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# Intention to use Islamic Mobile Banking Services: Detailed Analysis Based on Theoretical Triangulization

Nazia Abdul Rehman [1] | Muhammad Faisal Sultan[2] |Zaibunnisa Siddiqi [3] | Shahzad Nasim[4*]

**Abstract**

*The purpose of this study is to make readers understand about the intention to use mobile banking through theoretical triangulation of TAM and TRA models. Previous studies related with the topic were based either on conventional banking or either from other Muslim countries than Pakistan. However, this study has not only been conducted with reference to the largest Muslim country but also through thorough model that has been based on theoretical triangulation. Hence, the rigor and impact of this study might outstand the previous research work. Therefore, to compile this study in effective manner data has been collected through 383 customers through convenience sampling. Analysis has been made through SMART-PLS and findings of the study confirmed that theoretical triangulation is effective tool for the selection of variables. The claim is found to be true as findings of this study indicate positive impact of customer's attitude over intention to use mobile banking services from Islamic Banks. Moreover, detailed statistical testing also indicated that the impact is not only true for PU has a definite impact over customer's attitude as well as intention to use Islamic Mobile Banking. However, PEoU does not have direct or indirect effect over the attitude and intention to use mobile banking. Hence, the findings of the study are indicating that there is a need of more rigorous studies to explore theoretical triangulation and model for comparative studies between conventional and Islamic Banking.*

**Keywords:** *Mobile Banking, Islamic Mobile Banking, Technology Acceptance Model, Perceived Ease of Use and Perceived Usefulness*

**Author's Affiliation:**
Institution: Federal Urdu University Arts, Science & Technology[1] | KASBIT[2] | Sukkur IBA[3] |The Begum Nusrat Bhutto Women[4]
Country: Pakistan
Corresponding Author's Email: *shahzadnasim@live.com

# 1. INTRODUCTION

## 1.1 Background:

Continuous Technology Development has also cause significant change in various aspects of human life. Especially important is the cellular technology that has the capability to be associated with variety of software. These trends also cause transition in the banking industry which is trying to tap customers more effectively through rigorous and technologically sound strategies (Gunawan et al., 2019). The real purpose of these strategies is to make customer use and adopt services and facilities. Hence, the major element behind these strategies is to provide comfort, ease and convenience to customers through lower cost online transaction facilities (Wandira et al., 2022).

Therefore, it is very important to mention introduction of internet as the medium that changes market dynamics and cause significant surge in online shopping. Increase of online shopping resulted in the decline of bricks and mortars and provides multiple business opportunities that are not only cost effective in nature but also have the tendency to flourish at rapid pace (Gunawan et al., 2019). Among these opportunities one of the most well-known is online banking that was initially introduced in 1994 from the platform of Stanford Federal Credit and success rate of these strategies made every business and industry to adapt these strategies (Riza & Hafizi, 2019). Recently the scope of online banking has been extended tremendously and now these transactions are providing holistic betterment through improving individual life as well as society. However, discussing specifically with respect to the banking industry the purpose of online banking is to make user perform banking operations through mobile devises at any time and any place. Studies also claim that digital banking is much different from internet banking due to limited capabilities of internet banking. However, digital banking is a modern technology which makes bank to offer range of services e.g., money transfer, payments, shopping, e-commerce, opening of online accounts, cash withdrawals and invoices etc (Wandira et al., 2022).

## 1.2 Introduction to the Topic:

Digital banking provides convenience to customer through covering all the required aspects of traditional banking without any load or burden (Nguyen, 2020). Thus, surge in consumer usage of digital banking has also been observed across the globe. According to studies South Korea ranked first in the adoption of mobile banking services with adoption rate touches 96%, Singapore stands second with 94% and Japan stands third with 83%. However, there are many other countries e.g., China and Malaysia with having adoption rate is over or touching 50% (Riza & Hafizi, 2019). However, recent studies are indicating significant growth of Islamic Banking across the globe. In fact, growth is exponential in non-Islamic and Western sides of the world. Recently several banks from United Kingdom are started to offer Islamic Financial Products that worth around $ 43 Billion. Therefore, legitimate to declare that the growth of Islamic Banking is extensively higher as compared to the conventional banking services. However, the concept of Sharia Aligned

mobile banking was first introduced in 2014 and now it becomes the vital force of attraction for the customers of Islamic Banks and also encourages Islamic Banks to innovate continuously for the betterment of banks, customers and society (Riza & Hafizi, 2019).

### 1.3 Statement of Problem:

Hence, multiple studies are available on the topic of customer's intention to use services provided by Islamic Banks. However, rear evidence is available for the association of customer's attitude and customer's intention to use services provided by Islamic Banks. Similar is the case of antecedents of customer intention where there are minimal studies available on antecedents of customer's attitude for services provided by Islamic Banking (Kaakeh et al., 2019).

These gaps can be filled more efficiently when we associate these gaps with the Koksal (2016) that customer intention to purchase has been based of multiple predictors and more effective studies can be developed through supplementing all the predictors in one model that aims to understand customer's intention to purchase. Moreover, use of snow-ball sampling might also be insignificant in tracing the customer's intention to use mobile banking.

