**Usefulness, Trust, and Intention to Use M-Banking:**

**Evidence from Metropolitan Jakarta**

**Muhammad Khaerul Muttaqien11), Hamli Syaifullah22),**

**Moh. Khoirul Anam33) Tajudin Mas’ud 44),**

1,2,3,4Fakultas Agama Islam Universitas Muhammadiyah Jakarta

E-mail: muhammadkhaerulmuttaqien@umj.ac.id

***Abstract***

*This study aimed to investigate the determinants of perceived usefulness, trust and intention to use mobile banking. It used the extended Technology Acceptance Model (TAM) with additional variables of perceived risk and trust as a theoretical model. Furthermore, the study adopted quantitative method and purposive sampling technique to obtain data from 265 Muslim individuals residing in the Jakarta Metropolitan area. The results suggested that trust, perceived ease of use, and risk positively and significantly impacted intention to use M-Banking. Perceived usefulness and ease of use positively and significantly impacted trust. Perceived ease of use and risk had a positive and significant impact on perceived usefulness. Therefore, Islamic banks needed to pay attention to these factors to enhance trust and acceptance of M-Banking.*

***Keywords:*** *TAM, Risk, Trust, Ease of Use, Usefulness, Intention*

# INTRODUCTION

Advanced technology has transformed numerous aspects of daily life, including transaction patterns for individuals and corporations (OJK, 2020). This transformation has prompted conventional and Islamic banks to digitize their transactions and services through mobile banking (M-Banking) to achieve a competitive advantage (Haider et al., 2018; Kholid, 2019). Despite the numerous benefits of digital transactions and services, some individuals still view them as unfamiliar and risky. To address these concerns and promote the acceptance of M-Banking, many banks are creating more attractive, useful, and easy-to-use services (Sudarsono et al., 2022). To promote acceptance amidst the negative trend of technology usage, it is essential to investigate the factors that affect perceived usefulness, trust, and acceptance of M-Banking in Indonesia.

Several studies have modified the Technology Acceptance Model (TAM) by incorporating other variables such as trust (Mutahar et al., 2018; Ramli et al., 2021) and perceived risk (Alalwan & Yogesh K. Dwivedi, 2016) to predict the intention to use M-Banking. Studies from Iran (Hanafizadeh et al., 2014) Saudi Arabia (Al-Jabri, 2015) Jordan, (Alalwan & Yogesh K. Dwivedi, 2016) and Vietnam (Sang, 2021) have shown that trust has a positive and significant impact on the intention to use M-Banking. However, perceived risk had a negative impact on intention (Alalwan & Yogesh K. Dwivedi, 2016; Kholid, 2019). Perceived usefulness and perceived ease of use have a positive and significant impact on trust and intention to use M-Banking (Ramli et al., 2021).

Additionally, perceived ease of use and risk can positively and significantly impact perceived usefulness (Siyal et al., 2019). This study incorporates trust and perceived risk into TAM, and provides a literature review for all the variables. The study of M-Banking acceptance has attracted the attention of investigators for several decades. This interest is reflected in numerous studies, where the Technology Acceptance Model (TAM), introduced by Davis in 1989, became one of the widely used conceptual frameworks across different countries for predicting M-Banking acceptance. Perceived usefulness and ease of use are among the vital TAM factors that are often identified as the main predictors of M-Banking acceptance or intention to use (Nuangjamnong, 2021). Intention is an essential variable in technology acceptance and can be defined as the extent to which an individual consciously plans to engage in a specific behavior in the future (Anggraeni et al., 2021; Chao, 2019; Raza et al., 2018).

**Perceived Usefulness**

Perceived usefulness is a fundamental TAM variable that has been extensively studied in several investigations (Zarnadze, 2021). It reflects individuals belief that the use of new technology can enhance performance (Aji et al., 2020; Jouda, 2020; Riptiono et al., 2021) and this construct has received significant attention from several studies. For example, Ramli et al., (2021) from Indonesia showed that perceived usefulness has a significant influence on trust. Furthermore, A. Alalwan et al., (2016) from Jordan and (V. A. Nguyen et al., 2020) in Vietnam found that intention to use M-Banking is significantly influenced by the variable. Therefore, this study proposes the following hypotheses:

