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# Determinants Of Artificial Intelligence Adoption In Accounting Among Malaysia Small And Medium-Sized Enterprises

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**Abstract**

Malaysia Small and Medium-Sized Enterprises (MSMEs) are still in the early phases of adopting artificial intelligence (AI) to transform manual or conventional processes into ones that are supported by AI technology. Most MSMEs have yet to fully grasp the essence of digitalization as a general movement in corporate strategy and work processes to improve decision-making, boost efficiency, and discover untapped possibilities. The purpose of this research is to examine the determinants of AI adoption in accounting among MSMEs. The independent variables are perceived ease of use, management support, organizational readiness, government support, and external pressure. The dependent variable is AI adoption in accounting among MSMEs. This research applied a quantitative method by using a questionnaire consisting of 24 questions. The study used a convenience sampling method, with a sample size of 200 respondents from MSMEs. A total of 150 samples are valid. The collected data was analyzed using SPSS. The collected information was assessed using demographic descriptive analysis, data descriptive analysis, normality test, validity analysis, reliability test, correlation analysis, and regression analysis. The findings indicated that the adoption of AI in accounting among MSMEs is positively influenced by perceived ease of use, management support, organizational readiness, government support, and external pressure. The results and suggestions will be advantageous for SMEs looking to adopt AI in their accounting functions. Additionally, this research proposes a methodology and framework to assist SMEs owners and management in comprehending the determinants that drive significant AI adoption in accounting.

**Keywords**: perceived ease of use, management support, organizational readiness, government support, external pressure.

## I. INTRODUCTION

The adoption of AI among MSMEs has seen significant growth and is now in great demand within the industrial sector. The objective of AI is to facilitate intelligent goods, services, and interactions by exchanging knowledge, promoting cooperation, and achieving optimal and sustainable outcomes. AI adoption in companies may enhance performance, including improved quality control, reduced design time, minimized resource waste, enhanced production reuse, predictive maintenance capabilities, and others. Therefore, incorporating AI into their operations may be advantageous for firms since it can enhance corporate performance and provide a strategic advantage (Ghani et

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al., 2022). Evidently, the study of AI and MSMEs is still in its early stages, and there are various gaps that need more investigation (Hansen and Bøgh, 2021; Perifanis and Kitsios, 2023). Despite their contribution to the local economic structure of Malaysia, MSMEs lag significantly in the adoption of AI in accounting (Ambad et al., 2020). The main factors contributing to the lack of AI implementation in MSMEs are a limited comprehension of AI capabilities and insufficient resources for adapting to AI in accounting (Ingalagi et al., 2021). In addition, there are a limited number of research papers on AI and its impact on accounting among MSMEs. The study of SMEs is particularly relevant due to their significant contribution of RM580.4 billion to the gross domestic product (GDP) in 2022, as reported by SME Corporation Malaysia in 2022 (SME Corp. Malaysia, 2023b). Due to their existing lack of AI expertise, support, competency, and less appealing financial incentives, MSMEs are losing the race for the most skilled Information and Communication Technologies (ICT) graduates to multinational companies. Given the growing recognition of the problem and the limited availability of academic information, it remains challenging to identify and analyse the hurdles that may be contributing to the low acceptance rate and cautious behaviour towards AI adoption in accounting among MSMEs (Aarstad and Saidl, 2019).

The objectives of this study are:

- To examine the relationship between the perceived ease of use and AI adoption in accounting among MSMEs.
- To examine the relationship between management support and AI adoption in accounting among MSMEs.
- To examine the relationship between organizational readiness and AI adoption in accounting among MSMEs.
- To examine the relationship between government support and AI adoption in accounting among MSMEs.
- To examine the relationship between external pressure and AI adoption in accounting among MSMEs

### 1.1 Significance Of The Study

This study selected the Technology-Organization-Environment (TOE) Theory, Diffusion of Innovation (DOI) Theory and Institutional Theory (INT), as the underpinning theories to study the adoption of AI in accounting among MSMEs. The TOE theory is a theoretical model that explains how three distinct contexts have an impact on an organization's choices on AI adoption. The organization-level theory encompasses a framework that examines the technological, organizational, and environmental contexts of an organization (Tornatzky and Fleischer, 1990).