### 1.4 Significance of the Study:

Considering the above mentioned points it is legitimate to believe that this study the premier study that is based upon the intention to adopt Islamic mobile banking services. However, most of the previous studies were associated with conventional banking services or based on limited set of variables. Therefore, conduction of this study is specifically related with the use of preference of Islamic Mobile Banking Services. Moreover, variable selection of this study is also based on theoretical triangulation. Hence, the findings and implications of this study might be used by students and academicians to facilitate classroom teaching and learning. Findings of this study may also be used by researcher to conduct further research in related or diversified areas and may also be used by intrapreneurs from Islamic Banking industry. Detailed understanding in this regard may be found beneficial for understanding and improving customer attitude towards the mobile banking services from Islamic Banks. Therefore, to make readers understand the gist of the research and important relationships following points and hypotheses are formulated

## 2. LITERATURE REVIEW

### 2.1 Theoretical Framework:

Literature highlights numerous theories that are associated with the use and acceptance of technology or technology integrated devises etc. Among these theories some of the most important are (TAM) Technology Acceptance Model, (TPB) Theory of Planned Behavior and (UTAUT) Unified Theory of Acceptance and use of Technology etc. that are used to define and predict customer's intention to purchase. The major purpose of using these theories is to discuss and analyze

relative strengths and weaknesses of IT inclusion and IT systems related with consumer consumption and usage etc. However, TAM is the theory that is used and recommended by several researchers, scholars and scientists to assess the evolution and use of technologies in various fields of life. Moreover TAM is can be implemented for the analysis of information system in variety of areas (Wandira et al., 2022). Literature provides examples of Holden and Karsh (2010) who relate TAM with health sector; Fayad and Paper (2015) associate TAM with Business and E-Commerce and Fauzi et al (2021) correlate TAM with education. TAM is adapted from Theory of Reasoned Action (TRA) that is used to assess technology acceptance. Hence, the model of TAM has been associated with perceived usefulness (PU) and perceived ease of use (PEoU) that are ultimately highlight the one's intention to use latest technologies.

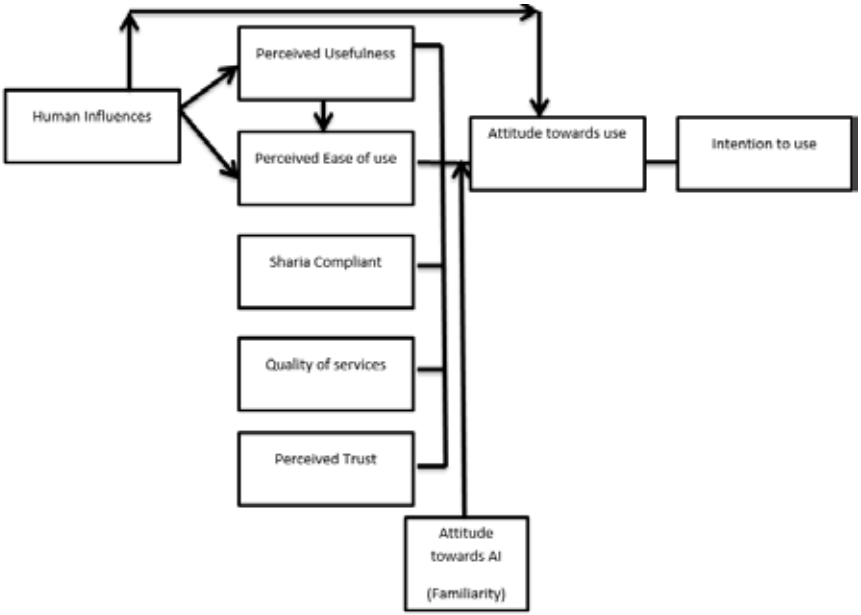


**Figure 1: Research Model (Researcher's own illustration)**

PEoU is defined as cognitive efforts to learn and use technologically upgraded and technologically sound products. Similarly PU is defined as the one's subjective assessment of value provided by the technology. Previous studies that relate PEoU and PU with the customer's attitude towards mobile banking applications defined attitude as the level of positive or negative attitude of user that is shaped by the use of mobile banking services. On the other side studies defined PEoU as the ease in the use of mobile banking application that also does not require extensive learning efforts. Lastly PU is based on usability related with mobile banking applications (Riza & Hafizi, 2019). Moreover, there are some studies e.g., Wixom and Todd (2005) and Shipps and Philips (2013) etc that highlighted a unidirectional association between PEou and PU. Similar has also been indicated by Gunawan et al (2019) that PEoU and PoU always found to be associated with customer's attitude and increase in the level of PEoU will also optimize PoU. On the other

side previous studies also indicated that the attitude towards the technology can be positive or negative.

However, if the attitude towards technology is positive then it will also influence intention to purchase in positive manner. Therefore, using TAM model to assess the intention to use of latest technologies like mobile banking will have two predictors namely (PEoU) and (PU) with attitude will be playing mediating role between both the predictors and intention to use mobile banking (Riza & Hafizi, 2019). However, studies e.g., Wandira et al. (2022) also claims that PEoU also influence PU as increase in the level of perceived ease of use also optimizes the level of perceive benefits that user may achieve through using the technology.

