

The Effect of Perceived Usefulness, Ease of Use, and Security on Interest in Using Fintech

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Abstract

This study aims to determine the effect of perceived usefulness, perceived ease of use, and perceived security on interest in using financial technology through the DANA application among students of Universitas Pasir Pengaraian, both partially and simultaneously. This study used primary data obtained from respondents through questionnaires. The population consisted of students at the Faculty of Economics, Universitas Pasir Pengaraian, and the sample was selected using a purposive sampling technique, resulting in 89 respondents. The data analysis method used was multiple linear regression. The partial test results show that perceived usefulness has a positive and significant effect on interest in using, with a significance value of 0.001. Perceived ease of use also has a positive and significant effect, with a significance value of 0.000, and is the most dominant variable. Perceived security likewise has a positive and significant effect on interest in using, with a significance value of 0.000. Simultaneously, perceived usefulness, perceived ease of use, and perceived security have a significant effect on interest in using, with a significance value of 0.000. The coefficient of determination (R^2) of 0.859 indicates that the independent variables explain 85.9% of the variance in interest in using, while the remaining 14.1% is influenced by other variables not included in this study, such as trust, risk, and promotion.

Introduction

The development of digital technology has brought significant change to financial service systems, particularly in the non-cash payment sector. One of the most rapidly growing innovations is financial technology (fintech), defined by Bank Indonesia (2018) as the use of technology within the financial system that produces new products, services, technologies, and business models capable of affecting monetary stability and financial system efficiency, particularly in the form of digital wallets (e-wallets), which enable the public to conduct transactions quickly, practically, and efficiently (Davis, 1989). The Financial Stability Board (2017) further notes that fintech innovation carries important implications for financial stability, given its capacity to reshape how financial services are delivered and accessed. One of the fastest-growing e-wallet applications in Indonesia is DANA, which provides services such as bill payment, balance transfer, mobile credit purchase, and merchant transactions; the application is considered capable of meeting the needs of modern society, particularly students, who prioritize speed, flexibility, and ease of access in their daily financial activities.

As a digital-native generation, students exhibit a high level of adaptation to technological developments, including in the use of digital financial services. The intensity of DANA application use among students is influenced not only by transactional needs but also by how they perceive the usefulness, ease of use, and security of the application. Perceived usefulness relates to the extent to which users feel that using the DANA application provides benefits, such as time efficiency, easier financial management, and more effective transactions (Davis, 1989); the higher the perceived usefulness, the greater students' tendency to continue using the application.

In addition, perceived ease of use is also an important factor driving interest in using the DANA application. An application that is easy to understand, simple to operate, and does not require a complicated process will be more attractive to users, consistent with the Technology

Acceptance Model's view that perceived ease of use has a positive effect on technology usage interest (Ajzen & Fishbein, 1980). For students, ease of use is an important factor because they tend to prefer applications that are practical and can be used anytime.

On the other hand, perceived security also plays an important role in influencing interest in using the DANA application. As a digital financial service, security is a primary concern for users, particularly regarding personal data protection, transaction security, and the risk of account misuse; when users feel that the security system implemented by the DANA application is sound, their trust and interest in using the application increases.

A number of prior studies have examined the factors influencing interest in using the DANA application. Melinda (2023) found that perceived usefulness, perceived ease of use, and perceived security have a positive effect on interest in using the DANA application, while Khoiriyah (2023) similarly found that perceived usefulness, perceived ease of use, and perceived security have a positive effect on interest in using e-wallets through the DANA application. Rahayu Wulan Ageng (2022) found that perceived ease of use has a positive and significant effect on interest in using fintech through the DANA application among the millennial generation. Ningsih (2024), examining e-wallet DANA use among polytechnic students, similarly found that perceived ease of use, security, perceived usefulness, and trust jointly affect e-wallet use. However, Andarini (2024) found different results, namely that perceived ease of use and perceived usefulness do not have a significant effect on interest in using the DANA e-wallet application, while security systems do have a significant effect. Related findings in the broader digital financial services context are also reported by Nurlina (2023), who found that perceived usefulness, ease of use, and risk affect customer trust in using BRI Mobile, and by Tacika (2022), who found that usefulness, ease of use, and risk affect the use of mobile banking, both underscoring that similar usefulness- and ease-of-use-related constructs are relevant beyond e-wallet applications alone. The Financial Services Authority (Otoritas Jasa Keuangan/OJK, 2016) has likewise noted those fintech innovations, including e-wallets, require adequate consumer trust in usefulness, convenience, and security to achieve wider adoption.

