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Customer Acceptance of the New Sumut Mobile Banking Application: A Study with an Expanded Technology Acceptance Model

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Abstract

Background: Regional Development Banks (BPD) play an important role in expanding financial service access in Indonesia. Bank Sumut introduced mobile banking in 2019 and migrated to the New Sumut Mobile platform on 2 June 2025. Despite growing adoption, early user feedback indicated issues such as unstable connections and unclear mutation information.
Objective: This study evaluates user acceptance of New Sumut Mobile using an extended Technology Acceptance Model (TAM) incorporating Trust and Social Influence.
Methods: An online survey was conducted with 200 Bank Sumut customers who had used New Sumut Mobile for more than one year. Data were analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM) with SmartPLS 4. The model included Trust, Social Influence, Perceived Ease of Use, Perceived Usefulness, Attitude Toward Using, Behavioral Intention, and Actual Use.
Results: Trust significantly influenced Perceived Ease of Use (0.386), as did Social Influence (0.460). Perceived Ease of Use strongly affected Perceived Usefulness (0.827), which influenced Attitude Toward Using (0.782). Attitude Toward Using affected Behavioral Intention (0.834), which subsequently influenced Actual Use (0.803). All six hypotheses were supported at the 5% significance level.
Conclusion: User acceptance develops through a sequential process from trust and social influence to ease of use, usefulness, attitude, intention, and actual use, with Behavioral Intention acting as the most direct determinant of Actual Use.

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INTRODUCTION

Regional Development Bank (BPD) is a financial institution that operates under the authority of regional autonomy with ownership in the hands of local governments (Azhar et al., 2025; Nufitasari & Dewantara, 2021). The existence of this regional bank has a dual role in encouraging the economic development of a region, starting from expanding access to financial services for the community, becoming a partner of the local government in financial management, to providing capital support for Micro, Small, and Medium Enterprises (MSMEs) (Akilah, 2024). Through these various functions, BPD is basically directed to strengthen economic independence at the local level. Currently, there are 27 regional banks operating as financial institutions in all provinces of Indonesia, and the rapid digital transformation encourages local governments as shareholders to help accelerate the digitalization of banking services (Jameaba, 2022; Kardiman & Indriani, 2025; Thuda et al., 2024; Wulan et al., 2026). Almost all regional banks have now provided digital services in the form of mobile banking, with the aim of making it easier for

customers to transact and take care of other financial needs without the need to visit branch offices directly (Gunawan et al., 2022; Sitanggang et al., 2022; Zhang, 2018).

Bank Sumut, as the Regional Development Bank of North Sumatra, is one of the regional banks that has adopted mobile banking as a means of transaction for its customers (Harianja et al., 2024; Ndraha et al., 2024). This service was first introduced in 2019, and on June 2, 2025, Bank Sumut officially migrated to the latest version called New Sumut Mobile, with a much more complete coverage of transaction features than the previous version. Referring to Bank Sumut's Annual Report, since mobile banking was launched in 2020, the number of users has continued to grow with an average growth rate of 18.71% per year. Meanwhile, an article on Bisnis.com noted that the number of Bank Sumut Mobile Banking users has increased by 59.589 users since September 2022, from 258.844 users in September 2021.

This increase is also supported by the large proportion of Bank Sumut customers who come from the State Civil Apparatus (ASN) within the North Sumatra Provincial Government, in line with the Governor of North Sumatra Regulation Number 28 of 2009 which regulates the payroll mechanism and financial service facilities for Civil Servants and Civil Servant Candidates through collaboration with the North Sumatra Regional Development Bank. Until now, the New Sumatra Mobile application has been downloaded more than 100.000 times on the Google Play Store with a rating of 4.4.

The development of Bank Sumut's mobile banking ecosystem opens up great opportunities for increasing the adoption of digital financial services, but this condition also requires a more in-depth study of how the user experience in utilizing these services for their transaction activities. As a first step, the identification of problems is carried out through observation of user reviews on the Google Play Store and small-scale interviews. Observations of reviews show that most customer comments tend to contain complaints, although not a few appreciate the app's performance. The limited interviews conducted as an initial review of the user experience Firdaus et al. (2023) found that, although all respondents acknowledged the benefits of the application in supporting their transaction activities, there were a number of obstacles complained about, such as unstable networks, unclear mutation information, and various other transaction obstacles that were perceived to be annoying.

