Examining Risk and Trust in Student Mobile Banking Adoption: An Extended Technology Acceptance Model Perspective

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Abstract

This study examines the influence of trust, compatibility, satisfaction, perceived risk, and risk acceptance on students' intention to use mobile banking applications. As mobile banking becomes increasingly popular for its convenience and efficiency, especially among tech-savvy youth, understanding the behavioral factors influencing adoption is crucial. Utilizing an extended Technology Acceptance Model (TAM), this study employs a quantitative approach with multiple linear regression analysis. The dataset, comprising responses from 219 Indonesian university students, was drawn from the "cogent_adoption_m_banking_pls" survey. The results reveal that satisfaction, compatibility, and trust significantly influence students' intention to use mobile banking, while perceived risk and risk acceptance do not show a significant effect. The model explains approximately 57% of the variance in adoption intention ($R^2 = 0.570$), indicating substantial explanatory power. These findings offer valuable insights for mobile banking developers and financial institutions to enhance user satisfaction, align services with user lifestyles, and strengthen trust—key factors for increasing adoption among student users.

Keywords: Trust, Compatibility, Satisfaction, Perceived Risk, Risk Acceptance, Mobile Banking, Technology Acceptance Model, Student Adoption

1. Introduction

The advancement of mobile technology has revolutionized financial service delivery, with mobile banking emerging as one of the most widely adopted innovations. It enables users to perform transactions such as fund transfers, bill payments, and balance inquiries through smartphones, offering convenience, speed, and flexibility [1]. In countries like Indonesia, mobile banking plays an increasingly important role in driving financial inclusion and digital transformation [2].

University students are among the most active users of digital services, making them a strategic target group for mobile banking adoption. Their familiarity with mobile applications, high levels of internet access, and preference for efficient digital solutions position them as ideal adopters of financial technologies [3]. However, despite the widespread availability of mobile banking, adoption levels among students remain inconsistent. This suggests that beyond accessibility, behavioral and psychological factors significantly influence adoption decisions [4].

To explore these factors, this study adopts an extended Technology Acceptance Model (TAM). Traditionally, TAM emphasizes two key predictors of technology adoption: perceived usefulness and perceived ease of use [5]. However, recent research highlights the need to expand the model by incorporating additional constructs that reflect users' emotional, cognitive, and contextual evaluations of digital services [6].

In particular, trust has been recognized as a vital factor in digital banking adoption, as it reflects users' confidence in the system's security, reliability, and integrity [7]. Compatibility, or how well a service fits a user's lifestyle and routines, is also a strong predictor of adoption, especially for tech-savvy groups such as students [8]. Moreover, satisfaction—shaped by previous usage experiences—can influence continued usage and loyalty.

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On the contrary, perceived risk, including fears of data theft, fraud, or system malfunction, may deter users from adopting mobile banking. However, the impact of risk perception may be moderated by factors like digital literacy or familiarity with technology [9]. Additionally, risk acceptance, or an individual's tolerance toward potential negative outcomes, is increasingly relevant in understanding how younger users evaluate the trade-offs between convenience and security in digital financial services [10].

This study aims to analyze the influence of trust, compatibility, satisfaction, perceived risk, and risk acceptance on students' intention to use mobile banking in Indonesia. By applying a quantitative approach and leveraging an extended TAM framework, this research offers both theoretical insights and practical implications for improving mobile banking adoption among youth populations in emerging markets.

2. Literature Review

The Technology Acceptance Model (TAM) has been a foundational framework for understanding user behavior toward technological innovations, including mobile banking. Initially focusing on perceived usefulness and perceived ease of use, TAM has evolved to incorporate broader psychological, contextual, and emotional variables that better capture the complexities of modern digital environments [11]. In the context of mobile banking, especially among young and digitally literate users, the extended TAM is considered more suitable for predicting behavioral intention and actual usage [12].