Although various studies have been conducted, differences in findings remain, particularly regarding which variable is dominant in influencing fintech usage interest: some studies indicate that perceived ease of use is more dominant, while others emphasize the importance of security or usefulness as the primary factor. In addition, some studies also incorporate additional variables such as trust, financial literacy, and perceived risk, indicating that the factors influencing fintech usage interest remain varied and not yet fully consistent.

DANA is a digital wallet (e-wallet) application in Indonesia that enables users to conduct various non-cash financial transactions through smartphone devices; rather than physical cash, the medium of exchange used is digital money, an electronic balance stored and managed digitally within the user's account, so that transactions such as online and offline shopping payments, transfers between users, bill payments, mobile credit and data package purchases, and merchant payments via QR code (QRIS) are all conducted electronically without the physical movement of money. Unlike chip-based electronic money, DANA operates entirely on a server-based system, in which a user's digital balance is stored on the service provider's system and can be used in real time without requiring a physical card, reflecting the broader development of Indonesia's digital payment system driven by growing public demand, including among students, for practical, fast, and secure financial transactions.

The research gap in this study lies in the still-limited number of studies specifically examining the effect of perceived usefulness, ease of use, and security on interest in using the DANA application among students at Universitas Pasir Pengaraian; furthermore, the differing results of prior studies indicate the need to re-examine these variables in a different context to obtain more comprehensive findings. Based on the description above, this study is entitled "The Effect of Perceived Usefulness, Perceived Ease of Use, and Perceived Security on Interest in Using Financial Technology in the DANA Application (A Study on Students of Universitas Pasir Pengaraian)," and is expected to contribute to enriching the empirical literature on the factors

influencing fintech usage interest, particularly among students, and to serve as a basis for consideration in the development of digital financial services in Indonesia.

Literature Review and Hypotheses Development

The Effect of Perceived Usefulness on Interest in Using the DANA Application

Perceived usefulness is defined as the degree to which a person believes that using a particular system will enhance their performance, a central construct of the Technology Acceptance Model (TAM) introduced by Davis (1989). In the context of this study, students will tend to use the DANA application if they feel the application provides real benefits in daily life, such as easing transactions, speeding up the payment process, and improving efficiency in financial management. Melinda (2023) and Khoiriyah (2023) found that perceived usefulness has a positive and significant effect on interest in using financial technology, particularly the DANA application, though this finding differs from that of Andarini (2024), who found that perceived usefulness does not have a significant effect, a discrepancy likely attributable to differences in respondent characteristics, research location, and respondents' level of technological understanding. Based on the theory and empirical findings above, the following hypothesis is proposed:

H1: There is a partial effect of perceived usefulness on students' interest in using the DANA application.

The Effect of Perceived Ease of Use on Interest in Using the DANA Application

Perceived ease of use, another central TAM construct, explains that a technology will be more readily accepted when users feel it is easy to use, uncomplicated, and does not require significant effort; ease of use creates a sense of comfort for users, thereby increasing their tendency to continue using the technology. Melinda (2023), Khoiriyah (2023), and Rahayu Wulan Ageng (2022) found that perceived ease of use has a positive and significant effect on interest in using fintech, though this finding differs from that of Andarini (2024), who found that perceived ease of use does not have a significant effect. Based on the theory and empirical findings above, the following hypothesis is proposed:

H2: There is a partial effect of perceived ease of use on students' interest in using the DANA application.

