Factors Supporting Use and Satisfaction Of Mobile Banking in Indonesia

Inayatulloh
Information Systems Department
School of Information system
Bina Nusantara University
Jakarta, Indonesia 11480
Inay@ binus.ac.id

Prasetya Cahya Saputra
Information Systems Department
School of Information system
Bina Nusantara University
Jakarta, Indonesia 11480
prasetyacs@binus.ac.id

Deny Jollyta
Institut Bisnis Dan Teknologi
Pelita Indonesia
deny.jollyta@lecturer.
pelitaindonesia.ac.id

Enggal Sriwardiningsih,
Management Department,
Binas Business School,
Bina Nusantara University,
Jakarta, Indonesia,
enggal@binus.ac.id

Indra Kusumadi Hartono
Information Systems Department
School of Information system
Bina Nusantara University
Jakarta, Indonesia 11480
indrakh@ binus.ac.id

Rozali Toyib
Universitas Muhammadiyah
Bengkulu, Indonesia
rozalitoyib@umb.ac.id

Murthada
STKIP Muhammadiyah
Aceh Tengah, Indonesia
murthadagayo@gmail.com

Abstract

This study aims to investigate factor consumers’ mobile banking implementation and satisfaction on perceived risks in Indonesia. Data were collected from 178 mobile banking users in Jakarta, Aceh, Bengkulu, Samarinda and analyzed by Structural Equation Modeling (SEM). It was initiated that Performance Risk could have a positive influence on the adoption of mobile banking, privacy risk could have a positive influence on mobile banking. On the other hand, using mobile banking has a positive effect on mobile banking satisfaction. Practical implications of this study if banks that use mobile banking as one of the main tools for their customers' financial transactions must ensure all transaction risks and security privacy that occur when customers use mobile banking are reduced by several approaches to customers.

Keywords
Mobile Banking; Customer Satisfaction, Support

1. Introduction

Advancements in data innovation have an gigantic impact on the keeping money division, making ceaselessly ever more adaptable installment strategies and user-friendly managing an account administrations. Since the 1980s major technology-enhanced items and administrations from automated teller machines (ATMs) to e-banking have gotten to be accessible all over 24/7 (Karim, 2018). Nowadays mobile banking applications are advancing as a modern retail channel for banks. Portable managing an account may be a central point of development techniques for both the managing an account and portable carrier businesses (Markoska, 2018). Banks, through versatile managing an account applications, give a combination of installments, keeping money, real-time two-way information transmission, and omnipresent get to to money related data and administrations (Lai, 2018). It is presently taken for allowed that the versatile phone as a channel for benefit utilization offers gigantic potential in managing an account (Owusu, 2021). Past considers demonstrate the variables contributing to the selection of portable keeping money incorporate comfort, get to the benefit in any case of time and put, protection and investment funds in time and exertion (Baabdullah, 2019).

2. Literature Review

Mobile banking is defined as “a channel whereby the consumer interacts with a bank via a mobile device, such as a mobile phone or personal digital assistant. In that sense it can be seen as a subset of electronic banking and an extension of internet banking with its own unique characteristics” (Tam, 2017). The impacts of data and direction advertised by a bank on five appropriation obstructions and found that the data and direction advertised by a bank has the foremost noteworthy impact on seen useful ease of use of the development and they play an vital part in expanding the positive picture related with the development (Mwaba, 2020).

Past investigate appear that compatibility, seen convenience, and chance are noteworthy markers for the selection of versatile keeping money administrations. Compatibility is a vital predecessor for seen ease of utilize, seen convenience and validity. Additionally, believe and validity are pivotal to decrease the generally seen chance of versatile keeping money (Raza, 2017). The seen impediments to the appropriation of portable keeping money administrations and found that that the larger part of respondents don't utilize any kind of versatile keeping money benefit and the reasons behind not utilizing portable keeping money were recognition of fetched, hazard, moo seen relative advantage and complexity (Chaouli, 2019). The variables influencing the selection of versatile managing an account among current clients of web keeping money and illustrated that recognitions of relative advantage of the versatile gadget, recognition of hazard, social standards, ease of utilize and convenience of the gadget for keeping money purposes (Kumar, 2017). Jacoby and Kaplan measure of perceived risk, pointing to its five key facets: financial risk, performance risk, social risk physical risk, and psychological risk (Jacoby, 1972).

