

What Drives Consumers to Use *Syariah* M-Banking to Purchase E-Money? Integration of UTAUT 2 and Mobile Service Quality

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Keywords

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Abstract

This study investigates what factors persuade consumers to purchase e-money via *syariah* m-banking applications. Researchers extended the Unified Theory of Acceptance and Use of Technology (UTAUT 2) to find new information as well as to accommodate the limitations and discussions of previous studies. A purposive sampling technique was adapted to select respondent criteria. The collected data from 120 respondents were analyzed using Partial Least Square Structural Equation Modeling (PLS-SEM), supported by WarpPLS 8.0, through three main stages of analysis: measurement model, structural model, and hypothesis testing. Additional analysis was undertaken to produce robust findings by explaining multicollinearity, common method bias, and multigroup analysis by categorizing two groups of respondents (male and female). Researchers found that only social influence and hedonic motivation have a significant effect on trust from the UTAUT 2 model. On the other hand, two exogenous constructs in the mobile service quality model proved to have a significant effect on trust, security (privacy), and practicality. Furthermore, the research showed that trust is a fundamental factor in influencing continuance intention because it produces the largest effect size (f-square) and significant path coefficient value. The findings should encourage all Islamic banking stakeholders and practitioners to increase individual trust by creating educational and innovative programs connected with consuming digital banking services, especially e-money purchases.

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1. Introduction

Economic and business activities increasingly undertake developments to improve products, services, service quality, and cost efficiency. Technology is the primary way to meet the needs of society in the future (Mustaqim, 2018). Technological advances cause changes in the old order, known as disruption. However, such disruption will likely have a positive impact on the improvement of the old system. Innovation is needed by companies to create new business strategies, especially in developing new ways of working or processes (Obal, 2017).

Innovation is created by being oriented to consumers because they have high service expectations. Information technology therefore plays a central role in the development of the digital economy to create companies that have competitive value (Borremans et al., 2018). The digital economy is thus at the forefront of increasing efficiency, and it can be said that the more consumers a company has, the easier it is to attract new consumers to the production process, meaning the company can provide better service at the same price (Jurayevich & Bulturbayevich, 2020).

The development of the digital economy is marked by the existence of e-commerce, digital banking, electronic payments, and internet advertising (Borremans et al., 2018). All these activities cannot be separated from the use of the internet in implementation. In Indonesia, the digitalization of banking plays a role in improving performance by paying attention to the benefits obtained by banks and customers (Vebiana, 2018). Following the Financial Services Authority (OJK) Regulation Number 12/POJK.03/2018 concerning the Implementation of Digital Banking Services by Commercial Banks, there are opportunities for the banking industry, including Islamic banking, to improve the quality of digital services. This is evidenced by the existence of m-banking, which shows a positive curve every period, which means that it has succeeded in providing good quality services through digital innovation (Tunay et al., 2015). Thus, the more people use m-banking for financial transactions, the greater the reuse rate of m-banking. m-banking grown especially fast due to the emergence of online shops and e-commerce (Mufingatun et al., 2020; Rachadika & Nasution, 2020). In line with Mullan et al. (2017), m-banking is an innovative response to current economic conditions as well as partnerships and the need for customer convenience.

This study will discuss customer relationships with financial banking institutions. Thus, there are two sides to viewing digital banking through user

behavioral intentions and relationship marketing perspectives. The relationship between the two can be seen through customers' trust in assessing the quality of cellular services (mobile service quality). The bank not only provides service quality but also sees the effect of technology on service quality (Huang et al., 2015). In the research of Ghobakhloo & Fathi (2019), it was found that trust after using m-banking was influenced by mobile service quality. This trust will later provide continued intentions to reuse m-banking applications (Ofori et al., 2017; Shao et al., 2019).

The change in activities from traditional to modern through digitalization has caused technology to be vulnerable to security systems and user privacy. Research conducted by Shin (2010) has explained the importance of service quality in mobile services because consumers can experience various problems, especially security problems, at any point in time. Previous research has also included security/privacy and practicality as points on a service quality measurement scale (Puriwat & Tripopsakul, 2017). Al Khasawneh et al. (2018), in the context of m-banking, found a positive and significant impact on security/privacy in forming trust in the service. In addition to security, user privacy also needs to be considered. This is supported by research by Gumussoy (2016) satisfaction, trust, flow, task-Technology fit (TTF, who found that privacy has a significant influence on trust in the use of m-banking. Privacy/security and practicality are therefore both considered as essential points in this study in regards to influencing trust in m-banking services.

Much of the existing research focuses on the intention to use or adapt technology (Masri & Tarhini, 2017; Gharaibeh & Arshad, 2018; Merhi et al., 2019; Nguyen et al., 2020; Puspitosari & Hidayat, 2020; Saparudin et al., 2020). Previous researchers have also found many exciting points that deserve re-examination, such as findings of a positive and significant effect between trust and the intention to reuse e-payment services (Indrawati & Putri, 2018; Pal et al., 2020). In addition, the research of Kim et al. (2011) and Ofori et al. (2017) found a significant effect between trust and sustainability intentions (continuance intention) using m-banking. However, this is quite different from the previous findings (Lafraxo et al., 2019; M. R. Khan & Chaipoopirutana, 2020; Tun, 2020), who found that trust does not have a significant effect on the continuance intention of m-banking.

2. Literature Review and Hypothesis Development

2.1. E-money and M-banking

E-money is the value of money stored on electronic media which still has the function and position of a legal means of payment. According to Bank Indonesia Regulation Number 20/6/PBI/2018 concerning e-money, e-money circulating in Indonesia must meet the specifications of Bank Indonesia. If e-money does meet the specifications, then depositing the owner's monetary value to the e-money issuer can become a means of payment to merchants.

