

## A COMPREHENSIVE ANALYSIS: PERCEPTION, INNOVATIVENESS, AND INTENTION OF CONSUMERS AS DETERMINANT FACTORS OF MOBILE BANKING USAGE BEHAVIOR

Leo Candra Kirana<sup>\*1</sup>, Megawati Simanjuntak<sup>\*\*1</sup>, Nimmi Zulbainarni<sup>\*</sup>

<sup>\*</sup>School of Business, IPB University

Jl. Raya Pajajaran, Bogor, West Java, 16151, Indonesia

<sup>\*\*</sup>Department of Family and Consumer Sciences, Faculty of Human Ecology, IPB University

Jl. Kamper Kampus IPB Dramaga, Bogor, West Java, 16680

### Article history:

Received  
16 December 2023

Revised  
20 February 2024

Accepted  
25 April 2024

Available online  
31 May 2024

This is an open access article under the CC BY license (<https://creativecommons.org/licenses/by/4.0/>)



### Abstract:

**Background:** The average increase in mobile banking users in Indonesia in the last five years has reached 135.3% per year. The wide diversity of users forms diverse user preferences and intentions, which is a crucial thing for banks to consider.

**Purpose:** The objective of this study is to determine the determinant factors of mobile banking usage behavior using quantitative research and structural equation modeling.

**Design/methodology/approach:** The population of this study is users who have not maximized the use of Bank XYZ mobile banking and used a random sampling technique using the Slovin technique to determine the research sample.

**Findings/Result:** This research contributes to the understanding of consumer behavior concerning technology-based bank products, specifically mobile banking. Findings indicate that PU, PEoU, PR, PC, and personal innovativeness are crucial factors in maximizing mobile banking adoption. This study provides practical strategies for banks, particularly Bank XYZ, to develop policies that enhance these factors, ultimately encouraging mobile banking utilization by improving application design and service quality.

**Conclusion:** This study found significant relationships between all the relationship variables tested which between PU, PEoU, PR and PC to behavioral intention to use mobile banking; and personal innovativeness and behavioral intention to use mobile banking to mobile banking usage behavior.

**Originality/value (State of the art):** This research uses the Technology Acceptance Model (TAM) theory with the addition of PR and PC.

**Keywords:** behavioral intention, digital transaction, mobile banking, perception of customer, usage behavior

<sup>1</sup> Corresponding author:

Email: [kiranacandraleo@apps.ipb.ac.id](mailto:kiranacandraleo@apps.ipb.ac.id); [mega\\_juntak@apps.ipb.ac.id](mailto:mega_juntak@apps.ipb.ac.id)

## INTRODUCTION

Banks, as a form of company, have an urgency to regularly innovate – one of which is a digital transaction service – to maintain existence in business competition (Nurfutriani et al. 2023). Mobile banking services, as a variation of digital services, provide convenience for customers in carrying out banking activities without being bound by time and space. Indonesia has promising potential for implementing digitalization in the economic sector, including banking (Baharuddin et al. 2023). A study conducted by the Indonesia Financial Services Authority (*Otoritas Jasa Keuangan*) stated that mobile banking users in the Asia-Pacific increased to 1.8 billion users in 2018, and the Southeast Asia region will be the main pioneer of this trend (Sudaryanti et al. 2019). The utilization of these technology-derivative products in Indonesia has increased significantly in the last five years, with an average annual increase of 135.3% (Sudaryanti et al. 2019). However, customers' mobile banking usage behavior has several problematic trade-offs. On the one hand, mobile banking provides various offers related to digital-based transactions; on the other hand, it has been confirmed that in the last five years, there have been more than 83% of digital crime reports in the form of digital transactions (Direktorat Jenderal Aplikasi Informatika, 2023). Therefore, there is an urgency regarding the factors that influence mobile banking usage behavior, so that banking services in Indonesia can meet customer preferences.

Furthermore, Bank XYZ adopted an urban locomotive to support people's economic growth in urban areas in accordance with the directions of the Minister of state-owned companies as the main subject for empowering the community and accelerating financial inclusion in Indonesia. Based on Bank XYZ data regarding user registration for the 2022 period, Region IV/Jakarta 2 reported that there are still many registered users who have not maximized the utilization of the technology-derivative products mentioned above. However, they are users of multiple-provider mobile banking and classified themselves as aggressive users of mobile banking. Therefore, mobile banking users of Bank XYZ in Region IV/Jakarta 2 were chosen for this research because of the importance of evaluating factors that influence mobile banking usage behavior, so that it can provide comprehensive benefits related to mobile banking usage behavior.

