

**Research article**

# Islamic Financial Literacy and Intention to Use Gopay in Yogyakarta: Extended Theory of Acceptance Models

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**Abstract.**

This study used the theory of acceptance model (TAM). This study analyzed the impact of Islamic financial literacy on the intention to use Go-Pay. This quantitative research used a purposive sampling of Muslim university students in Yogyakarta. The questionnaire was tested for validity and reliability, and the result exceeded its standard. Data were analyzed using path analysis. This study showed that Islamic financial literacy positively impacted perceived usefulness and ease of use. Perceived usefulness and perceived ease of use positively impacted the intention to use Go-Pay. Islamic financial literacy directly impacted the intention to use Go-Pay; Islamic financial literacy through perceived usefulness positively impacted the intention to use Go-Pay. Moreover, through perceived ease of use, Islamic financial literacy had a positive impact on the intention to use Go-Pay.

**Keywords:** Islamic Financial Literacy; Technology Acceptance Model; Intention; E-wallet

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## 1. Introduction

According to research from the Cambridge Center for Alternative Finance (CCAF) at the University of Cambridge Judge Business School, the World Bank Group, and the World Economic Forum, during the COVID pandemic of 2019, 60 percent of global fintech companies surveyed continued to launch new products or services or develop existing products. According to the survey, the average number of fintech companies has increased by 13%, while volume has increased by 11%. That survey found that Fintech survival during a pandemic was high (1). Indonesia is leading in terms of internet and mobile penetration, with more than 60% of the population equipped with a smartphone, according to Hootsuit (2) Indonesia has always been ripe for digital disruption in financial services. The country has a massive population of 250 million, and more than 50% are still unbanked due to geographical and infrastructural barriers. The development of


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Fintech globally has also influenced Fintech in Indonesia. Before 2006, the number of Fintech companies that participated was only four companies and then increased to 16 companies in the range of 2006–2007 (3). In the four years after that, only nine other companies contributed, bringing it to 25 companies in the period 2011–2012. However, from 2013 to 2014, Fintech companies increased by 15 to 40 companies or grew by around 60%. However, rapid developments occurred from 2015 to 2016 where Fintech companies grew by 125 companies until they became 165 companies. There is an increase in Fintech companies by around 312.5% compared to the previous year (3).

One of the most popular Fintech services in Indonesia is GO-JEK. GO-JEK is a mobile service provider that provides various services, ranging from transportation to payment services, namely, Gopay. Gopay is an electronic wallet (e-wallet) developed by PT. Gojek, to facilitate payment transactions on various digital and nondigital platforms. According to Bank Indonesia, market share Gopay in 2019 is 19% below OVO with 20% share (4). To date, GoTo has more than two million registered driver partners as of December 2020, more than 11 million business partners as of December 2020, and more than 100 million monthly active users. Recently, gojek and tokopedia have merger agreement with total valuation US\$ 22 billion. This valuation brings GoTo as a unicorn startup with the 11th highest valuation in the world when referring to CB Insights data (5). According to the University of Indonesia Research, GoTo contributes 2% of Indonesia's gross domestic product (GDP) (6). A widely used theory for assessing the acceptance of information technology is the Technology Acceptance Model (TAM). TAM originally developed by Davis, Fred D., Richard P. Bagozzi, and Paul R. Warshaw in their papers "User acceptance of computer technology: A comparison of two theoretical models" In *Management science journal* (7). TAM is widely used in various fields related to information technology. Such as Patel&Patel (2018) (8); Ramayah (2018) (9) in the banking industry; Fedorko, Igor, Radovan Bacik, and Beata Gavurova (2018) (10); D'Souza, D.J., Joshi, H.G., and Prabhu, R., (2021) (11) in e-commerce industry; Chen, X. and Li, Z., (2020) (12) in tourism industry. A recent study extended TAM by adding new variables.

Financial literacy combines a person's understanding of financial products and concepts and their ability and confidence to face risks, take advantage of financial opportunities, make informed choices, know where to look for financial assistance and take other practical actions to improve financial well-being (13). Many studies have found a relationship between financial literacy and financial intention or financial behavior. Li, J., Li, Q. and Wei, X. (2020)(14); Ahmad Sabir, S., Mohammad, H., and Kadir Shahar, H., (2019)(15) in investment behavior; Abad-Segura, E., and González-Zamar, M.D., (2019)(16); Calcagno, R., Alperovych, Y. and Quas, A., (2020) (17) in entrepreneurship research.

However, no prior research integrated financial literacy or Islamic financial literacy into TAM. This study tries expanding TAM by adding Islamic financial literacy. This study determined the role of Islamic financial literacy in intention using Go-Pay.

## 2. Literature review

### 2.1. Islamic Financial Literacy

Financial literacy, according to Lusardi and Mitchell, is a level of financial knowledge and ability to apply it (18) (19). Huston said that literacy is a test of how well a person learns and applies personal finance information (20). To summarize, financial literacy is the understanding of how to manage financial assets appropriately and accurately to avoid financial troubles. According to Chen, Haiyang, and Ronald P. Volpe (1998), several indicators are included in financial literacy, namely: 1) Understanding related to basic knowledge of personal finance. 2) Savings and loans (Saving and Borrowing) are related to knowledge about savings and loans such as credit cards. 3) Insurance (Insurance) includes basic knowledge about insurance products such as life insurance and matters related to insurance. 4) Investment, which includes knowledge of market interest rates, investment risks, and mutual funds (21).

