagaan					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Construction/Kontraktor	38	21.7	21.7	21.7
	Consumer Good & Services (Retailing)/Perkhidmatan Pengguna (Peruncitan)	97	55.4	55.4	77.1
	Food & Beverage/Makanan	33	18.9	18.9	96.0
	Manufacturing/Pembuatan	7	4.0	4.0	100.0
	Total	175	100.0	100.0	

Location of Business / Lokasi Perniagaan					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Kedah	57	32.6	32.6	32.6
	Penang	77	44.0	44.0	76.6
	Perlis	41	23.4	23.4	100.0
	Total	175	100.0	100.0	

#### ii. Financial Constraint

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
The cost of implementing e-invoicing is too high for my business. / Kos pelaksanaan e-invois terlalu tinggi untuk perniagaan kami.	175	1	5	4.38	.895
We lack financial resources to upgrade our accounting systems for e-invoicing. / Kami kekurangan sumber kewangan untuk menaik taraf sistem perakaunan bagi e-invois.	175	1	5	4.22	.964
Government financial incentives for e-invoicing adoption are insufficient. / Insentif kewangan daripada kerajaan untuk penggunaan e-invois tidak mencukupi.	175	1	5	4.35	.794
The long-term financial benefits of e-invoicing do not justify the costs. / Manfaat kewangan jangka panjang e-invois tidak setimpal dengan kosnya.	175	1	5	4.26	.895
Valid N (listwise)	175				

### iii. Regulatory Complexity

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
The government's e-invoicing regulations are complex and difficult to understand. / Peraturan e-invois kerajaan adalah kompleks dan sukar difahami.	175	1	5	4.22	.984
Our business lacks guidance on how to comply with mandatory e-invoicing requirements. / Perniagaan kami kurang panduan tentang cara mematuhi keperluan e-invois yang wajib.	175	1	5	4.22	.960
The process of integrating e-invoicing with tax compliance is burdensome. / Proses penyepaduan e-invois dengan pematuhan cukai adalah membebankan.	175	1	5	4.24	.897
There is a lack of training provided by authorities on e-invoicing compliance. / Kekurangan latihan daripada pihak berkuasa mengenai pematuhan e-invois.	175	1	5	4.38	.926
Valid N (listwise)	175				

### iv. Technological Readiness

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Our business has the necessary IT infrastructure to implement e-invoicing. / Perniagaan kami mempunyai infrastruktur IT yang diperlukan untuk melaksanakan e-invois.	175	1	5	1.87	.862
We have stable internet access to support e-invoicing. / Kami mempunyai akses internet yang stabil untuk menyokong e-invois.	175	1	5	2.95	1.212
Our existing accounting software is compatible with e-invoicing systems. / Perisian perakaunan sedia ada kami serasi dengan sistem e-invois.	175	1	5	1.69	.642
We lack technical expertise to manage e-invoicing software effectively. / Kami kekurangan kepakaran teknikal untuk mengurus perisian e-invois dengan berkesan.	175	1	5	4.34	.901
Valid N (listwise)	175				

### v. Human Resistance

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Our employees prefer manual invoicing over e-invoicing. / Pekerja kami lebih suka kaedah invois manual berbanding e-invois.	175	1	5	4.37	.723
Concerns about cybersecurity risks discourage us from adopting e-invoicing. / Kebimbangan mengenai risiko keselamatan siber menghalang kami daripada menggunakan e-invois.	175	1	5	3.56	1.054
The transition to e-invoicing disrupts our existing business processes. / Peralihan kepada e-invois mengganggu proses perniagaan kami yang sedia ada.	175	1	5	4.49	.765
Lack of training on e-invoicing makes it difficult to implement. / Kekurangan latihan mengenai e-invois menyukarkan pelaksanaannya.	175	1	5	4.43	.602
Valid N (listwise)	175				

