ANALYSIS OF FACTORS INFLUENCING INTENTION IN USING ACCOUNTING INFORMATION SYSTEMS FOR REVENUE AND ZAKAT MANAGEMENT BY MICRO, SMALL AND MEDIUM ENTERPRISES IN E-COMMERCE

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Abstract

Accounting information systems (AISs) have become indispensable enterprise management tools, serving as a vital resource for promoting administrative and financial processes, facilitating decision-making, and improving overall performance. Apart from business, AISs can also be developed as zakat for sharia. In this regard, AIS plays a role in calculating zakat, making zakat payment decisions, and assisting managers in zakat allocation. This function is very beneficial for business actors, especially MSME actors. The existence of AISs can make it easier for MSMEs to manage their revenue and zakat. So, MSMEs need to be able to adopt AISs. Unfortunately, research regarding the acceptability of AIS adoption for MSMEs has not yet been conducted. Therefore, this research examines the factors of acceptance of AISs by e-commerce actors from MSMEs. By using the elements in the Technology Acceptance Model (TAM), such as Perceived ease of use (PEU) and perceived usefulness (PU) through quantitative methods and Partial Least Square Structural Equation Model (PLS-SEM) analysis, the results of data analysis in this study show that the influence of PEU and PU on IUAISs is positive and significant. This shows that IUAISs are
influenced by two main variables from TAM (PEU and PU). Based on the results, this study implies that MSMEs that successfully adopt Accounting Information Systems (AISs) for revenue and zakat management can improve their administrative and financial efficiency, emphasizing the importance of understanding the factors influencing AIS acceptance among MSMEs.

**Keywords:** Accounting Information Systems, Perceived Ease Of Use, Perceived Usefulness, Technology Acceptance Model, Zakat

1. Introduction

Over the past few years, significant developments in information systems (IS) have been made, and their impact on business has been significant. In this era, business people have extensively used information technology, especially Accounting Information Systems (AISs), to automate various business processes. Through the implementation of AISs, business actors, including MSMEs, can increase their operational efficiency, improve the accuracy and speed of financial reporting, and enable faster and more precise decision-making (Saad, 2023), especially in developed countries (A. et al., 2024). Therefore, it is hardly surprising that companies have been using AISs to improve organizational performance (Lutfi, 2023).

Nurhayati et al. (2023) define AISs as an Accounting Information System that utilizes technology and computer-based information resources. An AISs is often a computer-based method used with information technology resources to monitor accounting operations (Trigo et al., 2016). The main goal is to monitor, track, and produce reports regarding various accounting activities within the organization. By using AISs, organizations can improve management control effectiveness (Al-Hattami & Kabra, 2024), manage all financial transactions, record accounting records, and prepare accurate and reliable financial reports efficiently and effectively (Nurhayati et al., 2023). AISs play a vital role in maintaining smooth operations and the success of an organization. Furthermore, AISs have become indispensable enterprise management tools, serving as a vital resource for promoting administrative and financial processes, facilitating decision-making, and improving overall performance (Alrfai et al., 2023). As a result, through AISs, organizations can achieve better integration between various parts and business units, coordinate activities efficiently, and control business processes more effectively (Al-Okaily, 2022; Alshira’h et al., 2021; Papiorek & Hiebl, 2023).

Apart from business purposes, AISs can also be developed for sharia purposes in the form of zakat (Musa et al., 2022; Nurhayati et al., 2022; Oktaroza & Halimatusadiah, 2020; Sari, 2023). In this regard, AIS functions and plays a role in calculating zakat (Satia Nugraha & Saenudin, 2013), making zakat payment decisions (Iskandar et al., 2019), and also assisting managers in zakat allocation (Winarto & Annisa, 2020). This function is very beneficial for business actors, especially MSME business actors. In the current digital era,
MSMEs are helped by E-commerce to boost business performance (Martini et al., 2023), increase sales (Salah & Ayyash, 2024) and revenue (Saridakis et al., 2018). Of course, the existence of AIS can make it easier for MSMEs to manage their revenue and zakat. So, MSMEs need to be able to adopt AISs (Al-Hattami & Kabra, 2024).