Trust has consistently emerged as one of the most critical determinants in the adoption of digital financial services. In mobile banking, trust refers to users' confidence in the platform's ability to safeguard their financial information, ensure transaction accuracy, and provide reliable service [13]. Trust mitigates concerns related to data security, financial fraud, and institutional reliability, all of which are particularly important in environments where cybercrime is a growing threat [14]. In emerging markets, where institutional trust is often lower, mobile banking adoption is strongly mediated by perceived integrity and competence of the service provider. Studies show that without sufficient trust, even technologically capable users may avoid mobile banking platforms regardless of their features or usability [15].

Compatibility refers to the extent to which a new technology aligns with a user's existing habits, values, needs, and past experiences. In mobile banking, high compatibility means the service fits naturally into a user's lifestyle—for instance, enabling students to pay tuition, transfer money to peers, or make online purchases with ease [16]. Prior research has shown that when users perceive a digital financial service as consistent with their daily routines, the likelihood of adoption increases significantly [17]. Compatibility also enhances the perceived value of the application by reducing the learning curve and increasing the ease of integration into daily activities.

This variable is particularly relevant for younger demographics who are accustomed to using mobile apps for various functions. Studies involving student populations show that applications offering seamless integration with other digital tools, intuitive interfaces, and localized features are more likely to be perceived as compatible, thereby encouraging usage [18].

User satisfaction is typically understood as a cumulative evaluation of the experience a user has with a product or service. In the context of mobile banking, satisfaction arises from successful interactions with the app—such as fast loading times, reliable transaction processing, responsive customer support, and positive visual and functional design [19]. When users consistently experience satisfaction, their intention to reuse and recommend the service increases. Satisfaction is also linked to loyalty behaviors, such as maintaining active use or resisting switching to alternative platforms [20].

Within TAM extensions, satisfaction has often been modeled as a mediating variable between initial adoption and continued usage. Empirical studies show that among digital-native users, satisfaction may even outweigh perceived usefulness in predicting long-term engagement, especially when the service provides emotional value like reduced stress or convenience during high-pressure situations such as paying bills or managing allowances [21].

Despite the benefits of mobile banking, perceived risk remains a prominent barrier to its adoption. Perceived risk is a multidimensional construct encompassing fears related to financial loss, data breaches, identity theft, system errors,

and lack of control over transactions. While the objective security of mobile banking platforms has improved, users' subjective perceptions of risk still negatively influence intention to adopt [22].

Several studies have found that users with limited financial knowledge or negative prior experiences are more sensitive to perceived risk. However, the effect of risk perception may be less pronounced in student populations with high digital literacy. For example, users who frequently engage with digital tools for education, communication, and commerce may develop greater confidence in online systems, thus minimizing the psychological salience of perceived risks.

In contrast to perceived risk, risk acceptance reflects a user's willingness to tolerate uncertainty or potential harm in exchange for perceived benefits. This construct is especially important when studying innovative technologies, where users may not have complete information or long-term usage experience. In the context of mobile banking, risk acceptance might include users who proceed with app use despite concerns about data misuse or technical errors, due to the perceived convenience and utility offered [21].

This variable has received growing attention in recent behavioral finance literature as researchers seek to explain why some users adopt technology despite high levels of perceived risk. Among students and younger users—who often exhibit higher tolerance for trial-and-error learning and are more exposed to digital environments—risk acceptance may function as a compensatory mechanism that facilitates adoption. Incorporating both perceived risk and risk acceptance into TAM extensions allows for a more balanced, dual-sided understanding of how risk factors influence adoption behavior [22].

Integrating these five constructs—trust, compatibility, satisfaction, perceived risk, and risk acceptance—into the extended TAM framework provides a comprehensive lens for understanding mobile banking adoption. While trust, satisfaction, and compatibility primarily function as positive drivers of adoption, perceived risk and risk acceptance introduce behavioral nuance, particularly in populations like university students who may weigh convenience and innovation against potential vulnerabilities.

This study contributes to the growing body of literature by applying this extended TAM model to the Indonesian student context, where mobile banking usage is expanding rapidly but remains influenced by both motivational and risk-related considerations.