This research used two research objects as the main predictors of mobile banking usage behavior: personal innovativeness (PI) and behavioral intention (BI) to use mobile banking. Personal innovativeness was chosen as the object of this research because of its close relationship with behavioral intention to use mobile banking through the Technology Acceptance Model (TAM) theory. The TAM is extensively applied to measure the level of technological adaptation, which explains how a person uses technology (Shaikh et al. 2022). This theory has also been used to assess the adaptation of mobile banking by customers from various banks worldwide (Shaikh et al. 2022). Furthermore, the choice of that behavioral intention as the object of this research is due to its close relationship with mobile banking usage behavior through the Theory of Reasoned Action (TRA). That behavioral intention as a form of intention is part of the TRA, which can predict real actions from consumers in the future (Ahn and Back, 2019). The formulation of that behavioral intention is a result of several customer perceptions, including perceived usefulness (PU), ease of use (PEoU), risk (PR), and compatibility (PC). Regarding PU, users hope for technology to make customers' jobs easier because of PU, which is defined as the extent to which technology can help improve a person's performance (Alsabawy et al. 2016). This PU becomes a catalyst for customer satisfaction, leading to a number of mobile banking users (Febrian et al. 2022). Regarding PEoU, user acceptance of a new technology occurs when the user assumes that no effort is required to use the technology (Gupta et al. 2020). The low effort required to utilize the technology offered by the bank will stimulate users' BI to use mobile banking. Related to PR, the perceived sense of security from potential risk is an important factor for users because banking products are a means of guaranteeing customer wealth. Therefore, various risk profiles (i.e., data, performance, and financial risk) will immediately receive a user response in the form of BI to use mobile banking (Saheb et al. 2022). PC refers to various types of compatibility, such as technology compatibility with user values, needs, knowledge, and expectations, so that this compatibility forms a BI to use mobile banking (Okonkwo et al. 2022).

In recent years, researchers have concentrated on mobile banking usage behavior by using PI (Jayarathne et al. 2022); and BI to use mobile banking (Hassan et al. 2016; Zhu, 2022) as determinants of mobile banking usage behavior. Furthermore, previous studies have also investigated PU (Habes, 2019); PEoU (Gupta et al. 2020); PR (Cheng et al. 2016; Safari et al. 2022;

Saheb et al. 2022); and PC (Lin et al. 2020; Long et al. 2016; Nel & Boshoff, 2023; Okonkwo et al. 2022) as predictors of BI to use mobile banking. However, there is not any yet researcher try to test all those variables in one model and specifically used inactive users to get the real description of mobile banking usage behavior.

This research gap leads to the novelty of this study, which attempts to determine the relationships between these seven variables. Mobile banking usage behavior in user practice results in several problematic trade-offs, as previously described. Owing to the uniqueness of users' profile data, this research aims to find the relationships between PU (1), PEoU (2), PR (3), and PC (4) on BI to use mobile banking; and found the relationships between PI (5) and BI to use mobile banking (6) on mobile banking usage behavior. Furthermore, this research adopted quantitative research by using Structural Equation Model technique (SEM).

## METHODS

A quantitative approach was used in this study by utilizing primary data. As described in the previous section, the data source for this research was adjusted according to research location. The location was specifically in Bank XYZ Region IV/JKT 2, which consists of Central Jakarta and East Jakarta. Writing Bank XYZ notation

in this article constitutes ethical compliance agreed upon by the authors and research subjects for writing a scientific article, and all detailed data about the research subject described in the research are recognized as data that are permitted to be written in the report. This study attempted to evaluate users who have not maximized the use of Bank XYZ mobile banking, which is reported to 239,511 users in population research. In this instance, this research used a random sampling technique using the Slovin technique to determine the sample size and found that 400 users were required for the analysis was 400 users (Sugiyono, 2019). This primary research data collection process utilized the questionnaire by electronic device Google Forms to optimize the acquisition of research data on September to November 2023.

The SEM was used as a research technique in this research because it can analyze latent variables and indicator variables and can calculate measurement errors in the model directly (Sugiharto and Sitinjak, 2006). The operational variables used in this study were derived into item statements that represented the measurement indicators of each variable (Table 1). Respondents who are the sample in this research will then provide feedback by giving an assessment on a Likert scale based on the level of agreement with the criteria of 1 = strongly agree and 5 = strongly disagree.

