






“The impact of mobile banking use on the Islamic financial institutional interest: A study in Indonesia”

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THE IMPACT OF MOBILE BANKING USE ON THE ISLAMIC FINANCIAL INSTITUTIONAL INTEREST: A STUDY IN INDONESIA

Abstract

M-banking is one of the services that Islamic banking provides to its users. With M-banking, customers can more easily obtain information without queuing at the bank. This study investigates the impact of Islamic mobile banking on customers' interests. To explore the phenomenological impact, this study used a qualitative approach by applying in-depth interviews with 15 Islamic M-banking users from various backgrounds. This study analyzed the data by data reduction, display, and conclusion. The conclusion of this study revealed some positive and negative effects on the users. The positive effect is that it saves time, especially for students and workers who are busy with their daily activities. The available features and facilities such as credit purchases and online Islamic social payments ease them in saving time. However, there are also negative consequences for users. Some customers are susceptible to data theft by irresponsible people and face difficulties in using sophisticated mobile phones that not all customers have. Inconvenience telephone and text messages on behalf of a bank insulted users of Islamic M-banking and reduced their comfort. This study recommends that Islamic banks improve the data security system to ensure customer convenience when using M-banking.

Keywords

M-banking effect, M-banking product, customers' interest, Islamic bank

JEL Classification

A14, G21, D91, G21, O33

INTRODUCTION

The rise of digital technology in the millennial era led to a cultural shift that initially used human power to switch functions using fast-paced and automatic modern digital technology that was very beneficial for the wider community (Ansori, 2018). It is due to changes in human lifestyles and different economic incomes (S. K. Sharma & M. Sharma, 2019). Every year, the number of people using the internet increases dramatically, notably in Indonesia, where it now accounts for around 73.7 percent of the entire population (Gunawan et al., 2021). According to the Indonesian Ministry of Communication and Information, the country now has 82 million internet users, ranking it eighth (Hamzah et al., 2021). Digital technology is increasingly developing to make competition between companies more stringent, including Islamic banking (Maski, 2010).

The rapid development of industrial technology has made several banking companies begin to experience progress every year, including Islamic banking companies in Indonesia, which are generally new financial institutions (Hardi, 2019). As time goes by, the development of digital technology impacts economic activities (Saputro & Achmad, 2015). For example, Islamic banking offers many products to make its customers more practical in transactions. In 2015, the public began to

recognize fintech, or financial technology, in Indonesia. In almost all banks using this financial technology application, digital banking began to color every activity undertaken by customers based on a survey of global financial institutions. In Indonesia, only 54% were interested in using digital banking (Kholis, 2018).

M-banking (mobile banking) is one of the services performed by Islamic banking to serve customers so that customers can more easily obtain information without having to queue at the bank. Still, many customers lack an understanding of the application due to its complicated operating factors and the need for sophisticated smartphones – the problem of how customers can take advantage of the M-banking system (Rahayu, 2015).

The low public interest in Islamic banks is the main problem facing Islamic banks (Agus Setyawan et al., 2020). The other issue is the impact of technology and its complexity, which also affects the customers' interest (Al Hadi et al., 2021). Due to the fierce rivalry between Islamic and conventional banks, they must constantly enhance their performance to participate in Indonesia's national banking market (Kusumastuti & Alam, 2019; Zulfikar & Sasongko, 2016). A study on the impact of M-banking on the interests of Islamic financial customers has been carried out by several authors, including Hastuti and Wardhana (2018) who focus on the quality of M-banking, satisfaction, and the influence of the quality of M-banking services. However, there are still a few studies on the performance of Islamic M-banking services in Indonesia and the impact of digitalization on its users. Mainata's (2018) study focuses on the SWOT (Strength, Weakness, Opportunity, Threat) analysis of Islamic banks in Indonesia. Herlambang and Dewayanti (2018) examine customer interest in Islamic banking products. One of the most important strategic challenges in the growth of Islamic banking in Indonesia is the availability and readiness of adopted technology to boost Islamic banking services (Cahyadin et al., 2020).

