

THE EFFECT OF TRANSACTION SECURITY AND EASE OF ACCESS ON USER TRUST IN THE DANA APPLICATION

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ABSTRACT

This research is motivated by technological developments that enable everything to be done digitally, the digitalization process is now being utilized in every activity. This study employed a quantitative research method, with a population drawn from active students of the 2021 IAI SMQ Bangko who had used and owned the DANA application on their devices. The total sample size for this study was 30 users (respondents). Based on the data processing, the results for the variables were obtained partially with a significance level of less than 5%. where transaction security (X1) with a significance level of $0.046 < 0.05$ or $t_{table} > t_{count}$, namely $2.089 > 0.374$, which means that the transaction security variable has a significant influence on user trust and ease of access (X2) with a significance level of $0.007 < 0.05$ or $t_{table} > t_{count}$, namely $2.909 > 0.374$, which means that the ease of access variable has a significant influence on user trust. Furthermore, using the F test, the results show that all independent variables simultaneously have a significant influence, where the $calculated\ f\ value > f_{table}$ or $63.164 > 0.374$. And the results of the determination coefficient (R²) calculation show that all independent variables used, namely transaction security (X1) and ease of access (X2), have an effect of 81.1 % on the dependent variable, namely user trust (Y), while the remaining 18.9 % is influenced by other variables.

Keywords: Transaction security, Ease of access and User trust

INTRODUCTION

Technological developments are occurring at a rapid pace today. Nearly all fields are evolving in line with technological advancements. One area that has also seen significant growth is finance. The Dana app is a digital platform designed for cashless transactions, both online and offline. Transactions using the Dana e-wallet are certainly more convenient, faster, and secure.

This isn't the first time Dana has received recognition from data.ai for its app. This year marks the fourth time Dana has received the *Top Publisher Award*, following previous wins in 2023, 2022, and 2021. In fact, in 2022, Dana was included in the *Top Publisher Award for the Top 20 SEA Headquartered Applications Publishers by Worldwide Downloads category*¹.

Dana app excels due to its ease of use, guaranteed security, diverse transaction features, and support for MSMEs. The Dana app also focuses on innovation and ease of bill payments and interbank transfers (with certain limitations) without admin fees, making it an attractive option for many users.

¹ PT. Espay Debit Indonesia Koe. "Ranked #1, DANA Becomes Indonesia's Best-Performing Financial Application. 2024. Accessed via <https://www.data.ai/en/top-publisher-awards/>.

A transaction is an agreement between a seller and a buyer in exchanging goods or services ². Security transaction on line play important role in building consumer confidence and encourage broader growth of non-cash transactions . Coinciding with the rapid rise of e-commerce and online transactions, transaction security has become a major concern for any business that handles payments and transfers of valuable assets, such as financial institutions, cryptocurrency exchanges and retailers .

Access is the activity of interacting with a stand-alone or networked electronic system ³. Ease of access is the degree to which a person believes a system can be used easily without requiring much effort . Ease of access is defined as the ease with which an individual will feel that the user does not need to exert great effort when using a system; in other words, the system is easy to operate .

It is important for technology developers to Consider usability factors when designing business systems or applications to ensure that the system is easy to understand, learn, simple, and operate. From the definitions above, it can be concluded that ease of access is a system that is understandable, learnable, and easy to use. This can foster individual trust in the technology they intend to use .

Customer trust is the confidence a customer has in a business, product, or service. This trust is important because it is the foundation for long-term relationships and customer loyalty. Without trust, customers may hesitate to purchase from or continue interacting with a business . Trust arises from honest, fair, competent, consistent, responsible, supportive, and humble actions perceived by consumers, which ultimately engenders trust .

RESEARCH METHODOLOGY

This research uses an approach known as the positivistic approach or quantitative approach. Positivism comes from the word *Positive* , which is defined as a theory that aims to organize observed facts. This type of research uses "associative research". Associative research is research that aims to determine the relationship between two or more variables, looking for roles, influences, and causal relationships, namely between independent variables *and dependent variables* . The population in this study were all active students of IAI SMQ Bangko class of 2021. The number of samples used in this study was 30 users (respondents) who use and have the Dana application on their gadgets. The researcher compiled this questionnaire using a Likert scale . The researcher used SPSS (*Statistical Package for Social Science*) software for Windows version 2.1 .