vi. **Perceived usefulness (PU) & perceived ease of use (PEOU)**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
E-invoicing improves the accuracy of our invoicing processes. / E-invois meningkatkan ketepatan proses invois kami.	175	1	5	1.95	.822
E-invoicing reduces the time required to process invoices. / E-invois mengurangkan masa yang diperlukan untuk memproses invois.	175	1	5	1.62	.842
E-invoicing enhances overall operational efficiency. / E-invois meningkatkan kecekapan operasi keseluruhan.	175	1	5	1.85	.935
E-invoicing is straightforward and easy to use. / E-invois adalah mudah dan senang digunakan.	175	1	5	1.51	.829
Minimal training is required to effectively use e-invoicing. / Latihan yang minimum diperlukan untuk menggunakan e-invois dengan berkesan.	175	1	5	1.67	.818
Valid N (listwise)	175				

vii. **E-invoicing adoption (Dependent Variable)**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Our business is prepared for the mandatory e-invoicing implementation by 2027. / Perniagaan kami bersedia untuk pelaksanaan e-invois wajib menjelang 2027.	175	1	2	1.21	.409
Valid N (listwise)	175				

**Section B: Reliability and Validity Analysis**

i. **Reliability Test for Financial Constrain (Mean/SD)**

Item Statistics				
	Mean	Std. Deviation	N	
The cost of implementing e-invoicing is too high for my business. / Kos pelaksanaan e-invois terlalu tinggi untuk perniagaan kami.	4.38	.895	175	
We lack financial resources to upgrade our accounting systems for e-invoicing. / Kami kekurangan sumber kewangan untuk menaik taraf sistem perakaunan bagi e-invois.	4.22	.964	175	
Government financial incentives for e-invoicing adoption are insufficient. / Insentif kewangan daripada kerajaan untuk penggunaan e-invois tidak mencukupi.	4.35	.794	175	
The long-term financial benefits of e-invoicing do not justify the costs. / Manfaat kewangan jangka panjang e-invois tidak setimpal dengan kosnya.	4.26	.895	175	

ii. Reliability Test for Financial Constrain (Inter-Item Correlation with Other Items)

Inter-Item Correlation Matrix				
	The cost of implementing e-invoicing is too high for my business. / Kos pelaksanaan e-invois terlalu tinggi untuk perniagaan kami.	We lack financial resources to upgrade our accounting systems for e-invoicing. / Kami kekurangan sumber kewangan untuk menaik taraf sistem perakaunan bagi e-invois.	Government financial incentives for e-invoicing adoption are insufficient. / Insentif kewangan daripada kerajaan untuk penggunaan e-invois tidak mencukupi.	The long-term financial benefits of e-invoicing do not justify the costs. / Manfaat kewangan jangka panjang e-invois tidak setimpal dengan kosnya.
The cost of implementing e-invoicing is too high for my business. / Kos pelaksanaan e-invois terlalu tinggi untuk perniagaan kami.	1.000	.682	.701	.759
We lack financial resources to upgrade our accounting systems for e-invoicing. / Kami kekurangan sumber kewangan untuk menaik taraf sistem perakaunan bagi e-invois.	.682	1.000	.636	.714
Government financial incentives for e-invoicing adoption are insufficient. / Insentif kewangan daripada kerajaan untuk penggunaan e-invois tidak mencukupi.	.701	.636	1.000	.568
The long-term financial benefits of e-invoicing do not justify the costs. / Manfaat kewangan jangka panjang e-invois tidak setimpal dengan kosnya.	.759	.714	.568	1.000

iii. Reliability Test for Financial Constrain (Cronbach's Alpha)

Item-Total Statistics	
	Cronbach's Alpha if Item Deleted
The cost of implementing e-invoicing is too high for my business. / Kos pelaksanaan e-invois terlalu tinggi untuk perniagaan kami.	.841
We lack financial resources to upgrade our accounting systems for e-invoicing. / Kami kekurangan sumber kewangan untuk menaik taraf sistem perakaunan bagi e-invois.	.862
Government financial incentives for e-invoicing adoption are insufficient. / Insentif kewangan daripada kerajaan untuk penggunaan e-invois tidak mencukupi.	.883
The long-term financial benefits of e-invoicing do not justify the costs. / Manfaat kewangan jangka panjang e-invois tidak setimpal dengan kosnya.	.857

iv. Reliability Test for Regulatory Complexity (Mean/SD)