3. Methodology

This study adopts a quantitative explanatory research design to examine the behavioral factors that influence Indonesian university students' intention to adopt mobile banking services. The research is grounded in the extended Technology Acceptance Model (TAM), which integrates key constructs such as trust, compatibility, satisfaction, perceived risk, and risk acceptance. These variables are selected to provide a holistic understanding of the psychological and contextual elements that shape users' behavioral intentions.

The research utilizes a secondary dataset titled "COGENT_ADOPTION_M_BANKING_PLS", which comprises survey responses from 219 Indonesian university students who are active users of mobile banking platforms. This dataset was collected using a structured questionnaire and purposive sampling method, targeting digitally engaged students from multiple universities. The justification for focusing on this population lies in their position as digital natives and early adopters of financial technologies, making them a representative sample for mobile banking behavior research.

Each variable in the model is operationalized through multiple-item Likert-scale instruments, with all items measured on a 5-point scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The scale captures respondents' perceptions and attitudes toward each construct. Composite scores for each variable are calculated by taking the arithmetic mean of their respective item responses, resulting in continuous interval data suitable for parametric statistical analysis.

The dependent variable is behavioral intention (INT) to use mobile banking, and the independent variables are trust (TR), compatibility (COM), satisfaction (SAT), perceived risk (PR), and risk acceptance (RA). To estimate the relationship between these variables, the study employs a multiple linear regression model specified as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Substituting the variable names into the equation:

$$INT = \beta_0 + \beta_1 (TR) + \beta_2 (COM) + \beta_3 (SAT) + \beta_4 (PR) + \beta_5 (RA) + \varepsilon$$

In this model, $\beta_0$represents the intercept, $\beta_1$through $\beta_5$are the regression coefficients associated with each independent variable, and εdenotes the random error term. The model assumes a linear and additive relationship between predictors and the outcome variable.

The regression analysis was conducted using the Statsmodels package in Python, which produces outputs including standardized coefficients, standard errors (SE), t-statistics, p-values, confidence intervals, and goodness-of-fit indicators. The significance of each coefficient was evaluated using a two-tailed t-test under the null hypothesis that $H_0: \beta_i = 0$, where a p-value below 0.05 indicates statistical significance at the 95% confidence level.

The overall model fit is assessed using the coefficient of determination (R-squared), which quantifies the proportion of variance in the dependent variable explained by the model:

$$R^2 = 1 - \frac{SS_{res}}{SS_{tot}}$$

Where $SS_{res}$is the sum of squared residuals and $SS_{tot}$is the total sum of squares. In this study, the regression produced an R^2value of 0.570, indicating that 57% of the variation in students' intention to adopt mobile banking can be explained by the five predictors. The adjusted R-squared accounts for the number of predictors and degrees of freedom, confirming the robustness of the model.

To validate the statistical assumptions underlying linear regression, several diagnostic tests were performed. Multicollinearity was evaluated using the Variance Inflation Factor (VIF), calculated as:

$$VIF_j = \frac{1}{1 - R_j^2}$$

where $R_j^2$is the coefficient of determination when the j-th predictor is regressed against all other predictors. All variables in this study recorded VIF values below 5, indicating the absence of harmful multicollinearity.

Normality of residuals was assessed using both graphical and statistical methods. A Q-Q (quantile-quantile) plot was generated to visually compare the distribution of residuals against a theoretical normal distribution. Additionally, the Shapiro-Wilk test was conducted, with the null hypothesis that the residuals are normally distributed:

H_0:Residuals follow a normal distribution

The test yielded $p > 0.05$, supporting the assumption of normality.

Heteroscedasticity, or non-constant variance of residuals, was tested using the Breusch-Pagan test, which involves regressing the squared residuals $\hat{\varepsilon}^2$on the independent variables:

$$\hat{\varepsilon}^2 = \gamma_0 + \gamma_1 X_1 + \gamma_2 X_2 + \gamma_3 X_3 + \gamma_4 X_4 + \gamma_5 X_5 + u$$

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The resulting test statistic followed a χ^2distribution, and a non-significant result ($p > 0.05$) confirmed homoscedasticity.

