

# Determinants of e-zakat payment adoption intention: Evidence from Muslim entrepreneurs in Malaysia



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**Abstract** Leveraging digital systems holds significant potential to enhance business zakat collection among Muslim entrepreneurs by offering greater convenience, efficiency, and accessibility. Despite these advantages, the adoption of digital zakat systems remains limited. Many business owners are still hesitant due to concerns over data security, trust in digital platforms, and a strong adherence to traditional methods of zakat payment. Given this context, the present study investigates the factors influencing Muslim business owners' intention to adopt e-zakat payment systems. Specifically, it examines the integrated role of the Technology Acceptance Model, transparency, and demographic characteristics, particularly age in shaping their acceptance of digital zakat solutions. Data for this study were collected through a questionnaire distributed to Muslim business owners across two states in Malaysia, yielding a total of 213 responses. The data were analyzed using SmartPLS, and the results revealed that both key factors from the Technology Acceptance Model, perceived usefulness and perceived ease of use have a positive and significant relationship with the intention to adopt e-zakat payment systems. However, the study did not find a significant relationship between transparency or age and the intention to adopt the system. The findings can inform policymakers and zakat institutions in Malaysia on how to better design and implement digital zakat systems that align with user behavior and preferences.

**Keywords:** technology acceptance model, transparency, age, digitalization system, Islamic financial instrument

## 1. Introduction

In Islam, paying zakat is a fundamental obligation and one of the Five Pillars of the faith, which applies to all eligible Muslims, including business owners. A Muslim business owner is required to pay zakat if their wealth, after expenses and debts, reaches the nisab (minimum threshold) and has been held for one lunar year. Zakat on business assets typically includes cash on hand, inventory, and receivables, calculated at 2.5% of the total. This obligation is not only a means of purifying one's wealth but also serves a vital social function by redistributing wealth to support the poor and needy (Razak, 2020). By fulfilling this duty, a business owner demonstrates gratitude to Allah, fosters social justice, and helps bridge economic disparities within the community.

Despite the importance of business zakat in enhancing the welfare of the broader community, previous research highlights that the collected amounts remain suboptimal (Saad et al., 2024; Ardani & Pujiyono, 2021; Bin-Nashwan et al., 2021). For example, Ardani and Pujiyono (2021) report that Indonesia, despite being the most populous Muslim-majority nation with a substantial number of businesses, has historically seen low levels of business zakat collection. Similarly, Bin-Nashwan et al. (2021) found that in Yemen, inadequate zakat collection is a persistent problem, primarily due to non-compliance. Malaysia also encounters similar challenges, as zakat institutions continue to face obstacles in boosting business zakat collection (Saad et al., 2024).

To address the issue of low business zakat collection in Malaysia, Malaysian zakat institutions have implemented various digital payment solutions (Salleh et al., 2022) aimed at improving accessibility and convenience for business owners. For example, Lembaga Zakat Selangor (LZS) introduced the E-Zakat Pay platform, which enables users to make online payments via major banks like CIMB and Maybank, without requiring registration or incurring additional charges. Additionally, some of the zakat institutions, such as PPZ-MAIWP, have introduced innovative payment methods, such as the FassTap system, which utilizes Near Field Communication (NFC) technology. This allows users to make zakat payments by simply tapping their debit or credit cards on a collector's mobile device equipped with the FassTap application, streamlining the payment process and



enhancing user experience, which ultimately increases business zakat collection and ensures that the funds are effectively utilized for community welfare.

In light of these developments, gaining insight into the behaviors and intentions of Muslim business owners toward adopting alternative zakat payment methods, such as online platforms, is crucial. Such understanding is vital for zakat institutions, policymakers, and government agencies to effectively design and enhance digital zakat management strategies. A review of the literature on zakat payment reveals that most existing studies have primarily focused on the factors influencing business zakat compliance among small and medium-sized entrepreneurs (Bonang et al., 2023; Muhammad, 2016; Sadallah et al., 2023; Khamis & Kamarudin, 2022). However, there is a noticeable gap in research concerning the factors that affect business owners' adoption of online zakat payment systems. In the realm of digital zakat, the majority of studies have concentrated on the determinants of system adoption among individual payers (Muflih, 2023; Ahmad et al., 2014; Bin-Nashwan, 2022; Kasri & Yuniar, 2021; Cahyani et al., 2022; Ferdana et al., 2022; Farhatunnada & Wibowo, 2022; Nuryahya et al., 2022; Bin-Nashwan et al., 2023; Bin-Nashwan et al., 2023; Oktavendi & Mu'ammal, 2022), with relatively limited attention given to Muslim business owners. Thus, this study aims to extend prior works on the digital zakat system by examining how the integrated role of Technology Acceptance Model (TAM), transparency and demographic factors, including age, influence Muslim business owners' intentions to adopt the e-zakat payment system.