Based on the Bank Indonesia Regulation, e-money is defined by the scope of its implementation: that is, electronic. It is further differentiated according to the e-money value storage media and the recording of user identity data. The storage media used can be either server-based or chip-based. On a server-based, e-money is stored through a server, so users must be connected to the issuing server and the internet. Meanwhile, chip-based e-money is stored on media as chips contained in a card or other, such as debit and credit cards. Then, according to data recording and user identity, accounts are divided into unregistered and registered.

M-banking is the result of further advances in banking services that previously only used SMS and internet banking (Yusmad, 2018). Ginantra et al. (2020) states that m-banking is an innovation of financial services offered by banks to provide convenience in user transaction activities via smartphones. Nurastuti (2011) defines m-banking as a banking facility with almost the same function as an ATM, such as checking accounts balances, financial transactions, payment for credit applications, and other functions, but m-banking cannot be used to withdraw cash. M-banking has many benefits for users, such as being flexible, being able to personalize based on existing services, not being limited by time and space in its use, customization, and having the ability to identify users carefully to convey messages (Rahmani et al., 2012).

2.2. UTAUT 2 Model and Trust

Performance expectancy represents that digital banking offers advantages for consumers by providing easy-to-use services (Venkatesh et al., 2012). M-banking performance expectancy reflects the perceived benefits of users in accelerating banking transaction activities (Merhi et al., 2019). Expectancy has a high influence on consumer trust, while improved performance can help companies increase consumer trust (Yi & La, 2003). Convenient and flexible service stimulates the formation of trust in consumers in using online services (Z. Gu et al., 2015; Zhang et al., 2018) because customers will generally be satisfied with and trust the service

when the m-banking service improves its performance (Rabaa'i & ALMaati, 2021). Starting with initial trust, customers can continue to deeper levels, ultimately achieving complete trust. Then:

Hypothesis 1: Higher performance expectancy (PE) tends to have higher trust (TR) to use m-banking.

Effort expectancy shows perceived ease when using a system; perceived ease of use itself describes the ease of using and learning information and communication technology (Ventre & Kolbe, 2020) trust and perceived risk. The results were obtained by an online survey answered by 380 online shoppers in Mexico City. Results from partial least squares structural equation modeling (PLS-SEM, including e-banking and cashless payments. Moreover, effort expectancy can keep the user engaged through an easy-to-use interface (Namahoot & Jantasri, 2022) which are practically based on the basic models and theories of consumer behavior such as the theory of reasoned action (TRA). The level of convenience felt by m-banking users fosters initial trust (Maroofi et al., 2013). This initial trust helps users to build complete trust in the m-banking (Yusoff & Mokhtar, 2016; Chang et al., 2017). Trust is needed by consumers as the basis for using technology. Logically, the ease of use of m-banking for consumers can provide a sense of trust in its use. Then:

Hypothesis 2: Higher effort expectancy (EE) tends to have higher trust (TR) to use m-banking.

Social influence is a person's perception of other individuals who are considered essential to stimulate them in using a system (Venkatesh et al., 2012). Individuals consider using a system if they see the influencing persons in their life have already used the system. In other words, social influence impacts one's belief in using technology (Malaquias & Hwang, 2016; Zhang et al., 2020). In the context of the use of systems and technology, the social influence construct can be used to test the use of m-banking. When important people have a significant influence on customers life, this situation will generate more trust to use m-banking. Thus, social influence will have a positive impact on a user's level of trust (Arahita & Hatammimi, 2015; Eneizan et al., 2019; Alomari, 2022). Then:

Hypothesis 3: Higher social influence (SI) tends to have higher trust (TR) to use M-banking.

Banking requires an incentive to run online banking by providing good facilities and making it easier for consumers to recognize digital devices (Khan et al., 2017). This places the obligation on banks to develop trust in m-banking users by providing adequate support services. According to Salimon et al. (2017), trust is

built by providing online question facilities, instant responses, initial training, and instructions on using e-banking along with problem-solving information. Previous research supports that facilitating conditions have a positive and significant effect on trust in using e-commerce and e-banking (Z. Gu et al., 2015; Salimon et al., 2015; Angelia et al., 2021). Then:

Hypothesis 4: Higher Facilitating Condition (FC) tend to have higher Trust (TR) to use M-banking.

Price has a positive value when the benefits obtained from m-banking are more significant than the costs incurred (Baptista & Oliveira, 2015) mobile technologies, and the proliferation of smart devices has increased the importance of mobile banking services for banks, financial institutions, and users. In developing countries, especially in Africa, mobile banking can play a strong role, providing a way to overcome financial exclusion and physical distance by allowing local population to conduct financial transactions. Acceptance studies in this region are scarce, leaving us an almost unexplored area of research. We advance the body of knowledge on mobile banking acceptance by proposing an innovative and comprehensive theoretical model that combines the extended unified theory of acceptance and use of technology (UTAUT2). Differences in price values can affect decision-making in the use of technology (Kang et al., 2012; Venkatesh et al., 2012; Ofori et al., 2017; Kwateng et al., 2018). Thus, price is a good indicator of purchasing (Tamilmani et al., 2018), as it is susceptible to brand trust and affects consumer loyalty to reusing (Sihite et al., 2015). In addition to good brand quality, prices of products and services compete with one another. Thus, consumers also trust the price of a brand to be used (Suhaily & Darmoyo, 2017; Adhelia et al., 2022). Then:

Hypothesis 5: Higher price value (PV) tends to have higher trust (TR) to use m-banking.