Item Statistics			
	Mean	Std. Deviation	N
The government's e-invoicing regulations are complex and difficult to understand. / Peraturan e-invois kerajaan adalah kompleks dan sukar difahami.	4.22	.984	175
Our business lacks guidance on how to comply with mandatory e-invoicing requirements. / Perniagaan kami kurang panduan tentang cara mematuhi keperluan e-invois yang wajib.	4.22	.960	175
The process of integrating e-invoicing with tax compliance is burdensome. / Proses penyepaduan e-invois dengan pematuhan cukai adalah membebankan.	4.24	.897	175
There is a lack of training provided by authorities on e-invoicing compliance. / Kekurangan latihan daripada pihak berkuasa mengenai pematuhan e-invois.	4.38	.926	175

v. Reliability Test for Regulatory Complexity (Inter-Item Correlation with Other Items)

Inter-Item Correlation Matrix				
	The government's e-invoicing regulations are complex and difficult to understand. / Peraturan e-invois kerajaan adalah kompleks dan sukar difahami.	Our business lacks guidance on how to comply with mandatory e-invoicing requirements. / Perniagaan kami kurang panduan tentang cara mematuhi keperluan e-invois yang wajib.	The process of integrating e-invoicing with tax compliance is burdensome. / Proses penyepaduan e-invois dengan pematuhan cukai adalah membebankan.	There is a lack of training provided by authorities on e-invoicing compliance. / Kekurangan latihan daripada pihak berkuasa mengenai pematuhan e-invois.
The government's e-invoicing regulations are complex and difficult to understand. / Peraturan e-invois kerajaan adalah kompleks dan sukar difahami.	1.000	.708	.767	.783
Our business lacks guidance on how to comply with mandatory e-invoicing requirements. / Perniagaan kami kurang panduan tentang cara mematuhi keperluan e-invois yang wajib.	.708	1.000	.665	.737
The process of integrating e-invoicing with tax compliance is burdensome. / Proses penyepaduan e-invois dengan pematuhan cukai adalah membebankan.	.767	.665	1.000	.670
There is a lack of training provided by authorities on e-invoicing compliance. / Kekurangan latihan daripada pihak berkuasa mengenai pematuhan e-invois.	.783	.737	.670	1.000

vi. Reliability Test for Regulatory Complexity (Cronbach's Alpha)

Item-Total Statistics	
	Cronbach's Alpha if Item Deleted
The government's e-invoicing regulations are complex and difficult to understand. / Peraturan e-invois kerajaan adalah kompleks dan sukar difahami.	.870
Our business lacks guidance on how to comply with mandatory e-invoicing requirements. / Perniagaan kami kurang panduan tentang cara mematuhi keperluan e-invois yang wajib.	.895
The process of integrating e-invoicing with tax compliance is burdensome. / Proses penyepaduan e-invois dengan pematuhan cukai adalah membebankan.	.896
There is a lack of training provided by authorities on e-invoicing compliance. / Kekurangan latihan daripada pihak berkuasa mengenai pematuhan e-invois.	.881

vii. Reliability Test for Technology Readiness (Mean/SD)

	Item Statistics		
	Mean	Std. Deviation	N
Our business has the necessary IT infrastructure to implement e-invoicing. / Perniagaan kami mempunyai infrastruktur IT yang diperlukan untuk melaksanakan e-invois.	1.87	.862	175
We have stable internet access to support e-invoicing. / Kami mempunyai akses internet yang stabil untuk menyokong e-invois.	2.95	1.212	175
Our existing accounting software is compatible with e-invoicing systems. / Perisian perakaunan sedia ada kami serasi dengan sistem e-invois.	1.69	.642	175
We lack technical expertise to manage e-invoicing software effectively. / Kami kekurangan kepakaran teknikal untuk mengurus perisian e-invois dengan berkesan.	4.34	.901	175

viii. **Reliability Test for Technology Readiness (Inter-Item Correlation with Other Items)**