This study contributes to the existing body of literature by examining the determinants that influence the willingness of MSMEs to adopt AI in accounting for their business operations. Consequently, stakeholders have the opportunity to assess the aspects that impact their choice to adopt AI This research will contribute by providing a completely new and comprehensive framework for utilizing AI in accounting. The current research also aims to provide managers of SMEs, policymakers, and AI service providers with a more accurate comprehension of the significance of technological, organizational, and environmental factors in the adoption of AI in accounting (Maroufkhani et al., 2023). This study provides a practical insight into the determinants of AI on accounting professional roles, responsibilities, and skills, making the prospect

of AI-based accounting more feasible for management, individual workers, and accounting students (Leitner-Hanetseder et al., 2021). This research advocates stakeholder participation in the development of AI-based accounting systems that are fit for accounting and capable of promoting secure, shareable, verifiable, and consensus-driven financial data sharing, resolving corporate agency challenges, and redefining power and control (Han et al., 2023)

## II. LITERATURE REVIEWS

### 2.1. Perceived Ease of Use and AI Adoption in Accounting

Perceived ease of use is defined as the extent to which people perceive AI technology to be readily comprehensible (Elisa et al., 2022). Users perceive that the convenience of using AI will elicit a sensation that the system is functional, hence inducing a feeling of ease while working. Conversely, AI technology that is challenging to regulate will result in a detrimental degree of convenience (Hong et al., 2021). Perceived ease of use is a determinant of the extent of positive attitudes towards usage. Perceived ease of use is determined by the degree to which prospective users anticipate that the AI may be utilized without any limitations or constraints. The aspects of perceived ease of use include user-friendliness, simplicity, comprehensibility, and absence of difficulties. AI technology that are used more often demonstrate greater user familiarity, enhanced operability, and increased user friendliness. An esteemed reputation that reaches people will enhance their trust in the user-friendliness of the AI technology (Neves et al., 2022). If an individual perceives the AI as user-friendly, they are more likely to use it (Neves et al., 2022). The adoption of AI technology is often enhanced when it exhibits a higher level of user-friendliness (Goli et al., 2023). The AI adoption rate will increase rapidly if the new concept or innovation is easily comprehensible and user-friendly (Raharja et al., 2019). Past research has shown that the perceived ease of use has a positive influence on the willingness of prospective customers to embrace AI in accounting (Ghode et al., 2020; Rauniyar et al., 2022; Polas et al., 2022). In a few studies conducted by Nguyen and LUU (2020) and Varzaru (2022), it was shown that perceived ease of use positively influences the application or continuous use of AI in accounting. Wong et al., (2020) indicate that the acceptance of technology or innovation is less likely as its perceived ease of use increases and prospective users also experience a decline in their confidence to effectively employ it. Therefore, a hypothesis was formulated that:

HI: Perceived ease of use has a positive influence on the adoption of AI in accounting among MSMEs..

### 2.2. Management Support and AI Adoption in Accounting

The primary individuals responsible for making decisions in SMEs are the management. It is important for these managers to assure the availability of resources that are crucial for the use of AI in accounting. Additionally, they must strive to reduce or remove any obstacles that may impede the adoption of AI in accounting in order to overcome opposition towards its implementation (Meri et al., 2019; Lutfi et al., 2022a). Research of this magnitude has shown that the achievement of AI in SMEs is positively influenced by the support and dedication of managers. Both managerial support and dedication have been shown to have a positive influence on the development and performance of AI in SMEs (Lutfi et al., 2022a). According to research by Ghani et al. (2022), there is correlation between the level of senior management support and the adoption of AI in accounting. This is because in order to execute innovation, managers

at higher levels who have the authority to allocate supply and resources must support it. Without top-level management support, AI adoption in accounting cannot be put into practice since there won't be any authority driving technological advancements inside the company. Alsheibani et al. (2020) provide support for this perspective, since their research indicates that the presence of consistent and ongoing managerial assistance is crucial throughout the implementation stage to prevent project failure. According to El-Haddadeh et al. (2021), managers are obligated to designate essential personnel to supervise certain activities, especially at more advanced levels, and provide financial and other resources towards their advancement. Adoption of AI in accounting is closely correlated with management support. Higher levels of top-level support provide a more supportive IT environment for AI adoption and remove AI technological challenges. The adoption of AI in accounting would benefit from top managers' support, which has a positive influence during the adoption of AI (Youssef et al., 2022; Maroufkhani et al., 2023). In light of this, the endorsement of top-level management serves as a catalyst for expediting the business transformation process and, subsequently, embracing AI in accounting (Maroufkhani et al., 2023). Accordingly, the following hypothesis was proposed:

H2: Management support has a positive influence on the adoption of AI in accounting among MSMEs.