Table 1. Operational Variables

| Latent Variables  | Item Statements   |
|---|---|
| Mobile Banking Usage Behavior (Nag, 2022)               | Customers have made transactions via mobile banking.  |
|   | Transactions more often by using mobile banking than at branch offices                                      |
|   | Interested in the increased productivity gained by using mobile banking.                                    |
| Behavioral Intention to Use Mobile Banking (Negm, 2023) | In the future, customers will have the intention to use mobile banking.                                     |
|   | Customers have the desire to recommend mobile banking to others.  |
|   | Interested in using mobile banking as a solution for online banking transactions.                           |
| Perceived Usefulness (Negm, 2023)                       | Mobile banking services are very useful in helping with banking transactions.                               |
|   | Mobile banking services help save time in banking transactions.   |
|   | Mobile banking services help control expenses.  |
| Perceived Ease of Use (Negm, 2023)                      | Using mobile banking can make transactions easier.  |
|   | Using mobile banking can speed up transactions.   |
|   | Mobile banking makes it possible to carry out transactions anywhere.  |
| Perceived Risk (Trinh et al., 2020)                     | Feeling worried about the possibility of access by unauthorized parties.                                    |
|   | Feeling worried about the possibility of network disruption that hinders the use of mobile banking.         |
| Perceived Compatibility (Okonkwo et al., 2022)          | Busy lifestyles are perfect for using mobile banking.   |
|   | The use of mobile banking is in line with current financial technology needs.                               |
|   | The use of mobile banking suits your needs in managing finances.  |
| Personal Innovativeness (Negm, 2023)                    | Customers are interested in using new features in mobile banking.   |
|   | Mobile banking makes customers more productive.   |
|   | Customers feel satisfied using mobile banking when they find new solutions to complex transaction problems. |

As described, regarding the TRA theory, this research tried to evaluate PU, PEoU, PR, and PC as predictors of BI to use mobile banking, which is the determinant factor of mobile banking usage behavior, in the research model. Figure 1 shows the proposed research model, which visualizes the relationships between the seven variables and six hypotheses. Thus, the following hypothesis is proposed:

- H1: PU has significant relationships of BI to use mobile banking.
- H2: PEoU has significant relationships of BI to use mobile banking.
- H3: PR has significant relationships of BI to use mobile banking.
- H4: PC has significant relationships of BI to use mobile banking.

Furthermore, regarding TAM theory, this study evaluated BI to use mobile banking and PI as determinant factors of mobile banking usage behavior. Thus, the following hypothesis is proposed:

- H5: PI has significant relationships with mobile banking usage behavior.
- H6: BI to use mobile banking has significant relationships with mobile banking usage behavior.

## RESULTS

### Characteristics of Respondents

This study succeeded in accommodating the entire sample of 400 respondents, based on various characteristics. In terms of gender distribution, 65% of the patients were female and 35% were male. The majority of respondents were aged 26-30 years and 45% of the sample used (over 20 years old). It was found that not all Bank XYZ's mobile banking users were domiciled in the registration account area, because 38% of them were domiciled outside the Jakarta area. Afterwards, based on marital status, 41% were single and the rest were married. Later, 65% of respondents had a bachelor's degree as an education background 65%, 14% in SHS, 12% in master's degree, and 9% in diploma. Subsequently, according to employment distribution, this study was dominated by private sector employees at 51%, while the others were housewives, students, business owners, State Civil Servants/Military/Police, and employees of state/region-owned enterprises. The latest average monthly income was 7% less than IDR 3 million, 47% more than IDR 3 million to

IDR 7 million, 24% more than IDR 7 million to IDR 10 million, and 22% more than IDR 10 million. The other respondent characteristics described in this section are various factors related to the characteristics of mobile banking users. The majority of respondents were users with a period of more than six months (77%), 12% for 1-3 to months; 8% for to 3-6 months; and 3% (less than one month). Afterwards, as many as 91% were users of more than one mobile banking service product from banks other than XYZ.

### Validity and Reliability

Validity and reliability tests were performed as the first step in this research. Validity testing was carried out by testing the relationship between variables in the model by comparing the Average Variance Extracted (AVE) value with a significance level. In this research, the standard AVE value is used, which is expected to be more than 0.5 (Santos and Cirillo, 2023). Other tests carried out for validity use factor loading values that are compared with the expected standard factor loading value, namely 0.6 (Santos and Cirillo, 2023). Then, the reliability test used a composite reliability value that was compared with 0.7 (Santos and Cirillo, 2023). In the model developed in this research, it was found that all the variables that constitute the construct, as well as the indicators that are part of the construct, are valid and reliable because they meet the value comparison criteria, as explained previously.