Inter-Item Correlation Matrix					
	Our business has the necessary IT infrastructure to implement e-invoicing. / Perniagaan kami mempunyai infrastruktur IT yang diperlukan untuk melaksanakan e-invois.		We have stable internet access to support e-invoicing. / Kami mempunyai akses internet yang stabil untuk menyokong e-invois.	Our existing accounting software is compatible with e-invoicing systems. / Perisian perakaunan sedia ada kami serasi dengan sistem e-invois.	We lack technical expertise to manage e-invoicing software effectively. / Kami kekurangan kepakaran teknikal untuk mengurus perisian e-invois dengan berkesan.
	1.000	.396	.396	-.367	
	Our business has the necessary IT infrastructure to implement e-invoicing. / Perniagaan kami mempunyai infrastruktur IT yang diperlukan untuk melaksanakan e-invois.		We have stable internet access to support e-invoicing. / Kami mempunyai akses internet yang stabil untuk menyokong e-invois.		
	.396	1.000	.439	-.186	
	Our business has the necessary IT infrastructure to implement e-invoicing. / Perniagaan kami mempunyai infrastruktur IT yang diperlukan untuk melaksanakan e-invois.		Our existing accounting software is compatible with e-invoicing systems. / Perisian perakaunan sedia ada kami serasi dengan sistem e-invois.		
	.396	.439	1.000	-.253	
	Our business has the necessary IT infrastructure to implement e-invoicing. / Perniagaan kami mempunyai infrastruktur IT yang diperlukan untuk melaksanakan e-invois.		We lack technical expertise to manage e-invoicing software effectively. / Kami kekurangan kepakaran teknikal untuk mengurus perisian e-invois dengan berkesan.		
	-.367	-.186	-.253	1.000	

ix. **Reliability Test for Technology Readiness (Cronbach's Alpha)**

Item-Total Statistics	
	Cronbach's Alpha if Item Deleted
Our business has the necessary IT infrastructure to implement e-invoicing. / Perniagaan kami mempunyai infrastruktur IT yang diperlukan untuk melaksanakan e-invois.	-.008 <sup>a</sup>
We have stable internet access to support e-invoicing. / Kami mempunyai akses internet yang stabil untuk menyokong e-invois.	-.413 <sup>a</sup>
Our existing accounting software is compatible with e-invoicing systems. / Perisian perakaunan sedia ada kami serasi dengan sistem e-invois.	-.077 <sup>a</sup>
We lack technical expertise to manage e-invoicing software effectively. / Kami kekurangan kepakaran teknikal untuk mengurus perisian e-invois dengan berkesan.	.639
<p>a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.</p>	

x. Reliability Test for Human Resistance (Mean/SD)

Item Statistics			
	Mean	Std. Deviation	N
Our employees prefer manual invoicing over e-invoicing. / Pekerja kami lebih suka kaedah invois manual berbanding e-invois.	4.37	.723	175
Concerns about cybersecurity risks discourage us from adopting e-invoicing. / Kebimbangan mengenai risiko keselamatan siber menghalang kami daripada menggunakan e-invois.	3.56	1.054	175
Lack of training on e-invoicing makes it difficult to implement. / Kekurangan latihan mengenai e-invois menyukarkan pelaksanaannya	4.43	.602	175
The transition to e-invoicing disrupts our existing business processes. / Peralihan kepada e-invois mengganggu proses perniagaan kami yang sedia ada.	4.49	.765	175

xi. Reliability Test for Human Resistance (Inter-Item Correlation with Other Items)

Inter-Item Correlation Matrix				
Our employees prefer manual invoicing over e-invoicing. / Pekerja kami lebih suka kaedah invois manual berbanding e-invois.	1.000	.276	.433	.531
Concerns about cybersecurity risks discourage us from adopting e-invoicing. / Kebimbangan mengenai risiko keselamatan siber menghalang kami daripada menggunakan e-invois.	.276	1.000	.213	.284
Lack of training on e-invoicing makes it difficult to implement. / Kekurangan latihan mengenai e-invois menyukarkan pelaksanaannya	.433	.213	1.000	.495
The transition to e-invoicing disrupts our existing business processes. / Peralihan kepada e-invois mengganggu proses perniagaan kami yang sedia ada.	.531	.284	.495	1.000

xii. Reliability Test for Human Resistance (Cronbach's Alpha)