The structure of this paper is as follows: Section 2 presents a review of the relevant literature that forms the foundation for the development of the research hypotheses. Section 3 outlines the research methodology in detail, while Section 4 reports the results of the data analysis. Section 5 offers a discussion of the key findings, and finally, Section 6 concludes the paper.

## 2. Literature Review

### 2.1. Perceived usefulness and e-Zakat adoption intention

Several studies (Roy, 2017; Ahmad et al., 2020; Ahmad et al., 2021; Hasyim et al., 2020) highlight the significant role of perceived usefulness, a key component of the TAM, in shaping individuals' intentions to adopt new technologies, such as e-donation platforms and e-financial systems. Davis (1989) defines perceived usefulness as the extent to which an individual believes that using a specific system will improve their job performance. He argues that when users perceive a technology as useful, they are more likely to develop positive attitudes toward its use, which increases their likelihood of adopting and continuing to use the technology.

In the context of online zakat, when Muslim business owners believe that using an e-zakat platform will make the zakat payment process easier, faster, and more efficient, they are more likely to embrace the technology. For example, features such as automated calculations, digital records, and secure online transactions may be viewed as useful tools that simplify the zakat payment process and ensure compliance with religious duties. This perceived benefit increases Muslim business owners' confidence and motivation to adopt the platform. Moreover, in a digital era where convenience is highly valued, the perceived practical advantages of e-zakat systems can strongly influence adoption decisions. Previous research across various contexts has supported this argument, including studies on e-wallet usage intention (Malik & Annuar, 2021; Belmonte et al., 2024), fintech applications (Wijaya et al., 2025; Kumar & Rani, 2024), and online zakat services (Rahim et al., 2024; Kurniawan et al., 2022; Ahmad et al., 2021; Hasyim et al., 2020). However, some studies, such as those by Muflih (2023), Omar (2022) and Ninglasari (2021), did not find a direct link between perceived usefulness and online zakat payment among income zakat payers. In light of these mixed findings, the present study seeks to re-examine this relationship within a different population: Muslim business owners in Malaysia. Accordingly, the following hypothesis is proposed:

H1. Perceived usefulness has a significant positive effect on e-zakat adoption intention.

### 2.2. Perceived ease of use and e-Zakat adoption intention

Perceived ease of use is a fundamental construct within the TAM, which refers to the degree to which a person believes that using a particular technology will be free of effort (Davis, 1989). This perception influences users' attitudes toward the technology and, ultimately, their intention to adopt it. According to Davis (1989), when individuals find a system intuitive, user-friendly, and easy to navigate, they are more likely to accept and use it. A technology that requires minimal effort to learn and operate reduces the psychological and practical barriers associated with adoption. In contrast, complex or difficult systems can discourage potential users, regardless of the system's potential benefits.

In the context of zakat research, it can be said that when the Muslim business owners feel that the e-zakat platform is simple to access, easy to navigate, and straightforward in completing zakat transactions, they are more likely to view it favourably and be willing to use it. Features such as clear instructions, user-friendly interfaces, minimal technical steps, and responsive customer support can enhance this perception. Especially for Muslim business owners who may not be tech-savvy, a system that is perceived as easy to use reduces anxiety and builds confidence in completing their religious obligations through digital means. In other words, when Muslim business owners do not feel burdened by technological hurdles or complicated procedures, their willingness to adopt the e-zakat platform increases. Prior studies have established a significant association