### Structural Model Evaluation

Next, three stages were conducted for the structural model evaluation. The first stage involved testing the coefficient of determination. The Adjusted R-squared value for BI to use mobile banking was 0.681. This means that the contribution of the four independent variables to BI to use mobile banking was 68.1%, while the rest were external variables. The Adjusted R-squared value for the mobile banking usage behavior variable was 0.630.

This means that the contribution of the five independent variables to mobile banking usage behavior is 63.0%, while the rest are contributed by external variables. The second stage involved testing model fit. The test results indicated that the saturated SRMR model value was 0.084. Therefore, the model proposed in this study is considered good because the saturated SRMR value of the model is smaller than 0.10. The third stage was

the Q-square testing. The results of this test show that the Q-square values of BI to use mobile banking are 0.559 and 0.557, respectively. These results show that the model has predictive relevance because it has a Q-squared value greater than zero (0).

### Research Hypothesis Testing

The research hypothesis testing is comprehensively visualized in Table 2, which contains the relationship variables, path coefficients, p-values, and the hypothesis conclusions. The hypothesis in this research consists of two types. First, the null hypothesis ( $H_0$ ) states that X (independent variable) has no significant relationship on Y (dependent variable). Second, the alternative hypothesis ( $H_1$ ) states that X has a significant relationship on Y. 0.05, a degree of less than the degree of error means rejection of  $H_0$ , and  $H_1$  is a replacement of the hypothesis, and vice versa, if a p-value greater than the degree of error means acceptance of  $H_0$ ,  $H_0$  becomes a hypothesis conclusion.

Furthermore, relationship variables describe the relationships between variables arranged sequentially, based on the order of the hypotheses proposed in this research. Subsequently, the path coefficient shows the

magnitude of the coefficient of the X relative to that of the Y. The notation on this path coefficient shows the direction of the relationship between the X and the Y, with a positive notation indicating a unidirectional relationship and vice versa.

Therefore, the decision drawn from this research hypothesis consisted of six statements. First, there is a significant positive relationship between PU and BI to use mobile banking. The PU felt by users is Bank XYZ's mobile banking service, which is considered to provide benefits in assisting respondents' banking transaction activities, especially in controlling cash flows (45% of respondents). In addition, the PU obtained by users is that they can save time on transactions when using mobile banking. This is because the majority of the respondents in this study engaged in formal routine activities (only 12% were housewives). However, not having a formal job does not mean that they do not need a financial transaction technology product, because as inactive users of Bank XYZ mobile banking, 91% confirmed the use of other mobile banking products with a high intensity of use (63% of respondents). This is in line with the perceived benefits; therefore, the intention to use Bank XYZ's mobile banking technology products also increased.

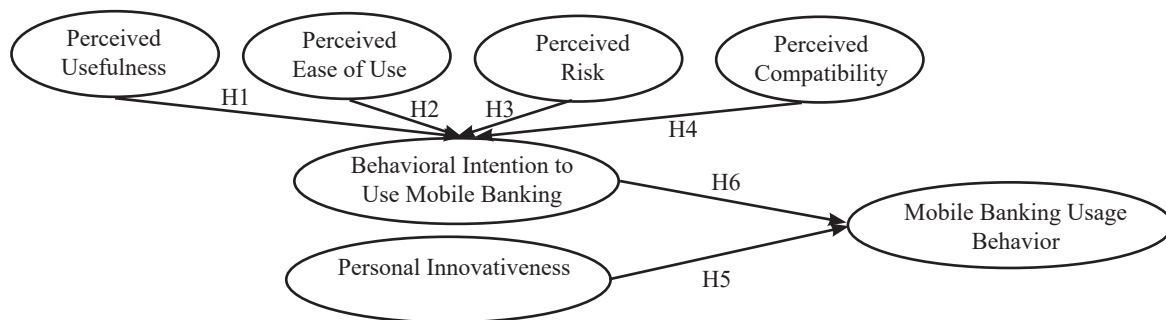


Figure 1. Hypotheses Model

Table 2. Structural model measurement result

| Relationship Variables | Path Coefficient | P Values | Hypothesis Conclusion |
|------------------------|------------------|----------|-----------------------|
| X1 → Y1                | 0.285            | 0.000    | Unaccepted H0         |
| X2 → Y1                | 0.245            | 0.007    | Unaccepted H0         |
| X3 → Y1                | -0.156           | 0.000    | Unaccepted H0         |
| X4 → Y1                | 0.359            | 0.000    | Unaccepted H0         |
| X5 → Y2                | 0.464            | 0.000    | Unaccepted H0         |
| Y1 → Y2                | 0.390            | 0.001    | Unaccepted H0         |