RESEARCH RESULTS AND DISCUSSION

Data Validity Test Results

In this study, questionnaires were distributed to 30 respondents with a total of 12 statements from 3 variables, namely X1 transaction security , X2 ease of access , and Y user trust . Each question item is categorized as valid if $r \text{ count} > r \text{ table}$. To measure

²Trans Media, CNN 2025 "What is this transaction, its types and examples" Quoted from: <https://www.cnnindonesia.com/edukasi/20230711154446-569-972147/apa-itu-transaksi-ini-pengertianjenis-dan-contohnya>. 2023

³State Financial Audit Law Development and Development Agency, Audit Board of Indonesia . 2018. Quoted from: Presidential Decree No. 44 of 2018

r table from the number of research samples of 30 respondents, the df (n-2) value is 28 , with the provision of r - table at a significance value of 0.05 through a two-way test so that the r - table value is 0.374 .

Table 4.1

Data Validity Test Results

Variables	Statement	r-count	r-table	Information
Transaction Security	X1.1	0.897	0.3 74	VALID
	X1.2	0, 858	0.3 74	VALID
	X1.3	0.927	0.3 74	VALID
	X1.4	0.896	0, 374	VALID
Ease of Access	X2.1	0, 933	0.3 74	VALID
	X2.2	0, 921	0.3 74	VALID
	X2.3	0, 881	0.3 74	VALID
	X2.4	0, 841	0, 374	VALID
User Trust	Y.1	0, 932	0.3 74	VALID
	Y.2	0.914	0.3 74	VALID
	Y.3	0.916	0.3 74	VALID
	Y.4	0.929	0, 374	VALID

Based on the table above, it can be seen overall that the statements or questions from the variables determined by the researcher are valid because all statement or question items have a value greater than rtable or rcount > rtable

Data Reliability Test Results

Reliability testing is an index that shows the extent to which a measuring instrument can be trusted or relied upon. Reliability tests can be used to determine the consistency of measuring instruments. A variable can be declared reliable if the value of Cronbach's Alpha > 0.70.

Table 4.2

Data Reliability Test Results

Variables	Cronbach's Alpha	Reliable Standards	Information
Transaction Security	0.916	0.70	RELIABLE
Ease of Access	0.916	0.70	RELIABLE
User Trust	0.941	0.70	RELIABLE

The table shows that all variables meet the requirements, with a Cronbach's Alpha value greater than 0.70. This means that all respondents' answers were consistent in answering the questions from each statement for each variable.

Normality Test Results

To see normality A variable can be identified from statistical tests using the Kolmogorov Smirnov test, a variable is said to be normal if its significance value is > 0.05 .

Table 4.3

Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		30
Normal Parameters ^{a,b}	Mean	,0000000
	Standard Deviation	1.66667786
Most Extreme Differences	Absolute	,145
	Positive	,145
	Negative	-,102
Kolmogorov-Smirnov Z		,792
Asymp. Sig. (2-tailed)		,557

a. Test distribution is Normal.

b. Calculated from data.

The results of the Kolmogorov-Smirnov test above show that the significance value of the data in this study is 0.557 . Based on these results, it is stated that $0.557 > 0.05$, so it can be concluded that it is normally distributed .

Multicollinearity Test Results

If you want to detect the presence of multicollinearity, you can do this by analyzing the Tolerance value with its opposite, the Variance Inflation Factor (VIF) < 10 . To indicate that there is no multicollinearity, the Tolerance value is > 0.1 and the VIF value is < 10 .

