

THE INFLUENCE OF SECURITY PERCEPTION AND BENEFITS PERCEPTION ON THE DECISION TO USE THE FLIP APPLICATION AMONG STUDENTS OF THE UNIVERSITY OF NORTH SUMATERA

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ABSTRACT

This study aims to analyze the effect of security perception and perceived usefulness on the decision to use the FLIP application among students at the University of North Sumatra. The research method used is quantitative with a survey approach. The research population is active USU students with a sample of 200 respondents selected using purposive sampling technique. Data was collected through online questionnaires and analyzed using SPSS version 25 with multiple linear regression analysis techniques. The results showed that security perception has a positive and significant effect on the decision to use the FLIP application ($\beta = 0.432$, $p < 0.05$), as well as perceived usefulness which also has a positive and significant effect ($\beta = 0.518$, $p < 0.05$). Simultaneously, both variables influence usage decisions by 67.8% ($R^2 = 0.678$). This finding indicates that the higher students' perceived security and benefits, the higher their decision to use the FLIP application. The practical implication of this research is the importance of FLIP to continue improving security features and communicating application benefits to student target users.

Keywords: Security Perception, Perceived Usefulness, Usage Decision, FLIP Application, Fintech

BACKGROUND

The era of digitalization has fundamentally transformed the financial industry landscape, marked by the emergence of various financial technology (fintech) innovations offering more efficient solutions for payments and fund transfers. In Indonesia, the fintech sector grew by 78% in 2023, with total transactions reaching IDR 2,134 trillion (Bank Indonesia, 2024). One of the segments experiencing significant growth is interbank fund transfer services, which are dominated by applications such as FLIP, Jenius, and OVO. FLIP (Fintech for Local Indonesian Payment) is one of the fintech applications focusing on interbank fund transfers with zero administrative fees. Launched in 2019, FLIP has recorded over 5 million active users and processes transactions worth IDR 50 trillion annually (FLIP Annual Report, 2023). Its unique business model offers free transfers by leveraging exchange rate spreads and partnerships with various merchants. As digital natives, university students have unique characteristics in adopting financial technologies. According to a survey by the Indonesian Fintech Association (2024), 84% of students use at least one fintech application for their daily needs. However, the adoption rate of interbank transfer applications such as FLIP remains relatively low among students—at only around 23%—compared to e-wallet applications, which reach 76%. This phenomenon is worth further investigation, especially regarding the factors that influence the decision to use the FLIP application.

While numerous previous studies have been conducted on fintech adoption, several gaps remain to be addressed. First, the majority of previous studies have focused on e-wallets and mobile banking (Sari & Wibowo, 2023; Putri et al., 2024), while specific research on money transfer apps like FLIP remains limited. Second, the context of research among university students, particularly in western Indonesia, such as North Sumatra, has not been explored in depth. Sharma & Singh (2024) found in their study in India that perceived security was a dominant factor in fintech adoption among the younger generation,

but the different socio-economic contexts in Indonesia require revalidation. Meanwhile, Chen et al. (2023) in a meta-analysis emphasized the importance of perceived usefulness as a key predictor of financial technology adoption, but the study did not specifically address money transfer apps. Furthermore, Rahayu & Sanjaya's (2024) study on fintech in Indonesia remains general in nature and does not explore the unique characteristics of money transfer apps in depth. This situation creates a knowledge gap regarding the specific factors influencing FLIP app adoption, particularly among university students who have unique demographic characteristics and consumer behaviors. Based on the problem identification above, this study aims to: (1) Analyze the influence of perceived security on the decision to use the FLIP app among USU students, (2) Analyze the influence of perceived usefulness on the decision to use the FLIP app among USU students, (3) Analyze the simultaneous influence of perceived security and perceived usefulness on the decision to use the FLIP app among USU students.

RESEARCH METHOD

Research Type

This study employs a quantitative approach with an explanatory research design. The chosen research method is a cross-sectional survey, used to collect data at a single point in time. A quantitative approach was selected as it aligns with the research objective, which is to test the causal relationships between variables using statistical analysis.