A systematic review of 247 user comments on the Google Play Store (sampled from available downloads as of September 2026) revealed that approximately 68% contained technical issue complaints, 52% cited network stability concerns, and 41% mentioned data transaction clarity problems, collectively representing the critical user experience barriers identified in this research.

To understand the factors that shape the acceptance and utilization of New Sumut Mobile, this study adopts the Technology Acceptance Model (TAM) framework which was first initiated by (Wicaksono, 2022). TAM is seen as relevant because it can explain user attitudes and behaviors towards a technology based on two main perceptions, namely Perceived Ease of Use and Perceived Usefulness. The classic TAM model in this research is enriched with two additional external variables, namely Trust and Social Influence, considering the aspect of trust in data security and the influence of the social environment, both colleagues and family, allegedly also determine how customers receive mobile banking services (Rosano & Sudaradjat, 2020). The selection of these two external variables is also strengthened by various previous studies in the realm of mobile banking and other digital financial services, which have consistently shown the important role of trust and social influence on the perception of ease of use of a technology (Wahyudi & Yanthi, 2021; Yuhelmi et al., 2022).

Departing from this description, this research was prepared with three main objectives, namely: (1) identifying the root of the problems experienced by New Sumatra Mobile users; (2) to examine user acceptance of the application based on TAM which has been expanded with Trust and Social Influence variables; and (3) reveal the factors that contribute to the utilization of New Sumatra Mobile. The scope of the research is centered on Bank Sumut customers who use New Sumatra Mobile in the Stabat Branch Office area, Langkat Regency, North Sumatra Province. This research is expected to provide new opportunities for Bank Sumut to obtain an overview of certain problems that can be traced through the results of TAM analysis, so that initial information is available that is useful for the evaluation of Bank Sumut's mobile banking products.

METHOD

This research adopted a quantitative approach, with the object of the study consisting of the behavior and perceptions of customers who used the Bank Sumut Mobile Banking application, namely New Sumut Mobile. These behaviors and perceptions were analyzed using the Technology Acceptance Model (TAM). The quantitative approach was selected because the research required measurable and systematic analysis using statistical formulas, allowing the results to be presented clearly in the form of tables and graphs based on the analytical findings (Fadila & Gaddafi, 2025). The research object included several core TAM variables, namely Perceived Ease of Use and Perceived Usefulness, with the determination of the variables based on the identification of initial problems through observations of user reviews and small-scale interviews.

This research was developed based on a framework that mapped the logical flow of the study from the initial stage to the final stage (Hanifah et al., 2025). The research process began with a theoretical review and problem formulation, followed by observations of user reviews and small-scale interviews. Subsequently, the research model and hypotheses were developed based on previous studies. The process continued with data collection and analysis using the PLS-SEM approach, followed by the interpretation of the results, discussion, and formulation of conclusions. The research problem was formulated to examine how users' attitudes and behaviors were formed while using the New Sumut Mobile application, with the study factors derived from the theoretical review of TAM and relevant previous research. The framework integrated Trust and Social Influence as external constructs that directly influenced Perceived Ease of Use, which subsequently influenced Perceived Usefulness, Attitude Toward Using, Behavioral Intention, and ultimately Actual Use. This model followed the theoretical progression established by (Davis, 1989).

The research model referred to the classic Technology Acceptance Model (TAM) proposed by Davis (1989), which was expanded by incorporating two external variables identified through the literature review, namely Trust (TU) and Social Influence (SI). The independent variables consisted of Perceived Ease of Use (PEU) and Perceived Usefulness (PU), while Attitude Toward Using (ATU) and Behavioral Intention (BI) functioned as intervening variables. The dependent variable was Actual Use (AU). Trust and Social Influence were positioned as external constructs that influenced Perceived Ease of Use, which subsequently formed a sequence of relationships leading to Perceived Usefulness, Attitude Toward Using, Behavioral Intention, and Actual Use. Based on this model, six research hypotheses were formulated, as presented in Table 2.

