The Intention of Young Muslim Generation Using the Islamic E-Wallet Services in Indonesia

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Abstract

Research Originality: Technological developments have changed human behavior in economic activities, including payment methods that use e-wallets. On the other hand, consumers also need an e-wallet that complies with Sharia principles. The COVID-19 pandemic forced consumers to use digital payment methods. However, the number of studies related to the continued usage of Islamic e-wallets in Indonesia remains limited.

Research Objectives: Hence, our study examines the factors influencing a person’s intention to use an Islamic e-wallet.

Research Method: The theoretical framework used in this study is the Technology Acceptance Model. The analysis technique employed is multiple regression analysis using 371 respondents.

Result: Empirical results indicate that the factors influencing a person’s intention to use an Islamic e-wallet are usability, ease of use, trustworthiness, and religiosity. However, the risk variable does not significantly affect a person’s intention to use an Islamic e-wallet.

Implication: These results imply that companies must improve the features and services of Islamic e-wallet applications.

Keywords:
Islamic e-wallet; intention; covid-19

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INTRODUCTION

In rapid technological progress, how financial transactions are conducted is swiftly evolving (Cugno et al., 2021). The convenience and efficiency of digital payment methods are increasingly replacing the traditional practice of physically exchanging currency. At the forefront of this digital transformation are electronic wallets, commonly known as e-wallets, which have quickly become an integral part of our daily lives. The development of e-wallets will encourage customers and business owners to use digital payments for safer, cashless, and more efficient transactions (Bakar et al., 2020; Tho To & Trinh, 2021). These pocket-sized virtual repositories are changing how we manage our finances and reshaping our entire perception of money. Society has become cashless, a condition where people transact without using cash (Adiani et al., 2021; Foster et al., 2022). Digital payment can promote environmental traceability and customer lifetime value and bolster security (Hopali et al., 2022).

The outbreak of the Covid-19 pandemic in 2020 significantly transformed the global socio-economic landscape, impacting virtually every facet of daily life, including financial transactions (Ngoc Ly et al., 2022; Srouji & Torre, 2022; Savitha et al., 2022). Within financial transactions, the pandemic accelerated the transition toward digital payment technologies (Saroy et al., 2022; Rani, 2022; Szumski, 2022). Amid this profound global shift, Indonesia, with its burgeoning digital economy and substantial Muslim population, emerged as a compelling focal point for investigating consumer intentions regarding Islamic e-wallet services. Indonesia not only stands as the world’s most populous Muslim-majority nation but also as a country that has progressively embraced the digital transformation of its financial sector. The merging of digital financial innovation with Islamic finance principles has given rise to Islamic e-wallets, which offer a faith-compliant alternative to conventional e-wallet services. These Islamic e-wallets are specifically designed to align with Islamic law principles, ensuring adherence to ethical standards, including the prohibition of interest and investments that align with Islamic values (Zustika & Fageh, 2022).

However, an intriguing subset of this digital financial revolution has emerged as an Islamic e-wallet. These specialized digital payment platforms adhere to the principles of Islamic finance, and they are gaining momentum as a vital part of the global fintech ecosystem (Nuha et al., 2020). Islamic e-wallets stand at the intersection of technology and faith, offering various financial services that align with Islamic ethics, such as avoiding interest-based transactions and promoting transparency (Rizaldi et al., 2021).

The introduction of Islamic e-wallets reflects the global fintech trend and an endeavor to satisfy the specific financial needs of the Muslim population. At their core, Islamic e-wallets aim to provide users with a sharia-compliant alternative to conventional financial services, such as interest-free savings, zakat management, and ethical investment options. In an age where the Muslim population represents a significant portion of the global economy, these digital tools cater to specific beliefs and values (Fitria et al., 2022). They bring unique intentions and motivations into e-wallet usage, making them...
a compelling subject for exploration. This infusion of faith in fintech has led to a growing interest among Muslims worldwide, seeking convenience and compliance in their financial transactions (Rahim et al., 2023). One crucial aspect to consider is the role of Islamic e-wallets in fostering financial inclusion among Muslim populations. Adopting technology in Islamic finance will help the government improve financial inclusion and conquer financial crises (Alshater et al., 2022). These digital platforms have the potential to bridge the financial gap of those who were excluded from the formal banking sector.