Hedonic motivation is vital in determining a person's behavior toward technology and acceptance of the pleasure obtained (Venkatesh et al., 2012). A positive and accepted experience with pleasure attracts users to repurchase and share it with others (Mikalef et al., 2013). The use of m-banking will be fun and convenient for customers, primarily because of the features offered (Gu et al., 2016; Marpaung et al., 2021). The trust factor helps banks identify acceptance and decisions to use internet banking. Logically, when users feel happy, they believe that the technology is worth using (Sharif & Raza, 2017). Then:

Hypothesis 6: Higher hedonic motivation (HM) tends to have higher trust (TR) to use m-banking.

Habit is a behavior carried out repeatedly because of previous experience (Venkatesh et al., 2012). The more frequent experiences a person has, the more likely the behavior becomes a habit, such as in online shopping (Zolait et al., 2018) which then affects trust in making decisions (Liao et al., 2006; Ling et al., 2010). The trust that is built can minimize the complexity of business interactions. Trust means belief in the seller, his intentions, and his behavior in the future (Gefen et al., 2003). Habit is the most critical factor in the acceptance of e-commerce and is a variable that needs to be focused on in companies (Lin & Theingi, 2019; Thusi & Maduku, 2020). By seeing this incident, it can be drawn toward the use of m-banking. Furthermore, habits can lead to a consumer's trust to use m-banking (Alamanda et al., 2021). Then:

Hypothesis 7: Higher habits (HB) tend to have higher trust (TR) to use m-banking.

2.3. Mobile Service Quality and Trust

Security is a construct that affects the use of the system by consumers. The amount of user privacy in the system is a serious concern regarding the security it offers (Khalilzadeh et al., 2017) which combines the unified theory of acceptance and use of technology (UTAUT). Thus, if the security in using m-banking is guaranteed, it can have a good impact on the intention to use m-banking (Lafraxo et al., 2019), and vice versa when the bank does not prioritize security and user privacy. The level of security perceived by users towards data and privacy causes them to trust (or distrust) transactions in online applications (its acceptance has been short of industry expectations. One plausible explanation may be consumers' initial lack of trust in available services. The objective of the study is to investigate the effect of trust in the intention to use m-banking in the Brazilian context, specifically among users of the city of Rio de Janeiro. Therefore, we developed and tested a model that relates trust and its antecedents (familiarity, ease of use, perceived usefulness, safety, privacy and innovativeness Gumussoy, 2016; Ramos et al., 2018) satisfaction, trust, flow, task-Technology fit (TTF). Then:

Hypothesis 8: Higher security/privacy (SP) tends to have higher trust (TR) to use M-banking.

Practicality is formed from two constructs grouped into metrics on an electronic service scale. Constructs narrowed down are perceived usefulness and perceived ease of use in functions and content using mobile devices (Arcand et al., 2017). As m-banking is a mobile application that demands ease

and practicality, these factors become an individual reference for orientation to support self-trust in achieving goals. Therefore, perceived usefulness and convenience have a positive effect on individual behavior to increase trust in using m-banking continuously (Gu et al., 2009; banking users are able to conduct banking services at anyplace and at anytime. Recently, many banks in the world have provided mobile access to financial information. The reason to understand what factors contribute to users' intention to use mobile banking is important issue of research. The purpose of this research is to examine and validate determinants of users' intention to mobile banking. This research used a structural equation modeling (SEM Skvarciany & Jureviciene, 2017; Mostafa & Eneizan, 2018; banking users are able to conduct banking services at anyplace and at anytime. Recently, many banks in the world have provided mobile access to financial information. The reason to understand what factors contribute to users' intention to use mobile banking is important issue of research. The purpose of this research is to examine and validate determinants of users' intention to mobile banking. This research used a structural equation modeling (SEM Khan & Chaipoopirutana, 2020). Then:

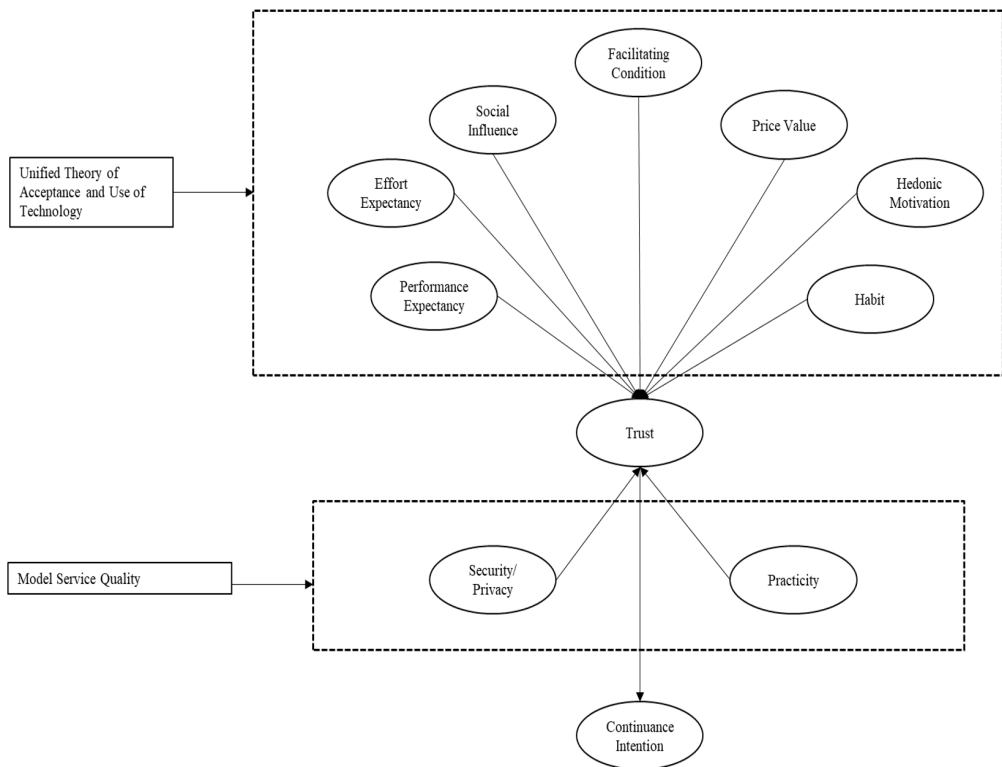
Hypothesis 9: Higher practicality (P) tends to have higher trust (TR) to use M-banking.