## 2.2 Human Influence and Perceived Usefulness:

Difference of prevailing conditions is always found to be correlated with the perception of ease and benefits. Similar has also been signified by the previous studies that conditions pertaining to individuals may make individual perceive technology more useful (Wandira et al., 2022). According to one of the initial studies the studies preference of IT or other form of technologies cannot be shaped-up without creating positive impact over perceived usefulness of the technology (Karahanna & Straub, 1999). Chawla and Joshi (2019) also indicated that impact and importance of human influence over technology usage. Studies indicated that word of mouth and Electronic word of mouth are perceived as the influential factors that may shape perceived usefulness related with technology. However, the findings cannot be proved through the analysis made for e-mobile banking services for the banks of Indonesia (Wandira et al., 2022).

**H1A: T**here is an association between human influence and perceived usefulness.

## 2.3 Human Influence and Perceived Ease of Use:

According to studies friends and family members who deal with the technology or technological devises on regular basis may influence the other person. Previous studies also claim that prevailing conditions are found to be positively correlated with the perceived ease of use. Studies also mentioned that availability of support and training facilities for the end user may optimize perceived ease of use and ultimately foster use of new technology (Karahanna & Straub, 1999). Chawla and Joshi (2019) also supported that impact of human influence on technology through the examples of word of mouth and electronic word of mouth. Study mentioned that both of the mentioned sources are used for informal learning about the use of technology. These postulates have been supported by the findings of one of the latest studies that try to explore the association for the use of mobile banking services for the banks of Indonesia (Wandira et al., 2022).

**H2A**: There is an association between human influence and perceived ease of use.

### 2.4 Customer's Attitude:

Studies define this terminology as the outcome based on consumer's perception and feeling etc . Hence studies marked attitude as long-term evaluation of consumer for any product, service or idea (Gunawan et al., 2019). Studies also termed customer's perception as the crucial variable that has the tendency to affect the intention to adopt Islamic Banking & also for products offered by Islamic Banks (Hoque et al., 2022)

### 2.5 Perceived Ease of Use (PEoU) and Customer Attitude:

According to studies PEoU is termed as one of the priome factor that has the ability to influence level of benefits that may be achieved & customer's attitude towards. This relationship is significantly higher for the technological products and services. Ease of use always has an association with customer's attitude. Other than this POINT ease of use is not only related to user's attitude but also with the overall attitude customer possess during its interaction with the system (Wandira et al., 2022).

**H3A:** There is an association between PEoU & Customer's Attitudes related with Islamic Mobile Banking

### 2.6 Perceived Usefulness (PU) and Customer's Attitude:

Literature mentioned Perceived usefulness as the most influential element related with user acceptance system. This actually causes increase of user's performance through increasing efficiency and effectiveness of the system (Tahar et al., 2020). According to studies perceived usefulness is one of the most important variables in the studies of electronic banking and its evaluation is based over the probability that use of the technology would ease the working of user (Jahangir & Begum, 2008). Previous studies claim that benefits of using technology has a definite and positive association with the customer's attitude. Perceived benefits of using technological products are always found to be positively correlated with perceived benefits of the technology (Wandira et al., 2022). Relating perceived usefulness with the TRA highlighted that perceived usefulness is actually an individual's thinking about the benefit and speed consumers may achieve in allocated tasks through technology (Jahangir & Begum, 2008). Hence, findings of Elkaseh et al (2016) indicated that use of social media has advantageous for students and make them inclined towards e-learning.

**H4A:** There is an association between PU & customer's attitude towards Islamic Mobile Banking

## 2.7 Sharia Compliant System and Customer's Attitude:

Sharia Compliant is the term that deal with customer perception related with Riba-free nature of the product or idea. In the literature of Islamic Banking Riba-free means that the product, tool or idea is not linked with Gharar or Riba. Gharar is termed as uncertainty and Riba is the interest. Thus both of these terminologies are required to be disassociated with the offerings in order to create positive impact on customers' attitude. Similar is the case of Islamic Banking where customers' attitude is always found to be correlated with Sharia Compliant nature of the products. In fact, in terms of violation of Sharia customers tends to switch towards other Islamic Banks. Similar has been indicated by other studies that sharia compliant nature of the bank plays a moderating role between the service quality and customer satisfaction related with Islamic bank (Kaakeh et al., 2019). However, some of the other studies e.g., indicated direct association between Sharia complaint credit card services from Islamic Banks of Malaysia and intention to use banking services (Johan et al., 2017)

**H5A:** There is an association between Sharia Compliant System and Customer's attitude towards Islamic Mobile Banking

## 2.8 Quality of Services and Customer's Attitude

Quality of services is based upon the interpersonal interactions of customers and employees. According to literature customer who have exposure to meet employees have heightened social and personal exposure. Therefore, these customers do not prefer to switch to self-service technology (SST). However, customers who mostly prefer digital services for transaction and services have marginal access to employees and prefer mobile banking services (Yussaivi et al., 2020). Initially study conducted by Ijaz and Ali (2013) reflected positively upon the aspects of services quality and its impact over the customer's attitude towards Islamic Bank. Findings were supported by the study of Kaakeh et al (2019) with reference to the Islamic Banking industry of UAE. Recently Hoque et al (2022) supported the finding with respect to Islamic Banking industry of Bangladesh.