The adoption of technology by Islamic Banking has been carried out with mobile banking. However, the use of aspects of mobile banking technology by Islamic banks still has several weaknesses and causes inconvenience for customers. Therefore, the use of Islamic banking technology should be accompanied by evaluation and strategies to increase security and convenience for users. This study aims to explain the phenomenological impact of Islamic banking customers' interest in using Islamic M-banking services.

1. LITERATURE REVIEW

Several studies have been conducted related to the present study. In Asian countries, the rapid development of smartphone technologies has raised the demand for M-banking in financial services and mobile commerce (Akhtar et al., 2019; Santhiya & Radhika, 2019a). Mobile devices are getting more innovative and more widespread, with users relying on them to complete a variety of daily chores (Al-Dwairi et al., 2019). Consumers' more significant usage of mobile technologies, their ever-growing lifestyle choices, and various economic considerations have contributed to M-banking's rapid growth (S. K. Sharma & M. Sharma, 2019).

The banking industry has been motivated to innovate in serving its customers by the rapid growth of information technology (Saparudin

et al., 2020; Srivastava & Fernandes, 2022). M-banking services have been a significant advancement in the electronic banking system, and they hold much potential for online banking services (Chawla & Joshi, 2019; Tiwari et al., 2021). M-banking, or mobile banking, is one of the most prominent and recent technological innovations in mobile commerce today. Notably, the ever-increasing market for mobile phones has resulted in a corresponding increase in the chances for the expansion and saturation of M-banking businesses (Baabdullah et al., 2019; Mkpojiogu et al., 2019). Banks have responded favorably to the growing popularity of mobile commerce in business by offering an alternative banking channel via mobile phones. This latest financial channel, dubbed mobile banking, has revolutionized how personal banking transactions are conducted. Mobile commerce's mobil-

ity in banking makes it ideal for offering personal banking or retail banking services to individual consumers (Santhiya & Radhika, 2019b).

M-banking is a service given by a bank or other financial institution to its customers that allows them to do a range of banking transactions using a mobile device such as a smartphone, tablet, or personal digital assistant, according to Kwateng et al. (2019). Hamidi and Safareeyeh (2019) stated that M-banking is one of the services found in Islamic financial institutions. Therefore, customer satisfaction is considered essential for developing the banking industry market.

Ciunova-Shuleska et al. (2022) and Rajaobelina et al. (2021) studied how cognitive and emotive components of the M-banking experience influence customers' perceived value and future intentions towards the use of these services. The findings demonstrate the existence of associations between trust and four of the five components of the M-banking service experience (cognitive, positive affective/sensory, negative affective, and social) (Rajaobelina et al., 2021).

Some studies have been conducted to determine factors that influence M-banking adoption. Shahid et al. (2022) demonstrated that simplicity, trust, and social impact contribute significantly to M-banking apps. Ramezania et al. (2022) indicated that experience and perceived utility are the primary factors influencing M-banking adoption. Perceived ease of use was an outlier that had a statistically negligible effect on M-banking uptake in the current study. Shankar (2021) found that interactivity has a beneficial effect on customer engagement in M-banking applications. The findings indicate that perceived security concerns, customer innovativeness, and consumer participation have substantial moderating effects.

Rajaobelina et al. (2021) showed that brand attachment is connected with three aspects of mobile service quality – value-added features, security/privacy, and interactivity – and good word-of-mouth in the M-banking environment with the usability component substituting interactivity in this case. Positive word-of-mouth is also connected with brand attachment.

Naruetharadhol et al. (2021) studied and found positive and substantial correlations between the service quality, perceptions, and sustained the intention to utilize M-banking services of self-service technology. This study contributes critical information about the fundamental properties of M-banking as a self-service technology, which may aid financial institutions and application suppliers in improving their M-banking offerings.

