

THE INFLUENCE OF TECHNOLOGY ACCEPTANCE MODEL (TAM) THEORY ON INTENTION TO REUSE MOBILE BANKING WITH CUSTOMER SATISFACTION AS AN INTERVENING VARIABLE (CASE STUDY OF BRIMO APPLICATION ON WORKERS OF PT BANK RAKYAT INDONESIA SURABAYA REGIONAL OFFICE)

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Abstract- This study examines the influence of technology acceptance model (tam) theory on intention to reuse mobile banking with customer satisfaction as an intervening variable (case study of BRIMO application on workers of PT Bank Rakyat Indonesia Surabaya Regional Office), Using Purposive Sampling method with a total sample of 140 workers from various divisions in PT Bank Rakyat Indonesia (Persero) Tbk Surabaya regional office. Data analysis techniques using structural equation modeling (SEM) analysis with the help of the SmartPLS 4 program. The findings show that elements of the theory of technology acceptance model (tam) perceived usefulness and perceived ease of use have an influence on customer satisfaction, and perceived usefulness, perceived ease of use, customer satisfaction have an influence on the intention to reuse in accordance with the hypothesis built in the study. In this study, customer satisfaction did not have an influence as an intervening variable between perceived ease of use and intention to reuse. The implication of this research is that PT Bank Rakyat Indonesia continues to pay attention to the BRIMO application to always provide convenience and comfort for users. The company also pays attention to the reviews given by BRIMO users, through good reviews it will have a good impact on the company

Keywords: TAM theory, m-banking, convenience perception, usability perception, customer satisfaction

1. Introduction

One application of technological developments that occur in Indonesia is that banking companies issue mobile banking applications (m-banking) that create online banking activities. If applied in the context of m-banking the internal characteristic of m-banking can be more user-friendly, flexible, and clear when used. Pre-survey data processed categorizes the reasons for using m-banking by the public the data shows that the reasons respondents use perceived usefulness by 55% and 45% there is perceived ease of use they feel. One of the banks

in Indonesia that provides mobile banking services to its customers is PT Bank Rakyat Indonesia (Persero) Tbk or Bank BRI. This BRImo was released in 2019. BRImo users amounted to 3 million in 2019 (before the pandemic), to 9.1 million in 2020, and soared 56.4% to 14.2 million people by the end of 2021. Transaction volume also soared from 101 million times (2019) to 766 million times (2020) and soared 66.2% to 1.27 billion transactions. However, it turns out that there are still complaints about the BRImo application on the App Store such as problems in logging in, registration failures, and difficulties in opening the application, and various complaints about the BRImo application. This if not immediately addressed will have a bad image impact on the company PT Bank Rakyat Indonesia (Persero) Tbk. Researchers want to know the Effect of the Technology Acceptance Model (TAM) on the Intention to Reuse Mobile Banking with Customer Satisfaction as an Intervening Variable (Case Study of BRImo application on PT Bank Rakyat Indonesia Surabaya Regional Office Workers).

2. Literature Review

2.1 Previous Research

Kurniawati, et al (2017) the purpose of this study is to analyze what factors can affect student perceptions in supporting their daily activities with a sample of 120 students who use mobile banking by meeting the predetermined requirements. The method in this study uses Structural Equation Modeling (SEM) analysis using the AMOS 22.0 program, with the results showing that all constructs in TAM are statistically significant.

Fadlan & Dewantara, (2018) the purpose of this study is to analyze and explain the effect of perceived ease of use on the use of mobile banking and perceived usefulness on the use of mobile banking. The easier mobile banking is to use, the willingness to use mobile banking will increase, and the higher the perceived usefulness in using mobile banking, the more willingness to use mobile banking.

Maulana, et al (2018) this study aims to determine the effect of using Mobile banking on customer interest in transacting using TAM. The result of this study is that the perception of usefulness of use has a significant influence on transaction interest. The relationship with the author's research is that every usefulness value will increase one's interest in using it.

2.2 Theoretical Review

2.2.1 Technology Acceptance Model (TAM)

The TAM model proposed by Davis includes exogenous and endogenous variables, exogenous variables, namely perceived usefulness and perceived ease of use, while endogenous variables include an attitude and interest in using a technology (Wahyudi & Yanthi, 2021).

2.2.2 Perceived Usefulness

According to Davis (1989) perceived usefulness is the trust in technology when its use provides increased performance and productivity. The benefits of using information and communication technology can provide improved performance and achievement to individuals in its use (Tyas & Darma, 2017).

2.2.3 Perceived Ease of Use

Perceived use according to Davis (1989) the existence of individual trust in technology in its use does not require a large effort. According to (Tyas & Darma, 2017) perceived use is a person's benchmark regarding technology that can be understood and used easily. Perceived ease of use, how a technology can measure user trust in its use (Padmawidjaja & Sutrisno, 2020).

2.2.4 Customer Satisfaction

According to Kotler and Keller (2012), defining satisfaction is a feeling of disappointment or pleasure in someone originating when comparing the results of a product and expectations. The level of satisfaction is a function of the difference between the performance obtained as expected, the higher the performance of the results obtained with expectations, the higher the satisfaction obtained (Apriyanti et al, 2017).

2.2.5 Intention to Reuse

Brahanta and Wardhani (2021) explained that the intention to reuse is by TAM theory that someone in the use of a technology has confidence that the technology can provide a boost to the performance they do, the technology has value in use and does not require great effort in its use. Intention to reuse in technology leads to the ultimate goal of consumers in carrying out the activities carried out. (Sandy, 2021).

