

**THE EFFECT OF PERCEIVED BENEFITS, PERCEIVED RISK, AND PERCEIVED SECURITY ON THE INTENTION TO USE DANA AS THE E-MONEY APPLICATION AMONG STUDENTS OF SAM RATULANGI UNIVERSITY**

*PENGARUH PERSEPSI MANFAAT, PERSEPSI RISIKO, DAN PERSEPSI KEAMANAN TERHADAP NIAT MENGGUNAKAN DANA SEBAGAI APLIKASI UANG ELEKTRONIK DI KALANGAN MAHASISWA UNIVERSITAS SAM RATULANGI*

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**Abstract:** This study investigates the impact of perceived benefits, perceived risk, and perceived security on students' intention to use DANA, an e-money application, among students of Sam Ratulangi University. With the increasing shift towards digital transactions, it is essential to understand the factors influencing the adoption of e-money services. Using a quantitative method, data was collected from 100 students via an online survey. The results indicated that perceived benefits and perceived security positively affect the intention to use DANA, while perceived risk negatively affects it. These findings provide insights for service providers to improve their offerings and address user concerns, particularly regarding security.

**Keyword:** Perceived Benefits, Perceived Risk, Perceived Security, E-Money, Intention To Use

**Abstrak:** Penelitian ini menyelidiki dampak persepsi manfaat, persepsi risiko, dan persepsi keamanan terhadap niat mahasiswa Universitas Sam Ratulangi untuk menggunakan DANA, sebuah aplikasi uang elektronik. Dengan semakin maraknya transaksi digital, sangat penting untuk memahami faktor-faktor yang mempengaruhi adopsi layanan uang elektronik. Menggunakan metode kuantitatif, data dikumpulkan dari 100 mahasiswa melalui survei online. Hasil penelitian menunjukkan bahwa persepsi manfaat dan persepsi keamanan berpengaruh positif terhadap niat menggunakan DANA, sedangkan persepsi risiko berpengaruh negatif. Temuan ini memberikan wawasan bagi penyedia layanan untuk meningkatkan penawarannya dan mengatasi kekhawatiran pengguna, terutama terkait dengan keamanan.

**Kata Kunci:** Persepsi Manfaat, Persepsi Risiko, Persepsi Keamanan, Uang Elektronik, Niat Untuk Menggunakan

## INTRODUCTION

### Research Background

The use of electronic money (e-money) has seen a remarkable increase in recent years, driven by the growing demand for convenience and efficiency in financial transactions. As consumers increasingly adopt digital payment solutions, it becomes essential to understand the factors influencing their intentions to use these applications. DANA, an e-money application that has gained significant popularity in Indonesia, serves as a focal point for this investigation. Despite its strong presence in the market, DANA faces fierce competition from other platforms that have successfully attracted larger user bases. This competitive landscape underscores the need for effective marketing strategies that can enhance user perceptions and influence adoption rates.

E-money has facilitated a transition towards a cashless society, increasing transaction efficiency and reducing costs associated with handling physical currency. Furthermore, it has accelerated the growth of e-commerce and digital businesses by providing consumers with convenient and secure online payment options. Despite these advancements, challenges remain. Data security and privacy issues must be effectively addressed to ensure continued

user trust in e-money applications. Financial education initiatives are also essential to ensure that all segments of the population can benefit from digital financial services. As e-money continues to evolve, it holds the potential to improve financial inclusion and stimulate economic growth.

Consumer behavior plays a crucial role in the adoption of e-money applications. Perceived benefits refer to the advantages users believe they will gain from using these applications, such as convenience, time savings, and accessibility. Research indicates that when consumers perceive substantial benefits from using an application, they are more likely to adopt it. Conversely, perceived risk encompasses the uncertainties and potential negative outcomes associated with using digital payment systems. Users may be hesitant to adopt e-money solutions if they perceive high risks related to security breaches or fraud. Therefore, addressing these concerns through effective communication and robust security measures is essential for fostering trust among potential users. Perceived security is another critical factor influencing consumer intentions. Users must feel confident that their personal and financial information is protected when using e-money applications. The perception of security can significantly impact user trust and willingness to engage with digital payment systems. E-money providers must implement strong security protocols and communicate these measures effectively to reassure users.