2.4. Trust and Continuance Intention

M-banking is vulnerable to security and privacy problems. Acceptance of applications require trust in banking institutions by solving service problems that may occur (Lin, 2011) this study develops a research model to examine the effect of innovation attributes (perceived relative advantage, ease of use and compatibility. In addition to protecting personal data and privacy, money must be protected from the risk of loss (Morawczynski & Miscione, 2008). Users who have concerns due to low trust may choose not to use digital banking services. So, trust becomes an essential construct in marketing relationships because there is individual belief in partners (service providers). To maintain customer trust, the selected strategy carried out by banks is promoting the security of m-banking, which can lead to m-banking continuance intention (Alalwan et al., 2017; Masri & Tarhini, 2017; Ofori et al., 2017; Santo & Marques, 2022). Then:

Hypothesis 10: Higher trust (TR) tends to have higher continuance intention (CI) to use m-banking.

Figure 1: Research Model



(Modified by Authors from Venkatesh et al. (2012);
Arcand et al. (2017); Shao et al. (2018))

3. Methodology

This study uses a quantitative approach, with data collected through online questionnaires. Respondents are users of Islamic banking and e-money through m-banking services provided in Indonesia. Respondents were selected covering the territory of Indonesia so that results are able to represent the situation as a whole. A non-probability sample was chosen as the sample design because each sample subject selected did not have any probability (Sekaran & Bougie, 2016). The study used a purposive sampling technique that represented non-probability to obtain a sample that complied with the provisions by using three criteria for selecting respondents: the respondent is a Muslim, the respondent has an account with an Islamic bank, and the respondent has already completed at least one e-wallet top up through m-banking.

The PLS-SEM approach was used to test the research using WarpPLS 7.0. PLS-SEM is suitable for handling research models that have many constructs and

indicators in each of these variables (Sholihin & Ratmono, 2021). The questionnaire consisted of 11 constructs with a total indicator of 34 items using a Likert scale from 1 (strongly disagree) to 5 (strongly agree). A total of 136 respondents who completed the questionnaire. After tight screening of the data, 16 respondents were eliminated because they did not comply with the provisions. Thus, the data used for further analysis were from 120 respondents. This meets the minimum requirements in the PLS-SEM analysis, which must be equal to or greater than ten times the most significant number of arrows that point to specific constructs (Hair et al., 2017).

The researchers performed several stages of data analysis to get an accurate and further result. The researchers tested the measurement model (outer model) by conducting validity and reliability tests. The validity test was carried out using convergent validity and discriminant validity, while to test the reliability of the data, the researchers selected the composite reliability tests. Thus, the researchers conducted a structural model test (inner model), including the fit and quality indices model, R-squared (R^2), -squared (Q^2), and f-squared (f^2). Before testing the hypothesis, the researcher conducted a full collinearity VIF test to ensure no high correlation among the constructs. In addition, the researchers conducted a robustness test by dividing respondents into two groups to ensure no differences in results between males and females.

4. Result

4.1. Respondent Demographic Information

Table 1 shows the profile of the respondents. Regarding gender, there were more women (64.17%) than men (35.83%). The age of the respondents was predominantly in the 21-30 years range (77.5%), likely because this age group is more literate in the use of technology. On education, 72.5% of respondents had achieved a diploma or bachelor degree. In terms of occupations, most were students (64.17%), while in income classification, respondents gave varied answers, with the majority (58.33%) having income less than Rp. 1,500,000. In terms of m-banking usage, the majority of respondents used the BSI M-banking application (92.5%); others used BCA Syariah Mobile (4.17%), BTPN Syariah (1.67%), and Muamalat DIN (1.67%). The duration of using m-banking services was mostly one to two (30.83%).

Table 1: Respondents Profile

Variables	Description	Frequency	Percentage (%)
Gender	Male	43	35.83
	Female	77	64.17
Age	≤20 years	19	15.83
	21-30 years	93	77.5
	31-40 years	5	4.17
	41-50 years	2	1.67
	51+ years	1	0.83
Education	High school/equivalent	27	22.5
	Diploma/Bachelor	87	72.5
	Master/PhD	6	5
Occupation	Student	77	64.17
	Civil servant/employee of state-owned enterprise/ police/military	6	5
	Private sector employee	16	13.33
	Entrepreneur	16	13.33
	Others	5	4.17
Income	Rp. 0 < Rp. 1,500,000	70	58.33
	Rp. 1,500,000 - Rp. 5,000,000	44	36.67
	Rp. 5,000,000 - Rp.10,000,000	6	5
M-banking	BSI	111	92.5
	BCA Syariah Mobile	5	4.17
	BTPN Syariah	2	1.67
	Muamalat DIN	2	1.67
Usage duration	< 6 months	18	15
	6 months - 1 year	29	24.17
	1-2 year/years	37	30.83
	2-3 years	17	14.17
	>3 years	19	15.83
Total samples (n)= 120			

Source: Author, 2022

4.2. Measurement Model Testing

Based on table 2, the square root value of Average Variance Extracted (AVE) in all variables shows that the value is greater than the correlation coefficient with other variables in the same column both above and below. This condition indicates if the variable meets the criteria for discriminant validity.

