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UNDERSTANDING THE ACCEPTANCE AND VALUE-BASED OF MOBILE BANKING AMONG STUDENTS IN SELECT LOCAL UNIVERSITY IN MALABON

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Abstract

This paper entails analysis of perceived value and acceptance of mobile banking by students of the City of Malabon University. The study integrates a conceptual combination of Technology Acceptance Model (TAM) and Value-based Adoption Model (VAM) to strictly determine the variables that affect student attitude and intention to adopt mobile banking services (Ahmad, 2023)[1]. Al-Abdullatif (2023); Becirovi et al., (2023)[2][3], the research question of interest is how the variables, such as the felt ease of use, perceived usefulness, perceived enjoyment, perceived risk, and perceived value, affect the final attitude toward and acceptance of mobile banking as a digital financial tool by the student population. The study design adopted quantitative research design, and therefore, used descriptive correlational research design, which was statistically empowered through Covariance-Based Structural Equation Modeling (CB-SEM) to establish the causal relationships between the hypothesized constructs. The research tool was a designed survey questionnaire, which is approved by professionals and guarantees reliability and comprehensiveness, and which is completed with the help of Google Forms because of convenient incorporation (using direct links and QR codes). The sample was made up of about 5,000 students and a given sample of 357 respondents was calculated to be required at a 95 percent level of confidence and a 5 percent margin of error using Raosoft sample size calculator. A total of 221 valid responses were collected and examined because of the time and access limitations. To analyze the data, JAMOVI and SPSS (Statistical Package for the Social Sciences) was used to calculate descriptive statistics including frequency, percentage, and weighted means to profile and describe the perceptions of the respondents. Correlations, reliability, validity and structural relationships between the latent variables were tested using inferential analysis. JAMOVI and SPSS (Statistical Package for the Social Sciences) guaranteed strong, consistent, and accurate outcomes. This research approach has made it invalidate both the measurement and structural model comprehensively to ensure that the attitudes of students and their perceived value play a significant role in determining the acceptance of mobile banking as a contemporary financial practice. It is recommended that further scholars should expand the scope of the discussion of this research by including the respondents in different universities and diverse demographic groups to enhance the generalizability of the results. The mixed-method approach is also suggested to help ensure the quantitative characteristics of mobile banking adoption and the qualitative motivations and concerns of the users. Also, researchers are urged to use more sophisticated analytical models or composite frameworks which integrate theories of technology adoption and behavioral economics as the means to have a comprehensive picture of mobile banking use and adoption.



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Keywords : *Mobile Banking; Technology Acceptance Model (TAM); Value-Based Adoption Model (VAM); Attitude ; & Acceptance*

Introduction

This study is entitled, Understanding the Acceptance and Value-Based of Mobile Banking among Students in Select Local University in Malabon, discussing the acceptance and value-based of mobile banking among the students of the City of Malabon University. It acknowledges that technology in the financial sector is still growing very fast via digital means like mobile banking, peer-to-peer lending, digital payments and blockchain, which redefine the fading financial systems. It states that being ready to enter the professional world, one should know their financial technology literacy, level of acceptance, and approach to issues based on values, as they define the way these students will adjust to digital innovations. It will identify which factors affect students to adopt mobile banking and will concentrate on six key constructs, which include the perceived ease of use, perceived usefulness, perceived enjoyment, perceived risk, perceived value, and attitude, which in combination, have an effect on the acceptance. The literature review highlights local and international findings in favor of these variables. It emphasizes that the banking system was transformed by financial technology (FinTech) and motivated efficiency and accessibility (Arner et al., 2020)[4]. Research indicates that financial literacy of students increases their ability to use mobile banking (Lusardi, 2020)[5].

Trust, security, and peer influence are other factors that were found to have an important role in adoption (Souiden et al., 2021; Alalwan, 2020)[6][7]. The adoption itself is also influenced by some demographic characteristics, including age, gender, or location, with younger age groups and females being more accepting (Elad, 2025; Earthweb, 2025)[8][9]. Moreover, the perceived risk is one of the obstacles, and positive attitudes and satisfaction are reinforced by perceived enjoyment and value (Esmaili et al., 2021; Febrian et al., 2021; Ananda et al., 2024)[10][11][12]. The paper is based on the Technology Acceptance Model (TAM) created by Davis (1989) [13] and the Value-Based Adoption Model (VAM) by Kim et al. (2007)[14]. The integrated framework looks into the fact that ease of use and usefulness improves attitude, whereas enjoyment and risk influence perceived value, which in combination with the other factors affects mobile banking acceptance.

The conceptual framework demonstrates the relationship between dependent (acceptance), mediating (attitude and perceived value), and independent (perceived ease of use, usefulness, enjoyment and risk) variables. The study aimed at establishing the overall influence of these variables on the adoption of mobile banking among the students. The research was limited to the students of the City of Malabon University during the Academic Year 2025 - 2026 and limited to third-year students, fourth-year students, and graduate students. A survey questionnaire was used to conduct the research with at least 200 respondents because the time constraints and class interruptions were preventable. The research is relevant to the students because it enhances students on digital banking and financial literacy; to mobile banking platforms because it provides insights on the services improvement and to future researchers since the research becomes the basis of further research on the same in relation to mobile banking acceptance.