DANA exemplifies an innovative approach within the electronic money sector. Originating from South Korea, DANA allows users to store funds digitally and facilitates various financial transactions without relying on traditional physical currency. Users can link their bank accounts or credit cards to the DANA app, enabling them to make online purchases, pay bills, or transfer money seamlessly. Moreover, DANA's mobile wallet functionality extends to offline transactions through QR codes or near-field communication (NFC) technology. The convenience offered by DANA has contributed significantly to its popularity among users seeking efficient financial solutions. Additionally, DANA frequently implements promotional offers and loyalty programs that enhance user experience and encourage adoption of e-money in everyday financial activities. As this research unfolds, it seeks to analyze how perceived benefits, perceived risk, and perceived security collectively influence students' intentions to use DANA as an e-money application at Sam Ratulangi University.

By focusing on this demographic group, the study aims to provide targeted insights that can inform both academic discourse and practical applications within the rapidly evolving landscape of digital payments in Indonesia. Ultimately, this research will contribute valuable insights into consumer behavior regarding e-money applications while providing practical implications for providers seeking to improve their services and marketing strategies. Furthermore, policymakers can utilize these findings to develop regulations that ensure user safety while promoting the growth of the digital payment industry. As electronic money continues to reshape financial transactions in Indonesia, understanding the interplay between perceived benefits, risks, and security will be essential for enhancing user engagement with platforms like DANA. This study aims not only to shed light on these critical factors but also to contribute meaningfully to the existing literature on e-money usage in Indonesia while fostering a more advanced and inclusive financial ecosystem in the country.

### **Research Objectives**

1. To determine the effect of perceived benefits on the intention to use DANA as the e-money application among students of Sam Ratulangi University.
2. To assess the effect of perceived risk on the intention to use DANA as the e-money application among students of Sam Ratulangi University.
3. To evaluate the effect of perceived security on the intention to use DANA as the e-money application among students of Sam Ratulangi University.
4. To analyze the simultaneous effect of perceived benefits, perceived risk, and perceived security on the intention to use DANA as the e-money application among students of Sam Ratulangi University.

## **THEORETICAL FRAMEWORK**

### **E-Money**

E-money refers to digital currency that enables users to conduct electronic transactions without relying on physical cash. Rivai, Veithzal, and Idroes (2007) state that electronic money is an electronic means of paying obtained by depositing a sum of money in advance to the publisher, or by debiting a bank account.

### **Perceived Benefit**

Perceived benefits refer to the advantages that users believe they will gain from using an e-money application

like DANA. These benefits can include convenience, time savings, accessibility, and enhanced financial management capabilities. Venkatesh and Davis (2000) categorize perceived benefits into four dimensions: (1) Improved Job Performance: Using the system enhances individual performance; (2) Increased Productivity: The system allows users to be more productive; (3) Enhanced Effectiveness: The application improves the effectiveness of individual tasks; and (4) Usefulness: The system provides tangible benefits to users. Davis (1989) further identify specific indicators of perceived benefits related to e-money applications: Simplification of payment transactions, Speeding up payment processes, Providing additional time savings during transactions, Enhancing security during payment processes, and Improving overall efficiency in conducting transactions.

### **Perceived Risk**

Perceived risk refers to the uncertainties and potential negative consequences associated with using an e-money application. Bauer (1960) defines perceived risk as any uncertainty related to unfavorable outcomes from consumer expectations when using a product or service. Littler and Melanthiou (2006) elaborate that perceived risk encompasses consumers' perceptions of possible losses associated with their purchasing decisions. Indicators of perceived risk include: Financial Risk: The potential for monetary loss resulting from a transaction, Performance Risk: The likelihood that the product or service will not meet expectations, and Psychological Risk: The discomfort or negative self-image associated with using a particular service.