Autocorrelation of residuals was evaluated using the Durbin-Watson (DW) statistic, defined as:

$$DW = \frac{\sum_{t=2}^{n} (e_t - e_{t-1})^2}{\sum_{t=1}^{n} e_t^2}$$

where $e_t$is the residual at time t. A DW statistic close to 2.0 suggests no autocorrelation. In this study, the DW value was within the acceptable range of 1.5 to 2.5, which is considered appropriate for cross-sectional data.

The assumption of linearity between independent and dependent variables was confirmed through scatter plots and partial regression plots, which showed a linear trend in the relationships. Furthermore, no outliers with high Cook's Distance values were identified, indicating that no single observation exerted undue influence on the model estimates.

Based on the regression results, three variables were found to be significant predictors of mobile banking intention: satisfaction ($\beta_3 = 0.451, p < 0.001$), compatibility ($\beta_2 = 0.246, p = 0.001$), and trust ($\beta_1 = 0.126, p = 0.023$). In contrast, perceived risk ($\beta_4 = 0.021, p = 0.493$) and risk acceptance ($\beta_5 = 0.033, p = 0.635$) were not statistically significant.

The final estimated regression equation is as follows:

$$INT = 0.454 + 0.126(TR) + 0.246(COM) + 0.451(SAT) + 0.021(PR) + 0.033(RA) + \varepsilon$$

These findings form the empirical basis for hypothesis testing and subsequent discussion regarding the behavioral factors influencing mobile banking adoption in student populations.

4. Results and Discussion

This section presents the empirical results and their interpretation. Each table is introduced and discussed thoroughly in five structured paragraphs to ensure academic rigor, logical flow, and alignment with the study's theoretical framework. The analysis centers on evaluating how trust, compatibility, satisfaction, perceived risk, and risk acceptance influence students' intention to use mobile banking services.

4.1. Descriptive Analysis

To begin the analysis, descriptive statistics were calculated to examine the central tendencies and variability of all variables involved in the study. These include trust, compatibility, satisfaction, perceived risk, risk acceptance, and behavioral intention. Understanding these metrics offers foundational insight into how respondents perceive mobile banking across different psychological dimensions.

The data reveal that satisfaction had the highest mean score (M = 4.41), indicating that students generally felt positive about their experience using mobile banking applications. Compatibility (M = 4.30) was also rated highly, reflecting the extent to which these applications align with the students' daily needs and routines. In contrast, perceived risk had the lowest mean score (M = 3.45), suggesting moderate concern over security and privacy issues.

Standard deviations across all variables were below 1.0, implying low dispersion in responses. This suggests a relatively uniform perception of mobile banking among respondents, which is not unexpected given the homogeneity of the sample population—university students from a similar demographic and digital background.

The minimum and maximum values for each variable also help highlight range consistency. For example, even the lowest-rated items did not fall below 2.0, indicating a general favorability toward mobile banking. These patterns confirm the population's digital affinity and openness to technological financial tools. The summary of the descriptive statistics is presented below in Table 1.

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Table 1: Descriptive Statistics of Research Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
Trust (TR)	4.12	0.55	2.8	5.0
Compatibility (COM)	4.30	0.48	3.2	5.0
Satisfaction (SAT)	4.41	0.52	3.0	5.0
Perceived Risk (PR)	3.45	0.61	2.0	5.0
Risk Acceptance (RA)	4.18	0.49	3.0	5.0
Intention (INT)	4.22	0.51	3.0	5.0

4.2. Correlation Analysis

To further assess the relationships among the variables, Pearson correlation analysis was conducted. This technique measures the strength and direction of linear associations between the independent variables (TR, COM, SAT, PR, RA) and the dependent variable (INT).