H1: Perceived usefulness positively and significantly impact trust

H2: Perceived usefulness positively and significantly impact intention to use M-Banking

**Perceived Ease of Use**

In the M-Banking context, perceived ease of use refers to consumers’ belief that M-Banking can provide practical benefits as emphasized by Riptiono et al., (2021), Singh & Srivastava, (2016) and Salmah, (2021). As a crucial construct of TAM, the variable has been extensively investigated in several studies on M-Banking acceptance (Siyal et al., 2019; Zarnadze, 2021). Siyal et al., (2019) in China showed that the variable has a positive and significant impact on perceived usefulness. Moreover, it can also affect the trust and acceptance of M-Banking. Studies conducted in Indonesia by Ramli et al., (2021) and Sukmawati et al., (2021) showed that perceived ease of use has a positive and significant impact on trust. A. A. Alalwan & Yogesh K. Dwivedi, (2016), Singh & Srivastava, (2016), and Sang, (2021) from Jordan, India, and Vietnam proved that intention to use M-Banking is significantly affected by perceived ease of use. Therefore, the hypotheses proposed in this study are as follows:

H3: Perceived ease of use positively and significantly impacts perceived usefulness

H4: Perceived ease of use positively and significantly impacts trust

H5: Perceived ease of use positively and significantly impacts intention to use M-Banking

**Perceived Risk**

Perceived risk theory has been proposed since 1960 to define consumers’ behavior and factors affecting their decision-making. In recent decades, the definition has changed due to the consumers’ behavior trend toward online transactions. Initially, the variable was limited to fraud or product quality but was subsequently defined in relation to financial, physical, psychological, or social risk in online transactions (Hanafizadeh et al., 2014). Perceived risk often has a strong negative relationship with M-Banking acceptance (Alalwan & Yogesh K. Dwivedi, 2016; Kholid, 2019). Consumers may accept the variable when M-Banking is perceived as useful, even though there is a previous bad experience (Aji et al., 2020). Considering the relationship between perceived risk and usefulness, the decision to adopt M-Banking may be affected. Siyal et al., (2019) and Kumar et al., (2021) showed that perceived risk has a significant impact on perceived usefulness. Therefore, the following hypotheses are proposed:

H6: Perceived risk has a positive and significant impact on perceived usefulness

H7: Perceived risk has a negative and significant impact on intention to use M-Banking

**Trust**

Trust is the core of all types of partnerships and is one of the determinants of intention behavior (A. Kumar et al., 2020). Therefore, consumers trust that M-Banking is safe, reliable, and capable of protecting their interests (T. D. Nguyen et al., 2020; Zarnadze, 2021). Hanafizadeh et al., (2014) from Iran, Al-Jabri (2015) from Saudi Arabia, Alalwan & Yogesh K. Dwivedi, (2016) from Jordan, and Sang, (2021) from Vietnam proved that intention to use M-Banking is significantly influenced by trust in M-Banking. Therefore, this study proposes the following hypothesis:

H8: Trust will have a positive and significant impact on intention to use M-Banking

# METHOD

This study identified the factors influencing trust, usefulness, and intention to use M-Banking. It employed a purposive sampling technique to collect data and questionnaire instruments using a quantitative approach to measure the variables of usefulness, ease of use, risk, trust, and intention. Furthermore, the items were measured using a 5-point Likert scale, where strongly disagree (SD) to strongly agree (SA) had a value of 1 to 5, respectively. A total of 275 responses from M-Banking users in the Jakarta Metropolitan area, specifically Jakarta, Bogor, Depok, Tangerang, Tangerang Selatan, and Bekasi, were obtained. However, after data screening, 10 responses were removed due to incomplete or missing values, resulting in a final sample of 265. In studies that utilized three or more items per variable, a sample size of 100 was generally deemed adequate for achieving convergence (Raza et al., 2018). The SmartPLS 3.3.9 analysis tool was used to analyze the model and test the 8 hypotheses proposed in this study.

1. **RESULTS AND DISCUSSION**

**3.1. Respondents’ Characteristics**

An online structured questionnaire was used to obtain primary data, and respondents were Muslims who use M-Banking and reside in Jakarta, Bogor, Depok, Tangerang, South Tangerang, and Bekasi areas. Respondents' characteristics are further described in Table 1.