### **Perceived Security**

Perceived security is defined as the extent to which users believe that their personal and financial information is safe when using an e-money application. Flavian and Guinalú (2006) emphasize that perceived security is a significant determinant in online shopping intentions, highlighting how security concerns can deter consumers from using digital payment systems. Chawla and Joshi (2019) assert that security is critical in influencing consumers' intentions to engage in online transactions. Key aspects of perceived security include: Integrity: Ensuring that data cannot be altered by unauthorized parties, Confidentiality: Guaranteeing that only authorized individuals can access sensitive information, and Authentication: Verifying user identities before allowing access to services. Indicators of perceived security can include (1) Accuracy and timeliness of service delivery, (2) Reliability in protecting user data from breaches, and (3) Transparency regarding security measures employed by the service provider.

### **Previous Studies**

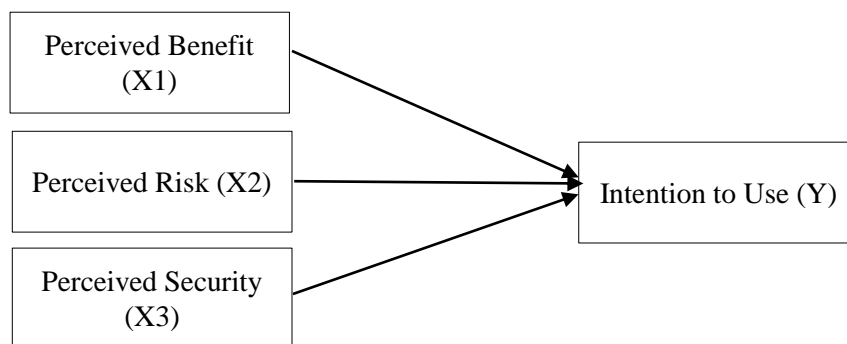
Wilson, Alvita, and Wibisono (2021) aimed to assess whether or not both Perceived Ease of Use and Perceived Security positively affect Customer Satisfaction and Repurchase Intention in the B2C E-Commerce sector in Indonesia. This research implements survey method, in which questionnaires were chosen as the tools which will be used to collect all of the data needed for the completion of this study. A total of 250 respondents participated in this study, in which a total of 226 valid, reliable and usable data were further analyzed using PLS-SEM method in order to generate the results and findings required to complete this study. Based on the results of the data analyses, authors would like to conclude that both Perceived Ease of Use and Perceived Security have a significant and positive impact toward Customer Satisfaction and Repurchase Intention both in a direct and indirect manner in the B2C E-Commerce sector in Indonesia.

Raninda, Wisnalmawati, and Oetomo (2022) determined the effect of perceived usefulness, perceived ease of use, perceived security, and cashback promotion on behavioral intention to the DANA e-wallet (a survey of people in the Special Region of Yogyakarta). The sampling technique used is non-probability sampling with the purposive sampling method. The number of samples in this study was 100 respondents with the criteria of people who have a DANA account but have never used it for transactions. The analytical technique used is multiple linear regression analysis. Based on the results of this study, it was found that perceived usefulness, perceived ease of use, perceived security, and cashback promotion simultaneously or together had an effect on behavioral intention in DANA e-wallet. In addition, this study also obtained results that perceived usefulness, perceived ease of use, perceived security, and cashback promotion partially or one by one affect behavioral intention.

Rantung, Tumbuan, dan Gunawan (2020) aimed to find out whether the variables which are perceived trust, perceived usefulness, and perceived ease of use can influence the behavioral intention of go-pay users. This study uses a quantitative method with a questionnaire to collect the data and multiple linear regression as a tool to analyze the data that has been collected. The findings of this study showed that perceived trust and perceived ease of use have positive and significant influence on behavioral intention, while perceived usefulness has no influence and not significantly on behavioral intention.



## Conceptual Framework



**Figure 1. Conceptual Framework**

*Source: Literature Review*

### Research Hypothesis

H1: Perceived benefits positively affect the intention to use DANA.

H2: Perceived risk positively affects the intention to use DANA.

H3: Perceived security positively affects the intention to use DANA.

H4: The combined effects of perceived benefits, perceived risks, and perceived security significantly influence the intention to use DANA.