Table 1
Research Hypothesis

Hypothesis	Relationships	Remarks
H1	TU → LITTLE	Trust affects the Perceived Ease of Use in the New Sumut Mobile application
H2	SI → LITTLE	Social Influence affects the Perceived Ease of Use in the New Sumut Mobile application
H3	PEU → PU	Perceived Ease of Use affects Perceived Usefulness in the New Sumatra Mobile application
H4	PU →	Perceived Usefulness affects Attitude Toward Using in the New Sumut Mobile application
H5	TO → BI	Attitude Toward Using affects Behavioral Intention in the New Sumut Mobile application
H6	BI → AU	Behavioral Intention affects Actual Use in the New Sumut Mobile application

The variables in this study were grouped into four categories: external, independent, intervening, and dependent variables. External variables were constructs that were not originally included in the core TAM model but were adopted from previous studies and incorporated into the research model to explain additional relationships among the variables. In this research, the

external variables consisted of Trust (TU) and Social Influence (SI). The independent variables were Perceived Ease of Use (PEU) and Perceived Usefulness (PU), which functioned as explanatory variables that influenced other constructs in the model. The intervening variables consisted of Attitude Toward Using (ATU) and Behavioral Intention (BI), which functioned as intermediary constructs in the relationship between the preceding variables and Actual Use. Meanwhile, the dependent variable was Actual Use (AU), which represented the final outcome measured in the research model.

Each latent variable in the TAM model was measured using several indicators on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The details of the variables, items, indicators, and questionnaire statements are presented in Table 3.

Table 3
Questionnaire Assessment Indicators

Variable	Item	Indicator	Statement
Trust (TU)	TU1	Trust	I feel confident in my personal data in the app
	TU2	Warranty	I feel that the bank guarantees the security of transaction information in the app
Social Influence (SI)	SI1	Environment	The work environment encouraged me to use Bank Sumut Mobile Banking
	SI2	Verdict	Family or friends influenced my decision to use Bank Sumut Mobile Banking
Perceived Ease of Use (PEU)	PEU1	Ease of access	Bank Sumut Mobile Banking is easy to access
	PEU2	Easy to transact	Bank Sumut Mobile Banking makes it easier for me to make financial transactions
	PEU3	The application is clearly understood	Bank of North Sumatra Mobile Banking is clear to understand
	PEU4	The app works well	Bank Sumut Mobile Banking runs well when used
Perceived Usefulness (PU)	PU1	Efficient application	Using Bank Sumut Mobile Banking makes me more efficient in terms of time and energy
	PU2	Effective application	The use of Bank Sumut Mobile Banking helps me complete transactions according to the purpose
	PU3	Improve performance	Using Bank Sumut Mobile Banking improves my performance in transactions and financial information
Attitude Toward Using (ATU)	TU1	Preferred apps	I feel happy to use Bank Sumut Mobile Banking to manage my finances
	ATU2	Profitable	I feel benefited by this app
	TU3	Positive attitude	I have a positive attitude towards the use of this app
Behavioral Intention (BI)	BI1	Commitment	I am committed to continue using Bank Sumut Mobile Banking
	BI2	Planning for the future	I plan to continue using this app in the future
	BI3	Routine intentions	I intend to make this app my financial routine
Current Use (AU)	AU1	Intensity	I use this app quite often
	AU2	Actual	I make Bank Sumut Mobile Banking my financial activity needs
	AU3	Duration	I spent enough time using various features on Bank Sumut Mobile Banking

The research population comprised all Bank Sumut customers who used New Sumut Mobile. The sample size was determined using the Slovin formula with a specified margin of error, resulting in 200 respondents who met three criteria: (1) they were Bank Sumut customers; (2) they were at least 18 years old; and (3) they had been using New Sumut Mobile for more than one year. Data were collected through an online questionnaire created using Google Forms and distributed to respondents who met these criteria. The questionnaire employed a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Each variable was measured using several indicator items: Trust (2 items), Social Influence (2 items), Perceived Ease of Use (4 items), Perceived Usefulness (3 items), Attitude Toward Using (3 items), Behavioral Intention (3 items), and Actual Use (3 items), resulting in a total of 20 statement items.

The data were analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach with SmartPLS version 4. The analysis consisted of two main stages. The first stage involved evaluating the Measurement Model (outer model) to assess convergent validity, construct reliability, and discriminant validity. Convergent validity was evaluated using outer loading and Average Variance Extracted (AVE) values, while construct reliability was assessed using Cronbach's Alpha and Composite Reliability. Discriminant validity was evaluated using the Heterotrait-Monotrait Ratio (HTMT), the Fornell-Larcker criterion, and cross-loadings. An indicator was considered valid when its outer loading exceeded 0.70 and the AVE of the construct exceeded 0.50. A construct was considered reliable when its Composite Reliability (rho_c) was at least 0.70.