This finding is consistent with the results of previous study. The previous study has shown that PU directly influences customers' BI; PU also influences customer attitudes regarding the use of mobile banking applications (Heryani et al. 2020), because PU can be used as a predictor of adaptation and use of technology applications (Habes, 2019), as well as consumer attitudes and consumer habits related to technology.

Furthermore, these findings do not support another study (Purwanto and Loisa, 2020). The previous study explained that the lack of significance is because the majority of the samples used were female; meanwhile, most males (as a result of a masculine culture) are interested in using technology, influenced by their expectations of the benefits or performance of the technology. This study found different results, with the majority of the respondents being female. Subsequently, only 12% of the participants were unemployed housewives (not working). In substance, masculinity is defined as rational thinking, logical, firm, ambitious, competitive, independent, dominant, adventurous, and has a leadership spirit that is not only adopted by the male gender (Vijayarasa, 2022). Financial cash flow is not limited to gender separation, and various financial activities are currently carried out in a balanced manner between women and men. Therefore, in this research, it was found that there is a significant influence of PU, which is defined as user considerations where they feel that existing technology can make their work in carrying out transactions easier, on the BI to use mobile banking.

Second, there was a significant positive influence between PEOU and the BI to use mobile banking. The findings of this study show that respondents feel that mobile banking provides ease of use. The ease of transactions is then reflected in the dominance of respondents who prioritize XYZ mobile banking (54% of respondents). Apart from that, another 13% made the completeness of the features of this technology product a priority, driving the behavioral intention to use mobile banking. Users will easily accept a new technology if they perceive that no effort is required to use the technology (Gupta et al. 2020). It is important to design high-level technology with user support features to accommodate the diversity of users (Insani et al. 2019). This finding is consistent with the results of previous study. Previous study has empirically demonstrated the similarity of the relationship between

these variables in research and scientific articles (Gupta et al. 2020).

Furthermore, these findings do not support other study (Shanmugam et al. 2014). The difference in findings is due to differences in research samples, where the previous study had an age range of 20-50 years (average 29 years), 15% were not smartphone users, and 33% were not mobile banking users. Because not all the samples used were users and had a shorter age range than that in this study, convenience is not clearly visible as a predictor of intention to use because they have less experience, and the diversity of users is less than that in this study.

Third, there is a significant negative influence between PR and BI to use mobile banking. As explained previously, there is a direct relationship between BI to use mobile banking and PR (Cheng et al. 2016), because the existence of a sense of security from users regarding various potential risks is recognized as a guarantee that has a direct impact on the intention to use banks as financial institution technology products sustainably (Saheb et al. 2022). On the other hand, the lack of a sense of security from users due to the risks that occur can form a decision-making intention to no longer utilize the technological products (in this case, mobile banking) of banks as financial institutions (Saheb et al. 2022). Therefore, the perception of these risks will lead to the formulation of intention to use mobile banking (Safari et al. 2022).

Previous researchers have confirmed a relationship between PR and BI to use mobile banking (Cheng et al. 2016; Safari et al. 2022; Saheb et al. 2022). The findings of this study are consistent with those of several previous studies. The PR has a direct effect on the BI to use technology (Cheng et al. 2016; Safari et al. 2022). In particular, data risk is the focus of users' BI to use mobile banking (Saheb et al. 2022).

Furthermore, these findings do not support other study (Mha, 2015). The difference in findings is because previous research has separated risks into several types, and those that have no effect are perceived performance risk, perceived social risk, and perceived financial risk. Perceived privacy/security risk is an influential type that was also tested in this study, while network interference was not tested in this study.