Table 4.4

Multicollinearity Test Results

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	,573	1,336		,429	,671		
1Transaction Security	,412	,197	,389	2,089	,046	,188	5,312
Ease of Access	,548	,188	,542	2,909	,007	,188	5,312

a. Dependent Variable: User Trust

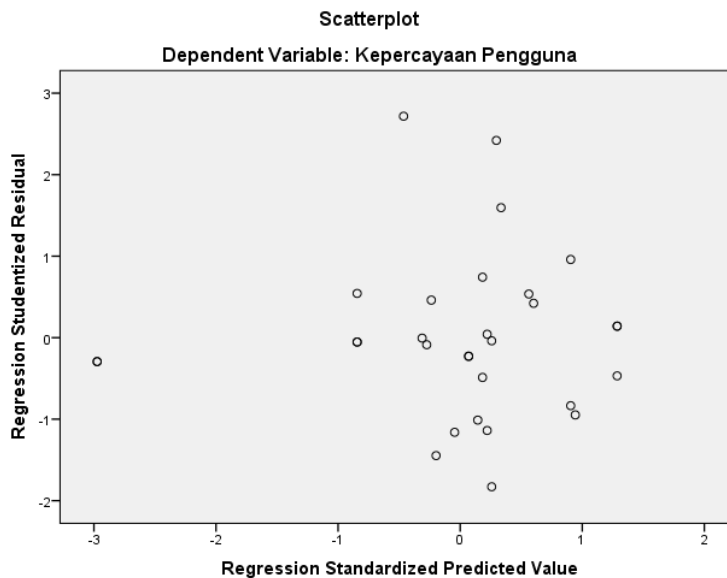
Based on the multicollinearity test, the transaction security variable has a tolerance value of 0.188 with a VIF value of 5.312 . Then, the Ease of Access variable has a tolerance value of 0.188 and a VIF of 5.312 . Based on the results of obtaining these values, it can be stated that there is no multicollinearity between the two variables between the independent variables, because all Tolerance values are > 0.1 and VIF values are < 10 .

Heteroscedasticity Test Results

The Heteroscedasticity Test is a test conducted to determine whether or not there is an inequality in the variance of the residuals of one observation to another observation in the regression model .

Picture 4 .1

Heteroscedasticity Test Results



From the image above, it can be seen that the distribution of points does not form a specific pattern/flow, so it can be concluded that there is no heteroscedasticity, or in other words, homoscedasticity. The classical assumption about homoscedasticity in this model is met, namely it is free from heteroscedasticity .

Autocorrelation Test Results

This study uses *Product Moment* (Pearson) correlation analysis. The autocorrelation test is symbolized (r) with the provision that the r value is not more than the price (-1 ≤ r ≤ +1), if the r value = -1 means the correlation is perfectly negative; r = 0 means there is no correlation; r = 1 means the correlation is very strong.

Table 4.5

Autocorrelation Test Results

Model Summary^b

Model	R	R Square	Adjusted Square	Standard Error of the Estimate	Durbin-Watson
1	,908 ^a	,824	,811	1,72730	2,356

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y

The calculated DW value of 2.356 is greater than dU = 1.5666 and smaller than dL = 1.2837, so it is concluded that in the linear regression model there is autocorrelation but no autocorrelation.

Multiple Linear Regression Analysis

Table 4.6

Anova Table Results of Multiple Linear Regression Analysis
ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	376,910	2	188,455	63,164	,000 ^b
	Residual	80,557	27	2,984		
	Total	457,467	29			

a. Dependent Variable: Y

b. Predictors: (Constant), X₂, X₁

Based on the results above, the F count value is 63.164 . Meanwhile, F table = 0.374 with a significance value = 0.000 < 0.05. The Ho criterion is rejected if F count > F table with $\alpha = 0.05$ (5%) with a value of 63 , 164 > 0.3 74 Therefore, the results of this multiple linear regression test can be interpreted as meaning that both independent variables have a simultaneous effect on the dependent variable.

Table 4.7
Results of the Coefficients Table of Multiple Linear Regression Analysis
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	,573	1,336		,429	,671
	X ₁	,412	,197	,389	2,089	,046
	X ₂	,548	,188	,542	2,909	,007

a. Dependent Variable: Y

Based on the results above, the coefficient of X₁ is 0.412 and X₂ is 0.548 and the constant is 0.573 . Thus, the relationship between the transaction security variable (X₁) and the ease of access variable (X₂) and the user trust variable (Y) can be described.

$$Y = a + b_1X_1 + b_2X_2 + e$$

$$Y = 0.573 + 0.412 X_1 + 0.548 X_2 + e$$

T- Test Results (Partial Test)

The t-test or partial test is a test carried out to determine whether the independent variables, namely X₁ and X₂, partially or separately have a significant effect on the dependent variable Y.

