Customer Engagement, Customer Equity & Intention to Reuse Mobile Service Applications (A Case Study of Dana Application Users)

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Article Info	ABSTRACT
	This study aims to examine the effect of Customer engagement on Customer Equity (Value Equity, Relationship Equity, and Brand Equity) and Repurchase Intention on Mobile service applications. The population used in this study are Indonesian students who have made transactions/purchases through the Dana application. The number of samples used in this study was 200 respondents. Research data was collected by distributing questionnaires through an Online Survey system using Google Forms. The analysis technique used in this study is the PLS-SEM (Partial Least Square - Structural Equation Model) analysis technique with the SmartPLS program to test the hypothesis. The results showed that customer engagement positively affects value equity, relationship equity, and brand equity, which in turn can positively affect repurchase intentions.

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1. INTRODUCTION

The world of digital technology is experiencing rapid growth. This is marked by various kinds of advances in digital technology, one of which is smart devices (smartphones). Smartphones are handheld electronic devices that have various features and computing capabilities. Smartphone users, especially in Indonesia, experience a rapid increase every year. In 2020, smartphone user penetration in Indonesia reached 61.7 percent of the total population. In 2021 this figure will increase by 4.17 percent to 65.87 percent (BPS: 2022). The massive development of smartphone users has become a field for developing digital applications, including financial technology (fintech) applications. There are various types of fintech services available. 29% of fintech companies in Indonesia work in the payment sector and 23% work in the lending sector. One form of fintech that is very popular is electronic wallets or better known as E-Wallets, as mentioned in a report from Populix in 2022. The use of digital wallets in Indonesia is experiencing rapid growth. The results of a survey conducted by Populix revealed that one of the main reasons for the increase in the number of E-Wallet users is ease of use (hassle-free), integration with E-Commerce services, and convenience of use, and so on.

One of the most widely used E-Wallet applications in Indonesia is the Dana application. The results of the Populix survey in 2022 show that as many as 83 percent of respondents voted use the Dana application as the main digital wallet in their daily activities. Populix (2022) The majority of people use this E-Wallet around 2 to 3 times a week to shop on E-Commerce platforms and make cashless transactions when using online transportation applications.

Customer engagement emphasizes more on how customers build value for the company or brand. This emphasis comes from [1] who proposed four dimensions for customer engagement namely; customer lifetime value or known as CLV (lifetime value through expected future purchases), customer influence value or abbreviated as CIV (influence value, for example through social networks), customer knowledge value or known as CKV (knowledge value, namely customer feedback), and customer referral value or abbreviated as CRV (referral value through customer incentive referrals). Customer engagement refers to "customers'

manifestation of behavior toward the brand or firm, beyond the purchase, resulting from their motivational drivers" [2].

The Dana application is a digital wallet application that allows users to carry out financial transactions, such as money transfers, bill payments, credit purchases, and so on, easily and quickly via smartphone. In the increasingly fierce competition in the Fund Application industry, customer engagement and customer equity are important keys in maintaining and increasing market share.

The aim of this research is to determine the influence of customer involvement on value, brand, relational equity and to determine the influence of value, brand and relational equity on the intention to reuse fund applications.

2. RESEARCH METHOD

This study uses a quantitative approach. The research location is in Indonesia and there are no specific regional specifications. The reason for choosing a location in Indonesia is because the Dana application is spread throughout Indonesia, so you can get a wider perspective. The choice of this location has the advantage that it makes it easier for the author to collect respondent data. The object of this research is the intention to reuse the Dana service application.

The population in this study are users who have used Dana application services. The population studied in this study includes an unlimited population because there is no definite benchmark for the actual population of users who have used the Dana service application in Indonesia. The sample was taken by chance, that is, anyone who is considered a person who happens to be met is considered suitable as a data source is convenience sampling according to [3]. This research has a strong quantitative approach and utilizes data analysis techniques appropriate to this research. The selection of samples focused on Dana application users provides clarity about the context and relevance of research to phenomena that are currently developing in Indonesia. The use of PLS-SEM techniques in data analysis shows the researcher's efforts to produce valid and reliable results. The research sample consisted of 200 people with representative sample parameters obtained from the number of indicators multiplied by 5-10. The data source in this research uses primary data derived from the results of a Google Form questionnaire distributed in the research area.