The results indicate that satisfaction has the strongest positive correlation with intention to use mobile banking ($r = 0.72$), followed by compatibility ($r = 0.67$), and trust ($r = 0.57$). These relationships suggest that experiential and relational factors significantly influence behavioral intention. Conversely, perceived risk displayed the weakest correlation with intention ($r = 0.16$), while risk acceptance showed a moderate association ($r = 0.54$).

These findings suggest that users are more likely to adopt mobile banking based on satisfaction and system alignment than concerns over risk. This is consistent with the behavioral profile of digitally native students, who are generally more trusting of digital systems and have higher risk tolerance for online platforms.

High correlations were also found among the independent variables, such as between satisfaction and compatibility ($r = 0.74$). This may reflect a synergistic effect, where systems that align with user routines also increase perceived satisfaction. However, collinearity diagnostics were later used to confirm these interrelationships do not distort regression estimates. The full correlation results are summarized in Table 2.

Table 2: Pearson Correlation Matrix

	TR	COM	SAT	PR	RA	INT
Trust (TR)	1.00	0.59	0.63	-0.22	0.41	0.57
Compatibility	0.59	1.00	0.74	-0.18	0.47	0.67
Satisfaction	0.63	0.74	1.00	-0.19	0.49	0.72
Perceived Risk	-0.22	-0.18	-0.19	1.00	0.28	0.16
Risk Acceptance	0.41	0.47	0.49	0.28	1.00	0.54
Intention (INT)	0.57	0.67	0.72	0.16	0.54	1.00

These correlations establish preliminary expectations regarding the variables' influence in the regression model. The strong and significant positive correlations of satisfaction, compatibility, and trust with intention suggest their potential explanatory power in influencing adoption behavior.

4.3. Regression Analysis

To examine the predictive power of each variable, a multiple linear regression analysis was performed. This allowed us to assess how well trust, compatibility, satisfaction, perceived risk, and risk acceptance predicted students' behavioral intention to use mobile banking applications.

The regression results show that satisfaction had the strongest positive and statistically significant effect ($\beta = 0.451$, $p < 0.001$), indicating that students' intention to continue using mobile banking is heavily influenced by the degree of satisfaction derived from previous use. Compatibility also exerted a significant impact ($\beta = 0.246$, $p = 0.001$), highlighting the importance of how well the service fits students' routines and values. Trust was statistically significant as well ($\beta = 0.126$, $p = 0.023$), suggesting that although its effect is smaller, it remains a necessary condition for adoption.

On the other hand, perceived risk ($\beta = 0.021$, $p = 0.493$) and risk acceptance ($\beta = 0.033$, $p = 0.635$) were found to be statistically insignificant. This implies that, within this digitally native population, traditional concerns regarding risk

are not strong barriers to adoption. Their confidence in digital environments possibly overshadows any residual apprehensions.

Overall, the model confirms the theoretical expectation that experiential and relational factors (satisfaction, compatibility, and trust) are the dominant predictors of intention. This highlights the importance of focusing on user experience and perceived alignment in designing mobile banking interfaces and services. The full regression results are shown in Table 3.

Table 3: Regression Coefficients Summary

Variable	Unstandardized β	Std. Error	Standardized β	t-value	p-value	Significance
Intercept	0.454	0.250	—	1.817	0.071	Not significant
Trust (TR)	0.126	0.055	0.182	2.295	0.023	Significant
Compatibility (COM)	0.246	0.075	0.311	3.290	0.001	Significant
Satisfaction (SAT)	0.451	0.078	0.468	5.817	0.000	Highly Significant
Perceived Risk (PR)	0.021	0.031	0.041	0.687	0.493	Not significant
Risk Acceptance (RA)	0.033	0.070	0.049	0.476	0.635	Not significant

This table confirms that although all variables were included in the model, only satisfaction, compatibility, and trust made statistically meaningful contributions. The relatively small effect size for trust suggests it functions as a baseline requirement—essential but insufficient on its own.

4.4. Model Fit and Diagnostics

To validate the reliability of the regression model, several diagnostic tests and model fit statistics were examined. These include the R-squared value, F-statistic, Durbin-Watson statistic, and assumption testing for normality, homoscedasticity, autocorrelation, and multicollinearity.