Performance risk

Performance risk is the plausibility of the item failing. Clients evaluation of execution hazard is taking under consideration their understanding and thinking capacities in a persuaded thing zone (Litler, 2006). Asymmetry in web managing an account information and the nonattendance of person contact turn away the client from appropriately evaluating the qualities of the thing, reducing certainty. Likelihood of the failing and not executing because it was...
considered and advanced and so falling apart the favored advantage (Grewal, 1994). Performance risk suggests misfortunes supported by deficiencies or flawed of web banking websites. Clients are regularly on edge that collapse of framework servers or end from the internet will happen whereas driving exchange since the circumstances might result in unforeseen fatalities(Kuisna, 2007). Several studies have shown that performance risk has a positive impact on the use of mobile banking
(Kabir,2013),((Kazi,2013),((van,2020)
H1: Performance Risk could have a positive impact on use mobile banking

Financial risk
Financial risk is the potential financial cost related with the beginning buy cost as well as the ensuing upkeep taken a toll of the item. Financial risk too infers money related hazard which is the probability of financial misfortunes amid the method in online buy or shopping (Lim,2003). In another way circular Financial risk is the misfortune of cash as an result of buying item and offices (Laroche,2004). Hazard knowledge of web keeping money clients basically develops out of the IT holes and the ensuing misfortunes encounters in misleading entrance to client accounts (Littler, 2006).Several studies have shown that financial risk has a negative impact towards adoption of mobile banking.(Ibrahim,2015),((Hanifizadeh, 2014),((Maditionos, 203)(Fadare,206)(Kabir,2013)
H2: Financial Risk could have a negative impact on use mobile banking.

Time risk
Time risk is the plausibility of losing time to memorize how to utilize the item. At the point when extra time is obligatory in a way to think about how to urge to any certain organization, risk recognition upsurge. Clients are also said to perceived risk when money transferal isn't comprehended in time and blunders take put amid the period of the exchange turning to period misfortune recognition (Forsythe, 2003). Bother and time may allude to a misfortune supported since of the delay of getting installment or the exertion of controlling (disclosure suitable services and hyperlinks). Two first reason of disappointing web managing an account encounters which will be considered as a time chance including a befuddled location and pages which are so sluggish it couldn't be conceivable download (Ling, 2016).Several studies have shown that time risk has a negative impact towards adoption of mobile banking.[29][30]
H3: Time Risk could have a negative impact on use mobile banking.

Security risk
Security risk is Potential misfortune of control over exchanges and budgetary data. Security chance happen when clients is almost to exchange cash from their account or from their disengaged financial data which can be see by others denied of their assents, this concern make security chance . Security/privacy chance is categorized as a planned relinquish owed to extortion or a programmer bartering the security of an online bank client . Several studies have shown that security risk has a negative impact towards adoption of mobile banking(Lee, 2008),(Lee,2009)
H4: Security Risk could have a negative impact on use mobile banking.

Privacy risk
Privacy risk is Potential misfortune of control over individual data or a conceivable misfortune due to extortion or a programmer interfere the security of a web bank client , protection, comfort and speed where web plan and substance, comfort and speed are the major components that impact client fulfillment in Web banking. Several studies have shown that privacy risk has a positive impact towards adoption of mobile banking(Lee,2009).
H5: Privacy Risk could have a positive impact on use mobile banking

In the end, this research shows that the use of mobile banking has a positive impact on bank customer satisfaction as found in several previous studies(Bhat,2021),(Babdullah,2021),(Puriwat,2017)
H6: use mobile banking could have a positive impact on satisfaction using mobile banking

3. Conceptual Model And Hypothesis

This research uses a quantitative method goes to create a relationship and it also describe the intention of users and how users are influenced by several factors in mobile banking transaction. The five factors stated above are
hypothesized to have a straight influence on use and satisfaction of mobile banking customers. In an effective long term connections with consumers and customer satisfaction is the important of any company.