However, within the context of developing nations, it has been acknowledged that understanding the adoption of information system technology is complex and essential (Wijayanti et al., 2024). The importance of this research will undoubtedly be based on this urgency. Moreover, much scientific research has been conducted worldwide on using Accounting Information Systems (AISs) (Thuan et al., 2022). Unfortunately, research regarding the acceptability of AIS adoption for MSMEs has not yet been conducted. Therefore, this research examines the factors of acceptance of AIS by MSMEs selling on e-commerce. The elements influence user acceptance in the Technology Acceptance Model (TAM).

Indeed, research on "technology acceptance" has experienced rapid growth in information systems literature (Su & Li, 2021). The appeal of this research subject stems from the perpetual evolution of technology (Marikyan et al., 2023). According to Scherer et al. (2019), The Technology Acceptance Model (TAM) is a robust framework for describing technology acceptance, particularly compared to other models. Davis (1993) stated that TAM determines cause-and-effect relationships, including perceived ease of use (PEU), usefulness (PU), and actual usage behavior. Moreover, according to Wijayanti et al. (2024), PEU and PU have a significant role in determining the level of satisfaction and acceptance of the system.

2. Literature Review

According to what was stated before, the technology acceptance model (TAM) is the foundation for this study paradigm. Many information technology (IT) frameworks have developed to acknowledge and value new approaches. Regarding these frameworks, the Technology Acceptance Model (TAM) stands out and has been published in many publications (Amaning, 2024). According to Buabeng-Andoh (2018), the Technology Acceptance Model (TAM) has been widely utilized as a powerful and effective scientific technique for evaluating the acceptance of technological advancements among consumers. In addition, Fuchs (2022) points out that TAM is frequently considered to be a superior option when it comes to evaluating the impressions of users.

TAM is a theoretical framework that explains how businesses adopt and integrate information technology. This idea posits that individuals' responses to technology impact their intentions to utilize it, affecting their actual usage. Zaid et al. (2024) mentioned that theoretically, "intention" itself can be traced long before TAM, the theory of reasoned action (TRA), and the Theory of Planned Behavior (TPB), namely in the Goal-Setting theory. This theory suggests that intention can be the primary source of a person’s
motivation. Then, in 1989, Davis introduced TAM to create technology adoption scenarios developed from TRA theory. Scholars have identified the essential variables that affect the adoption of information technology (Gyamera et al., 2023).

In principle, TAM is made up of four fundamental components: “(1) user behavior; (2) behavioral intention; (3) perceived usefulness; and (4) perceived ease of use” (Amornkitpinyo & Wannapiroon, 2015; Su & Li, 2021; Wang et al., 2023). However, according to Fayad and Paper (2015), two components are associated with adopting a new technology in the TAM. These components are perceived usefulness (PU) and perceived ease of use (PEOU). In this regard, Alismaiel, Cifuentes-Faura, and Al-Rahmi (2022) argued that the most crucial factors in determining whether or not a new technology is being embraced are the PU of the technology and the PEU. Fernández Robin et al. (2014) also argued in their research that PU and PEU are two factors that are shown as markers of the intention to use the system or technology in TAM (Fernández Robin et al., 2014).

Not only Alismaiel et al. (2022) and Fernández Robin et al. (2014), but Wallace & Sheetz (2014) also argued that according to previous research, the factors most clearly related to adoption are perceived usefulness and perceived ease of use. Al-Hattami (2023) also further strengthens that the TAM was developed based on perceived usefulness and ease of use, which affect attitude and the intention to behave. In light of the justifications above, PEU and PU are regarded as predictor variables that impact the intention to utilize accounting information systems (IUAISs) in this study. Especially PEU, Zhou, Xue, & Li (2022) even thought that among the factors that directly influenced behavioral intention, PEU was the most significant one.

PEU itself is an acronym that stands for "perceived ease of use," which refers to the degree to which an individual believes that certain technologies will be easy to use (Almashhadani et al., 2023; Alsyouf et al., 2023) and free from mental and physical effort (Lutfi, 2022). PEU is very relevant to explain technology adoption (Briones et al., 2023). It has even been proven by many previous studies regarding intentions to use technology (Sathy et al., 2018).