**2.3. Organisational Readiness and AI Adoption in Accounting**

Prior research has indicated that the readiness of organizations is a crucial factor in the implementation of various technologies, including social commerce (Abed, 2020), intelligent agent technology (Alsetoohy et al., 2019), mobile commerce (Chau et al., 2020), and big data (Hajiheydari et al., 2021). In addition, it is essential to consider several factors, such as monetary resources, information technology infrastructure, analytical skills, and a proficient workforce, in order to achieve effective implementation of AI (Raut et al., 2021). The adoption of AI in accounting may be hindered due to limited financial resources and a lack of expertise, particularly in relation to intricate technologies. Consequently, this aspect might have an impact on the adoption and implementation of AI within organizations. Previous research has shown that the readiness of an organization plays a significant role in the successful implementation and use of technological breakthroughs (Cruz-Jesus et al., 2019). Lutfi et al. (2022a) have shown that the level of organizational readiness has a positive influence on the effectiveness of AI adoption in accounting, a finding that aligns with the present research. Past research has shown a significant correlation between organizational readiness and the adoption of AI in accounting among SMEs (Asiaei and Ab. Rahim, 2019; Lutfi et al., 2022b). The positive influences of organizational readiness on the adoption of AI have also been shown by Maroufkhani et al. (2020b) and Maroufkhani et al. (2023). Organizational readiness in the current study pertains to the comprehensive availability of financial resources or capital, trained personnel, knowledge resources, analytical capabilities, and essential infrastructure that empower SMEs to fully use AI in accounting. According to Alsetoohy et al. (2019), if a company lacks the necessary resources and expertise to effectively use technology, investing in this technology becomes futile, regardless of its significant advantages. Hence, this study proposes the following hypothesis:

H3: Organizational readiness has a positive influence on the adoption of AI in accounting among MSMEs.

**2.4. Government Support and AI Adoption in Accounting**

Government assistance is shown via its efforts to promote and encourage the use and integration of technology inside the enterprise (Lutfi et al., 2022a; Alrawad et al., 2022). The laws and guidelines implemented by the government might potentially restrict the use of technology and innovation within a particular sector, hence imposing limitations. Conversely, the same regulations and guidelines may also serve as incentives for innovation adoption in another industry. Government laws, norms, and policies exhibit variations among countries and industries. The significance of this component in the use of innovation was investigated by previous studies (Lutfi, 2021; Lutfi et al., 2022a), which revealed a positive influence between the two variables. Few studies (Ghani, 2022; Wang et al., 2022; Alsheibani et al., 2020) have shown that the provision of governmental assistance has a positive influence on the adoption of AI. The impact of the regulatory framework on the industrial structure is contingent upon specific factors. The direction of the governing system has some effect on the organization of the industry as a whole. According to the research conducted by Lindawati et al. (2023), Al-Hawamdeh and Alshaer (2022), Phuoc (2022) and Nguyen and Dang (2022), there exists a positive influence between the provision of government funding and the use of AI in accounting. This is due to the government's ability to provide a favourable environment for AI and to support the widespread use of AI in accounting while effectively managing the associated ramifications via the implementation of appropriate rules and procedures. It is essential for the government to undertake proactive strategies and policies aimed at fostering the adoption of nascent technologies in commercial settings while concurrently establishing comprehensive frameworks for their effective implementation (Ghani, 2022). The dynamic nature of modern technologies requires a government framework. AI affects privacy, security, and ethical culture. Thus, AI development and deployment need a strong legal framework. Due to the fast progress of AI technology, security, legal, ethical, and governance precautions must be strengthened. Studies show that government assistance is vital to AI adoption in accounting (Ghani, 2022). Therefore, the following hypothesis is developed:

H4: Government support has a positive influence on the adoption of AI in accounting among MSMEs.

**2.5.External Pressure and AI Adoption in Accounting**

The external environment of the company has the potential to directly influence the enterprise's decision-making process regarding the adoption of AI in accounting. One of the primary motivations for a company to embrace AI technology is the presence of competitive pressure. According to the findings of Asiaei and Rahim (2019), competitive pressure plays a crucial role in the adoption of technology in accounting among SMEs. This element also suggested that businesses outsource their needs for IT infrastructure to increase the efficacy of their operations in the outsourcing research sector. The best choice with regard to all developing technologies might assist companies in growing their market share by lowering costs (Asiaei and Ab. Rahim, 2019). Several studies have shown that rivalry has a positive influence on technology adoption in accounting among SMEs (Lutfi et al., 2022b; Nascimento and Meirelles, 2021). According to Ingalagi et al. (2021), it has been shown that competitive pressure has a