between perceived ease of use and users' intention to adopt technology. For instance, Krah et al. (2024), in their study of 309 SMEs in Ghana, found that perceived ease of use significantly influenced FinTech adoption intention. Similarly, Okine (2023) reported a significant positive relationship between perceived ease of use and the intention to adopt crowdfunding platforms among Ghanaian SMEs. Within the Malaysian context, Yusoff et al. (2021) found that perceived ease of use had a positive and significant effect on SMEs' intention to adopt e-commerce platforms. However, most zakat-related studies have primarily focused on individual zakat income/al-fitr payers rather than Muslim business owners. For example, Muflih (2023), in a study involving 209 zakat income payers in Indonesia, found that perceived ease of use played a significant role in encouraging the adoption of mobile zakat services. Therefore, this study seeks to extend the current body of knowledge by focusing on Muslim business owners and examining the relationship between perceived ease of use and the intention to adopt e-zakat platforms. Based on the above discussion, the following hypothesis is proposed:

H2. Perceived ease of use has a significant positive effect on e-zakat adoption intention.

### 2.3. Transparency and e-Zakat adoption intention

Similar to other government institutions, transparency is vital for the effective operation of zakat institutions, as it fosters trust, accountability, and efficient resource management. According to Salman (2022), transparency involves the clear and open disclosure of information to users. In the context of zakat, transparent practices of zakat institutions enable zakat payers to see the impact of their contributions, thereby increasing their confidence that their zakat is being used properly and reaching its intended recipients. Furthermore, transparency helps prevent mismanagement and misuse of funds, ensuring resources are effectively allocated to alleviate poverty and support community welfare. It also enhances accountability by providing a clear record of transactions and decisions, which can be audited and reviewed by stakeholders of zakat institutions. Indeed, Taha et al. (2017) argue that transparency in zakat ensures that the collection and distribution of funds are conducted ethically and responsibly, which directly influences the behaviour and intention of those involved. By demonstrating accountability and providing regular updates on the impact of zakat contributions, these institutions foster confidence and a sense of responsibility among zakat payers, thereby promoting higher rates of zakat payment.

Recognizing the vital role transparency plays in shaping human behaviour and decision-making, numerous studies have identified a strong correlation between transparency and both the intention to adopt new technologies and actual usage behaviour. For example, Al-Jabri and Roztockii (2015) investigated how information transparency influences employees' intention to adopt Enterprise Resource Planning (ERP) systems in Saudi Arabia's public and private sectors. Based on data from 106 respondents, their findings indicated a positive relationship between information transparency and the intention to use ERP systems. Similarly, Sabani (2021) found a strong association between transparency and the intention to adopt e-government services among Indonesian citizens. However, not all studies report consistent findings. Trabucchi et al. (2023), for instance, found no significant relationship between transparency and the intention to adopt digital services. In the context of zakat, several studies have explored how transparency affects individuals' intentions to pay zakat. Septiarini (2011) reported that transparency in information positively influenced the collection of zakat, infaq, and alms in zakat institutions in Surabaya. Similarly, Salman (2022) examined the role of transparency in influencing zakat payers' behaviour regarding zakat payments. Using a sample of 50 zakat payers in Indonesia, the study found a positive relationship between transparency and the interest of individual Muslims in paying zakat. Despite these findings, research examining the influence of transparency on the intention to adopt digital zakat systems remains limited. Therefore, this study proposes the following hypothesis:

H3. Transparency has a significant positive effect on e-zakat adoption intention.

### 2.4. Age and e-Zakat adoption intention

Age has long been recognized as an important demographic factor influencing behavioural intentions, particularly in the context of technology adoption. Younger individuals, having grown up with digital technologies, tend to be more comfortable and open to embracing technological innovations. In contrast, older adults often face challenges in leveraging technology for their well-being, independence, and productivity. These challenges stem from various factors, such as limited awareness, lack of access, insufficient digital skills and experience (Hargittai, 2010), as well as inadequate access to training and support resources (Cotten, 2021). Additionally, reduced confidence in their ability to use technology further hinders adoption among older populations (Siren & Knudsen, 2017). Technologies that fail to accommodate the specific needs and preferences of older users may also present usability barriers.