In his research, Artur Pokrikyan (2016) found that financial literacy significantly influences consumer financial decisions regarding the decision to save in financial institutions. The impact of financial literacy is not significant on customer debt management decisions. Financial literacy interventions in the form of workshops have proven efficient in the short term, while their long-term effectiveness remains controversial (22). Setiawati et al., study is to determine the construction of Islamic financial literacy along with its dimensions and indicators through qualitative methods and testing the validity of the instrument constructs empirically. The Islamic financial literacy aspect has indicators for understanding the general concept of Islamic finance from a legal perspective, products, contracts, and mechanisms of their use. Islamic Finance Attitude Dimension focuses on awareness and confidence in finding spending/funding sources and allocating/spending funds according to the principles of Halal, Utilities and Shariah. The Islamic financial behavior aspect, on the other hand, considers indicators of the elements of planning behavior and selects funding sources and methods for obtaining and appropriately distributing funds in accordance with the Shariah Act (13).

Studied by Alaaraj, Hassan, and Ahmed Bakri (2020), examines the effect of financial Literacy on investment decision making among investors in South Lebanon. This study

examines the effect of financial Literacy on investment decision making among investors in South Lebanon (23). Siddique, Muhammad Shahid, Ameen, et al. The findings reveal that most respondents are anxious about the acceptability of Islamic banking services, customer quality, service and product quality, the legitimacy of the Islamic banking system as it is operating, and other related considerations. Furthermore, the adoption rate of Islamic banking services is influenced by the level of educational attainment among the public, customer service, service quality, and the legitimacy of Islamic banking (24). Studied by Mohamed Albaity; Mahfuzur Rahman tries to investigate the direct as well as indirect links between Islamic Financial literacy, cost and benefit, awareness, reputation and attitudes towards Islamic banks with the intention to use Islamic banks. Indicates the more educated a customer is, the more favorable their opinion of Islamic banks is. The negative relationship between IFL and intention, on the other hand, revealed that the more literate a client is, the lower their intention will be (25). Despite the fact that technology acceptance models are one of the fundamental theories in technology adoption, including Gopay, none of the financial literacy studies discussed above use them. As a result, incorporating Islamic financial literacy into the TAM model must increase the TAM's predictive capabilities in the context, moslem.

## 2.2. Technology Acceptance Models

TAM was proposed by Fred Davis, who adapted the theories of reasoned action (TRA) and planned behavior (TPB). He considered the actual use of the system to be behavior, and thus TRA and TPB would be appropriate models for explaining and predicting that behavior. Davis, on the other hand, made two significant changes to the TRA and TPB models. First, it ignores subjective norms in predicting actual behavior, instead focusing on a person's attitude toward them. Second, he identified two distinct beliefs, perceived usefulness and ease of use, that are sufficient to predict user attitudes toward system use (7). TAM, positioning Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) as the main predictor of Intention to Use (IU). The definition of perceived usefulness (PU) is "the degree to which a person believes that using a particular system would improve his or her performance" (7). The term "perceived ease of use" (PEU) refers to "the degree to which a person believes that using a specific system would be free of effort" (7). The Technology Acceptance Model (TAM) has been used in several studies, and as a result, it has gained prominence in the literature on technology adoption. Furthermore, a recent study concluded that the use of TAM in financial technology has proven its effectiveness compared to other theoretical models. Furthermore, many researchers have developed

this initial TAM model by adding certain variables to increase the predictive power of TAM.

### 3. Methodology

This quantitative survey used self-administered questionnaire surveys with a purposive sampling method. Participants are 150 Muslim college students in Yogyakarta. Four empirical indicators measured Islamic Financial Literacy (IFL), Perceived usefulness (PU), four indicators, Perceived ease of use (PEU), four empirical indicators, and finally, intention to use (IU), measured by four indicators. TAM used a continuous rating scale with 1 to 10 points start from the worst to the best of the category (26). IFL measured using the Guttman scale; this scale provides two answers: “correct” and “wrong” (27). The number of questions on IFL is sixteen items. The questionnaire has passed validation and reliability tests, and the results are compliant with the standards. Data analysis used path analysis and Sobel test to determine the direct and indirect effect

### 4. Results and Discussion

#### 4.1. Participant Profile

Go-Pay users are more female (71.3%) than male (28.7%), most of whom are aged 20–23 years, few are in the category of older students (2%). Respondents who receive an allowance below IDR 1,000,000 per month and IDR 1 million to IDR 2 million are balanced. Most respondents (67.3%) use Gopay 1–5 times a month. The late adopter group, namely, respondents who use Gopay under six months as much as 31.1%, while the early adopter group, namely, Gopay users over 12 months, as much as 44.7%.