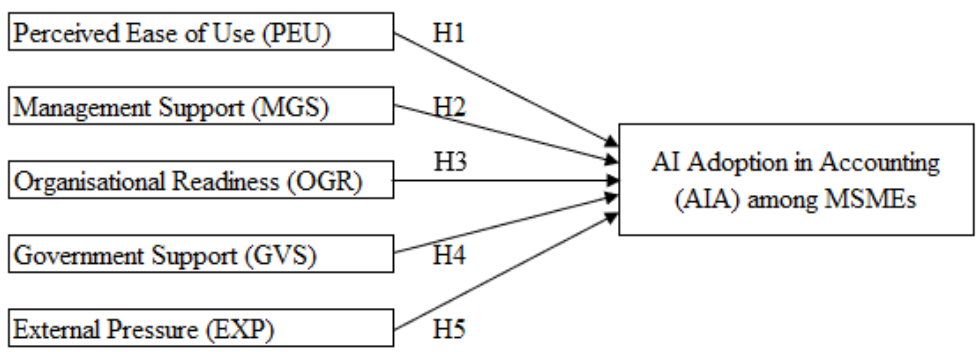
positive influence on the adoption of AI in accounting among SMEs. Sustainable manufacturing practices are heavily impacted by pressure from the media, rivals, and consumers. The rising use of AI-based accounting in the workplace improves the company's capacity to raise production effectiveness and competitive survival. The presence of competitive pressure serves as a catalyst for driving technical progress. The adoption of novel technologies is often seen as a strategic need in order to maintain competitiveness within the market. The competitive advantages of firms are not enduring and permanent, but rather temporary and fleeting. Nguyen and Dang (2022) assert that the implementation of AI innovation might potentially modify industry structures, reinterpret competition rules, use new techniques to outperform rivals, and eventually transform the competitive environment. Companies that effectively use new AI technologies to enhance their offerings and services will get a competitive edge. Hence, this study proposes the following hypothesis for testing:

H5: External pressure has a positive influence on the adoption of AI in accounting among MSMEs.

### 2.6 Theoretical Framework

In this study, a new framework was developed and relevant to the AI adoption in accounting.

**Figure 1.**
**Proposed Theoretical Framework – AI Adoption in Accounting among Malaysia SMEs**




## III. RESEARCH METHODOLOGY

This study employed a quantitative approach. Therefore, two categories of quantitative research, namely descriptive and correlation, were chosen for this study. The sample size for this study was determined using GPOWER V3.1.9.7 software. The dataset was collected from SME Corp. Malaysia, Dun & Bradstreet, and InvestPenang, regarding a total of 200 companies across several industries in MSMEs. This research used a non-probability sampling method known as convenience sampling. This study used an online questionnaire via Google Forms to collect the primary data. The questionnaire was divided into two sections to specifically focus on the study's goals on the demographics of respondents, and the determinants of AI adoption in accounting among MSMEs. A unit of analysis refers to the entity that a researcher states their findings are about at the end of the research (Malik et al., 2021). For this study, the unit

of analysis was the company. The respondents in this study consisted of owners or employees of SMEs operating in diverse industries in Malaysia. The employees of SMEs have positions at management level such as manager, senior manager, directors or C-level.

### 3.1 Construct Measurement and Questionnaire Design

Data collection was conducted through a survey questionnaire that included multiple questions for each component. The survey questionnaires were pre-tested with a sub-sample of 30 MSMEs, and minor amendments were made to some lengthy and enigmatic questionnaires. With the exception of demographic variables, all items are evaluated using a five-point Likert scale, where 1 represents strongly disagree and 5 represents strongly agree. To ensure the validity of the responses, it is necessary for respondents to answer all questions.

### 3.2 Data Analysis Techniques

The collected information was assessed using different data analysis techniques. This study includes analyses of demographic descriptive analysis, data descriptive analysis, normality test, validity analysis, reliability test, correlation analysis, and regression analysis.