Table 2: Results of the Discriminant Validity Test

	PE	EE	SI	FC	PV	HM	HB	SP	P	TR	CI
PE	0.858										
EE	0.601	0.860									
SI	0.289	0.293	0.910								
FC	0.420	0.606	0.454	0.843							
PV	0.334	0.533	0.320	0.629	0.911						
HM	0.426	0.440	0.424	0.556	0.491	0.870					
HB	0.430	0.583	0.448	0.600	0.501	0.561	0.868				
SP	0.384	0.456	0.361	0.512	0.555	0.427	0.506	0.927			
P	0.650	0.694	0.383	0.677	0.599	0.530	0.585	0.585	0.789		
TR	0.468	0.501	0.476	0.568	0.514	0.549	0.511	0.690	0.635	0.959	
CI	0.534	0.612	0.390	0.663	0.556	0.585	0.711	0.492	0.628	0.586	0.906

Description: The square root of AVE is displayed in the diagonal column.

Based on table 3, the loading value of the indicator of all variables has a value above 0.70, and the AVE meets the requirements with a value above 0.50. Thus, it can be said that the model is free from the problem of convergent validity. The reliability of each variable can be indicated by the composite reliability (CR) value. All variables can be said to be reliable if the CR value is 0.70 or more. We can conclude that the proposed measurement model meets all the criteria and requirements for reliability, which means that all instruments are declared reliable.

Table 3: Result of the Convergent Validity and Construct Reliability Test

Constructs	Indicators	Questions	Loading Factor	AVE	Composite Reliability
Performance expectancy	PE1	I think m-banking is useful in making e-money top-ups in my daily life.	0.899	0.736	0.893
	PE2	Using m-banking helps me complete my e-money top-up faster.	0.852		
	PE3	Using m-banking for e-money payments (top-ups) can increase my productivity.	0.821		
Effort expectancy	EE1	Learning how to use m-banking for e-money top-ups is easy for me.	0.876	0.739	0.919
	EE2	The use of m-banking for e-money payments (top-ups) is clear and understandable.	0.853		
	EE3	In my opinion, m-banking for payment (top-up) e-money is easy to use.	0.885		

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	EE4	It's easy for me to master the use of m-banking for e-money payments (top-ups).	0.823		
Social influence	SI1	People closest to me think that I should use m-banking for e-money payments (top-ups).	0.920	0.828	0.935
	SI2	Influential people in my life think that I should use m-banking to top-up e-money.	0.913		
	SI3	People whose opinions I respect prefer if I use m-banking for e-money top-ups.	0.897		
Facilitating condition	FC1	I have the necessary resources to use m-banking to top-up e-money.	0.860	0.711	0.880
	FC2	I have the necessary knowledge to use m-banking in e-money top-ups.	0.885		
	FC3	M-banking for e-money payments (top-ups) is compatible with the smartphone that I use.	0.781		
	FC4	I can get help when I have trouble using m-banking.			
Price value	PV1	The fee for using m-banking for e-money top-up is relatively cheap.	0.902	0.830	0.936
	PV2	The fees I spend using m-banking for e-money payments (top-ups) are less than the benefits I get.	0.924		
	PV3	Fees are paid for e-money transactions, and m-banking provides good service.	0.907		
Hedonic motivation	HM1	Using m-banking for e-money payments (top-ups) is very fun.	0.860	0.758	0.903
	HM2	Using m-banking for e-money payments (top-ups) is very exciting.	0.926		
	HM3	Using m-banking for e-money top-ups is very entertaining.	0.822		
Habit	HB1	Using m-banking for e-money payments (top-ups) has become a habit for me.	0.908	0.753	0.901
	HB2	I like to use m-banking for e-money payments (top-ups).	0.895		
	HB3	I have to use m-banking for e-money payments (top-ups).	0.797		

Security/privacy	SP1	My personal information that is in m-banking when making a e-money payment (top-up) is protected.	0.920	0.859	0.948
	SP2	E-money payment (top-up) online transactions via m-banking are safe.	0.934		
	SP3	My confidentiality and personal privacy on m-banking when making e-money top-ups are guaranteed.	0.926		
Practicality	P1	Productivity from using e-money increases through m-banking.	0.770	0.622	0.891
	P2	M-banking for e-money payments (top-ups) is convenient to use via m-banking.	0.839		
	P3	The effectiveness of using e-money is enhanced through m-banking.	0.883		
	P4	Through m-banking, I can easily find what I'm looking for.	0.702		
	P5	Overall, m-banking for e-money payments (top-ups) is easy to use.	0.736		
Trust	TR1	M-banking for e-money payments (top-ups) is trustworthy.	0.959	0.919	0.958
	TR2	M-banking for e-money payment (top-up) is very competent in its field.	0.959		
Continuance intention	CI1	I intend to continue to use m-banking for e-money payments (top-ups) in the future.	0.900	0.821	0.932
	CI2	I try to use m-banking to top-up e-money in my daily life instead of other alternatives.	0.936		
	CI3	I plan to continue using m-banking for e-money (top-up) payments.	0.880		

Source: Authors, 2022

4.3. Measurement Model Testing

After testing the measurement model, based on the testing stages developed by Hair et al. (2019) yet concise, overview of the considerations and metrics required for PLS-SEM analysis and result reporting. Preliminary considerations are summarized first, including reasons for choosing PLS-SEM, recommended sample size in selected contexts, distributional assumptions, use of secondary data, statistical power, and the need for goodness-of-fit testing. Next, the metrics, as

well as the rules of thumb, that should be applied to assess the PLS-SEM results are covered. Besides covering established PLS-SEM evaluation criteria, the overview includes new guidelines for applying (1 for PLS-SEM, the next step is testing the structural model. The authors analyzed the five output coefficients in the model fit and quality indices (MFQI). The average path coefficient (APC), average R-square (ARS), and average adjusted R-square (AARS) show promising results because they have a significance value of less than 0.001. Likewise, the average block VIF (AVIF) and average full collinearity VIF (AFVIF) showed excellent results because the obtained values were lower than 3.3.