The R-squared value of 0.570 indicates that approximately 57% of the variance in students' intention to use mobile banking is explained by the five independent variables. This suggests a relatively strong explanatory model for behavioral intention. The F-statistic (61.23, $p < 0.001$) confirms that the model is statistically significant as a whole.

The Durbin-Watson statistic of 1.92 falls within the acceptable range of 1.5–2.5, indicating that autocorrelation is not a concern. Additionally, tests for normality (Shapiro-Wilk), homoscedasticity (Breusch-Pagan), and multicollinearity (VIF < 5) all confirmed that classical linear regression assumptions were met.

Together, these diagnostics validate that the regression model is both statistically sound and interpretable. It supports the trustworthiness of the coefficient estimates and enhances the credibility of the results. The model's goodness-of-fit and diagnostic outputs are summarized below in Table 4.

Table 4: Model Summary and Diagnostics

Diagnostic Metric	Value	Interpretation
R-squared	0.570	57% of variance in INT explained
Adjusted R-squared	0.561	Adjusted for degrees of freedom
F-statistic	61.23	Significant model overall ($p < 0.001$)
Durbin-Watson	1.92	No autocorrelation in residuals
Standard Error of Estimate	0.336	Moderate spread around regression line

These values provide strong evidence that the regression model is well-fitted and reliable, reinforcing the significance of the three main behavioral predictors—satisfaction, compatibility, and trust.

4.5. Variable Importance Ranking

To provide a clear understanding of which variables contribute most strongly to the prediction of intention, the standardized beta coefficients were ranked. This allows for easier comparison of the relative strength of each predictor, regardless of their original units of measurement.

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As shown previously, satisfaction was the most powerful predictor (β = 0.468), followed by compatibility (β = 0.311), and trust (β = 0.182). These three variables form the core of the extended Technology Acceptance Model in this study. In contrast, risk acceptance (β = 0.049) and perceived risk (β = 0.041) had minimal influence on intention.

This ranking is crucial for practical recommendations. Developers of mobile banking platforms targeting student populations should prioritize user satisfaction through intuitive design, convenience, and reliability. Ensuring that the app feels compatible with students' academic and social routines will further boost adoption.

Interestingly, although trust is important, it is not the leading factor. This suggests that students may assume a baseline level of system trustworthiness and place greater value on personal benefit and usability. The relative importance of each predictor is summarized in Table 5.

Table 5: Standardized Coefficient Ranking

Rank	Variable	Standardized β
1	Satisfaction	0.468
2	Compatibility	0.311
3	Trust	0.182
4	Risk Acceptance	0.049
5	Perceived Risk	0.041

This final table reinforces the conclusion that user experience variables (satisfaction, compatibility, and trust) are far more important in predicting behavioral intention than risk-related variables—at least in the context of tech-savvy university students.

4.6. Discussion

The findings of this study offer important insights into the behavioral dynamics that influence university students' adoption of mobile banking services in Indonesia. Grounded in an extended Technology Acceptance Model (TAM), the results demonstrate that experiential variables such as satisfaction, compatibility, and trust significantly shape behavioral intention, while risk-related variables—perceived risk and risk acceptance—do not show a statistically significant influence. This section discusses these results in the context of existing literature, user behavior theory, and implications for practice.

First and foremost, satisfaction emerged as the strongest predictor of intention, aligning with a wide body of research which positions user satisfaction as a critical determinant of continued technology use. This suggests that students are not merely trying mobile banking platforms—they are evaluating their experience critically and basing future usage decisions on how well the platform delivers perceived value. In the context of mobile banking, satisfaction may be derived from intuitive interface design, smooth transaction processes, and reliable system performance. These results reinforce the importance of post-adoption experiences and their role in forming enduring behavioral intention.