However, Sixsmith et al. (2022) contend that the COVID-19 pandemic significantly accelerated technology adoption among older adults, compared to the pre-pandemic period. According to them, before the pandemic, many older individuals were reluctant to use digital tools due to unfamiliarity or perceived complexity. Yet, the restrictions imposed during lockdowns necessitated the use of technology for staying connected with loved ones, accessing telehealth services, online shopping, and managing finances. This situational demand prompted older adults to engage with digital platforms such as video conferencing tools, e-commerce websites, and online banking. The exposure fostered during the pandemic helped narrow the digital divide, and in the post-pandemic era, this momentum has continued, with many older adults recognizing and embracing the

convenience and benefits of technology (Finkelstein et al., 2023). Jimenez (2023) further emphasizes the importance of designing user-friendly interfaces and offering tailored support services to promote digital inclusion among older generations.

In the context of zakat, prior research consistently shows a significant positive association between age and the intention to pay zakat (Durohman et al., 2024; Beik et al., 2023; Boonyamanond & Chaiwat, 2020). However, there remains a notable gap in the literature regarding how the age of Muslim business owners specifically influences their intention to use e-zakat platforms. Drawing on the above literature and arguments, the following hypothesis is proposed:

H4. Age has a significant positive effect on e-zakat adoption intention.

### 3. Research Methodology

This study employed a survey method using structured questionnaires to collect data. The questionnaire was divided into three sections to ensure comprehensive data collection. Section A focused on gathering demographic information such as age, gender, educational background, trading experience, and business size (number of employees). Section B explored various factors influencing Muslim business owners' intention to adopt e-zakat payment services. Section C contained items specifically designed to measure this adoption intention. To assess both independent and dependent variables, a seven-point Likert scale was utilized, ranging from 1 ("strongly disagree") to 7 ("strongly agree"). The independent variables, perceived usefulness and perceived ease of use, were measured using four and three items, respectively, adapted from Muflih (2023). Transparency was measured using a four-item scale adapted from Zia ur Rehman et al. (2021). The dependent variable, intention to adopt e-zakat payment, was measured using three items also adapted from Muflih (2023).

The primary aim of this study was to identify factors influencing the adoption intention of e-zakat payment services among Muslim business owners in Malaysia. Respondents were asked to indicate their likelihood of utilizing an online zakat platform to fulfil their zakat obligations. The questionnaires were distributed and collected in person, with participants assured of confidentiality and informed that the data would be used strictly for research purposes.

The study focused on Muslim entrepreneurs operating micro or small-sized businesses across two Malaysian states: Perak and Kelantan. A cluster random sampling technique was applied, with clusters defined by geographical location and business size. To ensure diversity, both micro and small businesses from each state were included in the sample. Of the 350 questionnaires distributed, 213 were returned and deemed valid, resulting in a response rate of 60.86%. This sample size was considered adequate to provide statistical power and support the analysis of adoption intention among the target population.

### 4. Results

#### 4.1. Respondent profile

Table 1 presents the demographic profile of the respondents, highlighting a diverse representation across gender, age groups, academic qualifications, trading period and number of employees.

**Table 1** Demographic characteristics of respondents.

Characteristics	Items	Frequency	%
Gender	Male	126	59%
	Female	87	41%
Age	21 - 30 years old	15	7%
	31 - 40 years old	98	46%
	41 - 50 years old	87	41%
	More than 50 years old	13	6%
Academic Background	Master degree	5	2%
	Bachelor degree	113	53%
	Diploma and below	95	45%
Trading Period	More than 20 years	36	17%
	11 -20 years	89	42%
	5 -10 years	37	17%
	Less than 5 years	51	24%
Number of employees	1-5 (micro)	53	25%
	6-30 (small)	157	74%
	31-75 (medium)	3	1%

The demographic analysis of the 213 respondents reveals a predominantly male population, with 59% identifying as male and 41% as female. The age distribution shows that the majority of participants fall within the 31 to 50-year-old range, with 46% aged between 31 and 40 years, and 41% aged between 41 and 50 years. Only a small proportion are younger than

30 (7%) or older than 50 (6%). In terms of academic background, more than half of the respondents (53%) hold a bachelor's degree, while 45% possess a diploma or lower qualification, and a minimal 2% have attained a master's degree. The trading experience of the respondents varies, with the largest group (42%) having been in business for 11 to 20 years, followed by 24% with less than 5 years of experience, 17% with 5 to 10 years, and another 17% with over 20 years of trading experience. Regarding the size of the businesses represented, the majority (74%) operate as small enterprises with 6 to 30 employees, while 25% are classified as micro-enterprises employing 1 to 5 people. Only a marginal 1% fall into the medium-sized business category, employing between 31 and 75 individuals.