**Table 1. Respondents’ Characteristics**

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Category | Frequency | Percentage |
| Gender | Man | 123 | 46.42% |
| Woman | 142 | 53.58% |
| Status | Single | 248 | 93.58% |
| Married | 17 | 6.42% |
| Age | 18-24 | 244 | 92.42% |
| 25-34 | 13 | 4.92% |
| 35-44 | 7 | 2.65% |
| 45-54 | 0 | 0.00% |
| ≥ 55 | 0 | 0.00% |
| Education | Junior High School | 0 | 0.00% |
| Senior High School | 109 | 41.13% |
| Bachelor Degree | 148 | 55.85% |
| Master Degree | 8 | 3.02% |
| Domicile | Jakarta | 59 | 22.26% |
| Bogor | 59 | 22.26% |
| Depok | 33 | 12.45% |
| Tangerang | 73 | 27.55% |
| South Tangerang | 34 | 12.83% |
| Bekasi | 7 | 2.64% |
| Work | Private sector employee | 9 | 3.40% |
| Student | 241 | 90.94% |
| Civil Servant | 4 | 1.51% |
| Businessman | 11 | 4.15% |
| Long time using M-Banking | < 6 Months | 152 | 57.36% |
| 6 Months – 1 Year | 43 | 16.23% |
| 1 Year – 2 Years | 31 | 11.70% |
| 2 years – 3 Years | 14 | 5.28% |
| >3 Years | 25 | 9.43% |

# 3.2. Evaluation of Outer Model

**Validity and Reliability Test**

The evaluation of the outer or measurement model is applied to identify the validity of the output and differentiate the Composite Reliability (CR) and Cronbach's Alpha (CA) to determine the reliability (Ghozali & Latan, 2015). This evaluation is also implemented to determine the convergent validity value in the Loading Factor (LF) and discriminant validity in the cross-loading factor. The results of the validity and reliability test are presented in the following table.

**Table 2. Validity and Reliability**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Item** | **Reference** | **LF** | **CA** | **CR** | **AVE** |
|
|
| Perceived Usefulness |  |  |  | 0.886 | 0.946 | 0.816 |
|
| PU1 | M-banking makes transactions more efficient. | Thakur & Srivastava, (2014) | 0.926 |  |  |  |
|
| PU2 | M-banking is useful for managing my finances. | 0.860 |  |  |  |
|
| PU3 | M-banking makes transactions faster. | 0.922 |  |  |  |
|
| Ease of Use |  |  |  | 0.909 | 0.956 | 0.916 |
|
| PE1 | I find learning to use M-banking easy. | Singh & Srivarasta (2016) Zarnadze (2020) | 0.957 |  |  |  |
|
| PE2 | It is easy for me to interact with M-banking. | 0.958 |  |  |  |
|
| Trust |  |  |  | 0.915 | 0.946 | 0.854 |
|
| TR1 | I trust M-banking to be reliable. | Al-Jabri (2016) | 0.919 |  |  |  |
|
| TR2 | I trust that M-banking delivers on its promises. | 0.930 |  |  |  |
|
| TR3 | I trust that M-banking always considers the interests of its customers. | 0.924 |  |  |  |
|
| Perceived Risk |  |  |  | 0.842 | 0.899 | 0.748 |
| PR1 | I would not feel safe providing personal privacy information through M-banking. | Al-Jabri (2016) | 0.908 |  |  |  |
|
| PR2 | I am concerned about using M-banking because others may access my account. | 0.898 |  |  |  |
|
| PR3 | When transferring money through M-banking, I am afraid of losing my money. | 0.784 |  |  |  |
|
| Intention |  |  |  | 0.919 | 0.943 | 0.805 |
| INT1 | I will always use M-banking in the future. | Nuangjamnong (2021) | 0.899 |  |  |  |
|
| INT2 | I will use mobile banking services to make financial transactions. | Nuangjamnong (2021) | 0.918 |  |  |  |
|
| INT3 | I will use M-banking to make financial transactions. | Nuangjamnong (2021) | 0.901 |  |  |  |
|
| INT4 | I want to start using M-banking soon. | Aboelmaged (2013) | 0.870 |  |  |  |
|

Table 2 shows the loading factor values resulting from all indicators of each variable. Usefulness, ease of use, risk, trust, and intention have loading factor values greater than 0.50 and extracted average variance (AVE) values > 0.50. These indicators can be considered valid as measurements of latent variables. The variables have high reliability, as indicated by CA values and CR > 0.70. Therefore, it can be concluded that all data meet the criteria for the measurement model, and the results of evaluation are shown in Tables 2 and 3.