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Perceived Ease of Use

According to Hasibuan et al., (2022)[15], student performance towards mobile banking increases with heightened simplicity of the usage of the system. Learners take mobile banking higher when they learn that the available services are user-friendly. However, other studies highlight the fact that students value the ease of using mobile banking applications which contributes to a more positive experience that makes them more satisfied and more willing to use these services.

Perceived Usefulness

Souiden, Ladhari, and Chaouali (2021)[6], has revealed the main variables that have any impact on mobile banking adoption. They grouped these factors into five main perspectives namely, mobile banking attributes, customer characteristics, social influence, trust, and obstacles. As it was in the study, the factors that contributed significantly to the decisions of users to adopt mobile banking were those of perceived ease of use, perceived usefulness, trust of technology, and social influence. Also, other factors like security, privacy, and inherent access challenges were also critical and affected the adoption rate across the region. Mobile banking is vital in financial inclusion, but it turns out that a vast number of people are reluctant to use the technology because of the mentioned concerns

Perceived Enjoyment

Kumalasari et al., (2022)[16], demonstrates that mobile banking provides multiple advantages for banking institutions and their customers. Banks can reduce their costs and enhance operational efficiency through mobile banking because this system conducts automated processes and decreases requirements for brick-and-mortar banking facilities. The mobile banking system delivers practical features with minimal costs to users along with enhanced control of their financial accounts.

Perceived Risk

Customers who judge mobile banking to be risky will avoid utilizing the services. Consumer emotional responses from both positive and negative perspectives affect how they perceive mobile banking. Customers who feel anxious or fearful along with worrying or distressed will usually view mobile banking services as riskier despite experiencing positive emotions. Strategies designed to motivate mobile banking adoption from customers by banks should incorporate emotional risk assessment according to research-based evidence. The experience of risk by users negatively influences their trust together with their acceptance of mobile banking services Almaiah et al., (2023)[17].



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Perceived Value

The concept of perceived value is important in the adoption of mobile banking and affects customer satisfaction, trust and long term loyalty. Ananda et al., (2024); Afiyah et al., 2025)[12][18], reveal that customer satisfaction and desire to use mobile banking in the future are based on product attributes like visual design, navigational design, and time of heart, which align with customer satisfaction. Convenience, security, and speediness of completing transactions are the top values that users have on mobile banking services that create trust and prompt loyalty to customers.

Attitude

The researchers identified that perceived risk played a relatively small role but both institutional trust and technological trust had a significant impact that was strong and significant with regard to user attitude and intention to adopt. These constructs explained the 79% of the behavioral intention variance, and the 54 percent of the actual usage behavior variance (Ahmad et al., 2021)[19]. This reinforces the importance of perception laden with values in building positive attitudes of users.

Acceptance

Solomon (2021)[20], Technology acceptance has been an area of research in different contexts globally. However, studies on the mediating role of trust in the relationships with the technology factors and internet banking acceptance are inadequate. Moreover, component variance analysis with adoption of analysis of moment structures (AMOS) is suggested to be relevant to prediction studies. This study analysed the mediation role of trust in internet banking acceptance.



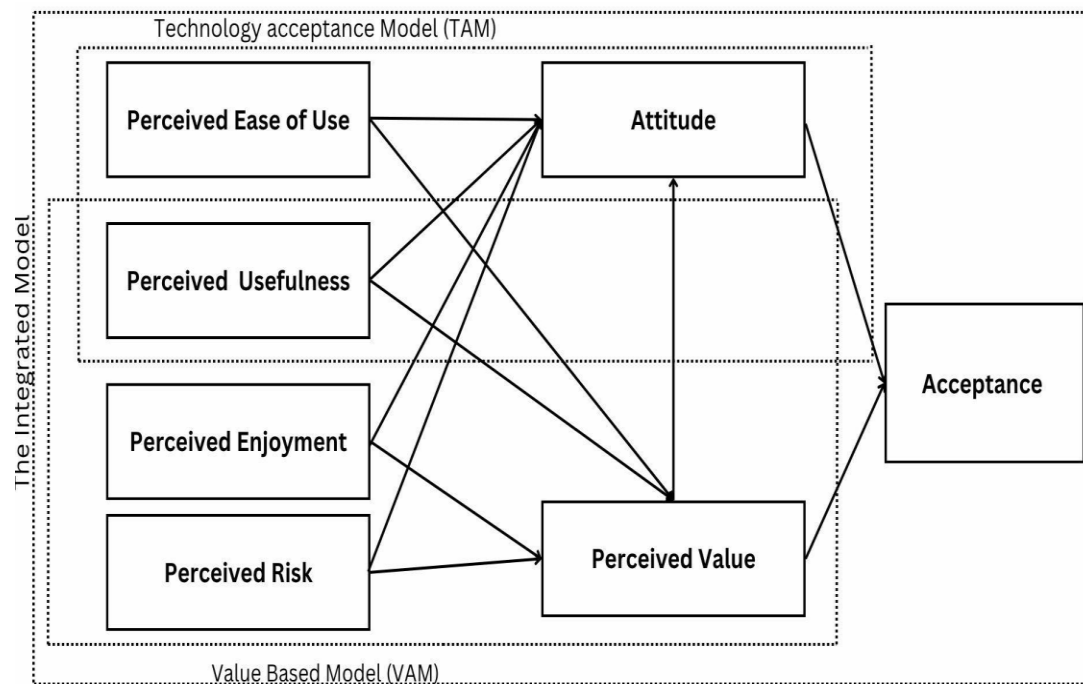
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Theoretical Framework of the Study