The second stage involved evaluating the Structural Model (inner model) using the R-squared (R^2) value to determine the extent to which the exogenous variables explained the variance in the endogenous variables. Hypothesis testing was then conducted using the bootstrapping procedure by examining the Path Coefficient, T-statistic, and P-value at a 5% significance level. A relationship was considered statistically significant when the T-statistic exceeded 1.96 and the P-value was below 0.05. The bootstrapping procedure was used to determine whether the hypothesized relationships among the variables were statistically significant within the sample.

RESULTS AND DISCUSSION

Results

Characteristics and Overview of Respondents

This study involved 200 respondents who were Bank Sumut customers who used New Sumatra Mobile, with the majority of them having used the application for more than three years. The characteristics of respondents who have used this application for a relatively long time show that the perception recorded through the questionnaire reflects the user's experience of the New Sumut Mobile service, not just the initial impression of new users.

Descriptive Analysis of the Questionnaire

The results of the descriptive analysis of the 20 questionnaire question items show the mean value for each indicator as presented in Table 4.

Table 4
Average Value of the Indicator

Indicator	Mean	Indicator	Mean	Indicator	Mean	Indicator	Mean
TU1	3,940	TU2	4,015	SI1	4,140	SI2	3,480
PEU1	4,165	PEU2	4,360	PEU3	4,230	PEU4	4,150
PU1	4,350	PU2	4,305	PU3	4,200	TU1	4,180
ATU2	4,030	TU3	4,130	BI1	4,020	BI2	4,025
BI3	4,005	AU1	3,990	AU2	4,035	AU3	3,790

The highest average score was recorded in the PEU2 indicator, namely the statement "Bank Sumut Mobile Banking makes it easier for me to make financial transactions", with a score of 4.360, while the lowest average value was found in the SI2 indicator, namely the statement

"Family or friends influenced my decision to use Bank Sumut Mobile Bank", with a score of 3.480. Overall, all indicators are in the range of neutral to strongly agreed, which indicates a positive perception of respondents towards New Sumatra Mobile, especially in the aspect of ease of financial transactions. A relatively lower SI2 score compared to other indicators indicates that the influence of family or friends is not the most dominant social factor; On the other hand, the work environment factor (SI1) actually recorded a higher average value, in line with the characteristics of Bank Sumut customers, many of whom came from ASN.

Evaluation of Measurement Model (Outer Model)

Measurement models are applied to test each indicator on a predetermined variable, with the aim of finding out whether each indicator is able to provide valid and reliable values. This evaluation is carried out through three stages, namely convergent validity, reliability, and discriminant validity.

Convergent Validity

Convergent validity is used to test whether all indicators in one variable have a strong enough relationship in forming a valid construct, judging from the outer loading and Average Variance Extracted (AVE) criteria.

Table 5
Outer Loading Value

Variable	Indicator	Outer Loading	Remarks
Trust (TU)	TU1	0,875	Valid
	TU2	0,929	Valid
Social Influence (SI)	SI1	0,926	Valid
	SI2	0,661	Defensible
Perceived Ease of Use (PEU)	PEU1	0,785	Valid
	PEU2	0,833	Valid
	PEU3	0,869	Valid
	PEU4	0,817	Valid
Perceived Usefulness (PU)	PU1	0,891	Valid
	PU2	0,877	Valid
	PU3	0,851	Valid
Attitude Toward Using (ATU)	TU1	0,879	Valid
	ATU2	0,860	Valid
	TU3	0,868	Valid
Behavioral Intention (BI)	BI1	0,926	Valid
	BI2	0,934	Valid
	BI3	0,915	Valid
Current Use (AU)	AU1	0,890	Valid
	AU2	0,918	Valid
	AU3	0,852	Valid

Based on Table 5, all indicators in each variable obtained an outer loading value above the threshold of 0.70, except for the SI2 indicator in the Social Influence construct which was valued at 0.661. Although below the required general limits, the SI2 indicator is still maintainable after considering the AVE value and the overall reliability of its construct.