Table 4: Results of the Fit and Quality Indices Model

Indicators	Value	Result
Average path coefficient (APC)	0.177***	Good
Average R-square (ARS)	0.539***	Good
Average adjusted R-square (AARS)	0.524***	Good
Average block VIF (AVIF)	2.152	Ideal
Average full collinearity VIF (AFVIF)	2.401	Ideal

Note: *** significant at p -value <0.01 .

Before conducting a thorough hypothesis testing, several assessment indices on the structural model test must also be analyzed, such as R-squared (R^2), Q-squared (Q^2), and f-squared (f^2). Trust and continuance intention can be explained well by exogenous variables. Falk & Miller (1992) and Cohen (1988) state that a good R-square is in the range of 0.10 to 0.26. In addition, it was found that the value of Q^2 for trust and continuance intention is greater than 0, which means that all exogenous variables are proven to have predictive relevance (Hair et al., 2017).

Table 5: Results of the R-square and Q-square Test

Endogenous (Criterion) Variables	R-Square Coefficient	Q-Square Coefficient	Conclusion
Trust	0.728	0.640	Accepted
Continuance intention	0.368	0.371	Accepted

The study also revealed the effect size as the f-square coefficients proposed by Cohen (1988), even though it was generated through a different algorithm by WarpPLS. Kock (2020) suggests effect size is a measure to determine the

magnitude of the effect resulting from a path coefficient without considering the sample size being analyzed. Cohen (1988) explains in detail the effect size for the path coefficient has three categories: small (0.02), medium (0.15), or large (0.35). In other words, the effect of size for a coefficient value below 0.02 indicates that the effect is very weak from a practical point of view. Based on the results of the f-square test, it can be concluded that the security/privacy variable is crucial in building individual trust, which has positive implications for continuance intention in using Islamic m-banking to purchase e-money top-ups.

Table 6: Results of the f-square Test (Effect Size)

Hypothesis	Relationship	f-square	Result
H1	Performance expectancy (PE) → Trust (TR)	0.012	Underrated*
H2	Effort expectancy (EE) → Trust (TR)	0.013	Underrated*
H3	Social influence (SI) → Trust (TR)	0.071	Small
H4	Facilitating condition (FC) → Trust (TR)	0.085	Small
H5	Price value (PV) → Trust (TR)	0.018	Underrated*
H6	Hedonic motivation (HM) → Trust (TR)	0.083	Small
H7	Habit (HB) → Trust (TR)	0.029	Small
H8	Security/privacy (SP) → Trust (TR)	0.291	Medium
H9	Practicality (P) → Trust (TR)	0.126	Small
H10	Trust (TR) → Continuance intention (CI)	0.368	Large

Note: *below the threshold set by Cohen (1988).

The last step before testing the hypothesis is to ensure that all constructs are entirely independent and not correlated with each other, so it is necessary to do a multicollinearity test. One of the advantages of WarpPLS is that it can test and produce a complete multicollinearity test through lateral collinearity to test latent variables vertically and horizontally. Lateral collinearity can be seen by acquiring the full collinearity variance inflation factor (VIF) value.

Table 7: Results of the Full Collinearity VIF Test

Constructs	Full Collinearity VIF
Performance expectancy	2.195
Effort expectancy	2.501

Social influence	1.537
Facilitating condition	2.915
Price value	2.201
Hedonic motivation	1.915
Habit	2.586
Security/privacy	2.250
Practicality	3.440
Trust	2.835
Continuance intention	3.090

The rule of thumb used as a reference for the absence of multicollinearity is that the full collinearity VIF value must be less than or equal to 3.3. However, Kock (2020) also recommends that ideally the full collinearity VIF value is less than 5. So, it can be concluded that by applying lateral collinearity, all latent variables are free from the problem of multicollinearity. In addition, Kock (2020) explains that the full collinearity value can be used to detect common method bias generated from the measurement instrument. Thus, it can be said that there is no problem with common method bias because the full collinearity VIF values of each construct are below 5.

4.4. Hypothesis Test

The results of the hypothesis test are presented in the table. Based on the analysis, performance expectancy does not have a significant positive effect on trust, with a p-value of 0.346, while effort expectancy has a p-value of 0.365. This means that H1 and H2 are not supported. Social influence was found to have a significant positive effect on trust (p-value 0.039) so H3 is supported. Facilitating conditions and price value are found to have no positive effect (p-value 0.152; 0.428), therefore H4 and H5 are not supported. Hedonic motivation was found to significantly affect trust (p-value 0.041), meaning H6 is supported. Habit was found to have no positive effect (p-value 0.258), therefore H7 is not supported. On the other hand, security/privacy (p-value: <0.001) and practicality (p-value: 0.014) were found to have a significant positive effect on trust. Therefore, H8 and H9 are supported. Likewise, trust has a positive effect on continuance intention (p-value: <0.001), which means that H10 is supported.