Figure 1. The Integrated Model



This framework, an integrated model used in the study of Al-Abdullatif (2023)[2], which integrates TAM (Technology Acceptance Model) and VAM (Value-Based Adoption Model) to form a research approach that helps understand how users perceive and accept mobile banking solutions based on specific influential factors. Developed by Davis (1989)[13], a perceived ease of use in technology interface enhances the service perception through the TAM (Technology Acceptance Model) perspective because it represents an essential component of shaping attitudes. Perceived usefulness adopts the system when they perceive online transactions and financial management tools as beneficial which improves overall attitudes toward the system. Mobile banking adoption and engagement receive a boost when users perceive enjoyment from interactive banking experiences which are personalized according to them from the VAM (Value-Based Adoption Model) perspective (Kim et., al, 2007)[14]. The presence of perceived risks specifically majoring in security worries and threats of fraud has the ability to reduce perceived value so users become less inclined to adopt mobile banking services. The evaluation of positive and negative aspects leads users to decide on mobile banking acceptance through determining perceived value's importance. Using this framework researchers gain insights into mobile banking attitude formation elements which help them recommend usability enhancements together with security improvements along with better experiences that lead to acceptance.



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Research Hypothesis

Hypotheses in this research are formulated in such a way to test the connections between the key factors that affect the acceptance of mobile banking. Mobile banking points out its contribution to the increased financial inclusion of students in particular due to Financial technology solutions offering convenient and efficient alternatives to conventional banking (Arner et al., 2020; Almanaseer et al., 2024)[4][21]. Research highlights that some of the determinants of adoption include things such as perceived ease of use, usefulness, enjoyment, and risk basing on models such as the Technology Acceptance Model (TAM) and Value-Based Adoption Model (VAM) (Davis, 1989; Kim et al., 2007)[13][14]. There are demographic characteristics that impact adoption, as younger generations are more likely to be accepted because of the level of digital familiarity (Elad, 2025; Earthweb, 2025)[8][9].

H₀1: Perceived ease of use may affect attitude.

H₀2: Perceived usefulness may affect attitude.

H₀3: Perceived enjoyment may affect perceived value.

H₀4: Perceived risk may affect perceived value.

H₀5: Attitude may affect acceptance.

H₀6: Perceived value may affect acceptance.

H₀7: Perceived ease of use may have a connection to perceived usefulness.

H₀8: Perceived enjoyment has a connection to perceived risk.

H₀9: Attitude has a connection to perceived value.



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Material and Methods

Research Design

This study employs a descriptive–correlational research design utilizing Covariance-Based Structural Equation Modeling (CB-SEM) as the primary analytical tool. CB-SEM is a multivariate analysis framework that enables researchers to estimate models with hypothesized cause-effect relationships between variables (constructs), each of which is measured by multiple indicators (items) (Hair J., et al., 2025)[22]. The descriptive aspect is appropriate because the research seeks to present a clear picture of the students' level of acceptance and value-based perceptions toward mobile banking, including factors such as perceived ease of use, perceived usefulness, perceived enjoyment, perceived risk, perceived value, and attitude. The correlational aspect is suitable as the research aims at testing the relationships between these constructs, especially the role of the perception and attitude of students on their acceptance to use mobile banking. CB-SEM is the appropriate choice of method since the research is based on several latent variables measured with the help of survey indicators, and it is necessary to use a powerful method to test both the measurement model and the structural model.

Subjects' Initial Data Screen

The respondents were students of City of Malabon University aged 18 and above from third year, fourth year, and graduate levels, with prior experience in mobile banking applications. The survey questionnaires were distributed to 221 that were administered and sent back using Google Forms. Rao soft Online Sample Size Calculator was used to calculate the number of respondents that were required depending on the estimated population of 5,000 students. The calculated sample size was 357 respondents at 95% confidence level and 5 percent margin of error. The researchers could, however, only manage to get 221 valid responses because of the time constraints. Although it is smaller than the recommended sample size, the respondents are acceptable, and the same as previous research in mobile banking acceptance.

Instruments

A validated survey questionnaire using a 5-point Likert scale was distributed via Google Forms. Questions measured perceived ease of use, perceived usefulness, perceived enjoyment, perceived risk, perceived value, attitude, and acceptance. The questionnaire also employed the use of the 5-point Likert scale in assessing the level of agreement to be given to the respondents of each statement. The scale of 5 was identified as Strongly agree in which the respondent was fully agreeing with the statement; the scale of 4 was Agree which means that the respondent is basically agreeing with the statement; the scale of 3 was and took as Neutral in which the respondent is basically in between the statement given; the scale of 2 was Disagree and 1 Strongly disagree respectively being the complete disputing and agreeing statements respectively.