H6A: There is an association between Quality of services and Customer's attitude towards Islamic Mobile Banking

## 2.9 Perceived Trust and Customer's Attitude

Customer's trust is always associated with usage of technology. Similar is the case of mobile applications and technology as positive perception related with the safety and security of mobile application reduces uncertainty and makes user inclined towards the use of technology. However, initially customer's tends to observe any of the bank action in more critical manner and after observing bank's action for the considerable period of time customer will start trusting the bank and its operations.

Thus, customer will start sharing their personal and work related information which is actually termed as the most important element of e-commerce adaptation

(Yussaivi et al., 2020)

**H7A:** There is an association between Perceived Trust and Customer's attitude towards Islamic Mobile Banking

### 2.10 Familiarity with Artificial Intelligence (AI) and Customer's Attitude:

Customers that do not have vast experience of using mobile applications require more auxiliary features to understand the nature of investment etc. However, people with experience of using mobile application need the application for utilitarian reason. Therefore, familiarity with AI may foster the usefulness of application for customers with vast experience of using mobile applications. Therefore, familiarity with AI is recommended to be used as the moderator to check the impact over usefulness (Belancho et al., 2019)

**H8A: T**here is an association between Familiarity with AI and Customer's attitude towards Islamic Mobile Banking

**H9A:** Familiarity does not moderate the relationship between customer's attitude and intention to use Islamic Mobile Banking

### 2.11 Customer Attitude & Intention to use:

Attitude of user always associated with intention to use the system. In fact, studies related with mobile banking mostly reflect that positive customer's attitude always resulted in the positive intention towards the use of mobile banking (Wandira et al., 2022). Studies e.g., also indicated that customer's attitude is one of the prominent predictor of intention to use. Studies also marked customer's attitude as an effective mediator that cause desired impact of perceived usefulness, perceived ease of use and perception of risk on intention to purchase (Perumal et al., 2022). These findings are supported by Hoque et al (2022) which indicated that customer's attitude is one of the major variable and has been checked by previous studies e.g., Kaakeh et al (2019) as the mediating variable for factors affecting intention to adopt Islamic Banking and products of Islamic Banking

H9A: There is an association between Customer's attitude and Intention to use Islamic Mobile Banking

H10A: Familiarity with AI moderates the relationship between and Customer's attitude and intention to use Islamic Mobile Banking

### 2.12 Mediating Role of Customer's Attitude between PEoU & Intention to use Islamic Mobile Banking:

According to studies Perceived ease of use is the perception that use of technology will cost nothing to the user (Jahangir & Begum, 2008). Rogers (1962) was the person who initially identified this concept through relating it with the ease of

understanding and use of the technology. Hence, ease of use may also be relating comparative usage of the technology. This point affirms with Rogers (1962) that ease of use is actually easiness in understanding and use of technology (Jahangir & Begum, 2008). Studies further highlighted that ease of use is not only associated with any particular technology but it is actually related with the ease of using system that increases customer's satisfaction and reduces level of perceived threats (Tahar et al., 2020). Similar is the indications of previous studies e.g., Lymer et al (2012) which highlighted that use of e-filling provides more benefits and also has very lesser complications for taxpayers. However, findings of Daryanto (2017) were opposite to Lymer et al (2012) as the findings indicated that e-filling system was unable to improve the performance of tax payers in reporting cases. The major issue was the complexity of the study that was found to be more complex than the manual filling. On the other side there are multiple studies that reflect the impact of perceived ease of use over intention to adopt technology. However, the results are mixed as some of the studies indicated direct effect and some of the studies mentioned indirect effect (Jahangir & Begum, 2008).

**H11A:** Attitude towards Islamic Mobile Bank does mediates between PEoU and Intention to use Islamic Mobile Banking

### 2.13 Mediating Role of Customer's Attitude betwen PU & Intention to use Islamic Mobile Banking:

Perceived usefulness is related with the word use which actually defines more advantageous nature of the product that customer is using (Gunawan et al., 2019). This perception of utility is directly associated with the intention to use the system & if users does not feel utility through using the system then user will not prefer or use the technology (Tahar et al., 2020). Research indicated that use of information system mostly resulted in creating user preference towards the system (Wandira et al., 2022). Similar is the case of electronic banking where perceived usefulness is defined as the probability that user will compete the given tasks through using technology. Studies conducted in early 2000 have also confirmed the association between perceived usefulness and employee performance. This postulate is getting proved day after the another which ultimately increases the size of literature related with perceived usefulness and intention to use for technology oriented products (Jahangir & Begum, 2008).

Findings are seems to be consistent even for recent studies that use of IT system for online ticket reservation has a positive association with the booking of tickers (Wandira et al., 2022). However, literature evidences the presence of multiple studies e.g., Chen and Barnes (2007) and Tan and Teo (2000) that reflected that perceived usefulness may also create direct impact over the intention to adopt the technology.