Table 1. Respondent Characteristics

Respondent Characteristics	N	%
Age of Respondent		
17 Years - 25 Years	103	51.5
26 Years - 34 Years	81	40.5
35 Years - 43 Years	14	7.0
Above 44 Years	2	1.0
Gender of Respondent		
Male	162	81.0
Female	38	19.0
Respondent Domicile		
Java & Surrounding island	94	47.0
Sumatera & Surrounding island	80	40.0
Borneo & Surrounding island	15	7.5
Bali & Surrounding island	5	2.5
Sulawesi island & Surroundings	6	3.0
Respondent occupation		
Student	96	48.0
Bussines Owner	47	23.5
Private Employee	18	9.0
Public Servant	4	2.0
More	35	17.5
Respondent Expenses		
Less than 1 milion	16	8.0
1m - 3m	139	69.5

3m – 6m	42	21.0
More than 6m	3	1.5
Respondent's income		
Less than 2m	22	11.0
2m – 5m	106	53.0
5m- 8m	53	26.5
8m – 11m	14	7.0
Above 11m	5	2.5
Frequency of Smartphone usage of Respondents		
4 Hours - 6 Hours	39	19.5
6 Hours - 8 Hours	112	56.0
8 Hours - 10 Hours	42	21.0
Above 10 Hours	7	3.5
Frequency of Use of Fund Applications Penggunaan Aplikasi Dana		
Rare	4	2.0
Simply	18	9.0
Often	86	43.0
Very Often	92	46.0

Source: Data analysis (2023)

Based on the table above, it can be seen that the age category of respondents is dominated by 17-25 with a percentage level of 51.5%. The gender category is dominated by men with a percentage of 81.0%. In the domicile category, respondents are dominated by the island of Java and its surroundings with a percentage of 47.0%. In the job category, respondents were dominated by students with a percentage of 48.0%. In the respondent expenditure category, it is dominated by 1 million - 3 million with a percentage of 69.5%. In the respondent income category, it is dominated by 2 million – 5 million with a percentage of 53.0%. In the category of frequency of smartphone use, it is dominated by 6-8 hours with a percentage of 56.0%. In the category of frequency of use of the Dana application, it is dominated by very often with a percentage of 46.0%.

3.   RESULTS AND ANALYSIS
3.1. Data Analysis
3.1.1. Validity Test

Table 2. Outter loading

Item	Relationship Equity	Brand Equity	Value Equity	Customer Engagement	Reuse Intention
RE1	**0.905**				
RE2	**0.879**				
RE3	**0.896**				
RE4	**0.903**				
RE5	**0.908**				
BE1		**0.937**			
BE2		**0.866**			
BE3		**0.936**			
BE4		**0.852**			
BE5		**0.862**			
VE1			**0.843**		
VE2			**0.804**		
VE3			**0.793**		
VE4			**0.787**		
VE5			**0.822**		

VE6	**0.842**		
CE1		**0.905**	
CE2		**0.887**	
CE3		**0.875**	
CE4		**0.906**	
CE5		**0.887**	
CE6		**0.891**	
CE7		**0.895**	
CE8		**0.910**	
CE9		**0.879**	
CE10		**0.889**	
CE11		**0.899**	
RI1			**0.913**
RI2			**0.893**
RI3			**0.908**

Source: Data analysis (2023)

It can be seen in table 2 that all variables with each item have merged into one and none of them are scattered into other variables. It can be concluded that the data results in this study state compliance with the valid requirements of a variable with items in the calculation of convergent validity using a loading factor where each item must be ≥0.50. Therefore, all variables with their items are said to be valid.