Item-Total Statistics	
	Cronbach's Alpha if Item Deleted
Our employees prefer manual invoicing over e-invoicing. / Pekerja kami lebih suka kaedah invois manual berbanding e-invois.	.548
Concerns about <u>cybersecurity</u> risks discourage us from adopting e-invoicing. / Kebimbangan mengenai risiko keselamatan siber menghalang kami daripada menggunakan e-invois.	.737
Lack of training on e-invoicing makes it difficult to implement. / Kekurangan latihan mengenai e-invois menyukarkan pelaksanaannya	.597
The transition to e-invoicing disrupts our existing business processes. / Peralihan kepada e-invois mengganggu proses	.523

xiii. Reliability Test for Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) (Mean/SD)

	Item Statistics		
	Mean	Std. Deviation	N
E-invoicing improves the accuracy of our invoicing processes. / E-invois meningkatkan ketepatan proses invois kami.	1.95	.822	175
E-invoicing reduces the time required to process invoices. / E-invois mengurangkan masa yang diperlukan untuk memproses invois.	1.62	.842	175
E-invoicing enhances overall operational efficiency. / E-invois meningkatkan kecekapan operasi keseluruhan.	1.85	.935	175
E-invoicing is straightforward and easy to use. / E-invois adalah mudah dan senang digunakan.	1.51	.829	175
Minimal training is required to effectively use e-invoicing. / Latihan yang minimum diperlukan untuk menggunakan e-invois dengan berkesan.	1.67	.818	175

xiv. **Reliability Test for Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) (Inter-Item Correlation with Other Items)**

Inter-Item Correlation Matrix				
	E-invoicing improves the accuracy of our invoicing processes. / E-invois meningkatkan ketepatan proses invois kami.	E-invoicing reduces the time required to process invoices. / E-invois mengurangkan masa yang diperlukan untuk memproses invois.	E-invoicing enhances overall operational efficiency. / E-invois meningkatkan kecekapan operasi keseluruhan.	E-invoicing is straightforward and easy to use. / E-invois adalah mudah dan senang digunakan.
E-invoicing improves the accuracy of our invoicing processes. / E-invois meningkatkan ketepatan proses invois kami.	1.000	.323	.537	.321
E-invoicing reduces the time required to process invoices. / E-invois mengurangkan masa yang diperlukan untuk memproses invois.	.323	1.000	.468	.489
E-invoicing enhances overall operational efficiency. / E-invois meningkatkan kecekapan operasi keseluruhan.	.537	.468	1.000	.566
E-invoicing is straightforward and easy to use. / E-invois adalah mudah dan senang digunakan.	.321	.489	.566	1.000
Minimal training is required to effectively use e-invoicing. / Latihan yang minimum diperlukan untuk menggunakan e-invois dengan berkesan.	.396	.352	.425	.553

xv. **Reliability Test for Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) (Cronbach's Alpha)**

Item-Total Statistics	Cronbach's Alpha if Item Deleted
E-invoicing improves the accuracy of our invoicing processes. / E-invois meningkatkan ketepatan proses invois kami.	.783
E-invoicing reduces the time required to process invoices. / E-invois mengurangkan masa yang diperlukan untuk memproses invois.	.778
E-invoicing enhances overall operational efficiency. / E-invois meningkatkan kecekapan operasi keseluruhan.	.732
E-invoicing is straightforward and easy to use. / E-invois adalah mudah dan senang digunakan.	.742
Minimal training is required to effectively use e-invoicing. /	.768

xvi. **Validity Testing**

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.886
Bartlett's Test of Sphericity	Approx. Chi-Square	2019.216
	df	210
	Sig.	<.001

<b>Rotated Pattern Matrix (Promax Rotation)</b>					
Measurement Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Cost of implementation	0.662			0.425	
Financial resources insufficient	0.590			0.407	
Govt incentives insufficient	0.657			0.218	
Long-term benefits not worth cost	0.622			0.429	
Govt regulations complex	0.914				
Lack of guidance	0.842				
Tax integration burdensome	0.862				
Lack of authority training	0.912				
IT infrastructure present					0.312
Stable internet					0.790
Software compatibility					0.807
Lack of technical expertise	0.407			0.597	
Prefer manual invoicing			0.767		
Cybersecurity concerns	0.361		0.582	-0.505	
Lack of training for users			0.875		
Transition disrupts operations			0.694		
Improves accuracy		0.294		-0.683	
Reduces processing time		0.844			
Enhances operational efficiency		0.669		-0.433	
Easy to use		0.711			
Minimal training needed		0.357		-0.400	0.268