**H12A:** Attitude towards Islamic Mobile Bank does mediates between PU and Intention to use Islamic Mobile Banking

## 3. RESEARCH METHODOLOGY

### 3.1 Research Design:

Previous studies e.g. Yussaivi et al., (2020) and Wandira et al (2022) collected data from Indonesian customers regarding the use of mobile banking. Yussaivi et al., (2020) collected data from 339 customers of Islamic banks from Indonesia through using Google document. The analysis made by researchers is based on partial least square (PLS). Hence following these points this study also collected data from customers' of Islamic Banks from Pakistan through convenience sampling and Google docs. However, instead of using Warp PLS researchers incorporated SMART-PLS due to its sophistication and wellbeing. Moreover, this study is based on the research model that has been developed through assessing multiple research paper that makes it much different from the model incorporated by Yussaivi et al., (2020). Therefore, it is optimal to mark this study as correlational design in which study setting was non-contrived through moderate interference of researcher, field-experimentation & cross-sectional time horizon (Sekaran & Bougie, 2016). However, according to Saunders et al (2007) epistemology is the most suited philosophy for this study as thi study is based upon theoretical triangulation of TAM & TPB etc. Hence, creation of knowledge is the gist of this study while philosophical stance related with this work is post-positivism that has the ability to work with quantitative as well as qualitative studies (Saunders et al., 2015) knowledge.

### 3.2 Sampling Design:

Yussaivi et al., (2020) and Wandira et al (2022) etc conducted studies related to preference and intention to use mobile banking through using convenience sampling. Hence, non-probability methods of sampling like convenience sampling. However, the sample size of both of the studies is lesser than 389 that is termed as universal sample size. Therefore, in order to increase rigor of the study this study uses sample size of 389 respondents. Among these respondents 63% were male and 37% were females. Most of the respondents (91%) are employed and having at least 14 years of education. Total number of questionnaire circulated using Google docs was 470 out of which 387 found to be workable. Therefore, the response rate for this study is 83%.

## 4. STATISTICAL TESTING AND ANALYSIS:

One of the latest and well-known tools for inferential statistical analysis is Structural Equation Modeling mostly commonly termed as SEM for assessing causal and temporal effects (Gunzler et al., 2013).

Literature evident that use of SEM is better than the use of regression and use of SMART-PLS can adds significantly to the value of SEM. SMART-PLS is one of the most sophisticated and well-known software that operates through outer (measurement) model and inner (structural) model (Wong, 2013).

**Table 1: Construct Reliability, Composite Reliability and Convergent Validity**

| Variable | Outer Loading | Cronabach's Alpha | Goldstein rho | Composite Reliability | AVE |
|---|---|---|---|---|---|
| Attitude towards Over of Islamic Mob Banking | 0.906 | 0.896 | 0.896 | 0.935 | 0.828 |
| | 0.918 | | | | |
| | 0.906 | | | | |
| Familiarity | 0.865 | 0.842 | 0.845 | 0.904 | 0.759 |
| | 0.875 | | | | |
| | 0.874 | | | | |
| Human Influence | 0.864 | 0.813 | 0.814 | 0.889 | 0.729 |
| | 0.888 | | | | |
| | 0.807 | | | | |
| Intention to use Islamic Mob Banking | 0.813 | 0.740 | 0.750 | 0.852 | 0.657 |
| | 0.767 | | | | |
| | 0.850 | | | | |
| Perceived Ease of Use | 0.874 | 0.864 | 0.865 | 0.917 | 0.787 |
| | 0.911 | | | | |
| | 0.876 | | | | |
| Perceived Trust | 0.907 | 0901 | 0.902 | 0.938 | 0.835 |
| | 0.931 | | | | |
| | 0.903 | | | | |
| Perceived Usefulness | 0.847 | 0.841 | 0.842 | 0.904 | 0.759 |
| | 0.883 | | | | |
| | 0.883 | | | | |
| Quality of services | 0.916 | 0.911 | 0.913 | 0.944 | 0.849 |
| | 0.931 | | | | |
| | 0.918 | | | | |
| Sharia Complaint | 0.880 | 0.868 | 0.868 | 0.919 | 0.792 |
| | 0.916 | | | | |
| | 0.873 | | | | |

Effective analysis through SMART-PLS require assessment of two different models i.e., inner (structural) model and outer (measurement) model. Outer model is based upon the association between latent variable and its related indicators (Ab Hamid et al., 2017). On the other side inner model provides us the association between the

variables of interest (Wong, 2013). Overall SMART-PLS is used to provide detailed descriptive and inferential analysis to marking all the possible relationships and paths in the model of research (Vijaybanu & Arunkumar, 2018)