![Figure 1. Conceptual Model and Hypothesis](image)

**H1:** Performance Risk may have a positive effect on utilize mobile banking.

**H2:** Financial Risk may have a negative effect on utilize on use mobile banking.

**H3:** Time Risk may have a negative effect on utilize on use mobile banking.

**H4:** Security Risk may have a negative effect on utilize on use mobile banking.

**H5:** Privacy Risk may have a positive effect on utilize on use mobile banking.

**H6:** Use mobile banking could have a positive impact on satisfaction using mobile banking.

### 4. Result And Discussion

Result examination Survey is the most information collection device that was used in this ponder to gather speedy, cheap, adaptable, exact and productive data around the populace. The populace chosen for the inquire about is the versatile managing an account benefit clients in a several city in Indonesia: Jakarta, Aceh, Bengkulu and Samarinda. The survey was dispersed among 178 mobile banking customers. A organized instrument was utilized to gather information counting multi-item measures utilizing five-point Likert scale: intention to use mobile banking; financial risk, performance risk (Kim, 200&), time risk (Stone, 1993), security, privacy risk (Pikkaraenens, 2004) and relation between use and satisfaction using mobile banking (Sampaio, 2017).

This study uses a quantitative method with a Likert scale, testing 6 hypotheses, testing theory and theory consistency (JHA, 2008), Partial least square (Bantler, 1987) and data processing using the SMART PLS professional version 3.
program (Ramayah, 2018). The purpose of PLS does not require a large sample size, the distribution does not need to be normal, and explains the relationship of latent variables or more to predict. The model is declared good because it meets the requested conditions (Model Fit)

![Model Fit](image)

**Figure 2. Model Fit**

<table>
<thead>
<tr>
<th>Variable</th>
<th>PValue</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Figure 3 Model PLS Algorithm](image)

**Figure 3 Model PLS Algorithm**

Table 1. Hypothesis results

<table>
<thead>
<tr>
<th>Variable</th>
<th>PValue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Type</td>
<td>Value</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Financial Risk</td>
<td>0.298</td>
</tr>
<tr>
<td>Performance Risk</td>
<td>0.033</td>
</tr>
<tr>
<td>Privacy Risk</td>
<td>0.000</td>
</tr>
<tr>
<td>Security Risk</td>
<td>0.140</td>
</tr>
<tr>
<td>Time Risk</td>
<td>0.324</td>
</tr>
<tr>
<td>Use Mobile banking and satisfied using mobile banking</td>
<td>0.000</td>
</tr>
</tbody>
</table>

H1: Performance Risk may have a positive effect on utilize mobile banking. → Proven valid significant positive.
H2: Financial Risk may have a negative effect on utilize on use of mobile banking. → Proven valid significant positive.
H3: Time Risk may have a negative effect on utilize on use of mobile banking. → Proven valid significant positive.
H4: Security Risk may have a negative effect on utilize on use of mobile banking. → Proven valid significant positive.
H5: Privacy Risk may have a positive effect on utilize on use of mobile banking. → Proven valid significant positive.
H6: use mobile banking could have a positive impact on satisfaction using mobile banking → Proven valid significant positive.

This research donates both theoretically and practically. Theoretical, this research has been able to observe the link among perceived risk intentions to use and satisfaction mobile banking. As such, it has offered to knowledge by supporting the previous research on the recognized connection among perceived risk and purpose to usage mobile banking. Practically, this research has delivered an opportunity for government and banking authority to improve on customer adoption on mobile banking.

5. Conclusion

Based on our study show performance risk, privacy risk have a positive effect on utilize mobile banking. Utilize mobile banking have positive effect on mobile banking user satisfaction. The other hand financial risk, time risk and security risk have a negative effect on use of mobile banking.

References


Lim, Nena , Consumer’s Perceived Risk: Sources versus Consequences. Electronic Commerce Research and Applications2003: 216-228


Van, Ha Nguyen, Long Pham, Stan Williamson, Vu Thanh Huong, Pham Xuan Hoa, and Pham Lam Hanh Trang. "Impact of perceived risk on mobile banking usage intentions: trust as a mediator and a moderator." International Journal of Business and Emerging Markets 12, no. 1 (2020): 94-118

**Biography**

**Inayatulloh** is a candidate doctor at Bina Nusanatara University's Doctor of Computer Science. Since 2000, Inayatulloh has been a lecturer at several universities and colleges in Indonesia such as Bina Nusnantara University, Indonusa University, State Islamic University, Archipelago Economics College and is currently a lecturer at Bina Nusantara University in the school of information system. Scopus indexed publications have been produced with topics related to information systems such as e-learning, e-SCM, e-CRM, E-government and others.