Respondents have an IFL rate of 65.3%, in the average range. Perhaps financial literacy is measured in Islamic terms, where there are specific items that most students do not understand.

#### 4.2. Results and Discussion

The results of path analysis and Sobel test can be summarized in table 3.

Islamic financial literacy (IFL) has a significant and positive effect on perceived usefulness (PU), which means that the higher the respondent’s level of Islamic financial literacy, the higher the perceived usefulness of Go- Pay. Respondents with a high level

TABLE 1: Participants profiles.

	Categories	Frequency	Persentase (%)
Gender	Men	43	28,7
	Women	107	71,3
Age	17–19 years	40	26,7
	20–23 years	107	71,3
	24–26 years	3	2
Allowance/month	Rp 500.000 – Rp 1.000.000	58	40
	Rp 1.000.000 - Rp 2.000.000	73	48
	Rp 2.000.000 and up	18	12
Usage rate/month	1–5 x	101	67,3
	5–10 x	35	23,3
	10 x and up	14	9,3
The duration of usage	Below 6 months	47	31,3
	6 month – 12 months	36	24
	12 months and up	67	44,7

TABLE 2: Islamic Financial Literacy rate.

Literacy rate	sum	prosentase
Low	32	21,3
middle	98	65,3
High	20	13,3

TABLE 3: Path analysis and Sobel test.

	Coefisien	t-statistic	p-value	Conclusion	Accept/reject H0
IFL -> PU	1,956	2,437	0,016	Significant	Reject H0
IFL -> PEU	3,653	4,296	0,000	Significant	Reject H0
PU -> IU	0,782	9,344	0,000	Significant	Reject H0
PEU -> IU	0,835	12,502	0,000	Significant	Reject H0
IFL -> IU	4,547	4,634	0,000	Significant	Reject H0
IFL->PU->IU	Sobel test	2,244	0,000	Significant	Reject H0
IFL->PEU->IU	Sobel test	3,668	0,000	Significant	Reject H0

of Islamic financial literacy think that Go-Pay will significantly benefit their activities in conducting digital transactions. Respondents with a high level of Islamic financial literacy mean respondents who have good financial knowledge, confidence, and skills to make the best use of Go-Pay to increase their productivity. Islamic financial literacy (IFL) significantly influences the perceived ease of use (PEU), as evidenced by the p-value of 0.000. The better the respondent's level of Islamic financial literacy, the perception

of the ease of using the Go-Pay electronic wallet increases. The lower the level of Islamic financial literacy, the more difficult Go-Pay is used. Perceived usefulness (PU) has a significant influence on intention in using Go-Pay (IU), proven to have a p-value of 0.000, the better the perception of the benefits of Go-Pay, the higher the respondents' desire to use Go-Pay.

Perceptions of usefulness in using technology are influenced by several factors: speed in making payment transactions, effectiveness in using technology, efficiency in payment transactions, and expectations for increased productivity. so that respondents continue to want to use Go-Pay, these factors must be maintained so that they are by what was promised. Perceived ease of use (PEU) significantly influences intention to use (IU) Go-Pay, as evidenced by the p-value of 0.000. The higher the perception of ease of using Go-Pay, the higher the respondent's intention in using Go-Pay. Respondents believe that the Go-Pay system can be easily understood and used. Several factors influence perceptions of the ease of using technology; namely, the system is easy to use, practical use, and easily accessible by respondents (28). Islamic financial literacy (IFL) has a positive and significant influence on intention in using Go-Pay (IU), as evidenced by the p-value of 0.000; this explains that the level of financial knowledge of respondents encourages using Go-Pay. The use of Go-Pay is believed to provide various conveniences in conducting financial transactions. Islamic financial literacy (IFL) significantly affects an intention in using Go-Pay (IU) through perceived usefulness (PU), as evidenced by the Sobel test with t statistics = 2.244 > 1.6552, which means Islamic financial literacy through perceived usefulness) has a positive effect on interest in using Go-Pay.

Perceived usefulness moderates the relationship between IFL and intention to use Go-Pay. With the PU, IFL affects the intention to use Go-Pay. Islamic financial literacy (IFL) has a significant indirect effect on intention to use Go-Pay (IU) through perceived ease of use (PEU), as evidenced by the Sobel test with t statistics = 3.668 > 1.6552 (t 5%), indicating that financial literacy has a positive effect on interest in using Go-Pay through perceived usefulness. The relationship between IFL and IU is moderated by perceived ease of use. The easier it is for respondents to use the Go-Pay application, the more likely it is that they will continue to use Go-Pay. The findings of this research are not different from several previous TAM studies, which state that there is a relationship between variables in TAM and intention to use technology (8) (9) (10) (11). However, what distinguishes the findings of this study from previous research is that the Islamic financial literacy, which is integrated into the TAM model, can predict the intention to use Go-Pay well. With good Islamic financial literacy, the respondent will be able to choose

and utilize financial service products according to their needs, avoid the consumptive attitude, and be more competent in managing their finances. This research finding, strengthens the evidence that TAM can be used in various fields related to information technology.

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