Souza and Tezza (2021) discovered that the most critical aspects in determining the perception of performance and privacy risk are the amount of time spent transacting, access to the banking app, and the possibility of a connection being intercepted. Shankar and Rishi (2020) revealed that convenience in access, transaction, and possession/post-possession, with possession/post-possession convenience as a key driver, predicts M-banking adoption intention. Furthermore, the study revealed that the desire to use M-banking led to the acceptance and use of M-banking. Jebarajakirthy and Shankar (2021) indicated that M-banking adoption intention is influenced by convenience in access, transaction, benefit, and post-benefit. Perceived hedonic and utilitarian values mediate the impacts of convenience dimensions on M-banking adoption intention.

Giovanis et al. (2019) showed that the primary driver of customers' intent to embrace M-banking services is their attitude, governed by three rationally judged M-banking features (usefulness, ease, and compatibility). Furthermore, consumer perceptions regarding two less important adoption variables include the availability of requisite knowledge, resources, and opportunities for utilizing the service and pressure from interpersonal and external social settings to utilize mobile banking, according to Giovanis et al. (2019).

The study by Fu et al. (2019) creates opportunities for development in the Internet financial sector. Besides, sophisticated and modern cell-phones are a sign of helpful information and internet technology progress. Various types of financial products have innovated through internet channels. They offer the public more investment opportunities to meet small and medi-

um enterprise (SME) financing needs that have failed to be served by traditional financial institutions. Salleh et al. (2019) explored the influence of customer satisfaction in the Islamic banking financial institution industry (reliability, responsiveness, tangibility, assurance, empathy). The authors created a questionnaire based on the SERVQUAL model, which they subsequently disseminated using simple sampling procedures. Customer responses to assurances and empathy for customer happiness are shown in this study.

Gilaninia et al. (2011) found that M-banking can expand customer visibility to increase customer satisfaction customers in using M-banking. Choudrie et al. (2018) aim to help differentiate social inequalities, especially among parents and low-economic families, using M-banking. Smartphones or tablets are the primary tools for loading M-banking access, which is expensive, and the use of which is costly. Shankar et al. (2020) contribute to consumers, especially in marketing, customer confidence in M-banking varies depending on customer involvement. Merhi et al. (2019) discussed that habits influenced consumer behavior towards M-banking services. Also, this study helps provide information to banks about how to increase customer trust in using M-banking because mobile enthusiasts are pretty low in Lebanon, so modern technology is needed. The last one, a study by Baabdullah et al. (2019), discussed the importance of testing the factors contained in M-banking because it influences the quality of M-banking and customer assessment of M-banking. This test can produce positive and negative influences on the use of M-banking.

Numerous previous studies tried to identify factors influencing a customer to use M-Banking. There is still a lack of studies about the impact that covers negative and positive impacts in general to find the improvement of M-banking for Islamic banking. Since the data security issues are becoming more critical, this study focuses more on customers' experience of M-banking provided by Islamic banks. This study would like to determine a customer's assessment of the Islamic M-banking services and the impact of using M-banking on customers' daily activities.

2. METHOD

This study was conducted qualitatively to explore and understand the phenomenological impact of Islamic M-banking. This research can also be referred to as a qualitative descriptive case study. A qualitative study is one in which the writers (researchers) act as instruments and conduct an investigation spontaneously, directly to the data source (Hadi, 2016). The aims of the qualitative study are stated, revealed, discussed, and explained (Bachri, 2010). A descriptive study was employed in this research. The information was gathered, organized, and presented in descriptions of the field's circumstances (Umar, 2011). This qualitative approach does not intend to generalize to the entire population. Instead, this qualitative research intends to reveal the deep and natural meaning of mobile banking users. The specific criteria for the interviewees in this study were determined to obtain appropriate and valid data. This study reveals the phenomena experienced by Mobile banking users in Islamic Banking based on the results of in-depth interviews.

However, this study concentrated on a qualitative description of reality in qualitative research, paying attention to a wide range of occurrences rather than the frequency with which they occur (Maison, 2019). This study used data from two reputable Islamic banks located in Surakarta district, Indonesia. The two Islamic banks were BNI Syariah Bank and Muamalat Bank.