## IV. RESULTS AND DISCUSSION

A sample of 200 MSMEs is collected from the whole population. As a result, a total of 150 valid responses were collected. Generally, female respondents (52%) more than male respondents (48%). Secondly, 71 (47.3%) are between 27 and 42 years old, which is the biggest age group; followed by 44 (29.3%) are between 43 and 58 years old; 26 (17.3%) are between 26 and below and 9 (6%) are above the age of 59. Following that, majority respondents (66) are Bachelor degree holders, followed by 42 (28%) Master degree holders, 34 (22.7%) secondary school academic qualification, 5 (3.3%) Doctorate degree holders, and 3 (2%) others. Furthermore, financial accounting was the highest area of accounting, with 76 (50.7%), followed by, 45 (30%) work in management accounting, 16 (10.7%) work in risk, audit, and assurance, 8 (5.3%) work in tax, and 5 (3.3%) work in other areas of accounting. Aside from that, most respondents hold the position of top management (36.7%) and middle management (36.7%). The remaining respondents' company roles include 15 (10%) proprietors, 17 (11.3%) directors and 8 (5.3%) others. The respondents' business industries can be categorized into 15 (10%) in construction, 14 (9.3%) in educational services, 12 (8%) in healthcare, 11 (7.3%) in information, 24 (16%) in manufacturing, 14 (9.3%) in professional, scientific and technical services, 12 (8%) in real estate and rental and leasing, 12 (8%) in retail trade, 10 (6.7%) in transportation and warehousing, 19 (12.7%) in wholesale trade, and 7 (4.7%) in other industries. In term of company category, the respondents' companies are divided into 44 (29.3%) medium manufacturing, 42 (28%) medium services and other sectors, 26 (17.3%) small manufacturing, 26 (17.3%) small services and other sectors, 11 (7.3%) micro manufacturing, and 1 (0.7%) micro services and other sectors. The findings indicate that the majority of respondents who have embraced AI in accounting are female and aged between 27 and 42. These respondents have a bachelor's degree and specialized in financial accounting. Furthermore, they tend to occupy positions of top or middle management within their respective companies. The majority of the respondents' companies belong to the medium manufacturing group.

### 4.1. Normality Test Result – Skewness & Kurtosis Test

**Table 1**.

**Normality Analysis – Skewness & Kurtosis Test**

| Test Statistics | | PEU | MGS | OGR | GVS | EXP |
|---|---|---|---|---|---|---|
| N | Valid | 150 | 150 | 150 | 150 | 150 |
| | Missing | 0 | 0 | 0 | 0 | 0 |
| Skewness | | -.200 | -.713 | -.046 | -1.140 | -.796 |
| Std. Error of Skewness | | .198 | .198 | .198 | .198 | .198 |
| Kurtosis | | -.404 | 1.481 | 1.191 | 6.345 | 5.651 |
| Std. Error of Kurtosis | | .394 | .394 | .394 | .394 | .394 |

The skewness indicating that the data is negative moderately skewed within the accepted range of skewness value ± 1. All kurtosis values are accepted because all values fall within the accepted range of kurtosis value < 7.

### 4.2. Validity Analysis Finding – Kmo & Bartlett's Test

**Table 2.**

**KMO and Bartlett's Test**

| KMO and Bartlett's Test | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .930 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 6541.316 |
| | df | 276 |
| | Sig. | .000 |

SPSS was utilized to perform the KMO and Bartlett's test in order to evaluate the reliability of 24 items. As shown in Table 2 the KMO value is 0.930. Kaiser & Rice (1974) state that a KMO value greater than 0.9 signifies a superb result. This indicates that the sampling is sufficient and that the variables are either strongly correlated. The significant value determined by Bartlett's test is 0.000. The obtained significant value is smaller than the p-value threshold of 0.05. This indicates that the null hypotheses are rejected with a confidence level of 95% in this study and no homogeneity issue.

### 4.3. Reliability Analysis Findings - Cronbach's Alpha Test

**Table 3**.

**Reliability Coefficients**

| Variable | Number of Items | Items Dropped | Cronbach's Alpha |
|---|---|---|---|
| AI Adoption | 4 | 0 | 0.963 |
| Perceived Ease of Use | 4 | 0 | 0.970 |
| Management Support | 4 | 0 | 0.970 |
| Organizational Readiness | 4 | 0 | 0.962 |
| Government Support | 4 | 0 | 0.938 |
| External Pressure | 4 | 0 | 0.964 |

The Cronbach's alpha test was used in SPSS to test the internal reliability of 24 items across 6 variables. According to the rule of thumb for Cronbach's alpha value (Cronbach, 1951), all variables, including AIA ($\alpha > 0.963$), PEU ($\alpha > 0.970$), MGS ($\alpha > 0.970$), OGR ($\alpha > 0.962$), GVS ($\alpha > 0.938$), and EXP ($\alpha > 0.964$), have reached values greater than 0.9. The Cronbach Alpha coefficient for all 6 variables exceeds 0.9, indicating excellent of internal consistency.