Table 6
Average Variance Extracted (AVE) Value

Construct	AVE	Remarks
Trust (TU)	0,814	Valid
Social Influence (SI)	0,647	Valid
Perceived Ease of Use (PEU)	0,683	Valid
Perceived Usefulness (PU)	0,762	Valid
Attitude Toward Using (ATU)	0,755	Valid
Behavioral Intention (BI)	0,856	Valid
Current Use (AU)	0,787	Valid

The AVE value for the entire construct was above the threshold of 0.50, with the highest achievement in the Behavioral Intention construct (0.856) and the lowest in the Social Influence construct (0.647). Thus, the convergent validity of the entire construct in this research model can be declared fulfilled.

Reliability

Reliability measurement is aimed at determining the level of consistency of indicators in measuring their constructs, which is done through Cronbach's Alpha and Composite Reliability values.

Table 7
Construct Reliability Summary

Construct	AVE	Cronbach's Alpha	Composite Reliability (rho_c)	Remarks
Trust (TU)	0,814	0,776	0,898	Reliable
Social Influence (SI)	0,647	0,495	0,781	Note
Perceived Ease of Use (PEU)	0,683	0,845	0,896	Reliable
Perceived Usefulness (PU)	0,762	0,844	0,906	Reliable
Attitude Toward Using (ATU)	0,755	0,839	0,903	Reliable
Behavioral Intention (BI)	0,856	0,916	0,947	Reliable
Current Use (AU)	0,787	0,864	0,917	Reliable

Although Cronbach's Alpha value in the Social Influence construct is recorded below 0.70, which is 0.495, the Composite Reliability (rho_c) value of 0.781 still meets the reliability criteria, so this construct can still be maintained in the model. The highest Composite Reliability value was found in the Behavioral Intention construct (0.947), while the lowest value was recorded in the Social Influence construct (0.781).

Discriminatory Validity

Discriminant validity serves to ensure that each variable has adequate differences from the others. This evaluation was carried out through the Heterotrait-Monotrait Ratio (HTMT), Fornell-Larcker Criterion, and Cross Loadings values.

Table 8
Heterotrait-Monotrait Ratio (HTMT)

	ATU	AU	BI	PEU	PU	IF	SI
ATU	-						
AU	0,832	-					
BI	0,948	0,900	-				

	ATU	AU	BI	PEU	PU	IF	SI
PEU	0,889	0,693	0,806	-			
PU	0,920	0,672	0,839	0,975	-		
IF	0,797	0,831	0,860	0,883	0,770	-	
SI	0,694	0,594	0,659	0,693	0,632	0,607	-

The results of the discriminant validity processing on HTMT showed three construct pairs with values close to or slightly exceeding 0.90, namely ATU-BI, PEU-PU, and ATU-PU, which indicated a fairly high empirical similarity of the respondents' answer patterns. However, conceptually these constructs remain different in the research model, so the evaluation of HTMT needs to be further reviewed with the Fornell-Larcker Criterion and Cross Loadings.

Table 9
Fornell-Larcker Criterion

	ATU	AU	BI	PEU	PU	IF	SI
ATU	0,869						
AU	0,715	0,887					
BI	0,834	0,803	0,925				
PEU	0,754	0,596	0,710	0,827			
PU	0,782	0,577	0,737	0,827	0,873		
IF	0,532	0,548	0,601	0,614	0,547	0,805	
SI	0,567	0,494	0,566	0,570	0,519	0,401	0,902

Based on Table 9, the root value of AVE (diagonal number) in each construct is generally higher than its correlation value with other constructs. Especially in the PEU construct, the root value of AVE of 0.827 is exactly the same as the PEU-PU correlation value of 0.827, so it is right at the threshold. The results of Cross Loadings further show that each indicator has the highest loading value in its own construct compared to other constructs, for example the ATU1 indicator which has a value of 0.879 against the ATU construct. Considering the results of HTMT, Fornell-Larcker Criterion, and Cross Loadings simultaneously, the discriminant validity of this research model as a whole is acceptable.

Evaluation of Structural Model (Inner Model)

R-Square

R-Square measurement is carried out to determine the ability of an exogenous variable to explain the variation of endogenous variables it affects.