Several approaches were utilized in this study, including:

- 1) Interviewing, which is gathering information from informants through discussion (Qu & Dumay, 2011);
- 2) Documentation is silent evidence that incorporates text and photos taken without researchers' involvement (Bowen, 2009);
- 3) Social phenomena observation and observation activities (Gemilang, 2016).

The participants in this study were 15 people who have used Islamic M-banking. The objective of this study was to tell informants about the pur-

pose of the study and ask them a series of questions to collect data. In this case, this study started collecting the data by visiting BNI Syariah Bank and Muamalat Bank to ask permission and look for informant data. In addition to being present at a financial institution, attending a place for customers to conduct interviews directly was performed to strengthen the data obtained from Islamic financial institutions.

In this study, all informants were interviewed in detail about the interest in using digital M-banking products, their benefits, and the impact obtained from Islamic M-banking. The authors used inductive analysis to conclude general and concrete data of what happened in analyzing the data. The validity of this study is proved by triangulation of researchers, methodologies, and resources (Bachri, 2010), and respondent verification (Huda, 2012) was used to improve validity. Throughout the analytical phase of this investigation, an interactive data analysis technique was used. Interactive data analysis includes data collection, reduction, presentation, and conclusion drawing. Data gathering is an essential aspect of the data analysis process. The writers concluded the data and then categorized it into various idea units, groups, and topics during data reduction. The data reduction findings were processed so that the figure could be seen in greater detail (in the form of drawings, synopses, and matrixes). It is critical to make the presentation and confirmation of conclusions as simple as possible. This procedure necessitated constant contact (Rijali, 2018).

The study also attended a place for customers to collect the data and conduct interviews directly to strengthen the data from Islamic financial institutions.

There were 15 informants in this study. They include 10 females and 5 males and 10 BNI Syariah Bank M-banking users, 5 Muamalat Bank M-banking users, 5 informants, with an average duration use of application more than one year (see Table 1 for details).

3. RESULT

The following are the results of the interview with the informants. This study coded the results of in-depth interviews. It then displayed the results in a table along with examples of interview transcripts and sources of information from the interviewees.

3.1. Positive impact on digital Islamic banking products

This paper encodes the interview data that has been collected, as shown by Table 2.

The study found essential points in drawing what Islamic mobile banking users felt, including ease in everyday transactions, advantages in mobility, convenience, learning application operations, and applications to pay for Islamic social funds.

Table 1. List of informants

No.	Informant	Gender	Islamic M-banking	Occupation	Duration Use
1	MAL	Male	Islamic BNI Bank	College student	± 4 years
2	DTW	Male	Islamic BNI Bank	College student	± 3 years
3	IR	Female	Muamalat Bank	Teacher	± 6 years
4	RP	Female	Islamic BNI Bank	College student	± 1 year
5	AD	Female	Islamic BNI Bank	College student	2 years
6	FN	Female	Islamic BNI Bank	College student	6 months
7	EM	Female	Muamalat Bank	Waitress	4 years
8	ANF	Male	Islamic BNI Bank	College student	± 3 years
9	AWR	Female	Islamic BNI Bank	College student	5 years
10	HN	Female	Muamalat Bank	College student	3 months
12	MAS	Female	Islamic BNI Bank	College student	6 months
13	AA	Male	Islamic BNI Bank	College student and employee	3 years
14	DF	Male	Islamic BNI Bank	College student	± 2 years
15	TH	Female	Muamalat Bank	Employee	3 months

Table 2. Coding a positive impact based on interview data

Initial Coding	Interview Transcript	Informant
Easiness in daily transaction Mobility advantage	<i>"After M-banking, all of my daily activities become easier, such as purchasing data pulses and electricity tokens so that I do not need to leave the room"</i>	DF FNS
Convenience Easy learned application	<i>"I have been using the M-banking application since 2015. Since I have used this application, I can get a lot of convenience from starting billing because now there is electronic mania such as charging funds. The rest is for transfers and others. Then, this application is also easily learned because it is already up to date. If we don't know how to use it, we can check it on Google"</i>	AWR TH
Saving time Paying social fund activity	<i>"I get a lot of facilities from this application, like paying bills and it saves a lot of time. Paying for zakat is also available, especially for me as a Muslim. Sometimes, after I get my salary, I pay for zakat too. Because I know, out there, some people have rights to my salary. But it's better if there are more facilities, like waqf online. It will be more useful"</i>	IR NF

3.2. Negative impact of M-banking use provided by Islamic banks

This paper also encodes the interview data to illustrate the initial code finding that has been collected, as shown in Table 3.