Table 3. Average Variance Extracted (AVE)

Variabel	Average variance Extracted (AVE)
Relationship Equity	0.807
Brand Equity	0.795
Value Equity	0.665
Customer Engagement	0.798
Reuse Intention	0.819

Source: Data analysis (2023)

The AVE score can be declared to meet the requirements if the value is> 0.5. Seen in table 3. Above, all variables have a value of> 0.5 or in detail can be explained as follows: relationship equity obtained a value of 0.807; brand equity obtained a value of 0.795; value equity obtained a value of 0.665; customer involvement obtained a value of 0.798 and reuse intention obtained a value of 0.819. This, it can be interpreted that the AVE value of the variables used can be declared good and there are no problems or items that indicate errors.

Table 4. Fornell Larcker

Variabel	Relationship Equity	Brand Equity	Value Equity	Customer Engagement	Reuse Intention
Relationship Equity	0.898				
Brand Equity	0.497	0.891			
Value Equity	0.571	0.581	0.815		
Customer Engagement	0.527	0.426	0.517	0.893	
Reuse Intention	0.503	0.495	0.569	0.467	0.905

Source: Data analysis (2023)

The test results in table 4. Stating the square root AVE value of each variable. The standard used to measure square root AVE is the Fornell Larcker approach (1981). The square root AVE score can be said to be good when the number of each correlation is smaller than the number correlated with other variables. The table above has met the criteria for a good score, so it can be seen in the value of Relationship Equity (0.898)

which is higher than the value of the Brand Equity variable (0.497), Value Equity (0.571), Customer Engagement (0.527) and Reuse Intention (0.503). In the variable value of Brand Equity (0.891), the value is higher than Value Equity (0.581), Customer Engagement (0.426) and Reuse Intention (0.495). Meanwhile, in the Value Equity variable value (0.815), the value is higher than the value of Customer Engagement (0.517) and Intention to Reuse (0.569). Then in the customer involvement variable (0.893), the value is higher than the intention to reuse (0.467). Therefore, the value of the intention to reuse variable (0.905), no variable under it exceeds this value. Thus, when viewed from these results, it can be concluded that each variable has succeeded in realizing a unique phenomenon.

3.1.2. Reliability

Reliability as an experiment to assess the extent to which the measurement items of an event provide constant results. The reliability test aims to measure whether each variable is relatively consistent or not. The reliability test is measured using Cronbach's alpha (CA) and composite reliability (CR) where the standard of both is> 0.70, so that the variable is said to be reliable.

Tabel 5. Reliability Test

Variabel	Cronbach's Alpha	Composite Reliability
Relationship Equity	0.940	0.954
Brand Equity	0.935	0.951
Value Equity	0.899	0.922
Customer Engagement	0.975	0.977
Reuse Intention	0.889	0.931

Source: Data analysis (2023)

It can be seen in the table that all variables already have a Cronbach's alpha (CA) and composite reliability (CR) value> 0.70; if explained in detail, it becomes as follows: The Relationship Equity variable has a CA value (0.940) and CR (0.954); Brand Equity has a CA value (0.935) and CR (0.951); Value Equity has a CA value (0.899) and CR (0.922); Customer Engagement has a CA value (0.975) and CR (0.977) and reuse intention has a CA value (0.889) and CR (0.931). Therefore, it can be concluded that all variables can be declared reliable because they have a value of Cronbach's alpha (CA) and composite reliability (CR)> 0.70.