Table 4.8
T- Test Results (Partial Test)
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	,573	1,336		,429	,671
	X ₁	,412	,197	,389	2,089	,046

X ₂	,548	,188	,542	2,909	,007
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a. Dependent Variable: Y

In a partial test or t-test, there are two ways to make basic decisions. Here are two ways to make basic decisions in a t-test. :

- a. The influence of variable X₁ (transaction security) on variable Y (user trust)
 - 1) Basic decision making can be found by looking at the significance value

The results of the significance value of the t-test on the transaction security variable were $0.046 < 0.05$ then H₁ is accepted and H₀ is rejected. This means that variable X₁ (transaction security) partially or separately has a significant effect on the dependent variable Y (user trust).

- 2) Basic decision making can be seen in the calculated t value and t table.

The result of the calculated t value in the t test of the transaction security variable (X₁) is $2.089 > 0.374$, so H₀ is rejected and H₁ is accepted. This means that the variable X₁ (transaction security) partially or separately has a significant effect on the dependent variable Y (user trust).

- b. The influence of variable X₂ (ease of access) on variable Y (user trust)
 - 1) Basic decision making can be found by looking at the significance value

The results of the significance value of the t-test on the transaction security variable are $0.007 < 0.05$, so H₁ is accepted and H₀ is rejected. This means that variable X₂ (ease of access) partially or separately has a significant effect on variable Y (user trust).

- 2) Basic decision making can be seen in the calculated t value and t table.

The calculated t value result in the t test of the transaction security variable (X₁) is $2.909 > 0.374$, so H₀ is rejected and H₁ is accepted. This means that the variable X₂ (ease of access) partially or separately has a significant effect on the variable Y (user trust).

Results (Simultaneous Test)

The F test or simultaneous test is a test carried out to determine whether the independent variables, namely X₁ , X₂ together have a significant effect on the dependent variable, Y. In this study, the researcher used SPSS 25 to conduct an F test by looking at the calculated F value and significance value . The following are the results of the F test conducted using SPSS 25. :

Table 4.9
Results (Simultaneous Test)
ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	376,910	2	188,455	63,164	,000 ^b
	Residual	80,557	27	2,984		



Total	457,467	29			
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a. Dependent Variable: Y

b. Predictors: (Constant), X₂, X₁

In the F-test or simultaneous test, there are two methods that can be used to make basic decisions. Here are two basic methods for making decisions in the F-test. :

a. Basic decision making in the F test or simultaneous test can be found by looking at the significance value in the anova table .

The results of the significance value of the F test in the ANOVA table are $0.000 < 0.05$, so H_1 is accepted and H_0 is rejected . This means that X₁ (transaction security) and variable X₂ (ease of access) simultaneously or together have a significant effect. on variable Y (user trust) .

b. Basic decision making in the F test or simultaneous test can be found by looking at the calculated F and F table .

The results of the calculated F value in the ANOVA table show that the calculated F value is $63.164 > 0.374$, so H_1 is accepted and H_0 is rejected . This means that X₁ (transaction security) and variable X₂ (ease of access) simultaneously or together have a significant effect. on variable Y (user trust) .

Results of the Coefficient of Determination (R²) Test

The coefficient of determination analysis is a measure that shows how much the independent variables, namely X₁ and X₂, contribute to the dependent variable, namely Y. This analysis is used to determine the percentage of the influence of the independent variables simultaneously on the dependent variable.

Table 4.10

Results of the Coefficient of Determination (R²) Test

Model Summary

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	,908 ^a	,824	,811	1.72730

a. Predictors: (Constant), X₂, X₁

The results of the coefficient of determination (R²) test in table 4.21 show that the adjusted R square value is 0.811 . This means that the independent variables used, namely transaction security (X₁) and ease of access (X₂), have an effect of 81.1 % on the dependent variable, namely user trust (Y) , while the remaining 18.9 % is influenced by other variables .

