

Young Customers' Perception of Sharia Financial Services Mobile-Banking and Behavioral Intention Consequences

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Abstract. The growing number of mobile banking applications is a fascinating phenomenon to understand better how people use financial services. This study looked into the behavior of mobile banking users considering perceived usefulness, perceived ease of use, security, and the mediating effect of consumer attitudes. We investigated a sharia-based financial services mobile banking application called Baitul Maal wat Tamwil (BMT), developed by a leading private university in Indonesia. We conducted explanatory research using an online survey involving university students who become customers of the BMT. One hundred and seventy-six respondents were applied based on a non-probability sampling technique with the purposive sampling method. The data analysis uses structural equation modelling (SEM) with the AMOS 22. Our finding revealed that perceived usefulness, perceived ease of use, and security influence behavioral intentions to use mobile banking. Furthermore, consumer attitudes mediate the association between perceived usefulness and ease of use on behavioral intention in mobile banking. The contribution of this paper lies in achieving a deeper understanding of perceived usefulness, ease of use, security, and consumer attitude on behavioral intentions in mobile banking. Hopefully, this will enrich the investigation of the use of technology in sharia financial services.

Keywords: Perceived usefulness \cdot Perceived ease of use \cdot Security \cdot Customer attitude \cdot Behavioral intention \cdot Mobile banking

1 Introduction

Today's information technological (IT) advancements are accelerating, including in the banking industry. IT simplifies financial transactions and affects nearly all industrial sectors in Indonesia and worldwide [1]. In the banking industry, the level of services provided determined client satisfaction since the bank service system heavily relies on IT and is a service-oriented business. Banks usually offer various products and services to their customers, such as e-banking, m-banking, e-wallets, e-cash, and e-checks [2].

One of the financial services that are growing in response to this situation is electronic banking [3].

Customers can utilize electronic banking services to access information and carry out financial activities, such as internet banking, m - banking, SMS banking, and phone banking. Now, transactions that were previously only feasible through an ATM can be carried out on mobile devices or the internet. One of the clients' most preferred payment options is mobile banking, allowing them to complete transactions solely through their mobile phones [4]. It has numerous advantages and benefits, enabling customers to conduct transactions anytime and from any location.

Discussing consumer acceptance of technology is interesting, and it can be tracked from the study of Davis [5], who introduced the theory of the Technological Acceptance Model (TAM). TAM, created based on the perceived value and ease of information technology use, focuses on user attitudes regarding its use. TAM is frequently used to anticipate the level of user acceptability and usage-based views of the usability of information technology by taking into account the ease of use of information technology. Another relevant factor which determines people's evaluation of technology is security since performing banking transactions involves the risk of the fund inside. The safer the transaction, the preferable for the consumer as it means they do not cope with the risk of losing their money.

We chose the research setting in mobile banking of financial services developed by a leading private university in Yogyakarta, Indonesia, in the form of Baitul Maal wat Tamwil (BMT). The BMT perform financial services based on Sharia principles. As a BMT that uses mobile banking applications, it is interesting to investigate the extent to which consumers use this application, taking into account their perceptions of ease of use, usefulness, security, and attitude.

2 Literature Review and Hypothesis Development

This section discussed the conceptual definition of the research variables. We consider perceived usefulness, perceived ease of use, security, consumer attitude and behavior intention in our research framework. The following is the discussion about our conceptual research definitions.

Perceived usefulness refers to how people believe using a specific system will improve their work performance. The importance of perceived usefulness has been extensively recognized in the electronic banking sector [6, 7]. Previous research showed that perceived usefulness impacted customer attitude [8–10]. Taylor & Strutton [11] and Kanchanatanee [12] stated a direct and indirect relationship between perceived usefulness, attitudes and intention to use e-marketing. Based on previous research by Shanmugam [13], attitude also partially mediates the relationship between perceived usefulness and behavioral intention to use mobile banking. Thus, we developed the first hypothesis.