The significant role of compatibility further supports the notion that the success of digital financial tools depends on how seamlessly they integrate into users' daily routines and lifestyle. Students are more likely to adopt platforms that feel "natural" or require minimal behavioral change. This aligns with innovation diffusion theory, which emphasizes compatibility as a key facilitator of adoption, especially among younger, digitally fluent users. Given students' high dependency on smartphones for communication, academic work, and entertainment, mobile banking applications that mirror those patterns of use are more likely to succeed.

Trust, while not the most influential variable, was still statistically significant, which highlights its importance as a foundational requirement rather than a competitive differentiator. Students need to perceive mobile banking platforms as secure and credible to even consider usage, but once that baseline is met, trust alone may not drive continued engagement. This finding is consistent with studies suggesting that in digital-native populations, trust is often assumed or generalized based on institutional reputation or platform branding, thus reducing its variability in explaining behavior.

Interestingly, perceived risk and risk acceptance did not significantly influence intention. This finding contrasts with traditional models that identify risk as a major inhibitor of technology adoption. However, in the context of Gen Z

users who have grown up in a highly digitized environment, security concerns may be perceived as less pressing or may be mitigated by default trust in technology. It is also possible that these users assume that banks and fintech providers have already embedded sufficient security features, rendering personal risk assessment less relevant in their decision-making process.

Overall, these findings point to a generational and contextual shift in how digital financial services are evaluated. The behavioral patterns of university students suggest that ease, enjoyment, and fit are more influential than fear or caution, particularly when using institutional tools such as banking applications. This supports the argument that models of technology adoption must be continuously updated to reflect evolving digital literacy, generational values, and technology immersion levels.

In conclusion, the discussion emphasizes the primacy of experiential and relational factors in driving mobile banking adoption among students, underscoring the need for user-centric design and service reliability. Simultaneously, it calls into question the continued relevance of risk as a determinant in highly digitalized populations, suggesting a paradigm shift in fintech adoption behavior.

5. Conclusion

This study set out to examine the behavioral factors influencing university students' intention to adopt mobile banking applications in Indonesia, using an extended Technology Acceptance Model (TAM) framework. The research incorporated five key independent variables—trust, compatibility, satisfaction, perceived risk, and risk acceptance—to capture both enabling and inhibiting factors relevant to digital financial behavior.

The results reveal that satisfaction, compatibility, and trust have significant positive effects on students' intention to use mobile banking, with satisfaction emerging as the most influential factor. This finding highlights the crucial role of user experience and system relevance in promoting technology adoption among Gen Z consumers. In contrast, perceived risk and risk acceptance were not significant predictors, suggesting that risk-related concerns may be diminishing in importance for younger, digitally fluent populations.

These findings offer both theoretical and practical contributions. Theoretically, the study validates the robustness of the extended TAM model in explaining mobile banking adoption in an emerging market context. It also contributes to the evolving discourse on technology acceptance by questioning the traditional emphasis on risk deterrence in younger demographics. Practically, the research provides clear guidance for mobile banking developers and financial institutions: focusing on enhancing satisfaction and aligning services with student lifestyles will likely yield higher adoption and retention rates.

In summary, this study reinforces the idea that positive experiential factors now outweigh risk-related concerns in influencing mobile banking adoption. Future research should consider exploring additional user-centric variables such as digital literacy, peer influence, or perceived usefulness of specific features, as well as conducting comparative studies across different age groups or cultural contexts to further validate these insights.

6. Declarations

6.1. Author Contributions

Author Contributions: Conceptualization, F.A.R. and S.Z.U.; Methodology, F.A.R. and S.Z.U.; Software, F.A.R.; Validation, S.Z.U.; Formal Analysis, F.A.R.; Investigation, F.A.R. and S.Z.U.; Resources, S.Z.U.; Data Curation, F.A.R.; Writing—Original Draft Preparation, F.A.R.; Writing—Review and Editing, S.Z.U.; Visualization, F.A.R. All authors have read and agreed to the published version of the manuscript.

6.2. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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6.4. Institutional Review Board Statement

Not applicable.

6.5. Informed Consent Statement

Not applicable.

6.6. Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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