3.1.3. Structural Model Testing (inner model)

Inner model testing, also known as structural modeling, is conducted to evaluate the relationships between constructs, significance values, and R-square of the research model.
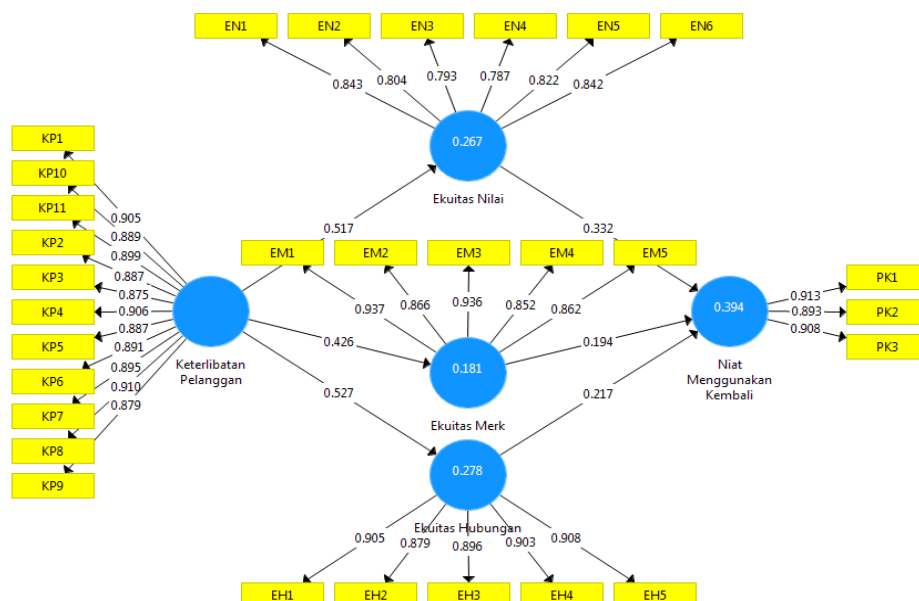

Figure 1. Structural Model

To begin the evaluation of the PLS structural model, the first step is to evaluate the R-square of each dependent latent variable. the following is explained in the table below.
a. R Square

Table 6. R Square Testing Results

Variabel	R-Square	R-Square Adjusted
Relationship Equity	0.278	0.274
Brand Equity	0.181	0.177
Value Equity	0.267	0.264
Reuse Intention	0.394	0.385

Source: Data analysis (2023)

Based on table 6 listed above, it can be seen that the R-Square value of the Relationship Equity variable is 0.278. This shows that the Relationship Equity variable can be explained by the independent variables by 27.8%, while the remaining 72.2% can be explained by other variables not included in this study.

Furthermore, there is also an R-Square value of the Brand Equity variable which is 0.181. From this value it can be concluded that the Brand Equity variable can be explained by the independent variables by 18.1%, while the remaining 81.9% can be explained by other variables not included in this study.

In addition, there is also an R-Square value of the Value Equity variable which is 0.267. From this value, it can be seen that the Value Equity variable can be explained by the independent variables by 26.7%, and the remaining 73.3% can be explained by other variables not included in this study.

Finally, there is also an R-Square value of the Reuse Intention variable which is 0.394. From this value it can be concluded that the Reuse Intention variable can be explained by the independent variables by 39.4%, and the remaining 60.6% can be explained by other variables not included in this study.