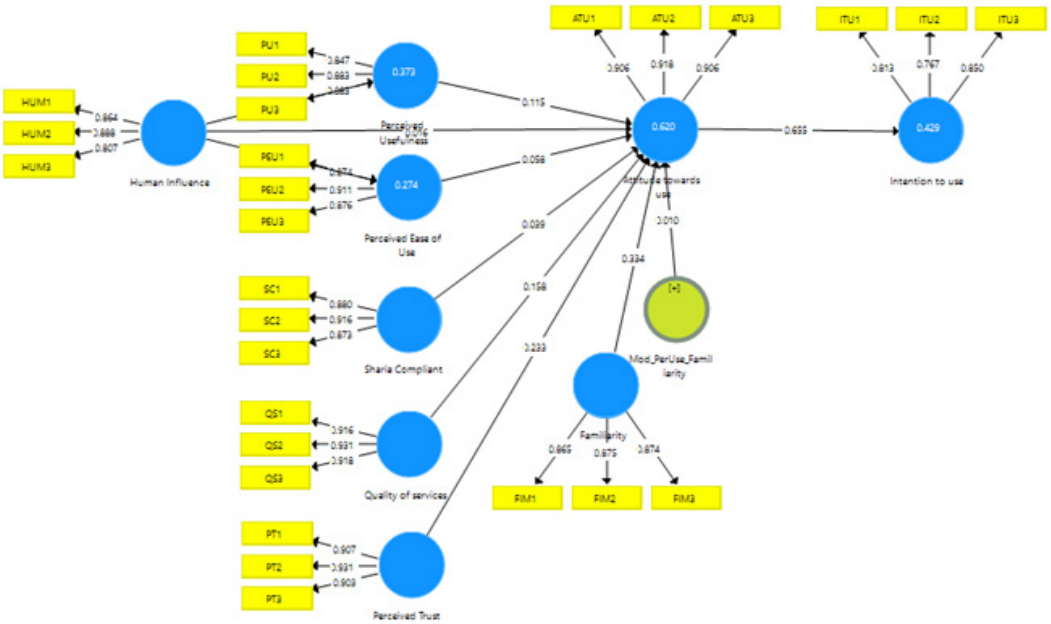


**Figure 2: CFA and Outer Loading**

Table 1 and Figure 2 are indicating mostly about the descriptive statistics as indicated by Ab Hamid et al (2017). According to Table we have measures of outer loadings, internal consistency, and AVE. Internal consistency has been highlighted through Cronbach alpha and Composite Reliability. Use of outer loading is to highlight the strength of indicators that are used in the study (Afthanorhan, 2013).

Study indicated that range of values for outer loading is from 0 to 1 and values that are closes to 1 are obviously preferred. However, values that arranges between 0.60 and 0.70 may be deleted if the deletion of these values adds positively to the convergent validity. Moving towards the elements of internal consistency it has also been observed that values of these elements must be between 0 & 1 (Ab Hamid et al., 2017). Table 1 also contains elements related with convergent validity as convergent validity includes outer loading, composite reliability and AVE (Adeleke et al., 2015). However, AVE alone with the value of 0.50 or above may found sufficient for assuring convergent validity (Ab Hamid et al., 2017). Hence, in accordance with Table 1 and Figure 1 it is clear that there is no element that has value lower than 0.70. Similarly the values of Cronbach's alpha and Glodstein rho also are more than 0.70. Hence, reliability measures are true and valid for proceeding

with the research. On the other side values of composite reliability are also higher than 0.70 for every case and AVE is also higher than 0.50 for every case. Therefore, in th light of the table 1 it is optimal to reflect that the table is effectivelu reflecting construct reliability, composite reliability and convergent validity.

**Table 2: Discriminant Validity (Heterotrait-Monotrait Ratio)**

| | Attitude towards use | Familiarity | Human Influence | Intention to use | Mod_ Per Use_ Familiarity | Perceived Ease of Use | Perceived Trust | Perceived Usefulness | Quality of services | Sharia Compliant |
|---|---|---|---|---|---|---|---|---|---|---|
| Attitude towards use | | | | | | | | | | |
| Familiarity | 0.804 | | | | | | | | | |
| Human Influence | 0.545 | 0.605 | | | | | | | | |
| Intention to use | 0.800 | 0.753 | 0.709 | | | | | | | |
| Mod_PerUse_Fam | 0.105 | 0.226 | 0.097 | 0.092 | | | | | | |
| Perceived Ease of Use | 0.642 | 0.617 | 0.622 | 0.755 | 0.057 | | | | | |
| Perceived Trust | 0.745 | 0.695 | 0.473 | 0.625 | 0.066 | 0.702 | | | | |
| Perceived Usefulness | 0.675 | 0.645 | 0.736 | 0.736 | 0.013 | 0.798 | 0.669 | | | |
| Quality of services | 0.705 | 0.744 | 0.501 | 0.665 | 0.140 | 0.516 | 0.714 | 0.579 | | |
| Sharia Compliant | 0.664 | 0.711 | 0.624 | 0.727 | 0.082 | 0.824 | 0.672 | 0.739 | 0.591 | |

Table 2 is reflecting discriminant validity. Discriminant is perceived as one of the prime factors to evaluate model fitness (Hair et al., 2010). Here Heterotrait-Monotrait Ratio is used as studies e.g., Iqbal et al (2021) mentioned Heterotrait-Monotrait ratio as the most significant tool to assess discriminant validity. The major purpose of using HTMT is to highlight the variables that are used in research are mutually exclusive from each other (Malik et al., 2021). However, to assure exclusiveness of variables there is need of values that are lesser than 0.85 (Hair et al., 2019). However, there is no values in table 2 that are equal to or greater than 0.85 even for the moderation effect. Hence, table 2 is reflecting that the model used in the research also has discriminant validity.