H1: Perceived usefulness has a positive effect on customer attitude.

Perceived ease of use is the extent to which a person believes that using an exacting approach will cost nothing or make their effort lighter [14, 15]. Pavlou [16] stated that perceived ease of use is an intrinsic motivation for using technology to conduct online

business. Ease is a state or level when someone thinks that using a precise system will not take effort or that people will have no trouble understanding the technology. Al-Ajam & Nor [17] state that perceived convenience is how people believe technology will be free from effort. Previous research by Al-Ajam & Nor [17] showed the relationship between perceived ease of use and behavioral intention to use mobile banking. Perceived ease of use also showed a positive effect on customer attitude [9, 18, 19]. Hence, we proposed the second hypothesis.

H2: Perceived ease of use positively affects customer attitude.

Security is the level of safety customers associate with information technology, influencing their decision to use it. It shows customers' perceptions of the bank's ability to protect unauthorized users' personal information obtained through electronic transactions are considered security. Because of the security of electronic transactions, customers can trust their data security when using mobile banking. Many banking studies have highlighted the importance of security and privacy in online banking [20, 21]. Salisbury [22] defined perceived web security as the degree to which a user believes that an online retailer or website is secure. According to Aslam [23], security is consumers' perception of trust that their personal information is unseen, stored, or manipulated during data transfer to other parties. Previous studies showed that security concerns are a barrier to adopting technology [24]. Safe conducting of financial transactions with mobile technology is essential to alleviate concerns about using technology to make payments. Previous research showed security and privacy positively affect customer attitudes toward online banking. Security positively affects customer attitude [25–27]. Therefore, we developed our third hypothesis regarding this idea.

H3: Security positively affects customer attitude.

Customer attitude is the behavior exhibited by consumers in searching for, buying, using, evaluating, and consuming service products and services that they hope will satisfy their needs [28]. It reflects someone's feelings when performing a behavior. Based on previous research by Sanchez-Mena [29], attitude towards educational video games directly and positively influences behavioral intention. Furthermore, customer attitude positively affects behavioral intention [18]. Behavioral intention is the extent to which a person intentionally plans to engage in or abstain from specific future behavior [30]. Consumer behavior intention refers to their desire to own, dispose of, and use specific products or services. As a result, consumers may want to obtain information, tell others about their product experiences, purchase a particular product or service, or dispose of a product in a specific way. The following is our fourth hypothesis regarding this relationship.

H4: Customer attitude positively affects behavioral intention.

The following are our hypotheses to test whether there is a direct relationship between perceived usefulness, perceived ease of use and security on behavior intention. Research by Hosseinin [31] stated that perceived usefulness positively correlates with the intention to use m-banking. Other previous studies also showed a positive relationship between perceived usefulness and behavioral intention [18, 32, 33]. Thus, we proposed the fifth hypothesis.

H5: Perceived usefulness positively affects behavioral intention.

Previous research findings also revealed that perceived ease of use positively affects behavioral intentions [34, 35]. Then, we developed the sixth hypothesis.

H6: Perceived ease of use positively affects behavioral intention.

Based on previous research by Pikkarainen [36], there is a positive effect between security and privacy on the intention to adopt online banking. Furthermore, security positively affects behavioral intentions [35, 37]. Based on this idea, we proposed the seventh hypothesis.

H7: Security positively affects behavioral intention.

According to the previous discussion, we visualize the relationship of our research variables in Fig. 1.