Much research has discussed intentions to use e-wallets, but most focus on conventional e-wallets. However, studies that discuss intentions to use Islamic e-wallets still need to be completed. This study explores the factors influencing consumer intentions to use Islamic e-wallet services in Indonesia during the COVID-19 pandemic. So, this research will significantly contribute to developing Islamic e-wallet studies in Indonesia and globally. We will examine the driving forces behind the intention of consumers to embrace Islamic e-wallets, from a more substantial connection of their faith to the usefulness, ease, risk, and trust offered by these platforms. By understanding these factors, this research aims to provide valuable insights for e-wallet service providers, policymakers, and financial institutions to enhance the adoption of Islamic e-wallet services in Indonesia.

The importance of this research is underscored by the growing popularity of e-wallets in Indonesia, both Islamic and conventional, and the accelerated adoption of digital financial services driven by the pandemic. Understanding the dynamics of Islamic e-wallet usage amidst these changing circumstances is pivotal. In particular, the COVID-19 pandemic heightened concerns about health and safety, leading to a substantial shift in consumer behavior towards digital payments. This research holds the potential to guide Islamic e-wallet providers in fine-tuning their strategies, ensuring they meet the needs and expectations of Indonesian consumers. By understanding the consumer’s intention to use Islamic e-wallets, this study aims to contribute to the broader discourse on the convergence of technology, faith, and finance in the contemporary digital age.

METHODS

This study uses a quantitative approach. The data used in this research is by distributing questionnaires to 371 respondents. This study uses non-probability sampling. The criteria used to determine the sample in this study are: 1) are users of Islamic e-wallets; 2) Religion of Islam; 3) Age 18-40 years.

In forming the variables in this study using the TAM model which is expanded with the religiosity variable. The analysis technique used in this study uses multiple regression analysis. The models developed in this research are:

\[ \text{Intention}_i = \alpha + \beta_1 \text{Usefulness}_i + \beta_2 \text{Ease}_i + \beta_3 \text{Risk}_i + \beta_4 \text{Trust}_i + \beta_5 \text{Religiosity}_i + \epsilon_i \]

Where:

Intention : intention to use Islamic e-wallet
Usefulness: perceived usefulness of customers
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Ease : perceived ease of use of customers
Risk : perceived risk of customers
Trust : perceived trust of customers
Religiosity : religiosity of customers

RESULT AND DISCUSSION

Table 1 shows the distribution of respondents based on their characteristics. In general, women dominated respondents in this study, as much as 60.8 percent. Furthermore, based on the level of education, the highest educational level of the respondents was having a bachelor’s degree, which was 55.6 percent—then followed by high school education (31.5 percent), diploma (9.4 percent), and postgraduate (3.4 percent). This result shows that most Islamic e-wallet users are well-versed in the use of technology.

Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>39.2</td>
</tr>
<tr>
<td>Female</td>
<td>60.8</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>31.6</td>
</tr>
<tr>
<td>Diploma</td>
<td>9.4</td>
</tr>
<tr>
<td>Bachelor</td>
<td>55.6</td>
</tr>
<tr>
<td>Post-Graduate</td>
<td>3.4</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
</tr>
<tr>
<td>Private sector employee</td>
<td>17.0</td>
</tr>
<tr>
<td>State-owned employee</td>
<td>11.7</td>
</tr>
<tr>
<td>Civil servant</td>
<td>9.4</td>
</tr>
<tr>
<td>Entrepreneur</td>
<td>21.1</td>
</tr>
<tr>
<td>College student</td>
<td>38.0</td>
</tr>
<tr>
<td>Housewife</td>
<td>2.8</td>
</tr>
<tr>
<td>Duration time</td>
<td></td>
</tr>
<tr>
<td>&lt; 3 months</td>
<td>45.6</td>
</tr>
<tr>
<td>4 – 8 months</td>
<td>43.3</td>
</tr>
<tr>
<td>More than 8 months</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Based on the type of work, the most significant number of respondents were students at both undergraduate and postgraduate levels, namely 38 percent. The second most common occupation of respondents is entrepreneurship, equal to 21.1 percent—next followed by private employees (17 percent), employees of state-owned enterprises (11.7 percent), civil servants (9.4 percent), and homemakers (2.8 percent). The most extensive distribution of respondents based on the time they used Islamic e-wallets was under three months (45.6 percent), followed by usage duration ranging from 4 to 8 months (43.3 percent) and above eight months (11.1 percent). These results indicate that the socialization and education of Islamic e-wallets need to be continuously improved.
This study analyzes what factors determine a person’s intention to use an Islamic e-wallet using the Technological Acceptance Model (TAM) approach. The model suggests that various factors can influence user decisions about how and when to adopt new software. TAM aims to predict the acceptance of information systems and identify design flaws before users can use the system (Yusuf & Derus, 2013). TAM is based on the consumer behavior theory, which proposes that personal acceptance of technology is influenced by perceived usefulness and ease of use (Davis, 1986; 1989).

Despite the potential benefits of technological advancements, human limitations such as abilities, time constraints, environmental or organizational constraints, or unconscious habits can hinder user freedom to act in the real world (Bagozzi et al., 2003). These challenges have impacted the use of technology in the payment system. In this digital age, people need to be savvy and take advantage of the convenience and efficiency of digital interactions (Aristiana, 2019). Fintech business development has influenced the emergence of startups involved in digital finance, demonstrating the community’s role in advancing the modern era. However, the need for more progress in digital technology can hinder efforts to address barriers in payment methods, emphasizing the need for digital technology that can handle the entire payment system.

### Table 2. Empirical Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-2.58</td>
<td>1.23**</td>
</tr>
<tr>
<td>Perceived usefulness</td>
<td>0.218</td>
<td>0.097**</td>
</tr>
<tr>
<td>Perceived ease of use</td>
<td>0.276</td>
<td>0.09***</td>
</tr>
<tr>
<td>Perceived risk</td>
<td>-0.074</td>
<td>0.04*</td>
</tr>
<tr>
<td>Perceived trust</td>
<td>0.303</td>
<td>0.059***</td>
</tr>
<tr>
<td>Religiosity</td>
<td>0.371</td>
<td>0.059***</td>
</tr>
<tr>
<td>R-square</td>
<td>0.747</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-square</td>
<td>0.736</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>160.381***</td>
<td></td>
</tr>
</tbody>
</table>

Note: ***1%, **5%, *10%

The empirical findings in Table 2 show that the factors that most determine a person’s intention to use an Islamic e-wallet are perceived usefulness, ease of use, trust, and religiosity. Meanwhile, the weakest factor in using Islamic e-wallets is perceived risk. The results of the F-statistics in Table 2 show significant results. This result shows that simultaneously, all variables influence a person’s intention to use Islamic e-wallets. The coefficient of determination, as shown in Table 2, shows a value of 0.736. These results indicate that the existing variables of 73.6 percent have explained this model, while other variables outside the existing model explain the other 26.4 percent.