However, some informants complained about the negative impact of using mobile banking applications. Fear of data theft, the need for sophisticated gadgets, and getting an allegedly deceptive offer are the opposing sides still experienced by Islamic mobile banking users.

4. DISCUSSION

The main objective in examining the study on Islamic banking products is to determine how BNI Syariah Bank customers and Muamalat Bank customers use M-banking products. The study analyzed by interviewing several BNI Syariah Bank and Muamalat Bank (Surakarta, Indonesia) customers to determine how interested they are in using M-banking product services.

4.1. Positive impact on using Islamic M-banking

Islamic M-banking application users from two banks revealed that the application is beneficial and time-saving. Both statements from informants prove that the application can appreciate their daily time. This application is also suitable for busy people with their daily activities. These findings follow the conclusions made by Ramadhan (2016), which mention that Islamic M-banking is practical, especially for business people who want to make transactions with clients without having to go to an ATM first. They simply use the M-banking application that is already available on mobile phones. This finding also is strengthened by Souza and Tezza (2021), who stated that the length of time spent transacting access to the banking application and the possibility of connection interception are the two most essential elements in determining M-banking success.

Apart from saving time, the M-banking application is straightforward and allows for administrative management. M-banking makes transactions

Table 3. Coding a negative impact based on interview data

Initial Coding	Interview Transcript	Informant
Fear of data theft	<i>"I can't lie that I'm worried at some point, because as an M-banking user who has been around for quite a while, I've heard of data theft. It is easy for people to do anything these days, including hacking people's data accounts, even though the bank says it is safe, but I must stay alert because this case might happen."</i>	EM
Need for sophisticated gadget	<i>"Yes, if you want to use the M-banking application, we also need a smartphone. At least, you must have adequate capacity. But, if I can hope, everyone can use this application without an advanced cellphone, miss, especially parents. Sometimes, they also need it, especially for transferring to his son, who is in college like me, miss, so it is more practical."</i>	DTM MAL
Getting an allegedly deceptive offer	<i>"Oh yes, miss, I have also received a text claiming to be from the bank, to provide an M-banking pin, he said, for the sake of application renewal. But I always ignore it, because I think when I register for it, the customer service told me that if the bank will never ask for the pin or secret code to customers."</i>	TH DF

more convenient for users while also offering comfort. According to the respondents, the M-banking application was simple to use, and they had free access to a variety of transaction activities. These findings are also consistent with Ansori's (2016) results, which state that Islamic M-banking services serve up to 24 hours as long as they are online. M-banking has many features and should not be difficult for the users. This finding contradicted Ramezaninia et al. (2022), who found that perceived ease of use was an outlier with a statistically minimal influence on M-banking adoption.

The findings of Kurniawati et al. (2017) are similar to the results of this study. The only difference lies in the methodology. Their study used quantitative data with 120 informants, while this study used qualitative methods with 15 informants. From the results, the users' interest in using the M-banking application is high, especially with the online zakat feature, where most of the population is Muslim. This paper highlighted that the new facilities would provide convenience for customers. This finding supports Naruetharadhol et al. (2021), who stated that additional features in M-banking might help financial institutions and application providers improve their M-banking services.

From the explanation, the M-banking application saves much time and provides benefits for the users, such as balance and incoming transfer checks for online merchants. The other practical advantage is that the application is secure and up to date. Besides, the application provides many facilities, including *zakat* online water bill payment. The informants also revealed that if the bank adds a new feature, such as online endowments or waqf, they will use it too. Future studies are expected to explore factors that support time savings during M-banking and what features are relevant and urgently needed by M-banking customers provided by Islamic banking.