Table 8: Results of the Hypothesis Test

Hypothesis	Relationship	β	P-value	Result
H1	Performance expectancy (PE) → Trust (TR)	0.036	0.346	Not significant
H2	Effort expectancy (EE) → Trust (TR)	0.031	0.365	Not significant
H3	Social influence (SI) → Trust (TR)	0.156	0.039	Significant
H4	Facilitating condition (FC) → Trust (TR)	0.092	0.152	Not significant
H5	Price value (PV) → Trust (TR)	0.017	0.428	Not significant
H6	Hedonic motivation (HM) → Trust (TR)	0.155	0.041	Significant
H7	Habit (HB) → Trust (TR)	0.058	0.258	Not significant
H8	Security/privacy (SP) → Trust (TR)	0.421	<0.001	Significant
H9	Practicality (P) → Trust (TR)	0.195	0.014	Significant
H10	Trust (TR) → Continuance intention (CI)	0.607	<0.001	Significant

4.5. Robustness Test

To ensure these findings are robust, the researchers conducted a multi-group analysis through split sample testing (male and female), specifically on the trust test path to continuance intention because it has a spread effect size and path coefficient. The procedure (Kock, 2014, 2020) as well as the social and health sciences. The use of the PLS method has been primarily in the context of PLS-based structural equation modeling (SEM showed that there was no difference in results between the male sample and the female sample. Therefore, it can be concluded that the result is robust as both male and female samples gave the same result.

Table 9: Results of the Multigroup Analysis Test

Hypotheses	Pooled Standard Error Method		Satterthwaite Method		Conclusion
	Tm	Pm	Tm	Pm	
Trust → Continuance intention	-0.5965	0.2760	-0.5963	0.2761	No significant difference when male and female samples were partially tested.

5. Discussion

Performance expectations do not have a positive effect on trust. Based on user experience, it was found that they would not be satisfied with the performance of

m-banking if the e-money payment service was not integrated. The non-fulfillment of service features in the application decreases the perceived usability and hinders work. Dissatisfaction with these benefits reduces trust in m-banking. This result is supported by previous research on retail websites which do not place performance expectations as a factor influencing the trust (Loureiro et al., 2018). Consumers prioritize security in transactions rather than efficiency. Thus, performance expectancy does not affect trust. This is in line with research by Namahoot & Jantasri (2022). In contrast to the research of Z. Gu et al. (2015), Y. Zhang et al. (2018), and Patil et al. (2020), consumers have realized that the benefits of m-banking services are useful because can increase productivity, efficiency, and performance. This in turn increases consumer trust. Perceived usefulness must be supported by high security and data privacy. Thus, performance expectancy cannot have a direct effect on trust, even in the context of using mobile payments.

Effort expectancy does not affect trust. This means that bank customers do not consider the ease of making transactions through m-banking. Respondents in this research are primarily young and educated people, with most of them literate in accessing and using technology. Hence, level of ease of m-banking use is not a priority. This is supported by the research of Alalwan et al. (2017) and Baabdullah et al. (2019). In addition Gu et al. (2009) states that the ease of use of m-banking is not a significant predictor in influencing trust. In other words, it is natural for people to ignore the convenience factor of using m-banking to make e-money payments (top-ups) because of the low behavioral tendency toward finance. This is contrary to previous research, which found effort expectancy as an essential construct influencing trust (Salimon et al., 2015; Chang et al., 2017). This study also proves that effort expectancy cannot affect trust because consumer trust develops when consumer security and privacy are well-maintained and guaranteed.

Social influence has a significant positive effect on trust. This finding is in line with existing research (Malaquias & Hwang, 2016), and makes social influence variables a critical factor in understanding the trustworthiness of using m-banking. The influence of one's social environment can help create a sense of trust in the acceptance of a product, meaning trust is strongly influenced by word of mouth (Al-Adwan et al., 2020). Social influence is the most influential factor in forming trust in adopting technology (Baabdullah, 2018; Zhang et al., 2020; Alomari, 2022).

Facilitating conditions have contradictory results with previous studies, which found a positive effect on trust (Gu et al., 2016; Yusoff & Mokhtar, 2016; Salimon et al., 2017). This variable cannot shape user trust, especially in using m-banking for e-money transactions, because the supporting infrastructure is already available.

This can be seen from the collection of this research's data, which used an online questionnaire distributed through social media; it can therefore be ascertained if respondents have a smartphone. Thus, m-banking users do not think too deeply about facilitating conditions. In the context of m-payment adoption, the absence of facility conditions does not affect the intention to continue using payment services (Pal et al., 2020). Therefore, the construct parameters that build one's trust in using a technology depend on the condition of the respondent's characteristics. Currently, the public considers that existing m-banking infrastructure is not an important variable to pay attention to, because other elements affect user trust more significantly, such as social influences, security systems, hedonic factors, and practicality, and because it is considered easy for someone to learn to use technology (Alalwan et al., 2017; Baabdullah et al., 2019).

Price value does not have a significant positive effect on trust. Interestingly, in previous studies, this construct was the central and essential element in the process of influencing trust (Sihite et al., 2015; Suhaily & Darmoyo, 2017). We need to use two perspectives to examine how the price of a product works in building user trust. First, humans have a complex way of thinking, so products with either low or high prices cause distrust on the cognitive and affective sides (Lee, 2014). For this reason, price is not the primary benchmark in building trust, although it can affect initial trust. A promotional strategy commonly used is to offer price discounts to encourage early adopters (Pal et al., 2020). Second, many people have a low level of knowledge about costs resulting from financial products and services. The SNLKI survey found that only 37.6% of people who use products and services at new financial institutions understand the related costs, such as administrative costs and taxes. In other words, it is natural that people ignore the price value in m-banking when making e-money payments (top-ups). In addition, most of the price value has been regulated, becoming standard in each bank's policy, and syariah m-banking top-up service costs are not very different. The fees for each transaction or service are very competitive. Thus, price value does not affect trust.