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Measurement of Reliability and Validity

The quality of the questionnaire was undergone through a thorough expert check to ascertain its quality. This is important to achieve content reliability to ensure that the items measure the desired concepts correctly and consistently, and also to ensure construct validity, to ensure that the tool does what it was meant to measure as stated in the theoretical construct. Structural Equation Modeling (SEM), was carried out to statistically corroborate the validity of the constructs as well as to evaluate the fit indices of the model with the observed data to have solid statistical support on the soundness of the questionnaire.

Participants' Details

Students of the City of Malabon University at the third year of level through the graduate studies and aged between 18 and above with a range of 27 were the respondents of the study. Respondents should have used mobile banking applications before in order to qualify. The survey questionnaires were distributed to 221 that were administered and sent back using Google Forms. Raosoft Online Sample Size Calculator was used to calculate the number of respondents that were required depending on the estimated population of 5,000 students. Jones et al. (2023)[23], also noted that a sample size of about 200 participants can be deemed as adequate to provide a safe confidence interval with a survey-based study.

Retained and Used Indicators for Each Construct

The answer to quantifying the constructs in the study was the use of quantified indicators of each of the core variables: perceived ease of use, perceived usefulness, perceived enjoyment, perceived risk, perceived value, attitude, and acceptance. Each of these seven variables was evaluated in a statistically rigorous way, and, therefore, the measurement of every indicator was reliable and valid prior to model testing.

Table 1. Descriptive Statistics on the Assessment of Attitudes towards Mobile Banking Based on Perceived Ease of Use

Indicator	Mean	Median	Std. Deviation	Shapiro-Wilk
It is easy for me to learn how to use mobile banking apps.	4.22	4.00	0.75	0.79
Mobile banking apps are user-friendly and simple to navigate.	4.15	4.00	0.71	0.80
Performing transactions through mobile banking requires minimal effort.	4.12	4.00	0.76	0.81
I can easily access the features I need within the app.	4.09	4.00	0.74	0.81

Total Average 4.15

All the figures demonstrate that the indices of the Perceived Ease of Use have mean values to be between 4.09 and 4.22, with a total average mean of 4.15 indicating that the respondents did not differ in the assertion that mobile banking platforms are easy to use as a whole. These findings mean that the standard deviations (0.71 to 0.76) are small indicating a great degree of consistency in responses provided by the subjects and Shapiro-Wilk coefficients (0.79 to 0.81) depict that the data is close to normal distribution.



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All these denote that the respondents find mobile banking systems convenient, simple, and accessible to an extent that they can utilize the system to perform financial transactions without any difficulty. Hasibuan et al. (2022)[15], who concluded that the performance and satisfaction level of mobile banking among students increases when the system was developed in a simple and easy manner. In a similar manner, Putri and Usma (2021)[24] have emphasized the value of user friendliness in terms of user interfaces and easy navigation as one of the factors contributing to the positive user experience that results in subsequent usage. The perceived ease of use scores of the students at the City of Malabon University (CMU) are thus considered to be a positive indication that accessibility and easiness is the key determinant that allows the students to experience positive attitudes towards mobile banking applications and consequently adopt the technology.

Table 2. Descriptive Statistics on the Assessment of Attitudes towards Mobile Banking Based on Perceived Usefulness

Indicator	Mean	Median	Std. Deviation	Shapiro-Wilk
Mobile banking helps me accomplish tasks more efficiently.	4.04	4.00	0.73	0.82
Using mobile banking saves me time compared to traditional banking.	3.90	4.00	0.82	0.85
Mobile banking improves how I manage my finances.	3.86	4.00	0.79	0.84
I find mobile banking to be a useful tool in daily life.	3.89	4.00	0.82	0.85

Total Average **3.92**

Descriptive statistics of Perceived Usefulness is represented by having a mean variance of 3.86 to 4.04 with a total average mean of 3.92 meaning that the respondents moderately to largely hold that mobile banking applications can be helpful in connecting with their financial transactions. Standard deviations (0.73-0.82) are low, and this fact shows that the perceptions of usefulness were homogeneous among the respondents. It means that mobile banking can be considered an effective instrument which improves financial provision, time-saving, and convenient access to banking. This result aligns with Souiden et al. (2021)[6], allowing their study to mention perceived usefulness as one of the key determinants that determine whether customers decide to use mobile banking, or Fu and Fu et. al., (2020)[25], who emphasized the importance of perceived benefits in influencing customers on their decisions to use an online financial platform. In the same manner, Moti and Walia (2020)[26] clarified that the perceived usefulness of mobile banking is based on the fact that mobile banking can be seamlessly connected to the daily financial transactions of these end consumers. Thus, City of Malabon University students feel the practical benefits of mobile banking considering it as a convenient, efficient, and reliable channel for performing financial operations.