#### 4.2. Assessment of the measurement model

This study employed the two-step approach recommended in Smart PLS, which involves assessing the measurement model followed by the structural model. The measurement model defines the relationships between observed items and their respective constructs, while the structural model specifies the relationships among latent constructs. As illustrated in Figure 1, the measurement model was evaluated based on item loadings, composite reliability (CR), and average variance extracted (AVE), following the guidelines by Hair et al. (2017). To establish convergent validity, an evaluation of the measurement model was used to analyse the questionnaire data using the recommended thresholds, which are a minimum loading of 0.6, CR of 0.7, and AVE of 0.5.

Table 2 presents the results of the measurement model assessment, which evaluates the reliability and validity of the constructs used in this study. All constructs, perceived usefulness, perceived ease of use, transparency, and e-zakat adoption intention, demonstrated strong internal consistency, with Cronbach's alpha values ranging from 0.885 to 0.980, exceeding the acceptable threshold of 0.70. Composite Reliability (CR) values for all constructs were also high, ranging from 0.929 to 0.985, indicating excellent reliability. Furthermore, the Average Variance Extracted (AVE) values were above the recommended cut-off point of 0.50, confirming good convergent validity. All item loadings were well above 0.78, except for one transparency item (TRAN1 = 0.747), which is still acceptable. The construct for Age was treated as a single-item measure with a fixed loading of 1.0. These results suggest that the measurement model exhibits satisfactory levels of reliability and validity, supporting the use of these constructs for further structural model analysis.

**Table 2** The measurement model assessment.

Constructs	Measurement items	Loadings	Cronbach's $\alpha$	CR	AVE
Perceived Usefulness	PU1	0.959	0.980	0.985	0.943
	PU2	0.910			
	PU3	0.970			
	PU4	0.966			
Perceived Ease of Use	PEU1	0.937	0.973	0.983	0.949
	PEU2	0.983			
	PEU3	0.981			
Transparency	TRAN1	0.747	0.914	0.941	0.801
	TRAN2	0.929			
	TRAN3	0.952			
	TRAN4	0.935			
Age	AGE	1			
e-Zakat Adoption Intention	OZI1	0.899	0.885	0.929	0.814
	OZI2	0.950			
	OZI3	0.856			

In addition, discriminant validity was assessed using two established methods: the Heterotrait-Monotrait (HTMT) ratio of correlations and the Fornell-Larcker criterion to ascertain whether each construct was distinct from the other constructs in the established model, implying that each construct in the model was unique (Hair et al., 2017). As shown in Table 3, all HTMT values were below the conservative threshold of 0.85, indicating that each construct is distinct from the others (Hair et al., 2017). The highest HTMT value observed was 0.836 between perceived ease of use and perceived usefulness, which remains within the acceptable range. Additionally, Table 4 presents the Fornell-Larcker criterion, which compares the square root of the AVE (bold diagonal values) with the inter-construct correlations. The diagonal values for each construct are higher than their corresponding inter-construct correlations, further confirming discriminant validity. Together, these results demonstrate that the measurement model possesses satisfactory discriminant validity, ensuring that each construct measures a unique concept within the research model.

**Table 3** The measurement model's discriminant validity – HTMT.

Constructs	Age	Perceived Ease of Use	Perceived Usefulness	Transparency
Age				
Perceived Ease of Use	0.114			
Perceived Usefulness	0.208	0.836		
Transparency	0.219	0.229	0.159	
e-Zakat Adoption Intention	0.172	0.827	0.798	0.228

**Table 4** The measurement model's discriminant validity - Fornell and Larcker

Constructs	Age	Perceived Ease of Use	Perceived Usefulness	Transparency	e-zakat adoption intention
Age	1.00				
Perceived Ease of Use	0.112	0.974			
Perceived Usefulness	0.207	0.818	0.971		
Transparency	0.208	0.219	0.152	0.895	
e-Zakat Adoption Intention	0.165	0.767	0.749	0.205	0.902