Hedonic motivation has a significant positive effect on trust. Baabdullah (2018) found that trust is formed because service users get the pleasure and enjoyment they want. Other studies also prove that hedonic motivation is an important element behind whether someone trusts internet banking (Alalwan et al., 2015; Sharif & Raza, 2017). Therefore, it is necessary to make special efforts to build user trust in internet banking, including by paying attention to intrinsic motivations such as pleasure (Akhlaq & Ahmed, 2013). The value of hedonic motivation in this case is not a value that encourages someone to get pleasure or hedonic nature

that leads to negative things, but rather feelings of fun and excitement when using m-banking, especially for young people (Baabdullah, 2018). Individuals motivated by hedonic behavior will have a high sense of trust in using information technology because they can easily and flexibly make financial transactions, such as e-money top-ups, through m-banking. Thus, they will rely more on technology that can offer several advantages such as sophistication, ease of access, adequate security, and a sense of satisfaction to provide a sense of trust in using the technology (Baptista & Oliveira, 2015).

Habit has contradictory results with previous studies, which found that habit had a positive and significant effect on trust (Liao et al., 2006). Habits take a long time to form and gain trust: user intimacy is established during transaction activities undertaken through mobile services, while knowledge gained from previous transactions helps determine the resulting attitudes. Familiarity has been found not to be the main factor in forming trust (Cho et al., 2007) so the habits resulting from the process are not appropriate if only armed with knowledge. There is a cognitive process to evaluate the trustworthiness of repeated activities (Gefen et al., 2003): logical thinking will involve analyzing and assessing the product, but with more experience comes greater habitual behaviors and weaker levels of initial trust (Chiu et al., 2010). In other words, the user's first experience is risky because it is a weak point for the service provider, as a user's first experience will lead to a decision to continue or stop using the service. This weakened trust can come from factors such as dissatisfaction with features and the low use of smartphones to complete financial or business activities. Importantly, based on the profile of this research's respondents, options for Islamic m-banking in Indonesia are limited. Consumers have no choice in making payments using m-banking services, and sometimes respondents already have an attachment to m-banking, such as through payment of salaries and incentives. Top-up mechanisms also do not vary significantly between different m-banking services.

This research found that results on security/privacy and trust are in line with previous research (Damghanian et al., 2016; Masrek et al., 2018). Banking is an institution vulnerable to various risks, one of which is the leaking of financial information. High levels of security and privacy are therefore required to protect customer data (Morawczynski & Miscione, 2008) and become essential factors in shaping trust (Susanto et al., 2016). Banks that prioritize security and privacy encourage users to feel that the services offered by m-banking are guaranteed, thereby increasing trust. On the other hand, if the bank ignores the security and privacy aspects, consumer trust in using m-banking tends to decrease (Ramos et al., 2018; Ivanova & Kim, 2022).

Practicality, as perceived by consumers, has positive results on trust. This is in line with existing research (Arcand et al., 2017; Skvarciany & Jureviciene, 2017). Maroofi et al. (2013) found that perceived usefulness and perceived ease of use together significantly influence the trust of m-banking users. These two constructs – perceived usefulness and perceived ease of use – can be reduced into one element: practicality. However, if one of the two constructs is not fulfilled, then the perceived practicality becomes non-existent. Banks can create applications that are easy and convenient to use for everyone, and practicality can be built by integrating multiple financial activities into one tool.

The study found that consumer trust has a positive effect on continuance intention. This result is supported by the research of Kim et al. (2011), which explains that trust is the strongest predictor in explaining the intention of ongoing use of applications. The same is true for continuity in other mobile services such as m-banking transactions (Pal et al., 2020). Although it takes time to build consumer trust in banking services, once achieved, users show intentions to use m-banking applications consistently. Trust is a well-recognized banking strategy used to retain customers (Alalwan, 2017; Masri & Tarhini, 2017; Ofori et al., 2017).

6. Conclusion

This study provides a theoretical contribution by developing the theory of UTAUT 2 by using additional variables from mobile service quality (such as security/privacy and practicality) and trust. Social influence is proven to have a significant positive effect on trust, as do hedonic motivation, security/privacy, and practicality. In turn, trust is proven to have a significant influence on continuance intention.

Consumers tend to pay attention to other people's opinions when making decisions on using m-banking as an instrument for e-money payments. Service providers can use this insight to encourage past customers to communicate the benefits of the services offered. When potential customers get information from old consumers, they are more likely to develop an interest in using the service, after which they can assess the extent to which the application meets their needs. Creating a sense of pleasure also builds consumer trust, because users can make e-money top-ups easily and flexibly through m-banking. This can be utilized by banks to work to make m-banking services as attractive as possible. Perceived practicality is also proven to be an essential point in forming trust; it is easy for users to make e-money transactions because every step can be done via a smartphone.

6.1. Implications for Management of M-banking Services

A service that utilizes sophisticated technology likely has weaknesses or loopholes that enable people to commit crimes through retrieving user data. This means it is crucial to build secure m-banking applications so that data and privacy are protected. This will help users trust the application and form a sustainable intention in using it. After the trust is formed, users will continue to use m-banking applications to meet their financial needs in relation to e-money. Based on statistical findings, it can be empirically recommended to stakeholders and practitioners of Islamic banking to design strategies and formulate policies through educational and innovative programs to build and increase individual trust, especially when consuming digital banking services to purchase e-money.

6.2. Limitations and Previous Research Agenda

This research expanded the respondent base by not choosing or targeting one particular segment of the community. More than 50 percent of respondents were millennials or generation Z, meaning most do not have a fixed income or still depend on their parents. In addition, this study only examines and analyzes sequential paths, meaning that there was no mediating effect to be proven in the research model specified. As an alternative, future research can respond to some of these limitations by ensuring the sample's representativeness to answer the generalization issue and by applying a mediation testing scheme to obtain indirect effect results. Testing the mediating effect especially needs to be done, considering that many hypotheses were not supported. It is possible that all constructs in the UTAUT 2 model can have a significant effect on continuance intention after being mediated by individual trust.

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