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Table 3. Descriptive Statistics on the Assessment of Attitudes towards Mobile Banking Based on Perceived Enjoyment

Indicator	Mean	Median	Std. Deviation	Shapiro-Wilk
I enjoy using mobile banking applications.	4.01	4.00	0.74	0.83
I feel satisfied and confident when completing transactions via mobile banking.	3.75	4.00	0.84	0.87
The visual design and features of mobile banking make it enjoyable to use.	3.92	4.00	0.79	0.85
I find mobile banking to be an engaging experience.	3.97	4.00	0.93	0.83

Total Average **3.91**

This shows that the mean ranges between 3.75 and 4.01 with a total average mean of 3.91 that strategies that a major proportion of respondents believed mobile banking offers some degree of fun and pleasure. The standard deviations (0.74-0.93) denote the moderate variability meaning that although the majority of respondents have positive perception, there is some difference between their experiences caused by the individual interaction with the technology. This observation is in accordance with the fact that City of Malabon University students perceive mobile banking as not only functional but enjoyable and gratifying at the same time. These findings support the high results reported by Kumalasari et al. (2022)[16], that proposed convenience and usability as the contributions to satisfaction and enjoyment during mobile banking usage. Febrian et al. (2021)[11], also claimed that positive experiences and perceived benefits have a significant impact on customer satisfaction, whereas Yusfiarto (2021) stated that the quality of services and efficiency of the system are at the center of positive feelings and confidence when using digital banking. As a result, the results indicate that the perceived enjoyment in the students at City of Malabon University is an emotional reinforcement that guides them to continually use mobile banking environments.

Table 4. Descriptive Statistics on the Assessment of Attitudes towards Mobile Banking Based on Perceived Risk

Indicator	Mean	Median	Std. Deviation	Shapiro-Wilk
I have some concerns regarding the security of mobile banking transactions.	3.91	4.00	0.90	0.85
I consider the possibility of privacy and data breaches when using mobile banking.	4.21	4.00	0.77	0.78
I recognize the potential risk of losing money due to system errors or hacking.	4.11	4.00	0.91	0.80
Mobile banking may involve certain risks compared to traditional banking.	4.09	4.00	0.80	0.82

Total Average **4.08**

The perceptions of risk indicators had a mean score between 3.91 and 4.21 with a total average mean of 4.08, which shows that the respondents have a general agreement that there are some risks associated with using the mobile banking service. The moderately varied



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standard deviation (0.77 - 0.91) shows that individual perceptions of risk had diversified based on individual awareness, and happened within previous experiences. These findings indicate that despite students acknowledging the attractiveness of mobile banking, the students are still wary of the possible security risks, privacy risks, and reliability of the system. These issues are consistent with Esmaeili et al. (2021), who outlined that the identified perceived risk is a significant barrier to introducing mobile banking. Also, both Almaiah et al. (2023)[17] and Kumar et al. (2023)[27], reported that perceptions of security and privacy risk are associated with the degree of the customers in terms of trust and persisting use of mobile banking services. Hence, the fact that perceived risks among City of Malabon University students do exist shows the need of financial institutions to enhance data protection systems and gain customer confidence to ensure further adoption.

Table 5. Descriptive Statistics on the Assessment of Attitudes towards Mobile Banking Based on Perceived Value

Indicator	Mean	Median	Std. Deviation	Shapiro-Wilk
Mobile banking offers good value compared to other banking methods.	4.27	4.00	0.69	0.74
The benefits I receive from mobile banking outweigh any possible risks.	4.14	4.00	0.74	0.79
Mobile banking is worth using because it's fast and efficient.	4.11	4.00	0.76	0.81
Mobile banking adds value to my daily life.	4.13	4.00	0.68	0.79

Total Average **4.16**

The indications of Attitude to Mobile Banking provided show a mean value ranging 4.11-4.27 with a total average mean of 4.16 representing a positive outlook on mobile banking which was overall positive and was high among the study participants. The standard deviations (0.68-0.76) indicate consistent responses implying that the majority of the students have positive attitudes to the use of mobile banking platforms. It means that they will be more open, trustworthy, and willing to plunge mobile banking into their budgeting life. Its results are in line with those of Wulandari and Keni (2023)[28], who said that positive attitudes toward mobile banking occur among users with perceived usefulness and ease of use. Rahi et al. (2021)[29], also found that positive attitudes were overwhelmingly an indicator of the intention to use mobile banking technologies. Consequently, the high ratings among City of Malabon University students are constant, which implies that students have a confident and endorsing attitude to digital banking websites under the impulse of convenience, usefulness, and trust.