Respondents’ perception of usability positively affects a person’s intention to use an Islamic e-wallet. This result shows that the more valuable it is in the respondents’ daily transactions, the higher the intention to use Islamic e-wallets. These results are
in line with research conducted by Kumala et al. (2020) and Ming & Jais (2022), which also show that the perceived usefulness variable has a positive effect on the intention to use e-wallets. Several other studies also show that perceived usefulness is a factor that significantly influences a person’s use of an e-wallet. (Gefen & Straub, 2000; Harridge-March et al., 2008; Cho & Sagynov, 2015; Nguyen et al., 2016). The usefulness of information technology can be measured in terms of its usability and effectiveness. Usability refers to how easily and efficiently a technology can be used, while effectiveness refers to the benefits users receive from using the technology (Davis, 1989). The perception of usefulness is a significant determinant of user behavior, as it reflects users’ belief that technology will benefit them (Lai, 2017; Ozturk, 2016; Shree et al., 2021).

Gao & Bai (2014) have shown that the perceived convenience of electronic payment systems significantly affects users’ behavioral intentions and actual use of such systems. Perceived usefulness has also been crucial in user acceptance of word processing and Internet services (Chang & Hamid, 2010). When users believe a technology can deliver results, their behavioral intentions are more likely to align with using it (Shree et al., 2021). Institutions can leverage digital payments to address traceability issues, as digital payments offer more transparent and traceable transactions. Research in behavioral science has also demonstrated that people experience less discomfort or "pain" when making digital payments than cash payments, leading to fewer deferred payments.

Ease of use in an e-wallet is a positive factor for someone's intention to use an Islamic e-wallet. Easy-to-use features will increase a person’s intention to use Islamic e-wallets. Rinaldi et al. (2021) also show that easy-to-use significantly impacts the intention to use Islamic e-wallets. Ariffin et al. (2021) show that consumer found that e-wallets are easy to use, improve their payment processing, and enhance the transaction's effectiveness. The younger generation finds it more accessible to pay with e-wallets than the older generation. This result aligns with Adiani et al. (2021), who argue that generational differences determine the intention to pay with e-wallets. Perception of convenience in the context of information technology refers to an individual’s belief that the system is easy to use and does not require significant effort. This perception includes factors like ease of learning, working with, improving skills, and operating the technology (Davis, 1989). Perceived ease of use significantly predicts behavioral intentions and actual use of electronic payment systems (Lai, 2017; Ozturk, 2016; Shree et al., 2021).

However, the competition in the financial technology sector may affect the perceived convenience of specific systems. For example, Aristiana (2019) suggests that the ease-of-use variable may have little influence on Go-pay due to the competition from other established payment systems such as ATMs. Bruner II & Kumar (2005) note that the findings on the influence of perceived ease of use on consumer behavior must be more consistent. While perceived ease of use can influence attitudes toward usage decisions, its direct influence may not always be related to product usefulness. Venkatesh & Davis
(1996) have argued that the attitude variable should be removed from the model and that beliefs about the ease of use and usefulness of technology should directly shape usage decisions.

Perceptions of risk have a negative effect on a person’s intention to use an Islamic e-wallet. This condition shows that if someone perceives that using an e-wallet is increasingly risky, he will tend to reduce transactions using an e-wallet. Transaction security is the leading risk arising from using digital payments such as e-wallets. Transaction security can strengthen consumers’ behavior towards using digital payment intentions (Tsai et al., 2022). Bauer (1960) was the first to introduce the concept of perceived risk in marketing literature, highlighting that consumer behavior is influenced by the level of risk involved in purchasing decisions. According to Hamid & Cheng (2020), perceived risk is a predictive evaluation of the possible outcomes and uncontrolled results resulting from insufficient information. There are five types of risks: physical, performance, psychological, time loss, and financial. Huang et al. (2004) found that consumers perceive higher risk with increased uncertainty, leading to undesirable outcomes. To reduce perceived risk, consumers employ brand loyalty, store image, or word-of-mouth promotion strategies to confirm their purchase decision or decrease uncertainty. Digital risk and a lack of trust are significant barriers to adopting some digital technologies and applications. Shree et al. (2021) found that consumer perceptions of security/risk significantly influence payment system adoption. Moreover, Png & Tan (2020) emphasize that privacy concerns are a leading psychological factor that biases consumers towards cash for retail transactions.