Population and Sample

The population in this study consists of active students at Universitas Sumatera Utara for the academic year 2024/2025, totaling 34,567 students. The population criteria include students who have used or are aware of digital fund transfer applications and have a bank account.

Determination of sample size using the Slovin formula with a confidence level of 95% ($\alpha = 0.05$):

$$n = N / (1 + N.e^2)$$

$$n = 34.567 / (1 + 34.567 \times 0,05^2)$$

$$n = 34.567 / (1 + 86,42)$$

$$n = 395,3 \approx 400$$

However, considering the limitations of time and resources, this study used a sample of 200 respondents who still met the minimum requirements for multiple linear regression analysis.

The sampling technique used was purposive sampling with the following criteria:

1. Active USU students in their third semester or above
2. Own a smartphone and internet access
3. Have used a money transfer or mobile banking application
4. Aged 18-25 years
5. Willing to participate in the research

Data Analysis Technique

SPSS (Statistical Package for the Social Sciences) version 25 software was used for the entire data analysis process.

Research Hypotheses

H1: Perceived security has a positive and significant effect on the decision to use the FLIP application among USU students.

H2: Perceived usefulness has a positive and significant effect on the decision to use the FLIP application among USU students.

H3: Perceived security and perceived usefulness simultaneously have a positive and significant effect on the decision to use the FLIP application among USU students.

RESEARCH FINDINGS

Respondent Characteristics

This study successfully collected data from 200 USU students with the following characteristics:

Table 1. Respondent Characteristics

Characteristics	Category	Frequency	Percentage
Gender	Man	92	46,0%
	Woman	108	54,0%
Age	18-20 year	78	39,0%
	21-23 year	89	44,5%
	24-25 year	33	16,5%
Semester	3-4	67	33,5%
	5-6	84	42,0%
	7-8	49	24,5%
Faculty	Economics & Business	45	22,5%
	Engineering	38	19,0%
	Science and Mathematics	29	14,5%
	Medicine	31	15,5%
	Law	25	12,5%
	Others	32	16,0%
Expenses/Month	< Rp 1.000.000	56	28,0%
	Rp 1-2.000.000	89	44,5%
	Rp 2-3.000.000	41	20,5%
	> Rp 3.000.000	14	7,0%

Classical Assumption Test

Analysis Prerequisites

Table 2. Classical Assumption Test Results

Test	Method	Results	Criteria
Normality	Kolmogorov-Smirnov	0,089	> 0,05
Linearity	ANOVA	0,000	< 0,05
Multicollinearity	VIF X1	1,234	< 10
	VIF X2	1,234	< 10
Heteroscedasticity	Glejser test	0,456	> 0,05
Autocorrelation	Durbin-Watson	1,987	1,55 < DW < 2,46

All classical assumption tests are met, so the regression analysis can be continued.

Multiple Linear Regression Analysis

Table 3. Results of Multiple Linear Regression Analysis

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	
(Constant)	0,856	0,234		3,658
Perceived Security (X1)	0,476	0,078	0,432	6,103
Perceived Benefit (X2)	0,623	0,085	0,518	7,329

Hypothesis Testing

Partial t-Test

Table 4. t Test Results

Hypothesis	t count	t table	Sig.	Decision
H1: $X_1 \rightarrow Y$	6,103	1,972	0,000	H1 Accepted
H2: $X_2 \rightarrow Y$	7,329	1,972	0,000	H2 Accepted

F Test (Simultaneous)

Table 5. F Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	67,234	2	33,617	208,456	0,000
Residual	31,766	197	0,161		
Total	99,000	199			

F count (208.456) > F table (3.04) and sig. (0.000) < 0.05, then H3 is accepted.

Coefficient of Determination

Table 6. Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,824	0,678	0,675	0,40149

The R^2 value = 0.678 shows that 67.8% of the variation in usage decisions is explained by perceived security and perceived benefits, the remaining 32.2% is explained by other factors.