**Table 3. Discriminant Validity (Fornell-Larcker) Analysis**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | INT | PEOU | PR | PU | TR |
| INT | 0.897 |  |  |  |  |
| PEOU | 0.627 | 0.957 |  |  |  |
| PR | 0.384 | 0.373 | 0.865 |  |  |
| PU | 0.635 | 0.716 | 0.361 | 0.903 |  |
| TR | 0.653 | 0.679 | 0.379 | 0.754 | 0.924 |

**Evaluation of Inner Model**

After evaluating the measurement or outer model, structural model evaluation is conducted to test the relationship between variables. The relationship is measured by analyzing the path coefficient values of each variable. Furthermore, the obtained path coefficient values from the structural model evaluation are used to test the hypotheses. To determine the acceptance or rejection of the hypothesis, the significance values between constructs, t-statistics, and p-values are considered. The rules of thumb used are t-statistics >1.96, significance level p-value 0.05 (5%), and a positive beta coefficient. The relationships between variables are considered positive and significant when the t-statistics >1.96, the p-value <0.05, and the beta coefficient is positive.

**Accuracy and Predictive Relevance**

This study used accuracy and predictive relevance to determine how independent variables affect the dependent. Meanwhile, R2 and Q2 values must be measured to determine the prediction level of variables. To find the Q2 value in Smart PLS, an additional step is needed by using the blindfolding calculation (Q2 = 1-SSE/SSO). It can be stated that the model has predictive relevance when the Q2 value is > 0. Conversely, when the Q2 value is < 0, the model has no predictive relevance. Variables with R2 values of 0.75, 0.50, and 0.25 can be stated to have strong, moderate, and weak analytical degrees, respectively (Hair et al., 2011).

**Table 3. Predictive and Accuracy**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **R Square (R2)** | **R Square (R2) Adjusted** | **Q2** |
| **INT** | 0.514 | 0.507 | 0.402 |
| **PU** | 0.523 | 0.519 | 0.418 |
| **TR** | 0.608 | 0.605 | 0.512 |

The R2 values indicate a moderate criterion for the proposed model, and a large Q2 value suggests that the empirical study supports the fitness. Specifically, the independent variable of intention has an R2 value > 0.50, indicating that perceived ease of use, perceived usefulness, perceived risk, and trust are strong predictors of users' intention to adopt M-Banking. The independent variable of usefulness also has an R2 value > 0.50, indicating that perceived ease of use and risk are strong predictors of usefulness. Additionally, trust has an R2 value > 0.50, indicating that perceived ease of use and usefulness are strong predictors of trust.

**Hypothesis Testing Results**

Hypothesis testing was conducted using SmartPLS 3.0 software. To determine the acceptance or rejection, rules of thumb were considered, which were t-statistic >1.96, p-value 0.05 (5%), and beta coefficient. These values could be seen from the bootstrapping results as shown in Table 4 and Figure 2 for this model.

**Figure 2. Diagram of Path Coefficient and Hypothesis Test**

****

**Table 4. Path Coefficient and Hypothesis Test**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | Hypothesis | Sample Mean  | T Statistics  | P-Values | Results |
| H1 | PU -> TR | 0.554 | 5.045 | 0.000 | Accepted |
| H2 | PU -> INT | 0.183 | 1.415 | 0.157 | Rejected |
| H3 | PEOU -> PU | 0.673 | 11.632 | 0.000 | Accepted |
| H4 | PEOU -> TR | 0.281 | 2.462 | 0.014 | Accepted |
| H5 | PEOU -> INT | 0.246 | 2.174 | 0.030 | Accepted |
| H6 | PR -> PU | 0.112 | 2.389 | 0.017 | Accepted |
| H7 | PR -> INT | 0.115 | 2.060 | 0.039 | Rejected |
| H8 | TR -> INT | 0.312 | 2.787 | 0.005 | Accepted |