#### 4.3. Assessment of the structural model

Following the validation of the measurement model, the structural model was assessed to examine the hypothesized relationships among the constructs. This analysis aimed to determine the strength and significance of the direct paths between the independent variables and the dependent variable, e-zakat adoption intention. The evaluation was conducted based on three key criteria as recommended by Hair et al. (2017): the path coefficients ( $\beta$ ) to assess the direction and strength of the relationships, the t-values to evaluate the significance of the paths, and the p-values to determine statistical significance. To test these relationships, a bootstrapping technique with 5,000 resamples was employed, which is a robust non-parametric method commonly used in Partial Least Squares Structural Equation Modelling (PLS-SEM) to assess the stability and reliability of parameter estimates. Bootstrapping provides empirical confidence intervals and standard errors, which allow for more accurate hypothesis testing.

As presented in Figure 1, the structural model illustrates the direct paths between perceived usefulness, perceived ease of use, transparency, and age toward the intention to adopt e-zakat. The hypothesis testing results are detailed in Table 5, which includes the beta coefficients, standard deviations, t-values, and p-values for each hypothesized relationship.

**Table 5** Structural model assessment and hypothesis testing.

Hypothesis	Relationship	Beta	Std Deviation	t value	p value	Decision
H1	Perceived Usefulness -> e-Zakat Adoption Intention	0.360	0.184	1.957	0.050	Supported
H2	Perceived Ease of Use -> e-Zakat Adoption Intention	0.460	0.183	2.512	0.012	Supported
H3	Transparency -> e-Zakat Adoption Intention	0.044	0.051	0.869	0.385	Rejected
H4	Age -> e-Zakat Adoption Intention	0.029	0.057	0.512	0.609	Rejected

In particular, the results support H1, indicating that perceived usefulness has a significant positive influence on e-zakat adoption intention ( $\beta = 0.360$ ,  $p = 0.050$ ). This finding suggests that when users perceive the e-zakat system as beneficial and effective in enhancing their zakat-related tasks, they are more likely to adopt it. Besides, H2 is also supported, with perceived ease of use showing a strong and significant positive effect on e-zakat adoption intention ( $\beta = 0.460$ ,  $p = 0.012$ ). This indicates that users are more inclined to adopt the e-zakat system if they find it simple to use, easy to navigate, and requiring minimal effort to operate. In contrast, transparency ( $\beta = 0.044$ ,  $p = 0.385$ ,  $t = 0.869$ ) and age ( $\beta = 0.029$ ,  $p = 0.609$ ,  $t = 0.512$ ) do not have significant effects on adoption intention, leading to the rejection of H3 and H4. These results suggest that users' perceptions of usefulness and ease of use are the primary drivers of intention to adopt e-zakat, while transparency and age do not significantly impact adoption behavior in this context.

The values of the exogenous variables' coefficient of determination ( $R^2$ ) and effect size ( $f^2$ ) on the endogenous variable are shown in Table 6.

The coefficient of determination ( $R^2$ ) for the endogenous construct, e-zakat adoption intention, is 0.636, indicating that approximately 63.6% of the variance in adoption intention is explained by age, perceived ease of use, perceived usefulness, and transparency. This reflects a substantial explanatory power of the model (Hair et al., 2017). The effect size ( $f^2$ ) was also examined to assess the individual contribution of each exogenous variable. Perceived ease of use demonstrated a medium effect ( $f^2 = 0.184$ ) on e-zakat adoption intention, while perceived usefulness ( $f^2 = 0.113$ ), age ( $f^2 = 0.002$ ), and transparency ( $f^2 = 0.005$ ) exhibited small effects. These results suggest that while all predictors contribute to the model, perceived ease of use plays a relatively more significant role in influencing the intention to adopt e-zakat.