### 4.4 Correlation Analysis Findings

**Table 4**.
**Correlation Testing**

| Correlations | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | AIA | PEU | MGS | OGR | GVS | EXP |
| AIA | Pearson Correlation | 1 | .776** | .830** | .879** | .902** | .762** |
| | Sig. (1-tailed) | | .000 | .000 | .000 | .000 | .000 |
| | N | 150 | 150 | 150 | 150 | 150 | 150 |
| PEU | Pearson Correlation | .776** | 1 | .923** | .850** | .836** | .946** |
| | Sig. (1-tailed) | .000 | | .000 | .000 | .000 | .000 |
| | N | 150 | 150 | 150 | 150 | 150 | 150 |
| MGS | Pearson Correlation | .830** | .923** | 1 | .789** | .810** | .916** |
| | Sig. (1-tailed) | .000 | .000 | | .000 | .000 | .000 |
| | N | 150 | 150 | 150 | 150 | 150 | 150 |
| OGR | Pearson Correlation | .879** | .850** | .789** | 1 | .936** | .823** |
| | Sig. (1-tailed) | .000 | .000 | .000 | | .000 | .000 |
| | N | 150 | 150 | 150 | 150 | 150 | 150 |
| GVS | Pearson Correlation | .902** | .836** | .810** | .936** | 1 | .820** |
| | Sig. (1-tailed) | .000 | .000 | .000 | .000 | | .000 |
| | N | 150 | 150 | 150 | 150 | 150 | 150 |
| EXP | Pearson Correlation | .762** | .946** | .916** | .823** | .820** | 1 |
| | Sig. (1-tailed) | .000 | .000 | .000 | .000 | .000 | |
| | N | 150 | 150 | 150 | 150 | 150 | 150 |

**. Correlation is significant at the 0.01 level (1-tailed).

AIA has a statistically significant linear relationship with PEU, MGS, OGR, GVS and EXP ($P < 0.001$). The correlation between each independent variable and dependent variable is 0.00, indicating a one-tailed test. The result shows positive values for perceived ease of use ($r = 0.776$), management support ($r = 0.830$), organizational readiness ($r = 0.879$), government support ($r = 0.902$), and external pressure ($r = 0.762$). This indicates that the direction of the relationship between AIA and PEU, MGS, OGR, GVS, and EXP is positive. According to the Correlation Coefficient's Rule of Thumb, the magnitude of the association indicated a strong relationship between perceived ease of use ($0.71 < | r = 0.776 | < 0.90$), management support ($0.71 < | r = 0.830 | < 0.90$), organizational readiness ($0.71 < | r = 0.879 | < 0.90$), government support ($0.71 < | r = 0.902 | < 0.90$), and external pressure ($0.71 < | r = 0.762 | < 0.90$) with AI adoption in accounting among MSMEs.

## 4.5. Regression Analysis Findings

**Table 5**.

**Model Summary**

| Model Summary[b] | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Change Statistics | | | | | |
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | F Change | df 1 | df2 | Sig. F Change | Durbin - Watson |
| 1 | .940[a] | .884 | .880 | .35136 | .884 | 220.010 | 5 | 144 | .000 | 2.150 |

a. Predictors: (Constant), EXP, GVS, MGS, OGR, PEU
b. Dependent Variable: AIA

Referring to Table 5, the R square value is 0.884, and the adjusted R square value is 0.880. This indicates that 88% of the independent variables (PEU, MGS, OGR, GVS, EXP) are capable of predicting the dependent variable – AI adoption in accounting among MSMEs. It also indicates that 88% of the variance in AI adoption in accounting among MSMEs can be explained by the independent variables. This is a strong correlation; thus, it accurately predicts AI adoption in accounting among MSMEs. The remaining 12% may represent variables not examined by this research model. The significant value is 0.000 (P-value = 0.000) which is below 0.05. Therefore, there is a statistically significant difference between AIA, PEU, MGS, OGR, GVS and EXP.

**Table 6**.

**Result of Hypothesis Testing**

| Hypothesis | Beta-Value | t-value | p-value | 95.0% Confidence Interval | | Decision |
|---|---|---|---|---|---|---|
| | | | | Lower Bound | Upper Bound | |
| **PEU ==> AIA** | -0.437 | -3.872 | 0.001 | -0660 | -0.214 | Accepted |
| **MGS ==> AIA** | 0.753 | 8.692 | 0.001 | 0.581 | 0.924 | Accepted |
| **OGR ==> AIA** | 0.424 | 4.788 | 0.001 | 0.249 | 0.599 | Accepted |
| **GVS ==> AIA** | 0.472 | 5.322 | 0.001 | 0.297 | 0.648 | Accepted |
| **EXP ==> AIA** | -0.238 | -2.331 | 0.021 | -0.439 | -0.036 | Accepted |