Fourth, there was a significant positive influence between PC and the BI to use mobile banking. The compatibility of a financial institution's technology product (in this case, mobile banking) is closely related to the internal aspects of the customer as a user. Thus, the form of PC will form a belief formulation that leads to the intention to use the technology product (Lin et al. 2020). In addition, ownership/mastery of adequate devices and experiences that match expectations lead to a tendency towards the intention to use mobile banking on an ongoing basis (Long et al. 2016). This implies that there is a form of alignment in the direction of PC with the direction of user intention. This research is in line with several previous studies that have been conducted in which PC shapes acceptance and behavioral intention to use technology (Nel and Boshoff, 2023), in the form of a unidirectional relationship (Lin et al. 2020; Long et al. 2016; Okonkwo et al. 2022). Furthermore, these findings do not support a previous study (Yunus, 2014). The difference in the findings is because the research was conducted in locations that adopted Islamic values; thus, financial service providers in the form of banks operating during the research period were Islamic-based institutions (Ibrahim, 2019). Therefore, PC, which is the level of invention under existing values, past practices, and the desires of potential users, is not a predictor of BI to use mobile banking because all the values used have been generally fulfilled.

Fifth, PI has a significant positive influence on mobile banking usage behavior. Technological developments adopted (by banks as financial institutions) which are then offered to customers, are seen as a potential form of pioneering customer use, which is interpreted as a form of PI. Therefore, product adoption as a form of customer desire is shaped by customer innovativeness (Jayarathne et al. 2022). This view of potential as a pioneer user then drives the tendency to use the bank's financial institution's technological offerings, so it can be seen that the higher the view of this, the easier it is for customers to form usage intentions by customers. This research is in line with previous empirical study that have been carried out which confirmed the unidirectional relationship in empirical studies (Jayarathne et al. 2022). Furthermore, this finding does not support the findings of another previous study (Ismail et al. 2022). That study tested various models and found results that conflicted with the research findings. This difference is due to the differences in the research samples, in which university students were used as respondents. This differs from the sample in

this study, which accommodates several groups of occupation categories. The differences in this research sample indicate that previous research respondents had different perspectives on technology adoption, where PU and compatibility were the causes of technology adoption.

Sixth, BI to use mobile banking has a significantly positive influence on mobile banking usage behavior. Although consumer behavioral intentions do not necessarily form a new habit, they are the first step in consumers' behavioral decisions in the future (Hassan et al. 2016). Therefore, mobile banking usage behavior has a strong influence on intention to use it. It is widely known that this research is in line with several previous studies that have been carried out which confirmed the unidirectional significant relationship in empirical studies conducted on users of technology products (Heryani et al. 2020; Zhu, 2022) and specifically mobile banking (Iskandar et al. 2020; Purwanto & Loisa, 2020). However, empirical findings show that in several fields, there are anomalous conditions related to the relationship between intention and actual behavior. Moreover, an anomaly was found in this relationship in the context of technology adoption, which is inconsistent with the findings of this study (Dasgupta and Gupta, 2019). This difference in findings is due to the technological products that are the focus of this research, which is the technology developed in government-based organizations. This causes indications of mandatory use, such that intentions tend not to have a significant relationship with technology usage behavior.

### **Managerial Implications**

Practically as the managerial implication, this research contributes to the evaluation of consumer behavior, especially among users of technology-based bank derivative products (mobile banking). This research provides information to those responsible for the management of a bank, especially Bank XYZ, regarding what can encourage the maximization of the use of mobile banking. On a broader scale, this study provides practical input and/or strategies for banks to develop practical policies related to efforts to increase behavioral intention to use mobile banking by increasing PU, PeoU, PR and PC of users, and personal innovativeness. Specifically, Bank XYZ can provide applications with the best service to customers so that there is an increase in intention, which leads to an

increase in actual usage. In addition, the four predictor factors of intention are crucial for maximizing.

First, as confirmed that PU has a significant influence on BI to use mobile banking, Bank XYZ's management can strive to increase the useful value of existing mobile banking applications so that they remain relevant to customer needs. This relevance can be achieved by evaluating customer needs, particularly by prioritizing the uniqueness of the demographics of mobile banking product users. Second, as confirmed that PEoU has a significant influence on BI to use mobile banking, Bank XYZ management can periodically provide information or tutorials on application use through various platforms, so that customers become more proficient in using the mobile banking applications provided. Third, as confirmed that PC has a significant influence on BI to use mobile banking, Bank XYZ management can always provide features tailored to customer needs, so that existing mobile banking applications are more in line with current developments in customer needs. Fourth, as confirmed that PR has a significant effect on BI to use mobile banking, Bank XYZ's management can consistently and fully maintain the level of risk that may occur when using mobile banking. This is done to avoid a level of risk, which ultimately makes customers reluctant to use the mobile banking application. Finally, because it has been proven that PI has a significant influence on mobile banking usage behavior, Bank XYZ management is expected to always present new features that make customers curious and always want to know about the latest updates from the existing mobile banking application. The curiosity that arises in these customers is an indication of their high level of personal innovation. The higher the availability of useful new features, the higher the customer's habit of always using the bank's mobile banking application.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