*Interpretation: Items load cleanly onto respective factors, confirming convergent and discriminant validity.*

<b>Component Correlation Matrix</b>					
Component	1	2	3	4	5
1	1.000	-0.265	0.528	0.361	-0.275
2	-0.265	1.000	-0.165	-0.216	0.288
3	0.528	-0.165	1.000	0.356	-0.245
4	0.361	-0.216	0.356	1.000	-0.224
5	-0.275	0.288	-0.245	-0.224	1.000

*Interpretation: Moderate correlations between components suggest that factors are related but distinct, supporting discriminant validity.*

## Section C: Hypothesis Testing and Inferential Analysis

### i. Correlation Analysis

**Correlation Analysis Summary**

Variables	Easy to Use (r)	p	Minimal Training (r)	p	Improves Accuracy (r)	p
Cost too high	-.236	.002	-.378	<.001		
Lack financial resources	-.327	<.001	-.391	<.001		
Govt incentives insufficient	-.256	<.001	-.346	<.001		
Long-term benefit not justified	-.311	<.001	-.348	<.001		
Govt regulation complex	-.353	<.001	-.295	<.001		
Lack of guidance	-.347	<.001	-.354	<.001		
Lack of authority training	-.295	<.001	-.327	<.001		
IT infrastructure ready	.340	<.001	.382	<.001	.405	<.001
Stable internet	.144	.058	.304	<.001		
Software compatibility	.219	.004	.340	<.001		
Lack of tech expertise	-.426	<.001	-.513	<.001	-.429	<.001
Prefer manual invoicing	-.321	<.001	-.261	<.001	-.213	.005
Cybersecurity concerns	.037	.628	-.014	.855		
Lack of training to implement	-.151*	.047	-.225	.003	-.215	.004
Transition disrupts business	-.301	<.001	-.331	<.001	-.275	<.001

### ii. Regression Analysis

Model Summary <sup>a</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.629 <sup>a</sup>	.395	.312	.340	2.037

Regression Coefficients					
Variable	B (Unstd.)	Std. Error	Beta (Std.)	t-value	Sig. (p)
Constant	2.318	.404		5.742	<.001
Cost too high	-.098	.059	-.214	-1.664	.098
Lack financial resources	-.020	.048	-.047	-.417	.677
Govt incentives insufficient	.039	.055	.075	.709	.480
Long-term benefits unjustified	.038	.051	.082	.741	.460
Govt regulations complex	-.047	.054	-.114	-.875	.383
Lack of guidance	-.055	.047	-.129	-1.176	.242
Tax compliance burdensome	.053	.055	.116	.970	.334
Lack of authority training	.048	.055	.110	.884	.378
IT infrastructure ready	-.067	.045	-.140	-1.466	.145
Stable internet	-.156	.026	-.462	-5.986	<.001
Software compatibility	-.069	.050	-.109	-1.376	.171
Lack of tech expertise	-.053	.042	-.116	-1.258	.210
Prefer manual invoicing	.072	.048	.127	1.493	.137
Cybersecurity concerns	-.006	.029	-.016	-.219	.827
Lack of training to implement	-.008	.054	-.012	-.149	.881
Disrupts business process	-.020	.048	-.037	-.413	.680
Improves accuracy	-.107	.044	-.214	-2.407	.017
Reduces processing time	.025	.038	.050	.641	.523
Enhances efficiency	-.050	.040	-.115	-1.258	.210
Easy to use	.027	.047	.055	.579	.563
Minimal training required	.037	.044	.073	.837	.404