The following studies (Al-Hattami & Almaqtari, 2023; Krah, Tetteh, Boateng, & Amankwa, 2024) provide evidence that supports the claim. Based on the explanation and evidence above, the second hypothesis in this research is:

H1: PEU has positive and significant influence on IUAISs.

One of the most important aspects contributing to user acceptance of new technologies is the concept of PU (Jahangir & Zia-ur-Haq, 2023). Some believe that Within the context of the Technology Acceptance Model (TAM), it is hypothesized that PU is the direct predictor of behavioral intention to use (BI) particular technologies (Hamid et al., 2016).

Perceived usefulness is “the degree to which a person believes that using a particular system would enhance his or her job performance” (Steenkamp et al., 2023).
This concept assumes that individuals will use an application to the extent that they believe it will improve their work performance (Moura et al., 2020). To strengthen this argument, Fayad and Paper (2015) argued that there was a positive influence and association between PU and the intention to use an information system. The following studies, such as (Al-Hattami, 2023; Al-Hattami & Almaqtari, 2023; Steenkamp et al., 2023), provide evidence that supports the claim. Based on the explanation and evidence above, the second hypothesis in this research is:

**H2**: PU has positive and significant influence on IU AISs.

### 3. Research Methods

This research analyzes the factors influencing the intention to use accounting information systems in managing income and zakat in micro, small, and medium enterprises (MSMEs) operating in the e-commerce sector. Data will be collected through an online survey using a quantitative approach and cross-sectional research design. This research population is MSMEs active in leading e-commerce platforms in Indonesia, and the sample will be randomly selected to ensure adequate representation.

The population of this research is all MSME actors in e-commerce. The sample included in this research is 110 MSMEs in e-commerce, such as Shopee (31 / 28.18%), Tokopedia (26 / 23.64%), and those who use both platforms (53 / 48.18%). The respondents of this research have been selling in e-commerce for < 2 years (36 / 32.73%), 2 - 5 years (62 / 56.36%), and > five years (12 / 10.91%), with a sales focus on goods (93 / 84.55%), services (10 / 9.09%), or both (7 / 6.36%). All respondents who meet the criteria are given a questionnaire to fill out, the results of which will become the primary data for this research.

The data collection method will use a questionnaire developed based on a conceptual framework adapted to the research objectives. The questionnaire will include statements about the PEU, PU and IU the accounting information system. In the context of AISs, PEU can be defined as believes that the use of AISs can be easily accessed without requiring much effort (Hantono et al., 2023). PEU measured by 6 indicators developed by (F. et al., 2016). While PU is defined as the extent to which a person believes that using AISs will improve their work performance (Buana & Wirawati, 2018). Same as before, PU measured by 6 indicators developed by (F. et al., 2016). Lastly, IU can be defined as willingness of Small And Medium-Sized Enterprises (SMEs) to employ AISs for financial management and decision-making (Nantachai Sasadeeong, 2023). For this part, measured by 3 indicators developed by (F. et al., 2016). All of these indicators were then used as the basis for creating a questionnaire which was then displayed in Table 1.

Data analysis will then be carried out using Partial Least Square Structural Equation Model (PLS-SEM) analysis to identify significant factors influencing the intention to use accounting information systems. This type of analysis has also been used by previous
researchers in research related to TAM (Farros et al., 2022; Shinta et al., 2022; Wijaya & Zaid, 2024; Zaid et al., 2023), AISs (Lutfi, 2023; Nguyen et al., 2024; Nurhayati et al., 2023) dan akuntansi (Nitzl, 2016).