## RESEARCH METHOD

### Research Approach

The study adopts a quantitative research approach, which is characterized by the systematic investigation of phenomena through statistical, mathematical, or computational techniques. This approach is particularly suitable for this research as it allows for the measurement of relationships between variables and the analysis of data to draw conclusions about the influence of perceived benefits, perceived risk, and perceived security on users' intentions to utilize DANA.

### Population, Sample Size, and Sampling Techniques

The population targeted for this study consists of students from Sam Ratulangi University who are users of the DANA e-money application. The choice of this demographic is strategic, as students represent a significant segment of e-money users in Indonesia, particularly in urban areas where digital payment solutions are increasingly adopted. To ensure a representative sample, the study employs probability sampling, specifically utilizing simple random sampling techniques. This method guarantees that every individual within the population has an equal chance of being selected for participation, thereby enhancing the validity and generalizability of the findings. The sample size for this research is determined to be 100 respondents. This number is considered adequate for conducting statistical analyses while maintaining a manageable scope for data collection and analysis. A sample size of 100 allows for sufficient power in detecting significant relationships between variables while ensuring that data collection remains feasible within time constraints.

### Type of Data and Data Source

The study relies on primary data, which is collected directly from respondents through structured questionnaires. Primary data is advantageous because it provides firsthand insights into participants' perceptions and behaviors regarding the DANA application. The questionnaire includes various items designed to measure perceived benefits, perceived risk, perceived security, and intention to use DANA.

### Data Collection Method

Data collection is conducted using an online questionnaire distributed to students at Sam Ratulangi University who actively use DANA. The online format is chosen for its convenience and accessibility, allowing respondents to complete the questionnaire at their convenience via digital platforms such as Google Forms or

SurveyMonkey. This method not only facilitates a broader reach but also enables researchers to gather responses quickly and efficiently.

### Operational Definition and Measurement of Research Variables

Each variable in the study is operationally defined to ensure clarity in measurement:

- Perceived Benefits: This variable encompasses users' perceptions regarding the advantages they gain from using DANA, such as convenience, time savings, and enhanced financial management capabilities.
- Perceived Risk: This variable refers to users' concerns about potential negative outcomes associated with using DANA, including financial loss or privacy breaches.
- Perceived Security: This variable captures users' beliefs about the safety measures implemented by DANA to protect their personal and financial information.
- Intention to Use: This variable measures users' willingness to adopt and utilize DANA based on their perceptions of benefits, risks, and security.

The measurement of these variables involves using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). This scale allows respondents to express their level of agreement with various statements related to each variable.

### Testing of Research Instruments

#### Validity and Reliability Tests

Before proceeding with data collection, the study conducts tests for validity and reliability to ensure that the research instruments are effective in measuring the intended constructs. The validity test assesses whether the questionnaire items accurately measure what they are intended to measure. This involves using statistical techniques such as factor analysis or correlation coefficients to determine if items cluster together as expected.

The reliability test evaluates the consistency of the questionnaire results over time. A common method used is Cronbach's alpha coefficient, where a value above 0.70 indicates acceptable reliability. This ensures that the items used in the questionnaire yield stable and consistent results across different samples.

### Data Technical Analysis

#### Test of Classical Assumptions

To ensure that regression analysis results are valid, classical assumptions such as normality, multicollinearity, homoscedasticity, and linearity must be tested:

- Normality: Ensures that residuals are normally distributed.
- Multicollinearity: Checks for high correlations among independent variables.
- Homoscedasticity: Assesses whether residuals have constant variance across all levels of independent variables.
- Linearity: Verifies that there is a linear relationship between independent variables and the dependent variable.