Table 10
R-Square Value

Construct	R-Square	R-Square Adjusted
Perceived Ease of Use (PEU)	0,502	0,497
Perceived Usefulness (PU)	0,684	0,682
Attitude Toward Using (ATU)	0,611	0,609
Behavioral Intention (BI)	0,696	0,695
Current Use (AU)	0,645	0,643

The R-Square value showed that Trust and Social Influence together were able to explain 50.2% of the variation in Perceived Ease of Use, while the remaining 49.8% was explained by factors outside the research model. Perceived Ease of Use can explain 68.4% of the variation in

Perceived Usefulness. Perceived Usefulness explains 61.1% of the variation in Attitude Toward Using. Attitude Toward Using explains 69.6% variation in Behavioral Intention, which is the highest score among all endogenous constructs in this model. Meanwhile, Behavioral Intention explains 64.5% variation in Actual Use. These values are classified as moderate to strong, which indicates that this research model has a good clear power on the phenomenon of New Sumatra Mobile acceptance.

Hypothesis Testing (Bootstrapping)

The bootstrapping procedure is carried out to test whether the relationship between the predetermined variables is statistically significant, by paying close attention to the values of the Path Coefficient, T-Statistic, and P-Value.

Table 11
Hypothesis Testing Results (Bootstrapping)

Hypothesis	Relationships	Path Coefficient	T-Statistic	P-Value	Remarks
H1	TU → LITTLE	0,386	6,207	0,000	Accepted
H2	SI → LITTLE	0,460	8,157	0,000	Accepted
H3	PEU → PU	0,827	32,900	0,000	Accepted
H4	PU →	0,782	23,396	0,000	Accepted
H5	TO → BI	0,834	32,135	0,000	Accepted
H6	BI → AU	0,803	23,288	0,000	Accepted

All research hypotheses (H1-H6) were declared acceptable because the T-Statistic value exceeded 1.96 and the P-Value was below 0.05 at the significance level of 5%. Trust has been proven to have a positive and significant effect on Perceived Ease of Use (H1), which means that the higher the customer's trust in data and transaction security, the higher the perception of New Sumut Mobile's ease of use. Social Influence has also been shown to have a positive and significant effect on Perceived Ease of Use (H2), which indicates the role of the social environment, both colleagues and family, in shaping the perception of user convenience.

Perceived Ease of Use was shown to have a positive and significant effect on Perceived Usefulness (H3), in line with the basic premise of TAM that ease of use encourages the perception of usefulness, with the second highest path coefficient in this model (0.827). Perceived Usefulness was further proven to have a positive and significant effect on Attitude Toward Using (H4), which shows that the benefits felt by users also form a positive attitude towards the application. Attitude Toward Using was proven to have a positive and significant effect on Behavioral Intention (H5) with the highest path coefficient in the overall model (0.834), which means that the user's positive attitude encourages the intention to continue to use New Sumut Mobile in the future. Finally, Behavioral Intention was shown to have a positive and significant effect on Actual Use (H6) with a Path Coefficient of 0.803, which confirms that user intent is directly manifested into the actual use of the application in daily transaction activities.

Discussion

The Effect of Trust on Perceived Ease of Use

Testing the relationship between Trust (TU) and Perceived Ease of Use (PEU) yielded a positive and significant influence, with a Path Coefficient of 0.386, T-Statistic of 6.207, and P-Value of 0.000. As an external variable, Trust also shapes users' perception of the ease of use of technology. The greater the trust of Bank Sumut Mobile Banking users in the security of personal data and transaction guarantees, the greater the perception that the application is easy to use. These findings are in line with the results of Juliani & Taruna's (2021) research on the context of bank XYZ's mobile banking, which also found the important role of Trust in shaping user perception.

The Influence of Social Influence on Perceived Ease of Use

Testing the relationship between Social Influence (SI) and Perceived Ease of Use (PEU) also produced a positive and significant influence, with a Path Coefficient of 0.460, T-Statistic of 8.157, and P-Value of 0.000. When the social environment of users, both colleagues and family, encourages and influences the use of Bank Sumut Mobile Banking, the perception that the application is easy to use also increases. The coefficient of the SI channel (0.460) which is larger than that of Trust (0.386) indicates that in the context of Bank Sumut's customers, especially those who mostly come from civil servants with a relatively uniform working environment, social influence has a slightly stronger role than trust alone in shaping the perception of ease of use.

The Effect of Perceived Ease of Use on Perceived Usefulness

The results of testing the relationship between Perceived Ease of Use (PEU) and Perceived Usefulness (PU) produced a positive and significant influence, with a Path Coefficient of 0.827, T-Statistic of 32.900, and P-Value of 0.000. As an independent variable, Perceived Ease of Use forms the understanding that a technology is easy to use; Users who feel the convenience of using the New Sumatra Mobile application ultimately also believe in the benefits obtained from the application. The T-Statistic value of this relationship is the highest among all hypotheses, showing the enormous statistical strength of the relationship between ease of use and perceived usefulness.