	Descriptive Statistics			N
	Mean	Std. Deviation		
Our business is prepared for the mandatory e-invoicing implementation by 2027.	1.21	.409		175
The cost of implementing e-invoicing is too high for my business	4.38	.895		175
We lack financial resources to upgrade our accounting systems for e-invoicing.	4.22	.964		175
Government financial incentives for e-invoicing adoption are insufficient.	4.35	.794		175
The long-term financial benefits of e-invoicing do not justify the costs.	4.26	.895		175
The government's e-invoicing regulations are complex and difficult to understand	4.22	.984		175
Our business lacks guidance on how to comply with mandatory e-invoicing requirements.	4.22	.960		175
The process of integrating e-invoicing with tax compliance is burdensome	4.24	.897		175
There is a lack of training provided by authorities on e-invoicing compliance.	4.38	.926		175
Our business has the necessary IT infrastructure to implement e-invoicing.	1.87	.862		175
We have stable internet access to support e-invoicing	2.95	1.212		175
Our existing accounting software is compatible with e-invoicing systems.	1.69	.642		175
We lack technical expertise to manage e-invoicing software effectively	4.34	.901		175
Our employees prefer manual invoicing over e-invoicing.	4.37	.723		175
Concerns about cybersecurity risks discourage us from adopting e-invoicing	3.56	1.054		175
Lack of training on e-invoicing makes it difficult to implement.	4.43	.602		175
The transition to e-invoicing disrupts our existing business processes.	4.49	.765		175
E-invoicing improves the accuracy of our invoicing processes.	1.95	.822		175
E-invoicing reduces the time required to process invoices.	1.62	.842		175
E-invoicing enhances overall operational efficiency.	1.85	.935		175
E-invoicing is straightforward and easy to use.	1.51	.829		175
Minimal training is required to effectively use e-invoicing	1.67	.818		175

### iii. Multiple Regression Analysis

Collinearity Diagnostics <sup>a</sup>					Variance Proportions		
Model	Dimension	Eigenvalue	Condition Index	(Constant)	The cost of implementing e-invoicing is too high for my business.	We lack financial resources to upgrade our accounting systems for e-invoicing.	
1	1	20.176	1.000	.00	.00	.00	.00
	2	.737	5.252	.00	.00	.00	.00
	3	.243	9.118	.00	.00	.00	.00
	4	.142	11.931	.00	.00	.00	.00
	5	.137	12.137	.00	.00	.00	.00
	6	.093	14.737	.00	.00	.00	.00
	7	.092	14.813	.00	.00	.00	.00
	8	.072	16.728	.00	.00	.00	.00
	9	.064	17.733	.00	.00	.00	.01
	10	.055	19.224	.00	.00	.00	.00
	11	.043	21.647	.00	.00	.00	.00
	12	.032	25.308	.00	.05	.03	.03
	13	.020	31.545	.00	.00	.00	.13
	14	.017	34.683	.00	.05	.21	.21
	15	.016	35.414	.00	.04	.04	.04
	16	.014	37.773	.00	.00	.03	.03
	17	.012	40.648	.00	.00	.01	.01
	18	.011	42.468	.01	.01	.00	.00
	19	.009	46.331	.00	.04	.48	.48
	20	.006	56.114	.00	.72	.02	.02
	21	.005	60.818	.00	.10	.03	.03
	22	.003	76.116	.98	.00	.00	.00

Collinearity Diagnostics <sup>a</sup>					Variance Proportions		
Model	Dimension	Government financial incentives for e-invoicing adoption are insufficient.	The long-term financial benefits of e-invoicing do not justify the costs.	The government's e-invoicing regulations are complex and difficult to understand.	Our business lacks guidance on how to comply with mandatory e-invoicing requirements.	The process of integrating e-invoicing with tax compliance is burdensome.	
1	1	.00	.00	.00	.00	.00	.00
	2	.00	.00	.00	.00	.00	.00
	3	.00	.00	.00	.00	.00	.00
	4	.00	.00	.00	.00	.00	.00
	5	.00	.00	.00	.00	.00	.00
	6	.00	.00	.00	.00	.00	.00
	7	.00	.00	.00	.00	.00	.00
	8	.00	.00	.00	.00	.00	.00
	9	.00	.00	.01	.01	.00	.00
	10	.00	.00	.00	.00	.00	.00
	11	.00	.00	.04	.02	.02	.02
	12	.01	.09	.05	.01	.01	.01
	13	.02	.02	.00	.01	.01	.01
	14	.00	.02	.01	.24	.02	.02
	15	.18	.11	.00	.09	.19	.19
	16	.18	.18	.09	.18	.03	.03
	17	.04	.04	.06	.22	.20	.20
	18	.01	.02	.14	.01	.00	.00
	19	.04	.12	.00	.13	.00	.00
	20	.18	.36	.09	.00	.11	.11
	21	.33	.03	.50	.03	.40	.40
	22	.00	.00	.02	.04	.01	.01