Huang et al. (2004) found that consumers feel risk increases with uncertainty and is driven by undesirable outcomes. To reduce perceived risk, they use several strategies, such as brand loyalty, store image, or word-of-mouth promotion, to either confirm their purchase decision or reduce the uncertainty they feel about it. Digital risk and lack of trust are often the most common reasons consumers refrain from using digital technologies and applications (Foster et al., 2022). Consumer perceptions of security/risk have significantly influenced payment system adoption (Shree et al., 2021). Png & Tan (2020) point out that privacy concerns emerge as one of the main psychological factors leading to a bias towards cash for retail transactions.

The trust factor positively influences the millennial generation’s intention to use Islamic e-wallets. The more trusted the Islamic e-wallet, the higher the intention to use. Bella & Efendi (2021) also found that trust positively impacts the intention to use an Islamic e-wallet. According to Fukuyama (1995) and Luhmann (2000), trust is a social construct that only exists in the presence of other people. Trust can be established by creating a personal connection (Choi et al., 2011; Grabner-Kraeuter, 2002), and human warmth and friendliness are essential characteristics of trust (Liu et al., 2019). Mayer et al. (1995) define trust as the belief that the other party will take specific actions necessary to the trustee, regardless of the ability to observe or control the other party. Trust is crucial in technology adoption because it can impact people’s beliefs in using technology. Trust is necessary for people to have confidence
in using technology, leading to a lack of interest in digital payment (Aristiana, 2019). Perceived trust in the payment system positively impacts using digital payment modes (Hua, 2008; Maqableh, 2015).

Contrary to the usual TAM model, religiosity is a variable added to this research model. Empirical results show that religiosity positively affects the intention to use Islamic e-wallet. Islamic religiosity can also become the moderating variable of intention to use digital payment (Alkhowaiter, 2022). Religiosity is also a significant factor that impacts the intention to use an Islamic e-wallet. Religiosity is a commitment to following an established structure’s beliefs, principles, and doctrines (Bhuian et al., 2018; Alkhowaiter, 2022). Muslims can use an Islamic-based e-wallet for all transactions that are based on Allah’s provisions (Fitria et al., 2022). Islamic e-wallet innovation is based on Muslim needs for Sharia-based digital payments. The level of religiosity is one of the things that determine a person’s decision to have a digital payment, whether based on Sharia or conventional principles. The lower a person’s level of religiosity, the easier it will be for him to switch to conventional digital payments if an operational risk occurs (Sutarso, 2022).

Bakar et al. (2020) explain several advantages of using e-wallets for customers: First, e-wallet is safer, cashless, and more efficient transaction. Second, easy to monitor user expenses. Third, e-wallet is backed by a money-back guarantee system by a provider. Fourth, e-wallet provides a user-friendly cash reload system using cash, debit/credit cards, and bank transfers. Adiani et al. (2021) suggest that e-wallet service providers should expand their network and collaborate with various stakeholders to retain customers.

CONCLUSION

This study analyzes factors influencing a person’s intention to use an Islamic e-wallet. Empirical findings show that the factors influencing a person’s intention to use an Islamic e-wallet are perceived usefulness, ease of use, trust, and religiosity. Meanwhile, perceived risk has a weak influence on a person’s intention to use an Islamic e-wallet. The use of Islamic e-wallets, in general, still needs to be improved because they are still unable to compete with conventional e-wallets. The intention of using e-wallets has increased during the COVID-19 period.

This research has productive implications for various categories of stakeholders in the digital payment architecture. Based on these empirical findings, this study offers several recommendations. First, regulators need to increase socialization and education regarding the existence of Islamic e-wallets to the public more intensely than before. Second, Islamic e-wallet companies need to increase education and literacy further regarding the existence of Islamic e-wallets. Third, Islamic e-wallet companies need to improve the quality of their products and services.
REFERENCES