Based on the t-test coefficient table (partial test) , the calculated t-value for the transaction security variable (X₁) is 2.089 while the t-table is 0.374 . So the calculated t-value > t-table, and the significance value of 0.046 is smaller than 0.05. So it can be concluded that the transaction security variable (X₁) has a significant effect on user trust (Y) in the Dana application.

Transaction security has a huge impact on user trust in the Dana application . The higher the level of security, the more trust you have in the Dana application. security, the greater it is trust users. On the contrary, If users are worried about transaction security risks, their trust in the fund application will decrease as well.

Based on the t-test coefficient table (partial test) , the calculated t-value for the ease of access variable (X_1) is 2.089 while the t-table is 2.909 . So the calculated t-value > t-table, and the significance value is 0.0 07 which is smaller than 0.05. So it can be concluded that the ease of access variable (X_2) has a significant effect on user trust (Y) in the Dana application.

Dana app can be used anytime and anywhere, making it easier for consumers to conduct financial transactions. Furthermore, its simple features are easier to understand and use according to consumer preferences. People will feel like they don't need to exert much effort when performing these activities because the system is there. In other words, the system is able to assist the community and is easy to use .

Based on the value (R^2) or Adjusted R Square of 0.811 . This means that the independent variables used, namely transaction security (X_1) and ease of access (X_2), have an influence of 81.1 % on the dependent variable, namely user trust (Y) , while the remaining 18.9 % is influenced by other variables. Which No entered in model this research. Therefore, further research is needed to find out further results by subsequent researchers .

Conclusion

Based on the T-test (partially), transaction security has a significant positive effect on user trust. This is proven by t-test result value with acquisition t count > t table (2.089 > 0.3 74) , and the significance value is 0.0 46 < 0.05. So it can be concluded that the transaction security variable (X_1) has a significant effect on user trust (Y) in the Dana application. Transaction security has a very large influence on user trust in the Dana application . The higher the level of transaction security, the higher the level of transaction security. security, the greater it is trust users. On the contrary, If users are worried about transaction security risks, their trust in the fund application will decrease as well.

Based on the T-test (partially), ease of access has a significant positive effect on user trust. This is proven by t-test result value with acquisition t count > t table (2.909 > 0.374) , and the significance value is 0.0 07 < 0.05. So it can be concluded that the variable of ease of access (X_2) has a significant influence on user trust (Y) in the Dana application. A person will feel that he does not need to make a lot of effort when carrying out these activities because he is assisted by the system, in other words, the system is able to help the community . So it can be interpreted that if the ease of access provided by the Dana application falls into the easy category.

Based on the results of the F test (simultaneously) , the results obtained were that the rounded significance value was 0.00 0 < 0.05, so H_1 was accepted and H_0 was rejected . This means that X_1 (transaction security) and variable X_2 (ease of access) simultaneously or together had a significant effect. on the Y variable (user trust) . Based on the value (R^2) or Adjusted R Square of 0.811 . This means that the independent variables used, namely transaction security (X_1) and ease of access (X_2), have an influence of 81.1 % on the dependent variable, namely user trust (Y) , while the remaining 18.9 % is influenced by other variables. Which No entered in model this research .