The six conclusions represent the objectives of this study are as follows: First, there is a significant positive relationship between PU and behavioral intention to use mobile banking. Second, there was a significant positive influence between PEoU and the behavioral intention to use mobile banking. Third, there is a significant negative influence between PR and behavioral intention to use mobile banking. Fourth,

there was a significant positive influence between PC and the behavioral intention to use mobile banking. Fifth, personal innovativeness has a significant positive influence on mobile banking usage behavior. Sixth, there is a significant positive influence between behavioral intention to use mobile banking and mobile banking usage.

### Recommendations

This research recommends future research in the same field. Future studies could use the same model as a purposive sampling technique to accommodate respondents with a longer period of mobile banking use. In addition, future researchers can accommodate not only the user's perspective regarding the use of mobile banking but also other related parties, such as the banking itself, by utilizing other analytical tools, such as Benefit Opportunity Cost Risk.

## REFERENCES

- Ahn J, Back KJ. 2019. Cruise brand experience: functional and wellness value creation in tourism business. *International Journal of Contemporary Hospitality Management* 31(5): 2205–2223.
- Alsabawy AY, Cater-Steel A, Soar J. 2016. Determinants of perceived usefulness of e-learning systems. *Computers in Human Behavior* 64(no number): 843–858.
- Baharuddin J *et al.* 2023. Understanding the drivers of interest in fintech adoption: examining the moderating influence of religiosity. *Jurnal Aplikasi Bisnis dan Manajemen* 9(3): 695–705.
- Cheng EWL, Chu SKW, Ma CSM. 2016. Tertiary students' intention to e-collaborate for group projects: exploring the missing link from an extended theory of planned behavior model. *British Journal of Educational Technoogy* 47(5): 958–969.
- Dasgupta S, Gupta B. 2019. Espoused organizational culture values as antecedents of internet technology adoption in an emerging economy. *Information and Management* 56(6): 1–55.
- Direktorat Jenderal Aplikasi Informatika. 2023. Upaya Koinfo berantas aksi penipuan transaksi online. <https://aptika.kominfo.go.id/2022/10/upaya-kominfo-berantas-aksi-penipuan-transaksi-online/>. [30 November 2023].
- Febrian D, Simanjuntak M, Hasanah N. 2021. The effect