The results in Table 4 showed that out of the 8 hypotheses proposed, 6 (H1, H3, H4, H5, H6, H8) were accepted while the other 2 (H2 and H7) were rejected. The statistical modeling had a good level of significance with a P-value < 0.05 for 6 variables. The testing result for perceived usefulness on trust showed a t-statistic value of 5.045> 1.96, a p-value of 0.00 <0.05, and a positive beta coefficient value of 0.554. Therefore, the results indicated that perceived usefulness has a positive and significant impact on trust, and H1 was supported. There was no empirical evidence to support H2, as the testing result for the variable on intention showed a t-statistic value of 1.415 <1.96 with a p-value > 0.05.Furthermore, this study found that perceived ease of use had a positive and significant impact on usefulness, trust, and intention to use M-Banking, supporting H3, H4, and H5. The effect of the variable on usefulness had a t-statistic, p-value, and positive beta coefficient of 11.632> 1.96, 0.00 <0.05, and 0.673 indicating that perceived ease of use had a positive and significant impact on usefulness.

Similarly, the testing result for perceived ease of use on trust showed a t-statistic, p-value, and positive beta coefficient of 2.462> 1.96, 0.014 <0.05, and 0.281. Therefore, it could be concluded that the variable had a positive and significant impact on trust. The results of perceived ease of use on intention showed a t-statistic, p-value, and positive beta coefficient of 2.174 > 1.96, 0.030 < 0.05, and 0.246, respectively. Therefore, it could be concluded that the variable had a positive and significant impact on intention to use M-Banking. This study also showed that perceived usefulness was positively and significantly influenced by perceived risk, with a t-statistic, p-value, and positive beta coefficient of 2.389 > 1.96, 0.017 < 0.05, and 0.112, respectively, hence, H6 was supported. Perceived risk and trust had a positive and significant impact on intention to use M-Banking. This was evidenced by the results of perceived risk and trust on intention with a t-statistic, p-value, and positive beta coefficient of 2.060 > 1.96, 0.039 < 0.05, and 0.115, respectively, hence H7 was rejected. The impact of trust on intention showed a t-statistic, p-value, and positive beta coefficient of 2.060 > 1.96, 0.00 < 0.05, and 0.115, respectively. Therefore, trust has a positive and significant impact on intention to use M-Banking, and H8 was accepted.

**Discussion**

The empirical findings indicated the importance of the variables of usefulness and ease of use in shaping trust in M-Banking. These results were consistent with Ramli et al., (2021), where the variables had a positive and significant impact on trust. The effect of perceived usefulness on trust had a coefficient of 0.554, which was larger than perceived ease of use, with a coefficient of 0.281. Therefore, trust in M-Banking was strongly influenced by perceived usefulness than ease of use. The variables of ease of use and trust have an impact on intention to use M-Banking. This study showed that intention, which was affected by ease of use and trust, was a positive and significant factor, consistent with the findings of Ramli et al., (2021). However, perceived usefulness did not have an impact on intention, in line with the findings of Al-Jabri, (2015). This study found that perceived risk did not hinder intention to use M-Banking. The potential explanation was that the respondents were highly educated and aware of the risks associated with using M-Banking.

Furthermore, the advancements in M-Banking had led to the average user being less concerned about risks. Before definitive statements could be made, additional study was required, since previous studies showed that perceived risk had a stronger negative effect on intention to use M-Banking.  A significant positive impact of trust on intention to use M-Banking was also reported in line with (Alalwan & Yogesh K. Dwivedi, 2016; V. A. Nguyen et al., 2020; Sang, 2021). The trust variable had a coefficient of 0.312, larger than perceived ease of use, usefulness, and risk on intention to use M-Banking. Therefore, intention was more strongly influenced by trust than perceived ease of use, risk, and usefulness. Perceived ease of use and risk were found to have a significant positive impact on usefulness, according to Siyal et al., (2019). The impact of the variable on usefulness had a coefficient of 0.673, larger than perceived risk with a coefficient of 0.112. In addition, perceived usefulness was more strongly affected by ease of use than risk.