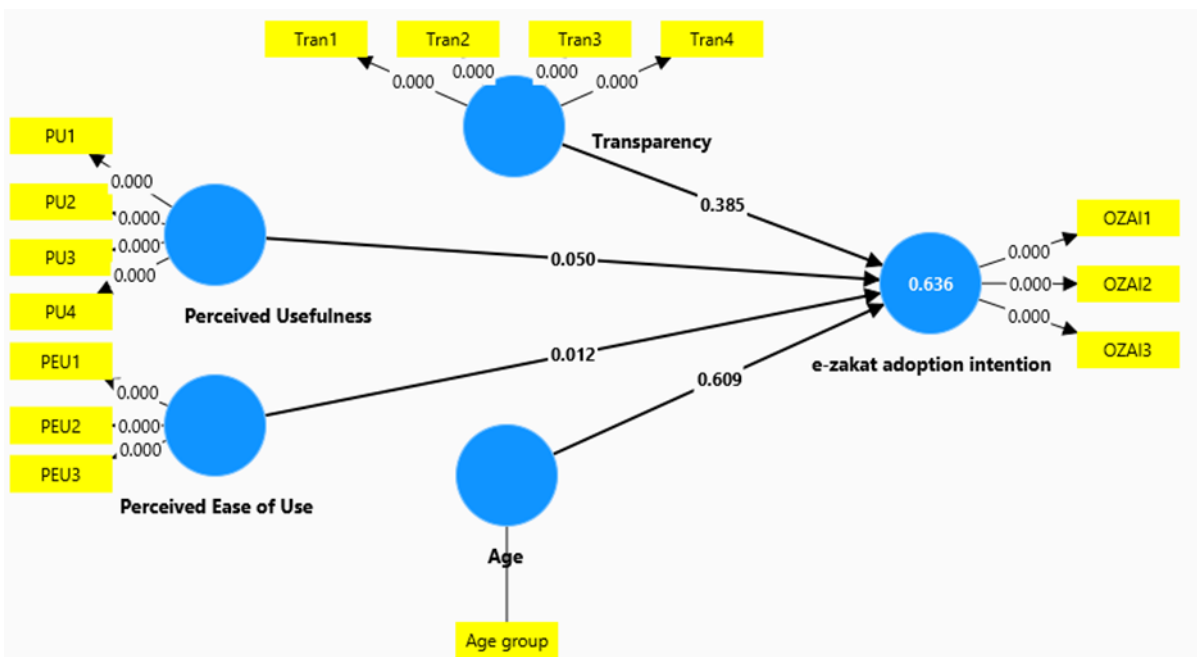


Figure 1 Measurement & structural model.

Table 6 Structural model assessment and hypothesis testing.

Construct	R <sup>2</sup>	f <sup>2</sup>	Decision
e- Zakat Adoption Intention	0.636		
Age		0.002	Small
Perceived Ease of Use		0.184	Medium
Perceived Usefulness		0.113	Small
Transparency		0.005	Small

#### 4. Discussion

This study aimed to examine the factors influencing the intention to adopt e-zakat by assessing four key constructs: perceived usefulness, perceived ease of use, transparency, and age. The findings offer valuable insights into user behaviour within the context of digital zakat services, grounded in the framework of the Technology Acceptance Model (TAM). The structural model results confirm that two of the four hypotheses were supported, while the remaining two were not statistically significant. Each hypothesis is discussed in detail below.

The first hypothesis proposed that perceived usefulness would positively influence the intention to adopt e-zakat services. This hypothesis was supported, indicating a significant and positive relationship. This finding is consistent with the core principles of the Technology Acceptance Model (TAM), which emphasizes perceived usefulness as a key factor influencing users' intention to adopt new technologies (Davis, 1989; Dwivedi et al., 2019). It also reinforces the results of previous empirical research (Malik & Annuar, 2021; Belmonte et al., 2024; Wijaya et al., 2025; Kumar & Rani, 2024). When users perceive the e-zakat system as beneficial, such as enabling faster, more efficient, and more convenient zakat contributions, they are more likely to accept and use the system. In practical terms, this finding highlights the importance for system developers and zakat institutions to ensure that the e-zakat platform clearly demonstrates value to users, perhaps by offering features like automated calculations, reminders, transaction histories, and receipt generation.