The Effect of Perceived Security on Interest in Using the DANA Application

Perceived security is an important factor in the use of digital technology, particularly in the field of financial technology, relating to users' level of trust in a system's ability to protect personal data, financial information, and transaction security; when users feel that a system is secure, they become more trusting and more inclined to use it. Melinda (2023) and Khoiriyah (2023) found that perceived security has a significant effect on interest in using, a finding further supported by Rahayu Wulan Ageng (2022), who found that trust and security factors play an important role in increasing fintech usage interest. Based on the theory and empirical findings above, the following hypothesis is proposed:

H3: There is a partial effect of perceived security on students' interest in using the DANA application.

The Simultaneous Effect of Perceived Usefulness, Ease of Use, and Security on Interest in Using

Under the Technology Acceptance Model, technology acceptance is not influenced by a single factor alone but is a combination of several primary factors, particularly usefulness and ease of use, which are then reinforced by other factors such as security; students consider not only one aspect when using the DANA application but evaluate it holistically, from the benefits obtained and ease of use to the level of security provided, with these three factors complementing one another as the basis for the decision to use a fintech application. Melinda (2023) and Khoiriyah (2023) found that perceived usefulness, ease of use, and security simultaneously have a significant

effect on interest in using the DANA application. Based on the theory and empirical findings above, the following hypothesis is proposed:

H4: There is a simultaneous effect of perceived usefulness, perceived ease of use, and perceived security on students' interest in using the DANA application.

Research Methods

The object of this study is students who use the DANA application at Universitas Pasir Pengaraian. This research is quantitative in nature, using a descriptive quantitative approach, a method used to examine a group of individuals, a particular condition, a system of thought, or an ongoing phenomenon in the present (Sugiyono, 2020). The descriptive approach was applied to describe the collected data in detail before analyzing it using predetermined instruments and analytical tools; the quantitative method was chosen to facilitate the data collection process, in which data are obtained from a representative sample of a large population, allowing the researcher to save time and cost significantly.

The population in this study consists of students at the Faculty of Economics, Universitas Pasir Pengaraian (Sugiyono, 2020). The sampling technique used was purposive sampling, in which respondents were selected based on specific criteria relevant to the research objective: respondents who are active students at the Faculty of Economics, Universitas Pasir Pengaraian, and who are users of the DANA application. Based on these criteria, 89 respondents were obtained as the research sample. Questionnaires were distributed to respondents via a Google Form link.

The data used in this study consist of primary data, obtained directly from respondents through questionnaires using a five-point Likert scale, and secondary data obtained from documents, books, and relevant prior research. Interest in Using (Y) was measured using the indicators of transactional interest, referential interest, preferential interest, and exploratory interest. Perceived Usefulness (X1) was measured using the indicators of faster transactions, improved effectiveness, improved productivity, and providing benefits (Rahayu Wulan Ageng, 2022). Perceived Ease of Use (X2) was measured using the indicators of ease of learning, ease of use, ease of understanding, and flexibility of use, that is, usable anytime and anywhere (Rahayu Wulan Ageng, 2022). Perceived Security (X3) was measured using the indicators of personal information security, user data protection, transaction security, and balance security (Melinda, 2023).

Prior to the main analysis, instrument testing was carried out through validity and reliability testing (Cronbach's Alpha, with an overall value > 0.70 indicating the instrument is reliable). Data analysis included classical assumption tests (normality tested using a normal probability plot, multicollinearity tested using Tolerance and Variance Inflation Factor/VIF values, and heteroscedasticity tested using a scatterplot), multiple linear regression analysis with the model $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$, the coefficient of determination (R^2) test, and hypothesis testing through the partial test (t-test) and simultaneous test (F-test) at a 5% significance level.

Results and Discussion

The respondents in this study consisted of 89 students of Universitas Pasir Pengaraian. Based on gender, the majority of respondents were female (57 people or 64.0%), while male respondents numbered 32 people (36.0%). Based on study program, the majority of respondents were from the Management study program (52 people or 58.4%), followed by the Accounting study program (31 people or 34.8%) and the Entrepreneurship study program (6 people or 6.7%).