BIBLIOGRAPHY

- Amijaya, GR, & Rahardjo, ST (2010). The Influence of Perceptions of Information Technology, Ease of Use, Risks and Service Features on Bank Customers' Repurchase Interest in Using Internet Banking (A Study on Bank Customers) (Read) (Doctoral dissertation, FE UNDIP Library)
- Ardiansyah, F., Soesanto, E., & Sifana, H. Implementation of National Values Based on Constitution 1945 in the Influence of Data Security and Ease of Transactions on Students' Purchase Interest through the DANA Digital Wallet
- State Financial Audit Law Development and Development Agency, Audit Board of Indonesia . 2018. Quoted from: Presidential Decree No. 44 of 2018
- Bambang, Prasetyo, and Lina Miftahul Jannah. *Quantitative Research Methods "Theory and Application,"* Jakarta : PT. Rajawali Pers. 2010. Page 38
- Dewi, SP (2017). The Influence of Internal Control and Leadership Style on Employee Performance at Yogyakarta Gas Stations. *Journal of Chemical Information and Modeling*, 1 (9), 1689–1699.
file:///C:/Users/User/Downloads/fvm939e.pdf
- Faspay (PT. Media Indonusa) . 2024. Quoted from:
[https://faspay.co.id/en/blog/ketahui-standar-k eamanan-transaksi-online- dan-manfaatnya/ 2024](https://faspay.co.id/en/blog/ketahui-standar-k-eamanan-transaksi-online-dan-manfaatnya/2024)
- Ferdinand, A. (2015). *Management Research Methods "Research Guidelines for Writing Thesis and Dissertation in Management Science (5th Edition).* Diponegoro University Publishing Agency
- Ghozali, I. (2019). *Multivariate Analysis Application with IBM SPSS 23 Program.* Diponegoro University Publishing Agency
- IBM 2024 Quoted from: [https://www.ibm.com/id-id/topics/transaction-security / 2024](https://www.ibm.com/id-id/topics/transaction-security/)
- Janna, NM, & Herianto. (2021). Correct Statistical Articles. *Darul Dakwah Wal- Irsyad (DDI) Journal*, 18210047, 1–12
- Jogiyanto. (2007) . *Behavioral Information System.* Yogyakarta : Andi.
- KBBI, *Big Indonesian Dictionary*, <https://kbbi.web.id/pengaruh> . Accessed May 20, 2025
- Kotler, P., & Keller, K. L. (2016). *Marketing Management 15 th Edition.* New Jersey : Pearson Pretice Hall, Inc
- MARDIATMOKO, G.-. (2020). The Importance of Classical Assumption Testing in Multiple Linear Regression Analysis. *BAREKENG : Journal Knowledge Mathematics And Applied*, 14 (3), 333 – 342.
<https://doi.org/10.30598/barekengvol14iss3pp333-342>
- McKnight, D.H., Choudhury, V., and Kacmar, C. 2002. “Developing and Validating Trust Measures for E - Commerce : An Integrative Typology”. *Information Systems Research* 334-359.
- Mufraini, MA (2013). *Accounting and Zakat Management.* Kencana Prenada Media Group.
- Permana, RI (2021). Analysis of factors influencing digital wallet usage among college students. Surabaya University. *JATISI (Journal of Informatics Engineering and Information Systems)*, 8(1), 312–322

- PT. Espay Debit Indonesia Koe . “ Ranked #1, DANA Becomes Indonesia's Best-Performing Financial Application . 2024. Accessed via <https://www.data.ai/en/top-publisher-awards/> .
- PT. Kompas Cyber Media (Kompas Gramedia Digital Group) . 2018. "What are the advantages of Dana compared to other digital wallet applications?" accessed through : <https://tekno.kompas.com/read/2018/12/06/11560017/apa-kelebihan-dana-dibanding-aplikasi-dompot-digital-lain-?page=all> .
- PT SINERGI INFORMATIKA SEMEN INDONESIA – 2025 “What is Customer Trust?” Quoted from: <https://sisi.id/stories/insight/apa-itu-customer-trust-berikut-pengertian-dan-cara-meningkatnya/> 2023
- Sandu Siyoto and Ali Sodik. (2015). Basic Research Methodology (Ayup (ed.); 1 ed.). Media Literacy .
- Sugiyono. 2011. Quantitative and Qualitative Research Methods and R&D. Bandung: Alfabeta Publisher
- Suliyanto. *Business Research Methods for Undergraduate Thesis, Dissertation, and Dissertation* . Yogyakarta: Andi Offset. 2018. Page 49
- Trans Media, CNN 2025 “What is this transaction, its types and examples” Quoted from: <https://www.cnnindonesia.com/edukasi/2023071154446-569-972147/apa-itu-transaksi-ini-pengertianjenis-dan-contohnya>. 2023