### Multiple Linear Regression Analysis

Multiple linear regression analysis examines the linear relationship between two or more independent variables and the dependent variable (Y). The analysis aims to determine the direction of the relationship between the independent variables and the dependent variable, indicating whether each independent variable has a positive or negative effect. It also predicts the value of the dependent variable when an independent variable increases or decreases. In this research, multiple regression analysis is used because the study includes four independent variables. The regression equation in this study is as follows:

$$y = \alpha + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + e$$

Where:

- y : Organizational Effectiveness
- $\alpha$  : Constant when all independent variable = 0
- $\beta_1$  : 1st regression coefficient (Knowledge Management)
- $\beta_2$  : 2nd regression coefficient (Time Management)
- $\beta_3$  : 3rd regression coefficient (Work Motivation)
- X1 : Knowledge Management
- X2 : Time Management

X3 : Work Motivation

e : Error term

### Hypothesis Testing

#### T-Test (Partial Test)

The t-test is utilized to determine the extent of influence that independent variables have on the dependent variable in a regression analysis, with a significant level of 0.05. The hypothesis acceptance criteria are as follows:

- H0: Probability > significance level of 0.05, indicating that the independent variables do not have an impact on the dependent variable.
- Ha: Probability < significance level of 0.05, indicating that the independent variables have an impact on the dependent variable.

#### F-Test (Simultaneously Test)

The F-test is used to test the significance of the overall equation that determines the combined influence of the independent variables on the dependent variable in a regression analysis with a significant level of 0.05. The result of the test is as follows:

- H0: Probability > significance level of 0.05, indicating that the independent variables do not have an impact on the dependent variable.
- Ha: Probability < significance level of 0.05, indicating that the independent variables have an impact on the dependent variable.

## RESULT AND DISCUSSION

### Result

#### Reliability and Validity Test

**Table 1. Validity Test Results of Variable Indicators**

Variable	Indicator	Validity		Result
		r count	r table	
Perceived Benefits	X1.1	0.887	0.197	Valid
	X1.2	0.844	0.197	Valid
	X1.3	0.721	0.197	Valid
	X1.4	0.848	0.197	Valid
	X1.5	0.823	0.197	Valid
Perceived Risk	X2.1	0.880	0.197	Valid
	X2.2	0.832	0.197	Valid
	X2.3	0.792	0.197	Valid
	X2.4	0.871	0.197	Valid
	X2.5	0.828	0.197	Valid
Perceived Security	X3.1	0.896	0.197	Valid
	X3.2	0.807	0.197	Valid
	X3.3	0.846	0.197	Valid
	X3.4	0.848	0.197	Valid
Intention to Use	Y.1	0.880	0.197	Valid
	Y.2	0.779	0.197	Valid
	Y.3	0.798	0.197	Valid
	Y.4	0.878	0.197	Valid

Source: Data Processed SPSS 26 (2024)

Based on Table 1, it shows that all indicator result items from the Perceived Benefits (X1), Perceived Risk (X2), Perceived Security (X3), and Intention to Use (Y) variables have a Pearson correlation value greater than r table (0.197). Thus, the entire item statement of the research variable is valid.

**Table 2. Variable Indicator Reliability Test Results**

Variable	Cronbach's Alpha	Requirement	Result
Perceived Benefits	0.879	> 0.7	Reliable
Perceived Risk	0.890	> 0.7	Reliable
Perceived Security	0.866	> 0.7	Reliable
Intention to Use	0.848	> 0.7	Reliable

Source: Data Processed SPSS 26 (2024)

Based on table 2, the reliability test results can be seen that for the variables Perceived Benefits (X1), Perceived Risk (X2), Perceived Security (X3), Intention to Use (Y), have Cronbach's Alpha values of 0.879, 0.890, 0.866, and 0.848, all are above 0.7. Thus all the variables are declared reliable.