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Table 6. Descriptive Statistics on the Assessment of Attitudes towards Mobile Banking Based on Perceived Attitude

Indicator	Mean	Median	Std. Deviation	Shapiro-Wilk
I have a positive attitude toward mobile banking.	3.89	4.00	0.79	0.83
I feel confident using mobile banking services.	3.91	4.00	0.71	0.82
I think mobile banking is a good alternative to traditional banking.	4.15	4.00	0.71	0.80
I feel comfortable recommending mobile banking to others.	4.00	4.00	0.80	0.83

Total Average **3.99**

The data in Table 6 proves that the mean scores do not exceed 3.89 to 4.15 with a total average mean of 3.99, which indicates that City of Malabon University students tend to think that mobile banking can and is beneficial. It can be noted that due to the standard deviations (0.71-0.80), responses were fairly similar, which means that there is a common perception regarding the benefits of mobile banking in terms of convenience, accessibility and cost-effectiveness. The result is in line with that of Ananda et al. (2024)[12], who had observed perceived value to be incorporated by dimensions of convenience, speed, and affordability, which determine the satisfaction and retention among users. Almost the same results have been obtained by Palamidovska-Sterjadovska et al. (2024)[30], who discovered the utilitarian and hedonic values as certain predictors used to be combined with desire to use mobile banking services and the intention to use them in the future; Jamadar et al. (2024)[31], found the perceived value as the aspect capable of enhancing the desire to continue to use mobile banking services. These findings, therefore, suggest that City of Malabon University students perceive mobile banking as an appreciable innovation that offers significant returns and improves on their financial lives and which supersedes the costs and other threats it might bring.

Table 7. Descriptive Statistics on the Assessment of Attitudes towards Mobile Banking Based on Acceptance

Indicator	Mean	Median	Std. Deviation	Shapiro-Wilk
I regularly use mobile banking apps to manage my finances.	4.19	4.00	0.67	0.74
I intend to continue using mobile banking in the future.	4.23	4.00	0.69	0.76
I prefer mobile banking over going to physical branches.	4.21	4.00	0.67	0.78
I trust mobile banking as part of my financial routine.	4.24	4.00	0.69	0.76

Total Average **4.21**



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The result from this table shows an average score of 4.19 to 4.24 with a total average mean of 4.21, which shows such a high degree of acceptance toward mobile banking among the City of Malabon University students. The small values of standard deviations (0.67 to 0.69) indicate high consistency and congruity in the responses which implies that most students have already embraced or are willing to keep using mobile banking services consistently. These findings suggest that perceived ease of use, usefulness, enjoyment, and value together are very significant to make overall acceptance. Solomon (2021)[20], emphasized that trust plays a vital mediating role in determining users' acceptance of internet banking technologies. His study revealed that while traditional technology acceptance factors such as perceived usefulness and ease of use significantly influence users' behavior, the inclusion of trust enhances the predictive accuracy of acceptance models. Jouda et., al. (2021)[32], who stated that the attitude, trust, and perceived behavioral control are key predictors of mobile banking adoption. Sebambo and Mhlongo (2020)[33], discovered that among the students, positive attitudes and perceived usefulness indicates increasing behavioral intent and actual usage. With respect to City of Malabon University, these findings remind that attained positive perceptions and experience of mobile banking have indeed been converted into practical integration and engagement into the financial undertakings among students.

Table 8. R-squared

Variable	R ²
Attitude	0.473
Perceived Value	0.422
Acceptance	0.416

Table 8 provides the values of the R-squared (R^2) of the endogenous variables in the structural model which are Attitude, Perceived Value and Acceptance. R-squared is used to determine the level of variance in a dependent variable that is warranted by the independent variables in the model. It demonstrates the extent to which the predictors explain variations or differences of the outcome variables.

The outcomes make it clear that Attitude contributed to the R^2 of 0.473, or 47.3 percent of the variance in the attitudes of students towards mobile banking can be attributed to their perception of ease of use and usefulness. This implies that students have a positive or negative attitude that is mostly influenced by the simplicity and usefulness of mobile banking applications.

Perceived Value achieved the R^2 of 0.422 which means that the variation in the perceived value by the perceived enjoyment and perceived risk is 42.2 percent. This means that the students also base their evaluation of the overall value of mobile banking not just on its functionality, but also on their emotions and perceptions of risks when using the mobile banking.



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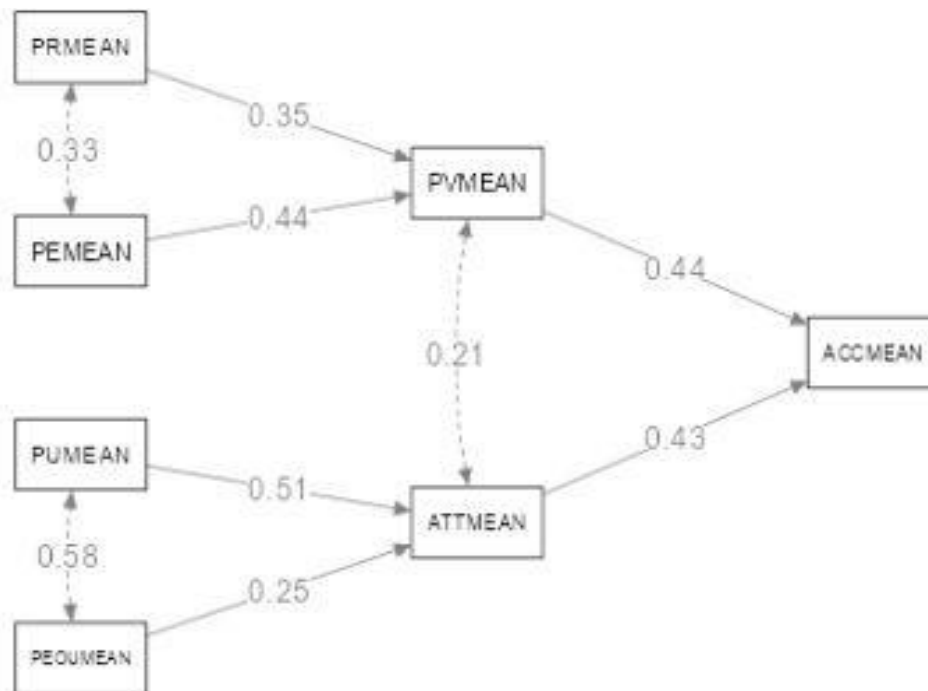
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Acceptance was the variable that had an R^2 of 0.416, which means that 41.6% of the variance in the acceptance is explained by the attitude and the perceived value. This implies that close to fifty percent of the desire by students to adopt and use mobile banking services can be attributed to their positive attitudes and the value they attach to the service.