According to Table 6, the independent variable "Perceived Ease of Use" (β = -0.437, t = -3.872, p = 0.000 < 0.05) shows a relationship between perceived ease of use and AI adoption in accounting. The p-value (significance level) of this variable is less than 0.05, so the hypothesis (H1) "Perceived ease of use has a positive influence on the adoption of AI in accounting among MSMEs" is supported. The beta coefficient indicates a negative relationship between the perceived ease of use and AI adoption in accounting. Secondly, the values for the independent variable "Management Support" (β = 0.753, t = 8.692, p = 0.000 < 0.05) indicate that there is a relationship between management support and AI adoption in accounting. The p-value (significance) of this variable is less than 0.05, indicating support for the hypothesis (H2), which states that "Management support has a positive influence on the adoption of AI in accounting among MSMEs". The beta value indicates a positive relationship between management support and AI adoption in accounting. Thirdly, the values for the independent variable "Organisational Readiness" (β = 0.424, t = 4.788, p = 0.000 < 0.05) indicates a

relationship between organisational preparedness and AI adoption in accounting. Since the p-value (significance) of this variable is less than 0.05, the hypothesis (H3) that "organisational readiness has a positive influence on the adoption of AI in accounting among MSMEs" is supported. The beta coefficient indicates a positive relationship between organizational readiness and AI adoption in accounting. Fourth, the values for the independent variable "Government Support" ($\beta = 0.472$, $t = 5.322$, $p = 0.000 < 0.05$) show that there is a relationship between government support and AI adoption in accounting. The hypothesis (H4), "Government support has a positive influence on the adoption of AI in accounting among MSMEs", is supported since the p-value (significance) of this variable is less than 0.05. According to the beta value, there is a positive relationship between government support and AI adoption in accounting. Lastly, the values for the independent variable "External Pressure" ($\beta = -0.238$, $t = -2.331$, $p = 0.021 < 0.05$) indicate that there is a relationship between external pressure and AI adoption in accounting. Since the p-value (significance) of this variable is smaller than 0.05, the hypothesis (H5) "External pressure has a positive influence on the adoption of AI in accounting among MSMEs" is supported. The beta value shows that there is a negative relationship between external pressure and AI adoption in accounting. The complete results derived from SPSS are shown in Appendix C

### 4.7. Summary Of Results

**Table 7**.

**Hypothesis Testing Summary**

| Hypotheses | Description | Result |
|---|---|---|
| **H1** | Perceived Ease of Use has a positive influence on the adoption of AI in accounting among MSMEs. | Accepted |
| **H2** | Management Support has a positive influence on the adoption of AI in accounting among MSMEs. | Accepted |
| **H3** | Organizational Readiness has a positive influence on the adoption of AI in accounting among MSMEs. | Accepted |
| **H4** | Government support has a positive influence on the adoption of AI in accounting among MSMEs. | Accepted |
| **H5** | External Pressure has a positive influence on the adoption of AI in accounting among MSMEs. | Accepted |

### 4.8. Research Contributions and Implications

The theoretical and managerial contributions of this research have consequences for both the individual and the organization.

#### 4.8.1. Research Implications

The findings support the conclusions of earlier studies on the variables influencing AI adoption in accounting among MSMEs. Additionally, reliability and validity tests are used to confirm the accuracy of the instrument used in this research. As a result, further studies on innovations might use the instrument and the research models (Chen, 2019). In additional, this research approach combines TOE, DOI and INT to analyse AI adoption, resulting in powerful explanations and predictions with implications for academics (Lutfi et al., 2022a). Furthermore, the results show that combined theories (TOE, DOI and INT) as a theoretical underpinning, as incorporated in the AI adoption framework, may provide a more comprehensive understanding of successful AI adoption at the organizational level. Combining these ideas might be

beneficial to researchers when examining new organizational developments in AI (Alsheibani, Messom, and Cheung, 2020).

The research results may help managers, policymakers, and industry leaders seeking to understand why SMEs lag behind bigger rivals in embracing AI in accounting. Firms should prioritize formal networking through government agencies, SME advisory centers, financial institutions, IT consultants, and others to promote high-level AI adoption in accounting. This research proposes a methodology and framework to help SMEs managers and owners understand the variables that drive substantial AI adoption in accounting. The model can assess the impact of AI usage on enterprises and aid in decision-making for projects (Lutfi et al., 2022a; Alsheibani et al., 2020). Ultimately, this study aims to provide business solutions for AI in accounting in order to mitigate competitive pressures from rival firms and avoid any dangers associated with the use of AI in the future. The findings also indicate that opinions towards AI in accounting are influenced by external parties and their respective demands. This assertion is substantiated by the fact that the optimal functioning of AI necessitates the collaboration and coordination of many stakeholders (Truong, 2022).