**Classical Assumption Test**

**Normality Test**

**Table 3. Data Normality Test Results**

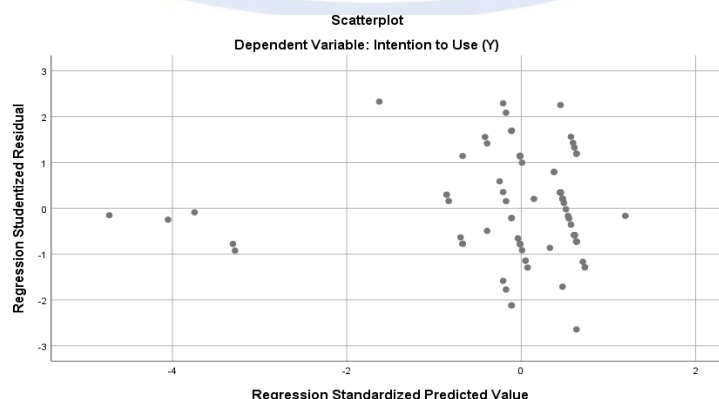
		One-Sample Kolmogorov-Smirnov Test	
		Unstandardized Residual	
N		100	
Normal Parameters <sup>a,b</sup>	Mean	,0000000	
	Std. Deviation	,51973415	
Most Extreme Differences	Absolute	,113	
	Positive	,113	
	Negative	-,077	
Test Statistic		,113	
Asymp. Sig. (2-tailed)		,003 <sup>c</sup>	
Monte Carlo Sig. (2-tailed)	Sig.	,151 <sup>d</sup>	
	99% Confidence Interval	Lower Bound	,142
		Upper Bound	,160

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. Based on 10000 sampled tables with starting seed 2000000.

Source: Data Processed SPSS 26 (2024)

Based on table 3, the results of the Kolmogorov-Smirnov second normality test, the Sig. from the regression model above is 0.151 which is greater than the value of  $\alpha = 0.05$ . Thus the results of the Kolmogorov-Smirnov test from the regression model above have fulfilled the normality requirements with a Sig value  $> \alpha = 0.05$ .

**Heteroscedasticity Test**



**Figure 2. Heteroscedasticity Test Results**

Source: Data Processed SPSS 26 (2024)



Based on Figure 2, it can be seen that there is no clear pattern, such as the dots extending above and below the number 0 on the Y axis, so the dots spread randomly, and do not form a specific pattern. This, it can be concluded that the data tested is free from heteroscedasticity.

### Multicollinearity Test

**Table 4. Multicollinearity Test**

Variable	Collinearity Statistics		Multicollinearity
	Tolerance	VIF	
Perceived Benefits	,165	6,059	No
Perceived Risk	,036	2,786	No
Perceived Security	,039	2,569	No

Source: Data Processed SPSS 26 (2024)

Based on table 4, the VIF value of each variable is less than 10. From this, it can be concluded that the data tested did not have multicollinearity.

### Multiple Linear Regression Analysis

The data analysis technique used in this study is Multiple Linear Regression analysis, which is used to determine the effect of the independent variables on the dependent variable. The use of Multiple Linear Regression is because this study uses more than one independent variable, including the variables Perceived Benefits (X1), Perceived Risk (X2), Perceived Security (X3) to determine the effect on the dependent variable Intention to Use (Y). Data processing using SPSS (Statistical Package for Social Sciences) 26.0.

**Table 5. Multiple Linear Regression Results**

Variable	Regression Coefficient (B)	Std. Error	T Count	Sig.	Result
(Constant)	-0.241	0.359	0.672	0.503	
Perceived Benefits	0.487	0.034	14.159	0.000	Significant
Perceived Risk	0.072	0.069	1.049	0.297	Not Significant
Perceived Security	-0.294	0.081	3,630	0.000	Significant

Source: Data Processed SPSS 26 (2024)

The multiple linear regression equation model obtained is as follows:

$$Y = 0,241 + 0,487 X1 + 0,072 X2 + 0,294 X3 + e;$$

From the multiple linear regression equation above it can be interpreted as follows:

- If there is no influence from the predictor variables Perceived Benefits (X1), Perceived Risk (X2), and Perceived Security (X3), the value of Intention of Use (Y) is 0.241
- The Perceived Benefits (X1) regression coefficient is 0.487, which means that Perceived Benefits (X1) gives an additional score of 0.487 to Intention to Use (Y) for every increase due to Perceived Benefits (X1).
- The Perceived Risk (X2) regression coefficient is 0.072, which means that Perceived Risk (X2) gives an additional score of 0.072 to Intention to Use (Y) for every increase due to Perceived Risk (X2).
- The Perceived Security (X3) regression coefficient is 0.294, which means that Perceived Security (X3) gives an additional score of 0