The values of R^2 (0.416, 0.422, and 0.473) indicate that the model explains the dependent variables moderately accepted which are Attitude, Perceived Value, and Acceptance. The strongest among them are Attitude which has the highest explanatory power i.e. the strongest variable that is predicted by the independent variables of the model. It was found out that the findings in this study suggest that the model is quite efficient as an explanation of user behavior.

Results and Discussion

Figure 2. Structural Equation Model of the Study





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H₀1: Perceived ease of use may affect attitude.

The findings reveal that Perceived Ease of Use is directly and significantly related to Attitude ($\beta = 0.25$, $p < .001$), and hence, the null hypothesis is rejected. This observation shows that the more convenient students find mobile banking to act, the more positive their disposition toward its use. This is in accordance with the assumption of the Technology Acceptance Model (TAM) according to which ease of use influences the attitude of users toward technology negatively. This finding suggests that simplicity, well-designed interface, and the ability to improve the confidence and satisfaction of users instigates this result, eventually leading to a better attitude toward mobile banking in the case of City of Malabon University students. The result can be explained by the study by Hasibuan et al. (2022)[15] and Putri and Usma (2021)[24], who observed that in case mobile applications are convenient in use, users will tend to develop favorable perceptions and acceptability.

H₀2: Perceived usefulness may affect attitude.

Perceived Usefulness causes a strong, significant effect on Attitude ($\beta = 0.51$, $p < .001$). This null hypothesis is rejected and attests that the perception towards the usefulness of mobile banking boosts significantly with the recognition of the same phenomenon among students. The discovery supports previous research (Souiden et al., 2021; Fu and Mishra, 2020; Moti and Walia, 2020)[6][25][26], that identified a positive correlation between expressing positive attitudes and users of mobile banking having a perception of becoming practical, efficient, and time-saving after using mobile banking. Thus, the operational benefits and ease of mobile banking, including immediate availability of money, the lack of effort in transacting with funds, and the reliability of services are significantly important in terms of developing a positive attitude towards usage among City of Malabon University students.

H₀3: Perceived enjoyment may affect perceived value.

The findings also suggest that Perceived Enjoyment has a significant predictive ability to Perceived Value ($\beta = 0.44$, $p < 0.001$) thus the null-hypothesis becomes rejected. This indicates that students enjoying mobile banking as well as those finding it interesting will regard it as highly valuable. These results are correlated with those provided by Kumalasari et al. (2022)[16] and Febrian et al. (2021)[11], who underline that enjoyment increases the level of contentment and perceived utility among users. Similarly, Yusfiarto (2021)[34], has observed positive emotional experiences to raise the perceived value of digital platforms. The authors of this work suggest that emotional and experience factors are of great importance in valuing technology based on received value in this paper where City of Malabon University students who perceive mobile banking as convenient and pleasant, are likely to correlate that overall value with the service.



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H₀4: Perceived risk may affect perceived value.

This evaluation demonstrates that Perceived Value is greatly determined by Perceived Risk ($\beta = 0.35$, $p < .001$), rejecting the null idea. Interestingly, risk is more often used as a deterrent, but the positive coefficient means that in the process of making students conscious of risk, they can instead begin to appreciate more strongly the value of safe, trustworthy mobile banking systems. This observation can be explained by the increasing level of trust of users in proven banking technologies and the confidence in protection against attack. In line with Esmaili et al. (2021)[10], Almaiah et al. (2023)[17], and Kumar et al. (2023)[27], the understanding of possible risk may contribute to the value of a reliable system and the protection of collected data. Therefore, indecisiveness of potential risks is not invariably detrimental to perceived value on the part of City of Malabon University students; rather, it can enhance the belief in the reliability of mobile banking where proper security measures are observable.

H₀5: Attitude may affect acceptance.