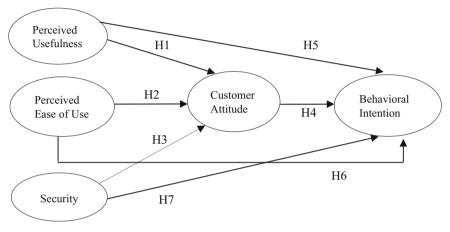


Fig. 1. Research model

3 Method

We conducted a quantitative approach by using explanatory research. The research setting is the BMT, which belongs to a leading private university in Yogyakarta, Indonesia. The mobile banking application is a newly launched service from the BMT to respond to technological advancement in the financial service industry to maintain its competitiveness. These BMT customers are mainly lecturers, staff, and university students who own the BMT. They started to use this application after its establishment in 2018. Our study intentionally chose these students' customers since their decisions to be BMT customers are voluntary. It is different from the lecturers and academic staff customers who mandatory requested to be the customers of the BMT, which belongs to their university. We use purposive sampling to collect the final usable sample size of 176. The data collection uses online questionnaires due to the Covid-19 pandemic, where there are no offline lectures in the university. The data was analyzed using the AMOS 22 application tool and structural equation modelling.

4 Data Analysis, Results and Discussion

Data from 176 respondents showed that the dominant age was 21-25 (66.5%). The data indicates that the dominant gender is 93 females (52.8%). The primary respondent's education was undergraduate (74.4%). Most respondents' expenses were at \geq IDR 2,000,000, 33%. Most use mobile banking because it saves time (50%). The dominant visit time ranged from 1–3 times per week (65.3%). All twenty items' validity test results were valid because the instrument meets the accepted standards: the factor loading value \geq 0.50. Based on the calculated reliability, the Composite Reliability coefficient value on all variables is greater than 0.6. Thus, all research variables are reliable.

The goodness of the fit index	Cut-off value	Model test result	Model
Significant probability	≥0.05	0,013	Good Fit
Chi-squares	308,254 (df = 269)	185,519	Marginal Fit
RMSEA	≤0.08	0,040	Good Fit
GFI	≥0.90	0,907	Good Fit
AGFI	≥0.80	0,865	Good Fit
CMIN/DF	≤2.00	1,279	Good Fit
TLI	≥0.90	0,970	Good Fit
CFI	≥0.90	0,977	Good Fit

Table 1. Goodness-of-fit criteria

Based on Table 1, most of the indicators of Goodness of Fit showed Good Fit results. Thus, the model can be used for further data analysis. The next step is testing the proposed hypotheses. The results of the hypotheses testing showed in Table 2.

	Estimate	S.E	C.R	Р	Decisions
$CA \leftarrow PU$,683	,198	3,442	***	S
$CA \leftarrow PEOU$,356	,140	2,547	,011	S
$CA \leftarrow S$,146	,130	1,122	,262	NS
$BI \leftarrow CA$,473	,143	3,314	***	S
$\mathrm{BI} \gets \mathrm{PU}$	-,206	,221	-,933	,351	NS
BI ← PEOU	-,030	,133	-,227	,821	NS

Table 2. Hypothesis testing

(continued)

	Estimate	S.E	C.R	Р	Decisions
$\mathrm{BI} \gets \mathrm{S}$,699	,150	4,667	***	S

Table 2.	(continued)
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Note: S: supported NS: not supported

Based on Table 2, the result of hypothesis 1 testing shows that the estimated value is 0,683. Therefore, perceived usefulness positively affects customer attitude. The p-value is 0,000 < 0,05, which indicates that hypothesis one (H1) is supported. This finding supports the previous result of Kanchanatanee [12], which stated that perceived usefulness's consequences on consumer attitudes toward using e-marketing. This idea also supports the finding of Indarsin [38], which revealed that perceived usefulness affects attitudes towards m-commerce. Based on this finding, the BMT must build consumer perception of the usefulness of using mobile banking to create a positive attitude toward using mobile banking.

Our results of hypothesis 2 testing show that the estimated value is 0.356. Our findings revealed that perceived ease of use positively impacts customer attitude. The p-value is 0.011 < 0.05, which means significant, so hypothesis 2 (H2), which states that "perceived ease of use positively affects customer attitude", is supported. This outcome is in line with Suki's earlier discovery [39], which stated that perceived ease of use influence consumer attitude toward using 3G mobile. Moreover, this finding also supports the result of Guritno [19], which revealed that perceived ease of use influenced consumer attitude toward using nobile banking to shape their consumer's positive attitude toward using mobile banking.