### Coefficient of Determination

**Table 6. Results of the Coefficient of Determination**

R	R Square	Adjusted R Square	Std. Error of the Estimate	Result
,986 <sup>a</sup>	,972	,971	,52779	Strong

Source: Data Processed SPSS 26 (2024)

Based on table 6, it is known that the value of the Adjusted R Square is 0.972. This shows that 97.2% Intention to Use (Y) is influenced by the variables Perceived Benefits (X1), Perceived Risk (X2), Perceived Security (X3) while the rest (100% - 97.2%), namely 2.8% Intention to Use (Y) is influenced by other factors outside of this study. The result shows the correlation coefficient or R of 0.986 this reveal that the connection of Perceived Benefits and



Perceived Risk, Peceived Security to Intention to Use for the Use Dana as the E-Money Application Among Students of Sam Ratulangi University 98,6% and can be concluded as as strong relationship.

## Hypothesis Testing

### Partial Hypothesis Test (t-Test)

- There is a partial influence of Perceived Benefits (X1) on Intention to Use (Y). Table 5 shows that the relationship between Perceived Benefits (X1) and Intention to Use (Y) is significant with a t-count of 14.159 ( $t\text{-count} \geq t_{\alpha} (0.05) (df=97) = 1.98$  and a Sig. value = 0.000 which means less than  $\alpha = 0.05$ . The coefficient value is positive, which is equal to 0.487 which indicates that the direction of the relationship between Perceived Benefits (X1) and Intention to Use is positive or increases by 48.7%. Thus the H1 hypothesis in this study states that "There is an effect of perceived benefit (X1) toward intention to use (Y) e-money" is accepted.
- There is a partial influence of Perceived Risk (X2) on Intention to Use (Y). Table 5 shows that the relationship between Perceived Benefits (X2) and Intention to Use (Y) is significant with a t-count of 1.049 ( $t\text{-count} \geq t_{\alpha} (0.05) (df=97) = 1.98$  and a Sig. value = 0.297 which means more than  $\alpha = 0.05$ . The coefficient value is positive, which is equal to 0.072 which indicates that the direction of the relationship between Perceived Risk (X2) and Intention to Use is positive or increases by 0.72%. So Perceived Risk has an effect on Intention to Use but does not have a significant effect on Intention to Use Thus the H2 hypothesis in this study states that " There is an effect of perceived risk (X2) toward intention to use e-money (Y)" is accepted.
- There is a partial influence of Perceived Security (X3) on Intention to Use (Y). Table 5 shows that the relationship between Perceived Security (X3) and Intention to Use (Y) is significant with a t-count of 3,630 ( $t\text{-count} \geq t_{\alpha} (0.05) (df=97) = 1.98$  and a Sig. value = 0.000 which means less than  $\alpha = 0.05$ . The coefficient value is positive, which is equal to 0.294 which indicates that the direction of the relationship between Perceived Security (X3) and Intention to Use is positive or increases by 29.4%. Thus the H3 hypothesis in this study states that "There is an effect of perceived security (X3) toward intention to use e-money (Y)" is accepted.

### Simultaneous Hypothesis Test (F-Test)

**Table 7. F-Test Analysis**

Model	Sum of Squares	df	Mean Square	F count	Sig.	Result
Regression	918,008	3	306,003	1098,496	,000b	Significant
Residual	26,742	96	,279			
Total	944,750	99				

Source: Data Processed SPSS 26 (2024)

Based on table 7, it is known that the value of  $F = 1098,496$ , and the value of Sig. = 0.000, while the value of F table with df (2.70). Thus  $H_0$  is rejected,  $H_a$  is accepted, these are the variables Perceived Benefits (X1), Perceived Risk (X2), Perceived Security (X3) together have a significant effect on Intention to Use (Y). Thus  $H_0$  is rejected, and  $H_a$  is accepted, which means that the variables Perceived Benefits (X1), Perceived Risk (X2), and Perceived Security (X3) simultaneously have a significant effect on the Intention to Use (Y) variable.