The attitude is having a strong positive impact with regards to acceptance ($\beta = 0.43$, $p < .001$), with that being said, the null hypothesis is rejected. This result implies that students at City of Malabon University with positive perceptions about mobile banking can be more inclined to choose and embrace it as a component of financial behavior. This finding is aligned with the Technology Acceptance Model and past research results conducted by Wulandari and Keni (2023)[28], Bećirovi et al. (2023)[3], and Rahi et al. (2021)[29], who all concluded that there is a high predictive value of positive user attitudes on behavioral intention. This means that satisfaction, perceived convenience, and trust developed by positive attitudes are direct contributors towards the continuity of decision and gratification by using mobile banking.

H₀6: Perceived value may affect acceptance.

Acceptance is influenced significantly by Perceived Value ($\beta = 0.44$, $p < .001$), which proves to reject the null hypothesis. This shows that the attitude of City of Malabon University students regarding mobile banking as valuable directly affects their acceptance and use of the technology. This promotes the idea of value-based adoption models, supporting that people can adopt technologies when they are convinced that the utility is higher than the costs or risks (Ananda et al., 2024; Palamidovska-Sterjadovska et al., 2024; Jamadar et al., 2024)[12][30][31]. Hence, the more convenient, accessible, and useful the students perceive these services, the larger their chances are to engage mobile banking services as an organic component of their financial activities.

H₀7: Perceived ease of use may have a connection to perceived usefulness.

For H7, Perceived Ease of Use was significantly positively correlated with Perceived Usefulness ($\beta = 0.58$, $p < .001$). This implies that the more convenient mobile banking becomes to the students, the more useful it is perceived to be in their transactions of financial management. Le, Ngo, Trinh, and Nguyen (2020)[35], who pointed out that perceived ease of use positively affects perceived usefulness which increases adoption intentions towards digital financial systems.



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H₀8: Perceived enjoyment has a connection to perceived risk.

In H8, Perceived Enjoyment had a significant impact on the Perceived Risk ($\beta = 0.33$, $p < .001$) and one will suggest that students who consider mobile banking to be more enjoyable will perceive less risk when using it. This means that, positive emotional experience may lead to a decrease in anxiety or fear of online transactions. Dawood, Abed, and Alkhateeb (2022)[36], who have concluded that the perceived value and emotional satisfaction can balance the perceptions of security threats on users when using mobile banks.

H₀9: Attitude has a connection to perceived value.

Finally, H9 showed that there is a significant association between Attitude and Perceived Value ($\beta = 0.21$, $p = 0.003$). This finding implies that students who have a positive attitude towards mobile banking have increased chances to perceive its overall value and utility. Hettigoda and Kulathunga (2024)[37], who established that positive attitudes by students have a strong predictive power in determining their assessment of the value, convenience, and trustworthiness of mobile banking. The essence of the study was to assess the acceptance and value-based perception of mobile banking among the students of City of Malabon University by conducting a test of a combined Technology Acceptance Model (TAM) and Value-Based Adoption Model (VAM) through Structural Equation Modeling (SEM). Descriptively, the students were predominantly positive (mean 4.00-4.27) as they perceived the service to be convenient, useful and enjoyable. The SEM proved the existence of a strong synergy of factors that contribute to this adoption: functionally, Perceived Usefulness ($\beta = 0.51$) and Perceived Ease of Use ($\beta = 0.25$) played a significant role in influencing a student to have a positive Attitude. In the meantime, Perceived Enjoyment ($\beta = 0.44$) and Perceived Risk ($\beta = 0.35$) had a strong impact on Perceived Value of the platform. Finally, the Acceptance (intention to use) of mobile banking was strongly and near equally determined by the overall Attitude of the student ($\beta = 0.43$) and the Perceived Value ($\beta = 0.44$) which validates the integrated model which illustrates that adoption is led by a combination of practical utility, emotional satisfaction, and a value-risk appraisal.

Conclusion

The students in the City of Malabon University express high levels of acceptance of mobile banking in terms of financial management. The integrated TAM-VAM model indicated that perceived usefulness is the most effective determinant that contributes to a positive attitude with backing of perceived ease of use. Although the perceived enjoyment will make students enjoy the efficiency and satisfaction of the service, perceived risk will make students cautious (both affect perceived value). Finally, the positive attitude and a great perceived value are the vital keys to raising the adoption rates of mobile banking.



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The study recommends the financial institution to improve the security and user experience and educators to include financial technology awareness to ensure that students use it responsibly and increase digital inclusion. In addition, the practical recommendation the researcher may recommend were conducting seminars or developing attractive digital materials (such as videos and infographics) to directly teach awareness and knowledge of mobile banking security measures and practice.

Ethical considerations

The researchers carefully followed the ethical and legal requirements that stipulate data handling and also obtaining an informed consent of all the participants. Moreover, since the privacy of participants would be a priority and the rules of the Data Privacy Act of 2012 would be upheld, the researchers ensured the anonymity and confidentiality of all data collected, processed and reported.

Conflict of Interest

The study designers have already indicated that they do not possess any conflict of interests to declare. This assurance gives transparency as it makes sure that their results and inferences of the research are not affected by any foreign financial, mutual, or educational bond that could lead to bias in the research process.

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