Reliability testing showed that all items across the four variables had a corrected item-total correlation above 0.30 and a Cronbach's Alpha if item deleted value above 0.70, so all items were declared valid and reliable. Classical assumption testing shows that the residual data is normally distributed, based on the normal probability plot, in which the data points follow the diagonal line; no multicollinearity is present, as no independent variable's Tolerance or VIF value indicates interference; and no heteroscedasticity is present, based on the scatterplot pattern of the residuals, so the regression model is suitable for hypothesis testing.

Table 1. Multiple Linear Regression and t-Test Results

Variable	B	Beta	t	Sig.
(Constant)	1.874		2.420	0.018
Perceived Usefulness (X1)	0.347	0.365	3.568	0.001
Perceived Ease of Use (X2)	0.741	0.852	15.210	0.000
Perceived Security (X3)	0.481	0.494	6.182	0.000

Source: SPSS Data Processing Results, 2026. Dependent Variable: Interest in Using

Based on Table 1, the regression equation obtained is $Y = 1.874 + 0.347X_1 + 0.741X_2 + 0.481X_3$. The constant value of 1.874 indicates that when Perceived Usefulness, Perceived Ease of Use, and Perceived Security are held at zero, Interest in Using remains at 1.874. All three regression coefficients are positive, indicating that an increase in each independent variable is associated with an increase in interest in using the DANA application, assuming the other variables remain constant.

Table 2. F-Test and Coefficient of Determination Results

F-calculated	Sig.	R	R Square	Adjusted R Square
172.437	0.000	0.927	0.859	0.854

Source: SPSS Data Processing Results, 2026. Predictors: (Constant), Perceived Security, Perceived Usefulness, Perceived Ease of Use

The t-test results in Table 1 show that Perceived Usefulness obtained a calculated t-value of 3.568 with a significance value of 0.001 (< 0.05), so H1 is accepted. Perceived Ease of Use obtained a calculated t-value of 15.210, the highest among the three independent variables, with a significance value of 0.000 (< 0.05), so H2 is accepted; this indicates that Perceived Ease of Use is the most dominant variable affecting interest in using the DANA application. Perceived Security obtained a calculated t-value of 6.182 with a significance value of 0.000 (< 0.05), so H3 is accepted. The F-test result in Table 2 shows a calculated F-value of 172.437 with a significance value of 0.000 (< 0.05), so H4 is accepted: Perceived Usefulness, Perceived Ease of Use, and Perceived Security simultaneously have a significant effect on Interest in Using. The R Square value of 0.859 indicates that the three independent variables jointly explain 85.9% of the variation in Interest in Using, while the remaining 14.1% is explained by other factors outside the research model, such as trust, risk, and promotion.

The Effect of Perceived Usefulness on Interest in Using the DANA Application

The partial test result shows that Perceived Usefulness has a significance value of 0.001 (< 0.05) with a calculated t-value of 3.568, so H1 is accepted: Perceived Usefulness has a positive and significant effect on Interest in Using. Theoretically, this finding is consistent with the Technology Acceptance Model (TAM) proposed by Davis (1989), which holds that perceived usefulness is one of the primary factors influencing individual technology acceptance, defined as the degree to which a person believes that using a system will improve their performance. Empirically, the majority of respondents stated that using the DANA application provides various conveniences in financial transaction activities, enabling fast, practical, cashless payments; features such as inter-user transfers, bill payments, and cashback promotions further enhance users' perceived usefulness, so the greater the usefulness felt by students, the higher their interest in continuing to use the application. This finding is supported by Melinda (2023) and Khoiriyah (2023), who found that perceived usefulness has a positive and significant effect on interest in using financial technology, particularly the DANA application, though it differs from Andarini (2024), who found that perceived usefulness does not have a significant effect, a discrepancy likely attributable to differences in respondent characteristics, research location, and respondents' level of technological understanding.