b. Q Square

If the Q square value > 0, it can be said to have a good observation value, while if the Q square value < 0, it can be stated that the observation value is not good. Q-Square predictive relevance for structural models, measures how well the observed values are generated by the model and its parameter estimates.
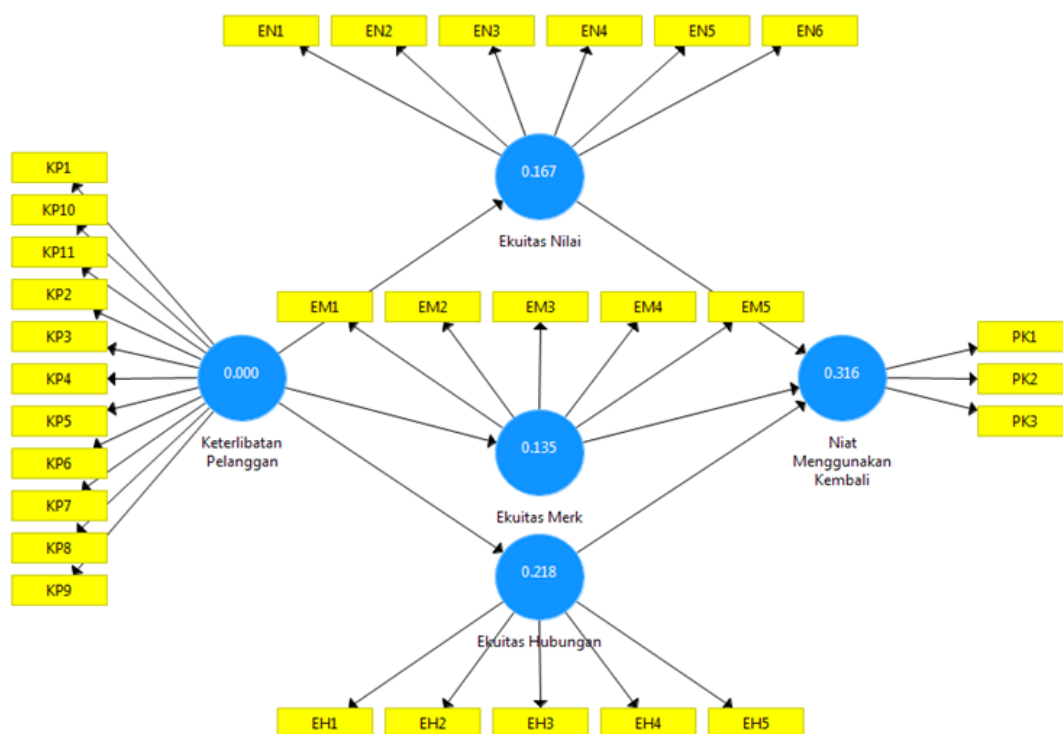

Figure 2. Predictive Relevance

According to the picture above, it can be described in the following table:

Table 7. Predictive Relevance

Variabel	Q² (=1-SSE/SSO)	Description
Relationship Equity	0.218	Has predictive relevance value
Brand Equity	0.135	Has predictive relevance value
Value Equity	0.167	Has predictive relevance value
Reuse Intention	0.316	Has predictive relevance value

Source: Data analysis (2023)

Based on the data listed in the table above, it can be concluded that the Q square value on the dependent variable has a value greater than zero. Thus, it can be concluded that this study has a good observation level because the Q square value is positive.

3.2. Hypothesis Testing

The structural model test was carried out using PLS software. The basis used in testing the hypothesis directly is the output results in the form of images and values contained in the path coefficients output. To test the hypothesis directly, the basis used is if the p value <0.05 (significance level = 5%) and the T statistic value> 1.960, then it is stated that there is a significant effect of exogenous variables on endogenous variables. The following is a complete explanation of hypothesis testing:
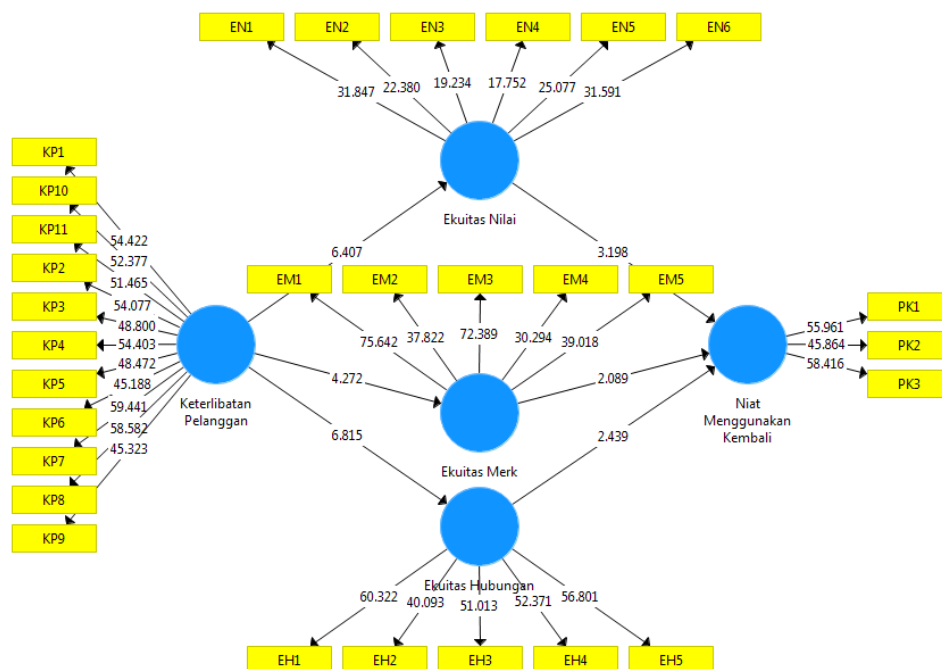
Picture 3. Hypothesis Testing