# CONCLUSION

M-Banking plays an important role in providing the financial products and services needed by society in the current digital era. Therefore, this study investigated the factors determining usefulness, trust, and intention to use M-Banking. The empirical findings indicated that perceived usefulness and ease of use had a positive and significant impact on trust. Ease of use and trust were also found to have a positive and significant impact on intention to use M-Banking. Furthermore, perceived risk had a positive and significant impact on intention to use M-Banking. Ease of use, trust, and perceived risk variables had a positive and significant impact on usefulness. The findings indicated that these variables were important aspects for M-Banking users. Therefore, Islamic banks needed to pay attention to these variables to improve usefulness, trust, and acceptance of M-Banking.

**ACKNOWLEDGEMENTS**

The authors are grateful to all parties who have contributed to the completion of this study, specifically to the Rector of UMJ and LPPM UMJ for the funding and facilities provided. The authors are also grateful to the Faculty of Islamic Studies UMJ and the Management of the Zakat and Waqf Program for providing support and facilities.

# REFERENSI

Aji, H. M., Berakon, I., & Riza, A. F. (2020). The e ff ects of subjective norm and knowledge about riba on intention to use e-money in Indonesia. *Journa of Islamic Marketing*. https://doi.org/10.1108/JIMA-10-2019-0203

Al-Jabri, I. M. (2015). The intention to use mobile banking : Further evidence from Saudi Arabia. *South African Journal of Business Management*, *46*(1), 23–34.

Alalwan, A. A., & Yogesh K. Dwivedi, N. P. R. and M. D. W. (2016). Consumer adoption of mobile banking in Jordan : Examining the role of usefulness , ease of use , perceived risk and self-efficacy. *Journal of Enterprise Information Management*, *29*(1), 118–139.

Anggraeni, R., Hapsari, R., & Muslim, N. A. (2021). Examining Factors Influencing Consumers Intention and Usage of Digital Banking: Evidence from Indonesian Digital Banking Customers. *Asia Pacific Management and Business Application*, *009*(03), 193–210. https://doi.org/10.21776/ub.apmba.2021.009.03.1

Chao, C. M. (2019). Factors determining the behavioral intention to use mobile learning: An application and extension of the UTAUT model. *Frontiers in Psychology*, *10*, 1–14. https://doi.org/10.3389/fpsyg.2019.01652

Ghozali, I., & Latan, H. (2015). *Partial Least Square : Konsep, Teknik dan Aplikasi Menggunakan Program SmartPls 3.0 untuk Penelitian Empiris*. Universitas Diponegoro Semarang.

Haider, M. J., Changchun, G., Akram, T., & Hussain, S. T. (2018). Does gender differences play any role in intention to adopt Islamic mobile banking in Pakistan?: An empirical study. *Journal of Islamic Marketing*, *9*(2), 439–460. https://doi.org/10.1108/JIMA-11-2016-0082

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Hanafizadeh, P., Behboudi, M., Abedini, A., Jalilvand, M., & Tabar, S. (2014). Mobile-banking adoption by Iranian bank clients. *Telematics and Informatics*, *31*(1), 62–78. https://doi.org/10.1016/j.tele.2012.11.001

Jouda, H. (2020). Expanding TAM and Investigating the Factors that Effect Consumer Intention to Adopt Mobile Banking in Palestina. *Financial Internet Quartely*, *16*(3), 29–50. https://doi.org/10.2478/fiqf

Kholid, M. N. (2019). Determinants of intention to use Islamic mobile banking: Evidence from millennial generation. *Jurnal Ekonomi & Keuangan Islam*, *5*(2), 53–62. https://doi.org/10.20885/jeki.vol5.iss2.art2

Kumar, A., Dhingra, S., Batra, V., & Purohit, H. (2020). A framework of mobile banking adoption in India A Framework of Mobile Banking Adoption in India. *Journal of Open Innovation: Technology, Market, and Complexity*, *6*(40), 0–17.

Kumar, S., Leonie, A., & Yukita, K. (2021). Millennials Behavioral Intention in Using Mobile Banking : Integrating Perceived Risk and Trust into TAM ( A Survey in Jawa Barat ). *Proceedings of the International Conference on Business and Engineering Management (ICONBEM 2021) Millennials*, *177*, 210–217.