4.2. Negative impact on using Islamic M-banking

The rise of data theft committed by hackers makes users of Islamic M-banking products level up their guard. 12 out of 15 informants revealed that they felt safe using the M-banking because all data were secure. EM, one of the

informants, proved that the security guaranteed by the bank is not entirely safe. Therefore, M-banking users must remain vigilant. Besides, using wifi while running M-banking also affects data security. However, there is nothing wrong with remaining alert.

Devanto's (2018) statement is different from the explanation of the informants. In his study, the M-banking products are still less relevant for customer protection due to the lack of understanding that the bank gives to the users. Then, in terms of legal factors, Indonesian law, which officially regulates Islamic M-banking products, also does not yet exist, and this condition cannot guarantee legal certainty for customers. According to Shankar (2021), the data security issue is crucial, who concluded that perceived security concerns significantly affect M-banking use.

From the interview, all informants agreed that advanced smartphones are necessary to access all the facilities available in the M-banking application. However, not everyone can use the application due to being not tech-savvy, especially the elderly. Some informants complained about the difficulty of registering an M-banking application. Some of them complained about frequent application errors and initial trouble registering because they had to wait for verification from the customer service. The complicated registration flow makes those not tech-savvy feel confused and have difficulties.

This finding is similar to that of Herlambang and Dewayanti (2018), which stated that advanced smartphones influence M-banking, so customers must consider having Islamic M-banking product services. Besides, cost factors also affect the use of M-banking because there are additional charges the users must pay for certain transactions. The customers also have to pay for checking balances.

The informants agreed about the rise of inconvenience activity on Islamic M-banking services, taking advantage of customers claiming as the bank. In using this M-banking application, customers should be careful of fraud. The findings of Handayani and Ferdiansyah (2012)

in the case study of Indonesian conventional banks, namely Mandiri Bank, BNI Bank, and BCA Bank, show that the fraud motive committed is the same. They will call, email, or send text messages to request M-banking users' IDs and PINs, claiming to be a customer service who will provide better service.

The impact of using M-banking seems to be frightening for most customers, including fear of data theft or leaking by hackers, including the informants, AD, and ML. However, one informant named Melinda still feels safe from the data stored in her bank. Besides, the use of M-banking requires advanced smartphones to access the facilities due to large capacity require-

ments. In contrast, some informants claimed that the bank once contacted them to ask for their pins via telephone and text messages.

It is hoped that problems related to customer data protection when using Islamic M-banking and fraud prevention education with the mode of using M-banking will attract the attention of Islamic banking managers, and researchers can encourage the importance of these issues by conducting broader research that targets customer safety and convenience in utilizing Islamic banking technology. Future research can also examine the convenience aspect of customers if Islamic banks use their data in offering other financial products.

CONCLUSION

The study results conclude that many positive and negative aspects arise for users of M-banking services provided by Islamic banks. The positive impact phenomenon in the form of time saving and ease of transaction has been proven to be felt by users, especially those who have a busy daily activity schedule. However, a negative impact is still felt by some users, especially with concerns about the risk of data theft by hackers. Several informants have experienced uncomfortable incidents, such as receiving calls and SMS from individuals claiming to be the bank and committing fraud by M-banking. This study also finds room for improvements in M-banking services provided by Islamic banks. Islamic M-banking providers need to consider more features relevant to their customers' lives, such as Islamic social finance donation services, including *zakat*, *sadaqah*, and *waqf* (sharia charity). This study also finds the importance of easy access to M-banking applications to increase the use of M-banking by customers.

This study has limitations in a limited number of informants. However, this study enriched the findings of m-banking use in Islamic banking and finance and gave deeper insight than previous quantitative research papers. Future studies are expected to comprehensively discuss Islamic social finance's features embedded in Islamic M-banking services.

AUTHOR CONTRIBUTIONS

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