Table 8. Hypothesis Testing

Variabel	Sampel Asli (O)	T Statistik (| O/STDEV |)	P Values
Customer Engagement -> Value Equity	0.517	6.407	0.000
Customer Engagement -> Brand Equity	0.426	4.272	0.000
Customer Engagement -> Relationship Equity	0.527	6.815	0.000
Value Equity -> Reuse Intention	0.332	3.198	0.001
Brand Equity -> Reuse Intention	0.194	2.089	0.037
Relationship Equity -> Reuse Intention	0.217	2.439	0.015

Source: Data analysis (2023)

In PLS, statistical testing of each hypothesized relationship is carried out using simulation. In this case, it is done by bootstrapping the sample. The following are the results of the PLS bootstrapping analysis, namely the results of testing the first hypothesis, namely the effect of customer involvement on value equity

shows a coefficient value of 0.517, a p-value of 0.000 <0.05 and a t-statistic of 6.407> 1.960. The effect of Customer Engagement on Brand Equity shows a coefficient value of 0.426, a p-value of 0.000 <0.05 and a t-statistic of 4,272> 1.960. The results of testing the next hypothesis, namely the effect of customer involvement on relationship equity, indicate a coefficient value of 0.527, a p-value of 0.000 <0.05 and a t-statistic of 6.815> 1.960.

The results of testing the next hypothesis, namely the Effect of Value Equity on Reuse Intention, state a coefficient value of 0.332, a p-value of 0.001 <0.05 and a t-statistic of 3.198> 1.960. The results of testing the next hypothesis, namely the Effect of Brand Equity on Reuse Intention, show a coefficient value of 0.194, a p-value of 0.037 <0.05 and a t-statistic of 2,089> 1.960. The results of testing the next hypothesis, namely the Effect of Relationship Equity on Reuse Intention, state a coefficient value of 0.217, a p-value of 0.015 <0.05 and a t-statistic of 2.439> 1.960. As a result, the hypothesis that has been stated is accepted.

3.3. Discussion

3.1. The Effect of Customer Engagement on Value Equity

The results of testing the first hypothesis show that there is a significant influence between customer involvement and value equity. The coefficient obtained is 0.517, with p-values of 0.000 which is smaller than 0.05. In addition, the t-statistic obtained is 6.407 which is greater than 1.960. These results indicate that customer engagement has a positive and significant influence on value equity. Therefore, the hypothesis stating that "Customer Engagement Has a Positive and Significant Effect on Value Equity" can be accepted.

Customer engagement has a positive effect on the value equity of the Dana application. Value equity can be felt when customers assess objectively, for example, assessing the condition of the product, the comfort of the product, and the costs incurred in using the product [4]. Customer engagement on value equity is supported by previous research which is in line and has a positive effect according to [5], [6], [7].

3.2. The Effect of Customer Engagement on Brand Equity

The results of testing the second hypothesis, namely the effect of customer involvement on brand equity, show a coefficient value of 0.426, a p-value of 0.000 <0.05 and a t-statistic of 4.272> 1.960. These results indicate that Customer Engagement Affects Brand Equity. So that the hypothesis which states that "Customer Engagement Has a Positive and Significant Effect on Brand Equity" is accepted. Customer engagement has a positive effect on the Dana application brand equity. Dana's customer engagement will not only strengthen the emotional connection between customers and the Dana brand, but can also increase brand value by creating a broad platform for exchanging ideas and information [4]. Customer engagement on brand equity is supported by previous research which is in line and has a positive effect according to [8], [9], [10].