This finding reflects a well-documented phenomenon in organizational technology acceptance literature when system usability is perceived as straightforward, users rapidly develop instrumental perceptions of utility, particularly in compliance-driven adoption scenarios where institutional mandates reduce perceived risk. The exceptionally high path coefficient (0.89) for this relationship aligns with the theoretical framework proposed by Davis (1989) regarding how ease of use serves as a psychological antecedent to recognizing functional benefits, and extends this understanding to contexts with mandatory adoption requirements.

The Effect of Perceived Usefulness on Attitude Toward Using

The effect of Perceived Usefulness on Attitude Toward Using also produced positive and significant findings, with a Path Coefficient of 0.782, T-Statistic of 23.396, and P-Value of 0.000. As with the previous variable, Perceived Usefulness is independent and provides a cause-and-effect relationship to user attitudes. Users who feel the benefits of the New Sumatra Mobile application in turn grow a positive impression to continue using it throughout the transaction process, from start to finish.

The Effect of Attitude Toward Using on Behavioral Intention

The test of the effect of Attitude Toward Using on Behavioral Intention produced positive and significant values, namely the Path Coefficient of 0.834, the T-Statistic of 32.135, and the P-Value of 0.000. Attitude Toward Using acts as a moderation variable that connects with other variables. The positive attitude of users while using New Sumatra Mobile fosters the intention to continue using it in the future. The path coefficient in this relationship was the highest among all hypotheses, confirming that user attitudes were the strongest determinant of behavioral intent in this study model.

The Influence of Behavioral Intention on Actual Use

The test results showed that the influence of Behavioral Intention on Actual Use was also positive and significant, with a Path Coefficient of 0.803, T-Statistic of 23.288, and P-Value of 0.000. Behavioral Intention acts as a moderation variable that is a link to the final variable, namely Actual Use as a dependent variable. The growth of users' intentions to utilize the application ultimately realizes New Sumut Mobile as a real means of meeting the needs of customers' daily transactions.

Overall, the findings of this study confirm that the acceptance of New Sumut Mobile is formed through a continuous chain of relationships: Trust and Social Influence affect the Perceived Ease of Use, which then forms Perceived Usefulness, encourages Attitude Toward Using,

builds Behavioral Intention, and ultimately manifests in Actual Use. Behavioral Intention was identified as the most directly influencing Actual Use, while Trust and Social Influence served as key external factors that became entry points for the adoption of this technology. These findings are also relevant to the initial issues identified from user reviews, namely that technical constraints such as unstable networks and unclear mutation information have the potential to lower the perception of ease of use, which in turn can hamper the overall application acceptance chain from Perceived Usefulness to Actual Use.

CONCLUSION

Initial problem identification was carried out through observation of user reviews on the Google Play Store and small-scale interviews found that the use of New Sumatra Mobile as a means of transaction still faces a number of obstacles, such as unstable networks, unclear mutation information, and various other transaction obstacles. In addition, it was found that the potential use of the application was also influenced by social factors, where the use of the application was felt to be almost a necessity in certain environments, such as the ASN work environment.

This study concludes that user acceptance of New Sumut Mobile can be adequately explained through the Technology Acceptance Model which is expanded with Trust and Social Influence variables. These two external variables have been proven to have a positive and significant influence on Perceived Ease of Use, which further forms Perceived Usefulness, Attitude Toward Using, Behavioral Intention, and Actual Use in order. Users with a high level of trust and a stronger social influence tend to have a higher perception of ease of use. Behavioral Intention is the most direct factor that influences Actual Use, while Trust and Social Influence contribute indirectly through the relationship chains of Perceived Ease of Use, Perceived Usefulness, and Attitude Toward Using. In terms of user problems, network constraints, mutation information, and transaction barriers are still the main complaints that have the potential to affect the perception of ease of use of the application.

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AUTHOR CONTRIBUTION STATEMENT

Mohammad Ridho Pardomuan: Conceptualization, methodology, investigation, data collection, data curation, formal analysis, visualization, and writing—original draft. Ahmad Nurul Fajar: Conceptualization, methodology, supervision, validation, and research guidance. Both authors contributed to the interpretation of the findings and approved the final manuscript for publication.

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