The second hypothesis examined the relationship between perceived ease of use and the intention to adopt e-zakat. The analysis revealed a strong and significant effect, thus supporting H2. Among all tested predictors, PEU had the highest path coefficient, highlighting its critical role in shaping users' behavioural intentions. This finding aligns with previous studies on TAM and technology adoption (Krah et al., 2024; Okine, 2023; Owusu et al., 2022; Muflih, 2023; Yusoff et al., 2021), where ease of use consistently emerges as a significant predictor of technology adoption. The implication is clear: if the e-zakat system is perceived as simple, user-friendly, and requiring minimal technical skill, zakat payers, including Muslim business owners, are more likely to adopt it. This is especially important in a diverse user population where digital literacy may vary. As such, zakat institutions, including their system developers, should focus on intuitive design, minimal navigation steps, and multilingual support to lower the perceived barrier to usage. In addition, training sessions or educational campaigns could be beneficial in further simplifying the zakat payer's experience for those less comfortable with digital platforms.



Contrary to expectations, Hypothesis 3 was not supported, indicating that transparency does not have a significant influence on e-zakat adoption intention in this study. While transparency is generally considered essential in building trust in online financial platforms, the result suggests that users may either already trust the institutional framework managing zakat or place greater emphasis on functionality rather than process visibility. Another possibility is that Muslim business owners may assume transparency is a given when dealing with religious obligations, thus making it a less conscious factor in decision-making. The results diverge from previous studies, including those by Mensah et al. (2023), Miraz et al. (2022), Sabani (2021) and Salman (2022), highlighting potential avenues for future research.

The final hypothesis proposed that age would significantly influence the intention to adopt e-zakat. However, the results revealed a non-significant relationship, leading to the rejection of H4. This suggests that across different age groups, users are equally open or hesitant to adopt e-zakat services. While prior studies (Cotten, 2021; Wilson et al., 2023; Lee & Coughlin, 2015) often highlight age as a key factor in technology adoption, particularly with older adults sometimes exhibiting reluctance toward digital platforms, this study suggests that such generational differences may be diminishing. The COVID-19 pandemic likely accelerated this trend, as it compelled individuals of all ages to adapt to digital services for daily activities (Sixsmith et al., 2022), including financial transactions and religious obligations. The increased reliance on smartphones, social media, and online banking during the pandemic may have contributed to greater digital familiarity across age groups. Although age did not play a significant role here, future research could investigate whether digital literacy or frequency of technology use may serve as more accurate predictors of e-zakat adoption than age alone.

## 5. Conclusion

This study investigated the factors influencing the intention to adopt e-zakat services by examining perceived usefulness, perceived ease of use, transparency, and age. Applying structural equation modelling, the results revealed that both perceived usefulness and perceived ease of use play important roles in shaping users' intentions to adopt e-zakat, underscoring the influence of technology acceptance factors on behavioural intention. Conversely, transparency and age were not found to be significant predictors, suggesting that users may prioritize functional benefits over demographic or trust-related aspects in the context of religious digital services.

The study offers several important contributions and practical implications. Theoretically, it extends the Technology Acceptance Model (TAM) into the domain of Islamic financial technology by validating its applicability in the context of e-zakat. Practically, the findings provide guidance to system developers, zakat authorities, and policymakers to focus on improving the usefulness and user-friendliness of digital zakat platforms. Simplifying the interface, streamlining processes, and clearly communicating the benefits of the system are key strategies to enhance adoption rates.

However, the study is not without limitations. The data were gathered from a specific demographic and geographical context, as the survey targeted only the Muslim business owner population in Perak and Kelantan, Malaysia. As a result, the findings may not be fully generalizable to other populations or regions. In addition, the study focused only on four variables, leaving out other potentially relevant factors such as digital literacy, trust, religiosity, social influence, or system quality. For future research, it is recommended to explore these additional factors to gain a more holistic understanding of e-zakat adoption behaviour among entrepreneurs. Moreover, longitudinal studies could help assess how user perceptions evolve over time, while comparative studies across regions or countries could provide deeper insights into cultural and contextual differences in adoption behaviour. By addressing these areas, future research can further support the development of inclusive, efficient, and widely adopted e-zakat systems.

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## Ethical Considerations

The authors declare that all factors related to protecting participants were considered and that all of the information collected was confidential.

## Conflict of Interest

The authors declare no conflicts of interest.

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