4. Results and Discussion

4.1 Result

4.1.1 Measurement Model Test

The results of the measurement model test conducted for this research are presented in Table 1, which can be noticed below. The loading value functions to show the indicator's reliability. The minimum limit is 0.50 to be said to be reliable (Ringle et al., 2023). Based on this, all indicators in this study are reliable because > 0.50 ranges from 0.736 – 0.910.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Loading</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEU(X1)</td>
<td></td>
<td>0.927</td>
<td>0.681</td>
</tr>
<tr>
<td>PEU 1</td>
<td>0.736</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEU 2</td>
<td>0.833</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEU 3</td>
<td>0.770</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEU 4</td>
<td>0.901</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEU 5</td>
<td>0.867</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEU 6</td>
<td>0.804</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU (X2)</td>
<td>0.925</td>
<td>0.673</td>
<td></td>
</tr>
<tr>
<td>PU 1</td>
<td>0.808</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU 2</td>
<td>0.807</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU 3</td>
<td>0.816</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU 4</td>
<td>0.817</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU 5</td>
<td>0.755</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU 6</td>
<td>0.910</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IU AISs (Y)</td>
<td></td>
<td>0.915</td>
<td>0.781</td>
</tr>
<tr>
<td>IU AISs 1</td>
<td>0.868</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IU AISs 2</td>
<td>0.877</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IU AISs 3</td>
<td>0.906</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Apart from indicators, it is also essential to know the reliability of the variables. In terms of variables, the CR value is taken into account. The minimum limit for the CR value is 0.60 to be said to be reliable, as stated by (Hair et al., 2019). If observed, the CR value for each variable in this study ranges from 0.915 – 0.927 > 0.60, meaning that in terms of variables, all of them are reliable. Lastly, what is shown in Table 1 is the AVE value, which ranges from 0.673 to 0.781. The AVE value functions to validate the validity of each
construct (variable) in this research. According to (Dash & Paul, 2021), the threshold for the validity of the AVE value to be said to be valid is 0.50. Based on these conditions, it can be interpreted that all the variables in this study are valid (at least in terms of convergent validity). To strengthen these findings, Table 2 below can also strengthen the validity of the research variables in terms of discriminant validity.

Table 2 Discriminant Validity Results

<table>
<thead>
<tr>
<th></th>
<th>X1</th>
<th>X2</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>0.825</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X2</td>
<td>0.635</td>
<td>0.820</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>0.625</td>
<td>0.635</td>
<td>0.884</td>
</tr>
</tbody>
</table>

4.1.2 Structural Model Test Results

The results of the structural model test conducted for this research are presented in Table 3, which can be noticed below.

Table 3 The Results of the Structural Model Test

<table>
<thead>
<tr>
<th>Coefficient of Determination (R²)</th>
<th>X1</th>
<th>X2</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect Size (F²)</td>
<td>0.160</td>
<td>0.185</td>
<td></td>
</tr>
</tbody>
</table>

In Table 3 above, it is first shown that the R2 value is 0.485. This means that the influence received from IUAlSs is 48.5% from PEU and PU. This percentage shows that the amount of influence is still moderate. This also means that 51.5% of the population is affected by other variables outside the PEU and PU. Table 3 also shows the value of F2, where PEU (X1) is 0.160 and PU (X2) is 0.185. The effect size of the two variables is still classified as moderate effect size.

4.1.3 Hypothesis Test Results

The results of the hypothesis test conducted for this research are presented in Table 3, which can be noticed below.

Table 4 The Results of the Hypothesis Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>T-Value</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 → Y</td>
<td>0.371</td>
<td>4.607</td>
<td>0.000</td>
</tr>
<tr>
<td>X2 → Y</td>
<td>0.399</td>
<td>5.549</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 4 above shows the results of data analysis of the influence of PEU (X1) on IUAlS with a value of β = 0.371, T-value 4.607, and P-value 0.000. The results of these values indicate a significant positive influence between PEU and IUAlSs, which makes H1
in this study accepted. The influence of PU on IUAISs was also tested, not only PEU. The resulting value was $\beta = 0.399$, T-value 5.549, and P-value 0.000, which indicates a significant positive influence between the two. That means that the H2 in this study is also accepted. An overview of the model from the results of this research can also be seen in Figure 1 below.

Figure 1.
A summary of the direct impact paths for the variables tested

4.2 Discussion
4.2.1 Discussion of the Influence of PEU on IUAISs

Intention to accept systems has traditionally been the variable of choice for determining whether or not a system has been successful from the point of view of information systems (IS) (Hwang et al., 2016). In TAM theory, PEU and PU are the most influential variables that influence it (Al-Hattami, 2023). In accepting AISs, This research provides evidence that PEU influenced IUAISs positively and significantly. This result is different from (Steenkamp et al., 2023) but in line with the results of previous research studied by (Al-Hattami & Almaq̣tari, 2023; Krah et al., 2024; Shihab et al., 2017). This result thus indicates that the more accessible and more effortless an information system, in this case, AISs, is, the more willing MSMEs in e-commerce are to adopt AISs for their management accounting (such as income) and sharia accounting (such as zakat) needs. On the other hand, the less friendly AISs are used, the less attractive they will be to MSME actors in e-commerce.