Our data analysis of hypothesis 3 shows that the estimated value is 0,146. The results show that the relationship between security and customer attitude is negative, meaning there is no direct influence between security and customer attitude. The p-value is 0.262 > 0.05, which means there is no significant relationship between security and customer attitude. Thus, our hypothesis 3 (H3) is not supported. This result is not in line with the previous finding of Jahangir and Begum [26], which stated that security affects consumer attitude toward online banking and is also contrary to the result of McCole et al. [40], which indicated security affects consumer attitude toward using mobile banking. This result may be because they are mainly students already familiar with mobile banking, so they did not have a significant risk in using the new launch mobile banking.

Our data processing of the hypothesis 4 result shows that the estimated value is 0.473. Therefore, the results demonstrated that Customer Attitude affects Behavioral Intention. The p-value is 0.000 < 0.05, which means significant, so hypothesis 4 (H4), which states that "customer attitude positively affects behavioral intentions," is supported. This finding supports the previous results of Sanches-Mena [29], which revealed that consumer

attitude affects behavioral intention of using an educational video game. Thus, the BMT management needs to shape a good consumer attitude toward using mobile banking to create an excellent behavioral intention.

Our statistical analysis result of hypothesis 5 shows that the estimated value is -0,206. It indicates that the relationship between perceived usefulness and behavioral intention is negative, meaning there is a negative influence between perceived usefulness and behavior intention. However, the p-value is 0.351, greater than 0.05, meaning that the relationship between perceived usefulness and behavioral intention is insignificant. Thus hypothesis 5 (H5) is not supported. This finding is not aligned with Kuo and Yen [32] and Chong [8], which found that perceived usefulness impacts behavioral intention. Thus, for BMT consumers, attitude formation becomes essential in creating their behavioral intention.

Our data analysis of hypothesis 6 shows that the estimated value is -0.030. Our results showed that perceived ease of use negatively impacts behavioral intention. However, the p-value is 0.821, greater than 0.05, which means that the relationship is insignificant. Thus, perceived ease of use did not impact behavioral intention. Therefore, hypothesis 6 (H6) is not supported. This finding is not in line with the previous results of Lai [41] and Luarn [34], which revealed that perceived ease of use impacts behavioral intention. Thus, the BMT management must create a positive attitude toward using mobile banking since this is the antecedent of their consumer behavior intention.

Our data analysis of hypothesis 7 shows that the estimated value is 0.699. Therefore, there is a positive relationship between security in behavior and intention. The p-value is 0.000 < 0.05, which means significant, so (H7), which states that "security has a positive effect on behavioral intentions," is supported. This result is consistent with the outcome of Qureshi [37] and Pikkarainen et al. [36], which revealed that security impacts behavioral intention. Although security did not influence consumer attitudes toward mobile banking, it has been demonstrated that security positively impacts behavioral intentions to use it.

5 Conclusion and Suggestion

Our hypothesis testing results provide a new framework for understanding attitude formation and its impact on behavioral intention. It demonstrated that perceived usefulness and ease of using influence consumer attitudes toward mobile banking. Perceived usefulness and perceived ease of use do not impact behavioral intention. Thus, it is vital to shape a positive consumer attitude toward mobile banking since consumer attitude substantially affects behavioral intention. Our data analysis showed that security did not affect consumer attitudes. Interestingly, security directly influences behavioral intention in using mobile banking. This result gives insight that although security did not affect attitude formation, it directly affected the behavioral intention of using mobile banking. Therefore, although they have a different process of impact, perceived ease of use, perceived usefulness and security are critical aspects in shaping the behavioral intention of BMT consumers in using mobile banking.

We have not considered religious aspects and Syariah compliance considerations in our research model. Thus, we recommend that future research incorporate our research limitations in the future. Those two variables may become relevant in the Syariah banking context to be investigated.

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