**4.8.2. Research Limitations**

Despite accomplishing its objectives, this study, similar to any other research, does possess certain limitations. First, this study's sample was restricted to SMEs. This research specifically examines the adoption of AI in the Malaysia context. The results may not be applicable or generalizable to SMEs in other industries or different nations. Second, this study only focuses on the general adoption of AI in accounting, since MSMEs are now in the early phases of implementation. Third, this research is the relatively small sample size, namely 150 participants. The results and conclusions derived from a limited sample size may not accurately reflect the whole population or SMEs as a whole. This study's results are less generalizable and have reduced external validity due to the limited sample size. Moreover, the limited sample size might restrict the range of data, thereby affecting the strength and dependability of the conclusions. Having a smaller number of data points makes it more difficult to include the whole spectrum of experiences, views, and settings associated with the adoption of AI in accounting among MSMEs. Fourth, this study does not explicitly include large corporations, the growing AI industry or cultural and industry-specific elements. Regional disparities in local rules, market circumstances, cultural norms, and available resources might influence the implementation and results of AI efforts. Hence, the conclusions drawn from this research may not accurately represent the experiences or trends found in MSMEs or outside Malaysia. Fifth, the research performed an extensive examination of existing literature using the DOI, INT and TOE framework to identify potential factors that influence the adoption of AI in accounting among SMEs. Although generally acknowledged and accurate, this technique for identifying determinants and developing the study model has limitations since it only relies on existing literature. Sixth, DOI, INT and TOE are utilized to define the relationships within the framework for AI adoption in accounting. Nevertheless, the theories that implemented do not completely permit causal inferences regarding organizations. Lastly, the existing literature fails to emphasize the significant impact that cybersecurity could have on AI adoption in accounting, the industry 4.0 literature, exemplified by the recent study conducted by Ghobakhloo and Iranmanesh (2021), suggests that

cybersecurity maturity is a crucial factor in facilitating the implementation of Industry 4.0 technologies. Given that AI is a vital component of Industry 4.0, it is anticipated that cybersecurity concerns will play a significant role in determining SMEs' adoption of AI in accountin

### 4.8.3. Suggestion For Future Research

First, the future research may attempt to reproduce the study in other industries, kinds of organizations, and other nations, therefore yielding equivalent results. Subsequent research may also confirm the accuracy and applicability of the measuring scales, conceptualizations, and generalizability of findings. Second, the next investigations need to scrutinize the acceptability of AI technology from a more focused perspective, specifically in areas such as AI adoption in product development, customer assistance, sales, and other areas. Third, the future research should broaden its focus to include SMEs from other locations. The future research should verify the validity of the study's model by the acquisition of data from big corporations. This would provide a more thorough comprehension of the variables that impact the adoption of AI and its consequences. This will enhance the understanding of the obstacles and possibilities encountered by SMEs in various situations and assist the creation of stronger and more practical plans for the adoption of AI in accounting. Fourth, the future research may go into the hypotheses and re-examine them using a qualitative methodology in order to get a more profound understanding of the issue. Qualitative research, such as a case-based analysis, might provide a deeper understanding of how the elements of INT, DOI and TOE impact the adoption of AI in accounting, as well as how these factors interrelate. This will provide a comprehensive examination of the topic from several viewpoints, so enhancing the depth of knowledge. Fifth, it is recommended that future research can focus on evaluating the significant impact of cybersecurity risks and capabilities on the adoption and implementation procedures of AI in SMEs. Sixth, as AI technology in accounting is now in early phase of acceptance by businesses, future study might focus on the post-adoption stage of AI adoption, when this phenomenon has reached a more advanced level of maturity. Seventh, the future research can consider examining the mediating impact of management support and the moderating role of environmental factors on the adoption of AI in accounting. Lastly, it is recommended to include features of risk-taking behaviours as mediating factors in the future research

## V. CONCLUSION

The objective of this study is to investigate the key determinants that influence the adoption of AI in accounting by MSMEs. This research examined the relationship between perceived ease of use, organisational readiness, management support, government support, and external pressure as independent variables and the adoption of AI in accounting among MSMEs as the dependent variable. To accomplish this objective, this study proposes a conceptual framework that integrates AI into accounting. Subsequently, the proposed model was assessed using SPSS. Five of the five hypotheses were accepted based on the findings.

This research has made four significant literary contributions, which are outlined below. The study's primary objective is to create a comprehensive model that analyses the key factors that influence the adoption of artificial intelligence in accounting among MSMEs. In addition, it provides supporting evidence for the proposed model. Thirdly,

by applying the conceptual model to cross-sectoral SMEs in Malaysia, the research closes a gap in the literature. The research found that perceived ease of use, organisational readiness, management support, government support, and external pressure positively influenced AI adoption in accounting among MSMEs.

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