In connection with these indications, Mishra et al. (2023) explained that technology and information systems that are easier to use are user-friendly. More intuitive and easy technology and systems reduce users' cognitive load and help users get things done efficiently to increase efficiency. Ultimately, this will lead to an interest in using technology and information systems. Users can complete tasks more efficiently by

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minimizing the effort required to interact with technology. This increased efficiency increases productivity and, in the end, fosters greater intention and willingness among users to engage with and use accounting technology and information systems.

This provides implications and suggestions for AIS developers to make AISs as user-friendly as possible. This convenience will help users, especially MSMEs in e-commerce, maximize accounting management in their enterprise or business. By prioritizing user-friendliness, AIS developers can reduce the learning curve for MSMEs, allowing them to handle financial tasks efficiently without extensive training or specialized knowledge. This approach fosters broader adoption of AIS among MSMEs, potentially enhancing their operational efficiency and financial transparency. Moreover, continuous improvements based on user feedback can further refine AIS interfaces and functionalities, ensuring they align closely with the evolving needs of MSMEs in the dynamic e-commerce landscape.

4.2.2 Discussion of the Effect of PU on IUAISs

It is clear from the research findings presented above that there is a substantial positive and significant influence between PU and IUAISs. Previous research conducted by (Al-Hattami, 2023; Al-Hattami & Almaqtari 2023; Steenkamp et al., 2023) has shown that these findings are consistent with the findings of this research. Based on this finding, it can be interpreted that the more valuable an information system, in this case, AISs, is, the more eager micro, small, and medium-sized enterprises (MSMEs) actors in e-commerce are to adopt AISs for their management accounting (such as income) and sharia accounting (such as zakat) requirements. However, the less useful AISs are employed, the less appealing they will be to micro, small, and medium-sized enterprises (MSME) actors in e-commerce.

Wijayanti et al. (2024) explain that acceptance of the information system highly depends on the user’s perception of the system’s usefulness. This perception encompasses how effectively the system addresses users’ needs, enhances tasks, or simplifies workflows. When users perceive a system as useful, they are more likely to embrace it, leading to higher adoption rates and better overall outcomes regarding system implementation and usage.

Regarding calculating zakat and revenue, developers of the AIS need to incorporate capabilities into the system that would enable them to give users information that is accurate, timely, relevant, dependable, and genuine. By aligning these criteria with the expectations of the MSME actors in e-commerce, productivity, and performance results are improved because it is essential to understand the perceived usefulness of the MSME actors in e-commerce.
5. Conclusions

The outcomes of this study emphasized the significance of identifying components from TAM as critical antecedents of perceived ease of use and usefulness in influencing behavioral intentions. In conclusion, the findings of this study show the relevance of recognizing these aspects. The findings of this research investigation have shown that IUAISs are influenced by PEU and PU. This was proved through the course of the investigation. Even though the influence is moderate, PEU and PU continue to positively and significantly influence IUAISs. Even though the influence is moderate, this provides implications and ideas for AIS developers and allows them to make AISs as user-friendly and useful as feasible.

Although this research showed that PU and PEU are critical, other elements such as organizational support, technological infrastructure, and user training may also significantly influence AISs adoption. Additionally, the diverse nature of MSMEs, variations in technological readiness, and cultural attitudes towards technology might account for the moderate influence observed, indicating the need for further localized studies to explore these dynamics in different contexts.

Based on the findings, AIS developers should enhance system intuitiveness and user-friendliness through user-centered design and comprehensive training programs. Customizable features and seamless integration with existing business systems can increase perceived usefulness, while robust feedback mechanisms can help continuously improve the system. Effective communication of AIS benefits and government incentives can also drive adoption. Future research should delve into other potential factors influencing AIS adoption and conduct longitudinal studies to understand the evolving impact of PEU and PU over time. These steps will help MSMEs manage revenue and zakat efficiently, improving business outcomes and economic growth.

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