## Discussion

### The Influence of Perceived Benefits on Intention to Use DANA

The findings confirm that perceived benefits significantly affect students' intentions to use DANA as an e-money application. Students who perceive greater convenience, efficiency, and time savings associated with using DANA are more likely to adopt it for their financial transactions. This aligns with previous research highlighting that perceived usefulness is a critical determinant in technology acceptance models (Davis, 1989). The results indicate that students value the advantages offered by DANA, such as its user-friendly interface and the ability to conduct transactions quickly without the need for physical cash. This finding is consistent with studies by Wilson, Alvita and Wibisono (2021) and Raninda, Wisnalmawati, and Oetomo (2022), which emphasize that perceived benefits directly correlate with users' intention to adopt e-money applications.

### The Influence of Perceived Risk On Intention to Use DANA

Interestingly, while perceived risk typically deters adoption in many contexts, this study found that it positively influenced intention to use DANA among students under specific conditions. This could be attributed to effective marketing efforts by DANA that emphasize its security features and benefits over potential risks. The positive relationship between perceived risk and intention to use may suggest that students are aware of the risks

associated with digital transactions but feel that the potential benefits outweigh these concerns. This finding challenges traditional views on risk perception in technology adoption and aligns with insights from Flavian and Guinalfu (2006), who noted that effective communication about risk management can mitigate negative perceptions and encourage usage.

### **The Influence of Perceived Security On Intention to Use DANA**

The study reveals that perceived security is a pivotal factor influencing students' intentions to use DANA positively. Students who feel secure about their personal information are more inclined to engage with e-money applications like DANA, reinforcing previous findings in literature regarding the importance of security in digital financial services. This aligns with Chawla and Joshi (2019), who assert that perceived security significantly impacts users' willingness to engage in online transactions. The strong emphasis on security measures by DANA, such as encryption protocols and user authentication processes, contributes to building user trust and confidence in the application.

### **The Influence of Perceived Benefits, Perceived Risk, and Perceived Security Simultaneously On Intention to Use DANA**

The simultaneous analysis indicates that all three factors—perceived benefits, perceived risk, and perceived security—collectively influence students' intentions to use DANA significantly. The results suggest that while each factor has its unique impact on user intention, they also interact in complex ways that reflect students' overall perceptions of e-money applications. This finding supports the theoretical framework proposed by Venkatesh and Davis (2000), which posits that multiple factors can simultaneously influence technology adoption decisions. The interplay between perceived benefits and perceived risks highlights the need for e-money providers like DANA to effectively communicate their value propositions while addressing user concerns regarding security.

## **CONCLUSION AND RECOMMENDATION**

### **Conclusion**

This study has successfully explored the effects of perceived benefits, perceived risk, and perceived security on the intention to use DANA as an e-money application among students of Sam Ratulangi University. The findings indicate that all three factors significantly influence students' intentions to adopt DANA, highlighting the complexity of user decision-making in the context of digital financial services. The results reveal that perceived benefits, such as convenience and time savings, play a crucial role in enhancing students' intentions to use DANA. This aligns with existing literature that emphasizes the importance of perceived usefulness in technology acceptance models (Davis, 1989). Interestingly, the study also found a positive relationship between perceived risk and intention to use DANA. The combination of these factors indicates that e-money providers must address user perceptions holistically to enhance adoption rates among target demographics like university students.

### **Recommendations**

1. E-money providers like DANA should develop targeted marketing campaigns that emphasize the convenience and efficiency of their services. Highlighting user testimonials and success stories can further enhance perceived benefits.
2. Continuous investment in advanced security protocols is essential. DANA should regularly communicate its security features and practices to users to build trust and alleviate concerns regarding potential risks.
3. Implement educational programs or workshops aimed at informing users about the benefits of e-money applications and how to mitigate risks associated with digital transactions. This could include webinars, FAQs, and informative content on social media platforms.
4. Establishing channels for user feedback will help identify pain points and areas for improvement. Regularly engaging with users through surveys or focus groups can provide valuable insights into their experiences and expectations.

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