The Effect of Perceived Ease of Use on Interest in Using the DANA Application

The partial test result shows that Perceived Ease of Use has a significance value of 0.000 (< 0.05) with a calculated t-value of 15.210, so H2 is accepted: Perceived Ease of Use has a positive and significant effect on Interest in Using. Theoretically, perceived ease of use is one of the primary

constructs in the TAM model, explaining that a technology will be more readily accepted when users feel it is easy to use, uncomplicated, and does not require significant effort, thereby creating a sense of comfort that increases the tendency toward continued use. Empirically, students assessed the DANA application as having a simple, easily understood interface and easily operated features; a fast registration process, clear application navigation, and ease of conducting transactions were the primary factors driving students' interest in using the DANA application, while the flexibility of being able to transact anytime and anywhere further strengthened this perception of ease. Perceived Ease of Use obtained the largest calculated t-value (15.210) among the three variables, indicating that it is the most dominant factor influencing usage interest, suggesting that for students, ease of use is the primary consideration in choosing a fintech application. This finding is consistent with Melinda (2023), Khoiriyah (2023), and Rahayu Wulan Ageng (2022), who found that perceived ease of use has a positive and significant effect on fintech usage interest, though it differs from Andarini (2024), who found that perceived ease of use does not have a significant effect.

The Effect of Perceived Security on Interest in Using the DANA Application

The partial test result shows that Perceived Security has a significance value of 0.000 (< 0.05) with a calculated t-value of 6.182, so H3 is accepted: Perceived Security has a positive and significant effect on Interest in Using. Theoretically, perceived security is an important factor in the use of digital technology, particularly in the field of financial technology, relating to users' trust in a system's ability to protect personal data, financial information, and transaction security. Empirically, students showed a fairly high level of trust in the security of the DANA application, supported by security features such as PIN codes, OTP verification, and user data protection, while the application's reputation as a registered and regulator-supervised e-wallet further enhanced users' sense of security; because perceived security relates directly to risks such as data breaches or fraud in digital transactions, the higher the perceived level of security, the greater users' interest in using the application. This finding is consistent with Melinda (2023) and Khoiriyah (2023), who found that perceived security has a significant effect on usage interest, further supported by Rahayu Wulan Ageng (2022), who found that trust and security factors play an important role in increasing fintech usage interest.

The Simultaneous Effect of Perceived Usefulness, Ease of Use, and Security on Interest in Using

The simultaneous test (F-test) shows a significance value of 0.000 (< 0.05) with a calculated F-value of 172.437, so H4 is accepted: Perceived Usefulness, Perceived Ease of Use, and Perceived Security jointly have a significant effect on Interest in Using the DANA application. The R Square value of 0.859 (85.9%) indicates that the three independent variables are able to explain the variation in Interest in Using very strongly, while the remaining 14.1% is influenced by other factors outside this study, such as promotion, trust, user experience, or social factors. Theoretically, this finding reinforces the TAM model, which holds that technology acceptance is not influenced by a single factor alone but is a combination of several primary factors, particularly usefulness and ease of use, further reinforced by other factors such as security. Empirically, students do not consider only one aspect when using the DANA application but evaluate it holistically, from the benefits obtained and ease of use to the level of security provided, with the three factors complementing one another as the basis for the decision to use a fintech application. This finding is consistent with Melinda (2023) and Khoiriyah (2023), who found that perceived usefulness, ease of use, and security simultaneously have a significant effect on interest in using the DANA application.

Implication and Conclusion

Based on the results of the analysis and discussion, it can be concluded that Perceived Usefulness has a positive and significant effect on students' interest in using the DANA application (H1 accepted); Perceived Ease of Use has a positive and significant effect and is the most dominant variable (H2 accepted); Perceived Security has a positive and significant effect (H3 accepted); and

Perceived Usefulness, Perceived Ease of Use, and Perceived Security simultaneously have a significant effect on interest in using the DANA application (H4 accepted), jointly explaining 85.9% of its variation.

These findings imply that DANA application developers and related fintech providers are encouraged to continue enhancing features that increase perceived usefulness, such as transaction speed and cashback promotions, while maintaining a simple and easily navigable user interface, given that perceived ease of use proved to be the most dominant factor influencing usage interest. Strengthening security features, such as PIN codes, OTP verification, and transparent communication regarding regulatory oversight, is also important to maintain user trust. Future researchers are recommended to incorporate other variables believed to affect fintech usage interest, such as trust, perceived risk, financial literacy, and promotion, and to expand the research sample and location in order to obtain more comprehensive findings.

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