**Table 3: Predictive Accuracy (Quality Criteria)**

| | R Square | R Square Adjusted |
|---|---|---|
| Attitude towards use of Islamic Mobile Banking | 0.620 | 0.616 |
| Intention to use Islamic Mobile Banking | 0.429 | 0.429 |
| Perceived Ease of Use | 0.384 | 0.383 |
| Perceived Usefulness | 0.373 | 0.372 |

Table 3 is the measure of predictive accuracy that is the measure of authenticity for measurement and structural models (Purwanto et al., 2020).The reason to use predictive accuracy in the analysis of SEM through SMART-PLS is to highlight the change that comes to dependent variable due to 1% change in the independent variable. However, the minimum acceptable change in 0.25 while 0.50 and 0.75 are the higher range of change that 1% change in independent variable might cause to dependent variable (Wong, 2013). Considering the values reflected for every outcome variable researchers are assuming that attitude of customer related with Islamic Mobile Banking is moderately be affected by the change in independent variable. Moreover, according to the results it is also optimal to assume that remaining variables are also been affected considerably by change in the independent variable. Hence, through these points it is optimal to highlight that the research model is "FIT" and has the tendency to be used for inferential statistical analysis.

**Table 4: Path Coefficient**

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values |
|---|---|---|---|---|---|
| Attitude towards use -> Intention to use | 0.655 | 0.659 | 0.024 | 27.621 | 0.000 |
| Familiarity -> Attitude towards use | 0.334 | 0.329 | 0.044 | 7.622 | 0.000 |
| Human Influence -> Attitude towards use | 0.016 | 0.016 | 0.035 | 0.462 | 0.644 |
| Human Influence -> Perceived Ease of Use | 0.524 | 0.524 | 0.031 | 17.058 | 0.000 |
| Human Influence -> Perceived Usefulness | 0.611 | 0.612 | 0.028 | 22.166 | 0.000 |
| Mod_PerUse_Familiarity -> Attitude towards use | 0.010 | 0.010 | 0.015 | 0.686 | 0.493 |
| Perceived Ease of Use -> Attitude towards use | 0.058 | 0.061 | 0.040 | 1.439 | 0.151 |
| Perceived Trust -> Attitude towards use | 0.233 | 0.236 | 0.043 | 5.463 | 0.000 |
| Perceived Usefulness -> Attitude towards use | 0.115 | 0.114 | 0.038 | 3.027 | 0.003 |
| Quality of services -> Attitude towards use | 0.158 | 0.161 | 0.041 | 3.805 | 0.000 |
| Sharia Compliant -> Attitude towards use | 0.039 | 0.037 | 0.049 | 0.803 | 0.422 |

**Table 5: Specific Indirect Effect**

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values |
|---|---|---|---|---|---|
| Human Influence -> Perceived Ease of Use -> Attitude towards use | 0.030 | 0.032 | 0.021 | 1.433 | 0.152 |
| Human Influence -> Perceived Usefulness -> Attitude towards use | 0.070 | 0.070 | 0.023 | 2.993 | 0.003 |
| Familiarity -> Attitude towards use -> Intention to use | 0.219 | 0.216 | 0.028 | 7.727 | 0.000 |
| Human Influence -> Attitude towards use -> Intention to use | 0.011 | 0.011 | 0.023 | 0.460 | 0.646 |
| Mod_PerUse_Familiarity -> Attitude towards use -> Intention to use | 0.007 | 0.007 | 0.010 | 0.683 | 0.495 |
| Perceived Ease of Use -> Attitude towards use -> Intention to use | 0.038 | 0.040 | 0.027 | 1.423 | 0.155 |
| Human Influence -> Perceived Ease of Use -> Attitude towards use -> Intention to use | 0.020 | 0.021 | 0.014 | 1.414 | 0.158 |
| Perceived Trust -> Attitude towards use -> Intention to use | 0.153 | 0.156 | 0.030 | 5.063 | 0.000 |
| Perceived Usefulness -> Attitude towards use -> Intention to use | 0.075 | 0.075 | 0.025 | 2.991 | 0.003 |
| Human Influence -> Perceived Usefulness -> Attitude towards use -> Intention to use | 0.046 | 0.046 | 0.016 | 2.948 | 0.003 |
| Quality of services -> Attitude towards use -> Intention to use | 0.103 | 0.106 | 0.027 | 3.785 | 0.000 |
| **Sharia Compliant -> Attitude towards use -> Intention to use** | 0.026 | 0.025 | 0.032 | 0.797 | 0.426 |