DISCUSSION

The Influence of Security Perception on Usage Decisions

The results of the study indicate that security perception has a positive and significant effect on the decision to use the FLIP application, with a standardized beta coefficient of 0.432 and a significance value of $0.000 < 0.05$. This finding confirms the first hypothesis (H1), which states that the higher the students' security perception of the FLIP application, the higher their decision to use the application.

This result is consistent with the study by Sharma & Tiwari (2024), which found that security perception is a critical factor in fintech adoption among the younger generation. In the context of USU students, security is a primary consideration due to limited financial literacy and lack of experience in using digital financial services. Students tend to be more selective in choosing financial applications because of increased awareness of potential risks associated with unfamiliar technologies.

This finding also supports Zhang et al. (2024), who demonstrated that in the era of digital banking, security perception is the strongest predictor of continued usage intention. This indicates that FLIP should continue to emphasize and communicate its security features, such as end-to-end encryption, two-factor authentication, and security certifications from relevant authorities.

The Influence of Perceived Benefits on Usage Decisions

Perceived benefits have been proven to have a positive and significant effect on the decision to use the FLIP application, with a standardized beta coefficient of 0.518 (the highest among the two variables) and a significance value of $0.000 < 0.05$. This result confirms the second hypothesis (H2) and indicates that perceived benefits have a greater impact than security perception.

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his finding aligns with the Technology Acceptance Model (TAM), which emphasizes perceived usefulness as a key determinant in technology adoption. In the context of students—who typically face financial constraints—the benefit of saving on transfer fees is the primary appeal of the FLIP

application. Descriptive data shows that perceived benefits have the highest mean score (4.12), indicating that students place high value on the value proposition offered by FLIP.

This result also supports the findings of Chen & Wong (2024), who identified cost savings as a major dimension of perceived benefits in fund transfer applications. For USU students, FLIP's ability to facilitate interbank transfers with zero administrative fees provides significant economic value, especially for daily needs such as receiving allowances from parents or making academic-related payments.

The Simultaneous Influence of Security Perception and Perceived Benefits

The F-test results show that security perception and perceived benefits jointly have a positive and significant effect on the decision to use the FLIP application, with an F-calculated value of 208.456 > F-table value of 3.04 and a significance level of $0.000 < 0.05$. This confirms the third hypothesis (H3), stating that both variables simultaneously influence the usage decision.

The coefficient of determination (R^2) is 0.678, indicating that 67.8% of the variation in the decision to use the FLIP application can be explained by security perception and perceived benefits. The remaining 32.2% is explained by other factors not examined in this study, such as social influence, user habits, facilitating conditions, or specific demographic characteristics.

These findings suggest that FLIP's development and marketing strategies should integrate both aspects in a balanced manner. Emphasizing only the economic benefits without providing adequate security assurances, or vice versa, is insufficient. As digital natives, students have high expectations regarding both security and value in digital financial services.

CONCLUSION

Based on the results of the data analysis and discussion, it can be concluded that both security perception and perceived benefits have positive and significant effects on the decision to use the FLIP application among Universitas Sumatera Utara (USU) students. Security perception positively influences the decision to use the application, as indicated by a beta coefficient of 0.432 and a significance level of 0.000 ($p < 0.05$), suggesting that the higher the students' perception of the security provided by FLIP, the greater their likelihood of using the application. In addition, perceived benefits also have a positive and significant effect on the decision to use FLIP, with a beta coefficient of 0.518 and a significance level of 0.000 ($p < 0.05$). This finding indicates that perceived benefits exert a stronger influence than security perception, demonstrating that students are more likely to adopt the application when they recognize clear advantages and value from its use. Furthermore, security perception and perceived benefits simultaneously have a positive and significant effect on the decision to use the FLIP application, as evidenced by an F-calculated value of 208.456, which exceeds the F-table value of 3.04, and a significance level of 0.000 ($p < 0.05$). Together, these two variables explain 67.8% of the variation in students' decisions to use the FLIP application, while the remaining 32.2% is influenced by other factors that were not examined in this study.

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