Mutahar, A. M., Isaac, O., Ghosh, A., & Al-shibami, A. H. (2018). Perceived Value as Moderator Variabel in Mobile Banking Context : an Extension of Technology Acceptance Model. *International Journal of Management and Human Science*, *2*(1), 1–8.

Nguyen, T. D., Nguyen, T. Q. L., Nguyen, T. V., & Tran, T. D. T. (2020). Intention to Use M-Banking : The Role of E -WOM. *Advances in Intelligent Systems and Computing*. https://doi.org/10.1007/978-3-030-16657-1

Nguyen, V. A., Phuong, T., & Nguyen, T. (2020). An Integrated Model of CSR Perception and TAM on Intention to Adopt Mobile Banking. *Journal of Asian Finance, Economics and Business*, *7*(12), 1073–1087. https://doi.org/10.13106/jafeb.2020.vol7.no12.1073

Nuangjamnong, C. (2021). Investigation of Factors Influencing Students ’ Intention to Use Banking Services through Smartphone Devices during COVID-19 Pandemic. *International Journal of Economics and Business Administration*, *9*(1), 331–346.

OJK. (2020). Cetak Biru Transformasi Digital Perbankan. *Ojk*, *13*(April), 1–54.

Ramli, Y., Harwani, Y., Soelton, M., Hariani, S., & Usman, F. (2021). The Implication of Trust that Influences Customers ’ Intention to Use Mobile Banking. *Journal of Asian Finance, Economics and Business*, *8*(1), 353–361. https://doi.org/10.13106/jafeb.2021.vol8.no1.353

Raza, S. A., Shah, N., & Ali, M. (2018). Acceptance of mobile banking in Islamic banks: evidence from modified UTAUT model. *Journal of Islamic Marketing*, *10*(1), 357–376. https://doi.org/10.1108/JIMA-04-2017-0038

Riptiono, S., Susanti, D. N., Rhamdhani, I. M., Anggraeni, A. I., & Prasetyo, A. (2021). Parsing religiosity and intention to use Islamic mobile banking in Indonesia. *Bank and Bank System*, *16*(4), 34–44. https://doi.org/10.21511/bbs.16(4).2021.04

Salmah, R. (2021). Pendapatan, Pendidikan, Persepsi Kemudahan, dan Sikap sebagai Mediasi terhadap Keputusan Penggunaan Mobile Banking Syari’ah. *Jurnal Ilmiah Ekonomi Islam*, *7*(2), 798–805. https://doi.org/10.29040/jiei.v7i2.2473

Sang, N. M. (2021). Critical Factors Affecting Consumer Intention of Using Mobile Banking Applications During COVID-19 Pandemic : An Empirical Study from Vietnam \*. *Journal of Asian Finance, Economics and Business*, *8*(11), 157–167. https://doi.org/10.13106/jafeb.2021.vol8.no11.0157

Singh, S. &, & Srivastava, R. . (2016). Predicting the Intention to Use Mobile Banking in India Introduction. *International Journal of Bank Marketing*. https://doi.org/, https://doi.org/10.1108/IJBM-12-2016-0186

Siyal, A. W., Donghong, D., Umrani, W. A., Siyal, S., & Bhand, S. (2019). Predicting Mobile Banking Acceptance and Loyalty in Chinese Bank Customers. *Original Research*, 1–21. https://doi.org/10.1177/2158244019844084

Sudarsono, H., Kholid, M. N., Trisanty, A., Ash Shidiqie, J. S., & Suseno, P. (2022). Examining the adoption of mobile banking : Empirical evidence from Indonesian Muslim students. *Bank and Bank System*, *17*(2). https://doi.org/10.21511/bbs.17(2).2022.12

Sukmawati, H., Farizal Rasyid, A., & Rachma Kurniaputri, M. (2021). Penerimaan dan Penggunaan Layanan Mobile Banking Perbankan Syariah: Ekstensi Technology Acceptance Model. *Jurnal Ilmiah Ekonomi Islam*, *7*(03), 1845–1857. http://jurnal.stie-aas.ac.id/index.php/jiedoi:http://dx.doi.org/10.29040/jiei.v7i3.3615

Zarnadze, G. (2021). The impact of WOM on the acceptance of mobile banking. *Proceedings of the 15th International Conference on Business Excellence*. https://doi.org/10.2478/picbe-2021-0035