Table 5 is reflecting most important part of inferential statistical analysis by SMART-PLS. It is actually a determination of a matrix termed as path-coefficient. Path-coefficient is used to highlight all the valid paths & relationship in variables of research (Silaparaasetti et al., 2017). However, to legitimize and understand these paths and association there is a need to use Hair et al (2017) which highlighted use of t-statistics & p-values to legitimize the association between two sets of variables. However, the t-statistics value is required to be at least 1.97 or above along with p-values that must not be higher than 0.05 to substantiate relationships and associations. In accordance with the table four it is appropriate to declare that there is no association between human influence and attitude towards the use of Islamic Mobile Banking. Similarly there is also no relationship found between perceived ease of use and attitude towards the use of Islamic Mobile Banking. Lastly there is also no association between sharia compliant and attitude towards Islamic Mobile Banking. Other than these association table 4 is also indicating that there is also no effect of moderation effect of familiarity. Hence, in line with the indications of table 4 it is legitimate to reflect that there is no reason to reject H3O and H9O.

Table 5 is also based upon the indications of Silaparaasetti et al (2017) and Hair et al (2017) to provide specific indirect relationship between variables of interest. Hence, in accordance with the vales and indications reflected by table 5 it is optimal to reflect that there is no serial mediation has been found for four relationships. However, among these three are major points that are required to be highlighted here i.e., (HI-> PEoU -> Att towards use -> Intention to use); (Per Ease of Use -> Att towards use -> Intention to use) and (Sharia Compliant -> Att towards use -> Intention to use). Hence, in the light of these indications it is optimal to declare that according to the study there is no reason to reject H11O but H12A has been accepted.

## 5. CONCLUSION & DISCUSSION:

### 5.1 Conclusion:

This study indicated about the factors that are making customer inclined towards mobile banking services of Islamic banks. Previously most of the studies available were based on conventional banking services or towards other Islamic countries. Therefore, this study is one of the prime studies for conducting further studies and to optimize policy making. Findings of the study indicated some interesting points e.g., sharia compliant and perceived ease of use is not influencing customer's intention to use of Islamic mobile banking and familiarity of customers with AI does not moderates the association between customer attitude and intention to use Islamic mobile banking. These points are supported by Taujiharrahman and Alfianto (2024) who mentioned that sharia compliant and perceived usefulness does not affect customer intention to use directly. However, this study claims that sharia complaint and perceived ease of use does not have any impact on customer's intention to use either directly or indirectly through customer's attitude.

These points are found similar to the study conducted by Mufarih et al (2020) who mentioned that perceived usefulness and perceived ease of use does not affect

the customer's attitude as well as intention to use mobile banking in Indonesia. However, this study shows disagreement only with respect to perceived ease of use and the claim seems to be acceptable after mentioning the work of Mufarih et al (2020) with reference to one of the Islamic country i.e., Indonesia. Similarly there is also a study with reference to Malaysia which reveals that sharia compliant is an important factor but may not influence customer's attitude and intention to use Islamic Mobile Banking. These postulates are seems to be valid as use of mobile banking may not only be grounded on sharia complaint and PEoU and there might be multiple other reasons to use mobile banking (Mohd Thas Thaker et al., 2019). Lastly the moderation of familiarity of user's with AI may failed to create impact may be justified through quoting Lin and Lee (2023) who mentioned that everyone is not inclined towards use of AI which is also termed significant to nullifies the association between customer's attitude towards the mobile banking and customer's intention to use.

## 5.2 DISCUSSION:

Analysis of study through using SEM via SMART-PLS reflected that there is definite need to use TAM to assess the intention to use of Islamic Mobile Banking. Hence, the findings of the study approves the postulate drawn on the base of use of TAM by by Fauzi et al (2021); Fayad and Paper (2015); Holden and Karsh (2010); Wandira et al. (2022) and Wandira and Ikwana (2021). Especially points and assumptions made by Fayad and Paper (2015) and Wandira et al. (2022) are found to be true as these researchers implemented TAM in the field of business and E-commerce and information system respectively. Moving towards inferential analytics it has been observed that human influence is positively associated with perceived usefulness and perceived ease of use. Hence, points used to reflect the association of human influence with perceived usefulness and perceived ease of use i.e., Chawla and Joshi (2019); Karahanna and Straub (1999) and Wandira et al. (2022) all found to be true. Similarly, perceived usefulness is positively associated with customer's attitude towards Islamic Mobile Banking but perceived ease of use does not have any association with customers' attitude towards Islamic Mobile Banking. Hence, the findings of this study is associated with the indications of Wandira et al. (2022) therefore, it is required to understood that perceived usefulness is positively related with customer's attitude towards Islamic Mobile Banking. However, the findings of this study are indicating that there is no association with perceived ease of use and customer's attitude towards Islamic mobile banking. Hence, according to the outcomes of this study it is true to indicate that outcomes of the study are not consistent with Jahangir and Begum (2008); Tahar et al. (2020) and Wandira et al. (2022).

## 5.3 Policy Implications:

This study is one of the base studies that may be used to improve policy making for mobile banking applications and practices used by Islamic Banks. Especially companies must consider factors like perceived usefulness, trust over bank and its services and familiarity of customers with AI in order to develop effective polices, structures and KPI to support service and related aspects.

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