3.3 Effect of Customer Engagement on Relationship Equity

In testing the third hypothesis regarding the effect of customer involvement on relationship equity, it was found that the coefficient value was 0.527, the p-values were 0.000 <0.05, and the t-statistic was 6.815> 1.960. These results indicate that Customer Engagement has a significant influence on Relationship Equity. Therefore, the hypothesis stating that "Customer Engagement Has a Positive and Significant Effect on Relationship Equity" can be accepted. Customer engagement has a positive effect on the Dana app's relational equity. Relationship equity is very important for every company, companies have the opportunity to create relationships with customers, namely when brands get high exposure and strengthen customer relationships [4]. Customer engagement on relationship equity is supported by previous research which is in line and has a positive effect according to [11].

3.4 The Effect of Value Equity on Reuse Intention

The results of testing the fourth hypothesis show that there is a significant influence between value equity and reuse intention. The coefficient value is 0.332, the p-values are 0.001 which is smaller than 0.05, and the t-statistic is 3.198 which is greater than 1.960. These findings confirm that value equity has a positive and significant influence on reuse intention. Therefore, the hypothesis stating that "Value Equity Has a Positive and Significant Effect on Reuse Intention" can be accepted. Value equity has a positive effect on the intention to reuse the Dana application. What is felt by customers while using the Dana application. The convenience and benefits felt by customers when using the Dana application, will affect the reuse of the Dana application. The value that companies get from customers can be in the form of loyalty provided by customers [4].

3.5 The Effect of Brand Equity on Reuse Intention

In testing the fifth hypothesis regarding the effect of brand equity on reuse intention, it was found that the coefficient value was 0.194, the p-values were 0.037 <0.05, and the t-statistic was 2.089> 1.960. This shows that there is a significant influence between Brand Equity and Reuse Intention. Therefore, the hypothesis which states that "Brand Equity Has a Positive and Significant Effect on Reuse Intention" can be accepted. Brand equity has a positive effect on the intention to reuse the Dana application. The way customers perceive the Dana application brand will greatly affect the customer's willingness to reuse the

Dana application. Brand equity provides added value given to products and services so that it is reflected in the way consumers think, feel, and act in matters related to the brand [4]. Brand Equity on Intention to reuse which is supported by previous research which is in line and has a positive effect according to [12].

3.6 The Effect of Relationship Equity on Reuse Intention

In testing the sixth hypothesis regarding the Effect of Relationship Equity on Reuse Intention, it was found that the coefficient value was 0.217, the p-values were 0.015 <0.05, and the t-statistic was 2.439> 1.960. This shows that there is a positive and significant influence between Relationship Equity and Reuse Intention. Therefore, the hypothesis which states that "Relationship Equity Has a Positive and Significant Effect on Reuse Intention" can be accepted. Loyalty has significant potential for companies in strengthening ties with customers through strong efforts, thereby encouraging them to re-select products and services offered by related companies in the future [13].

4.   CONCLUSION

Based on data analysis and discussion that has been carried out, it can be concluded that the results of testing the first hypothesis show that "Customer Involvement Has a Positive and Significant Effect on Value Equity", "Customer Involvement Has a Positive and Significant Effect on Brand Equity", "Customer Engagement Has a Positive and Significant Effect on Relationship Equity", "Value Equity Has a Positive and Significant Effect on Reuse Intention", "Brand Equity Has a Positive and Significant Effect on Reuse Intention" and "Relationship Equity Has a Positive and Significant Effect on Reuse Intention" are accepted.

This research successfully shows that customer engagement has a positive influence on value, relationship and brand equity. Furthermore, these results show that customer equity has a positive impact on the intention to reuse the Dana app. This demonstrates the importance of customer engagement in mobile app business strategy, especially in the context of competitive markets such as financial services apps.

This research also provides useful insights into consumer behavior in using mobile applications, especially in Indonesia. It can be concluded that customer engagement is not only important for building brand equity but also in maintaining customer loyalty in the long run.

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