- of benefits offered and customer experience on re-use intention of mobile banking through customer satisfaction and trust. *Jurnal Keuangan dan Perbankan* 25(3): 551–569.
- Gupta A, Yousaf A, Mishra A. 2020. How pre-adoption expectancies shape post-adoption continuance intentions: an extended expectation-confirmation model. *International Journal of Information Management* 52(no number), 1-13.
- Habes M. 2019. The influence of personal motivation on using social TV: a uses and gratifications approach. *International Journal of Information Technology and Language Studies (IJITLS)* 3(1): 32–39.
- Hassan LM, Shiu E, Shaw D. 2016. Who says there is an intention–behaviour gap? Assessing the empirical evidence of an intention–behaviour gap in ethical consumption. *Journal of Business Ethics* 136(2): 219–236.
- Heryani IIP, Simanjuntak M, Maulana A. 2020. Behavioral usage of internet banking as financial transaction tool. *Jurnal Aplikasi Bisnis dan Manajemen* 6(1): 86–95.
- Ibrahim A. 2019. Peraturan perundang-undangan tentang pelaksanaan syariat Islam di Aceh. <https://www.ms-aceh.go.id/berita-artikel-galeri/artikel/183-peraturan-perundang-undangan-tentang-pelaksanaan-syariat-islam-di-aceh.html>. [30 November 2023].
- Insani TD *et al.* 2019. Islamic bank vs conventional bank: the differences of management communication to stakeholders using internet financial reporting. *Humanities and Social Sciences Reviews* 7(4): 261–266.
- Iskandar M, Hartoyo H, Hermadi I. 2020. Analysis of factors affecting behavioral intention and use of behavioral of mobile banking using unified theory of acceptance and use of technology 2 model approach. *International Review of Management and Marketing* 10(2): 41–49.
- Ismail M *et al.* 2022. Develeoping the model on factors influencing intention and actual use of mobile marketing services in Malaysia. *Resmilitaris* 12(5): 113–121.
- Jayarathne PGSA *et al.* 2022. Motives of mobile payment adoption during covid-19 pandemic in Sri Lanka: a holistic approach of both customers' and retailers' perspectives. *South Asian Journal of Marketing* 4(1): 51–73.
- Lin KY, Wang YT, Huang TK. 2020. Exploring the antecedents of aobile payment service usage: perspectives based on cost–benefit theory, perceived value, and social influences. *Online Information Review* 44(1): 299–318.
- Long J *et al.* 2016. Prevalence and correlates of problematic smartphone use in a large random sample of Chinese undergraduates. *BMC Psychiatry* 16(1): 1–12.
- Mha K. 2015. A mobile banking adoption model in the Jordanian market: an integration of TAM with perceived risks and perceived benefits. *Journal of Internet Banking and Commerce* 20(3): 1–35.
- Nag RK. 2022. Is India ready to accept an edtech-intensive system in post pandemic times? a strategic analysis of india's "readiness" in terms of basic infrastructural support. *DECISSION: Official Journal of The Indian Institute of Management Calcutta* 49(2): 253–261.
- Negm E. 2023. Internet of things (IoT) acceptance model–assessing consumers' behavior toward the adoption intention of IoT. *Arab Gulf Journal of Scientific Research* 41(4): 539–556.
- Nel J, Boshoff C. 2023. Unraveling the link between status quo satisfaction and the rejection of digital-only banks. *Journal of Financial Services Marketing* 28(1): 189–207.
- Nurfitriani I, Yuliati LN, Simanjuntak M. 2023. Minat penggunaan ulang layanan digital banking dengan Technology Acceptance Model (TAM). *Jurnal Doktor Manajemen* 6(1): 33–43.
- Okonkwo CW *et al.* 2022. Mobile wallets in cash-based economies during covid-19. *Industrial Management & Data Systems* 123(2), 653–671.
- Purwanto E, Loisa J. 2020. The intention and use behaviour of the mobile banking system in Indonesia: UTAUT model. *Technology Reports of Kansai University* 62(6): 2757-2767.
- Safari K, Bisimwa A, Armel MB. 2022. Attitudes and intentions toward internet banking in an under developed financial sector. *PSU Research Review* 6(1): 39–58.
- Saheb T, Cabanillas FJL, Higuera E. 2022. The Risks and benefits of Internet of Things (IoT) and their influence on smartwatch use. *Spanish Journal of Marketing-ESIC* 26(3): 309–324.
- Santos PMD, Cirillo MÂ. 2023. Construction of the average variance extracted index for construct validation in structural equation models with adaptive regression. *Communications in Statistics - Simulation and Computation* 52(4): 1639–1650.
- Shaikh AA, *et al.* 2022. Advances in mobile financial

- services: a review of the literature and future research directions. *International Journal of Bank Marketing* 41(1): 1–33.
- Shanmugam A, Savarimuthu MT, Wen TC. 2014. Factors affecting Malaysian behavioral intention to use mobile banking with mediating effects of attitude. *Academic Research International* 5(2): 236–253.
- Sudaryanti DS, Sahroni N, Kurniawati A. 2019. Analisa Pengaruh mobile banking terhadap kinerja perusahaan sektor perbankan yang tercatat di Bursa Efek Indonesia. *Jurnal Ekonomi Manajemen* 4(2): 96–107.
- Sugiharto S, Sitinjak S. 2006. *Lisrel*. Yogyakarta: Penerbit Graha Ilmu.
- Sugiyono S. 2019. *Metodelogi Penelitian Kuantitatif dan Kualitatif dan R&D*. Bandung: Alfabeta.
- Trinh HN, Tran HH, Vuong DHQ. 2020. Determinants of consumers' intention to use credit card: a perspective of multifaceted perceived risk. *Asian Journal of Economics and Banking* 4(3): 105–120.
- Vijayarasa R. 2022. *The Woman President: Leadership, Law and Legacy for Women Based on Experiences from South and Southeast Asia*. Oxford: Oxford University Press.
- Yunus M. 2014. Diffusion of innovation , consumer attitudes and intentions to use mobile banking. *Information and Knowledge Management* 4(10): 12–19.
- Zhu DH. 2022. Effects of robot restaurants' food quality, service quality and high-tech atmosphere perception on customers' behavioral intentions. *Journal 2 Hospitality and Tourism Technology* 14(4): 699–714.