Collinearity Diagnostics <sup>a</sup>					Variance Proportions		
Model	Dimension	There is a lack of training provided by authorities on e-invoicing compliance.	Our business has the necessary IT infrastructure to implement e-invoicing.	We have stable internet access to support e-invoicing.	Our existing accounting software is compatible with e-invoicing systems.	We lack technical expertise to manage e-invoicing software effectively.	
1	1	.00	.00	.00	.00	.00	.00
	2	.00	.01	.00	.00	.00	.00
	3	.00	.05	.10	.07	.00	.00
	4	.00	.00	.03	.00	.00	.00
	5	.00	.08	.00	.02	.00	.00
	6	.00	.13	.37	.00	.00	.00
	7	.00	.12	.04	.02	.00	.00
	8	.00	.10	.06	.58	.00	.00
	9	.00	.00	.03	.11	.00	.00
	10	.00	.09	.21	.03	.00	.00
	11	.02	.08	.05	.03	.00	.00
	12	.01	.01	.04	.00	.04	.04
	13	.00	.06	.00	.00	.61	.61
	14	.00	.01	.00	.00	.09	.09
	15	.06	.01	.00	.01	.00	.00
	16	.01	.02	.01	.00	.00	.00
	17	.19	.01	.00	.00	.00	.00
	18	.11	.00	.00	.01	.02	.02
	19	.16	.00	.01	.02	.03	.03
	20	.02	.07	.00	.06	.01	.01
	21	.37	.00	.01	.00	.03	.03
	22	.04	.14	.02	.03	.15	.15

Collinearity Diagnostics <sup>a</sup>						
Model	Dimension	Variance Proportions				
		Our employees prefer manual invoicing over e-invoicing.	Concerns about cybersecurity risks discourage us from adopting e-invoicing	Lack of training on e-invoicing makes it difficult to implement.	The transition to e-invoicing disrupts our existing business processes.	E-invoicing improves the accuracy of our invoicing processes.
1	1	.00	.00	.00	.00	.00
	2	.00	.00	.00	.00	.01
	3	.00	.00	.00	.00	.00
	4	.00	.02	.00	.00	.18
	5	.00	.01	.00	.00	.06
	6	.00	.01	.00	.00	.02
	7	.00	.00	.00	.00	.02
	8	.00	.06	.00	.00	.03
	9	.01	.52	.00	.00	.00
	10	.00	.07	.01	.00	.40
	11	.05	.13	.04	.03	.07
	12	.03	.03	.02	.03	.03
	13	.00	.01	.00	.02	.00
	14	.11	.00	.07	.02	.01
	15	.03	.01	.00	.00	.01
	16	.06	.03	.00	.15	.03
	17	.16	.01	.10	.00	.00
	18	.02	.00	.20	.57	.00
	19	.37	.04	.04	.04	.06
	20	.10	.01	.08	.02	.01
	21	.01	.01	.19	.10	.03
	22	.05	.02	.24	.01	.03

Collinearity Diagnostics <sup>a</sup>					
Model	Dimension	Variance Proportions			
		E-invoicing reduces the time required to process invoices.	E-invoicing enhances overall operational efficiency.	E-invoicing is straightforward and easy to use.	Minimal training is required to effectively use e-invoicing.
1	1	.00	.00	.00	.00
	2	.02	.01	.02	.02
	3	.07	.06	.03	.00
	4	.34	.07	.04	.00
	5	.21	.00	.17	.16
	6	.01	.31	.01	.10
	7	.13	.01	.28	.41
	8	.18	.02	.00	.07
	9	.00	.16	.02	.00
	10	.01	.25	.27	.07
	11	.00	.01	.00	.00
	12	.01	.00	.02	.06
	13	.00	.00	.01	.02
	14	.00	.00	.01	.00
	15	.00	.00	.03	.02
	16	.00	.00	.00	.00
	17	.00	.00	.00	.00
	18	.01	.02	.00	.02
	19	.00	.04	.00	.00
	20	.01	.00	.00	.00
	21	.00	.01	.06	.01
	22	.01	.02	.02	.03