3. Research Framework

3.1 Research Model

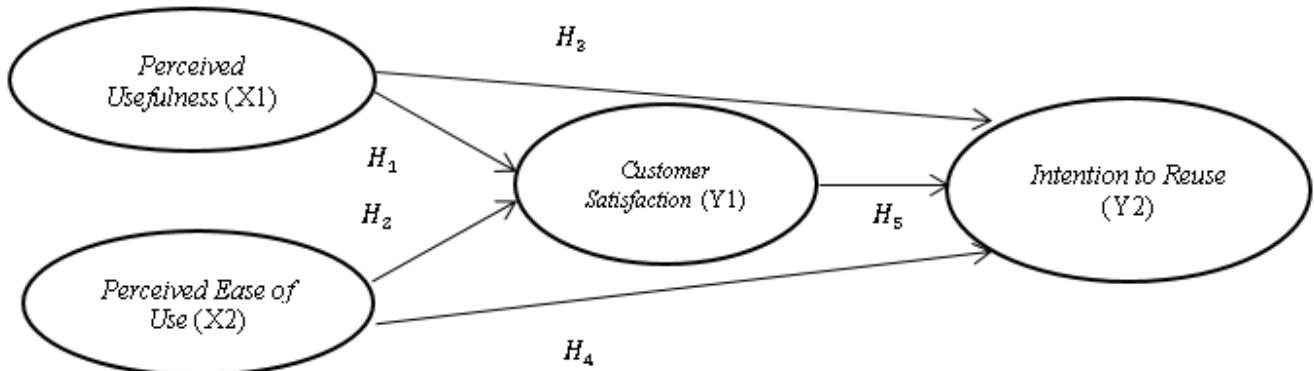


Figure 3.0.2 Research Model

Source: Processed by researchers (2023)

3.2 Hypothesis

H1: Perceived Usefulness (X1) affects Customer Satisfaction (Y1)

H2: Perceived ease of use (X2) affects Customer Satisfaction (Y1)

H3: Perceived Usefulness (X1) affects intention to reuse (Y2)

H4: Perceived ease of use (X2) effect on intention to reuse (Y2)

H5: Customer Satisfaction (Y1) affects intention to reuse (Y2)

4. Research Methods

4.1 Research Approach

In this study, quantitative methods were used by processing data from variables perceived usefulness, perceived ease of use, customer satisfaction, and intention to reuse. The population to be used in this study is Bank PT Rakyat Indonesia (Persero) Tbk Surabaya Regional Office Workers. This study will use a purposive sampling method with a sample of 140 respondents. Primary data in this study was obtained through the distribution of an E-questionnaire through Google Form and measured with an interval scale of 1-2-3-4-5-6-7.

4.2 Operational Variables and Definitions

Table 4.1 Operational Definitions of Variables

Variable Research	Conceptual Definition	Definition Operational	Indicators	Source
Perceived Usefulness (X1)	There is a trust in technology when in its use provides increased performance and productivity (Davis, 1989)	BRImo users feel that there are facilities that have an impact on performance more easily	- <i>Work more quickly</i> - <i>Job performance</i> - <i>Increase Productivity</i> - <i>Makes job easier</i> - <i>Useful</i>	Ashghar <i>et al.</i> , (2020)
Perceived ease of use (X2)	One's benchmarks regarding technology can be understood and used easily. (Tyas <i>et al.</i> , 2017)	When using BRImo, users do not feel any difficulty in operating the application	- <i>Ease to learn</i> - <i>Understandable</i> - <i>Ease of use</i>	Setyawati, (2020)
Customer Satisfaction (Y1)	A feeling of disappointment or pleasure in someone originates when comparing the results of a product and expectations (Kotler <i>et al.</i> , 2012)	It is expected that after using BRImo users feel satisfied and in accordance with the expectations they want	- <i>Overall satisfaction</i> - <i>Expectation</i> - <i>Experience</i>	Wirawan, (2019)
Reuse Intention (Y2)	the use of a technology has the belief that it can provide a boost to the performance improvement it does (Nuruni, 2021)	Within a certain period of time, users reuse the BRImo application in the activities to be carried out.	- Will transact - Would recommend - Will continue to use	Joan & Sitinjak (2019)

Source: Processed by researchers (2023)

4.3 Analysis Methods

The method used in this study is descriptive statistical analysis. The analytical technique used in the study is Structural Equation Modeling (SEM) using Structural Equation Modeling (SEM) based on Partial Least Square (PLS) 3.0.

5. Result and Discussion

5.1 Characteristics of Respondents

It shows that 140 respondents in this study are female (47%) and male (53%). Respondents aged >30 years were 58 respondents with a percentage of 37%. The highest share of regional offices is RTC respondents as many as 29 with a percentage of 21%.

5.2 Descriptive Research Variables

In Perceived Usefulness, the highest mean value was 6,743 with the makes job easier indicator, indicating that respondents agreed. In Perceived Ease of Use the highest mean value was at 6.793 with understandable indicators, which shows that respondents agreed. In Customer Satisfaction, the highest mean value is at 6,914 with expectation indicators, which shows that respondents strongly agree. In Intention to Reuse, the highest mean value is at 6,900 with the indicator of going to trade, which shows that respondents agree.

5.2.1 Test Model

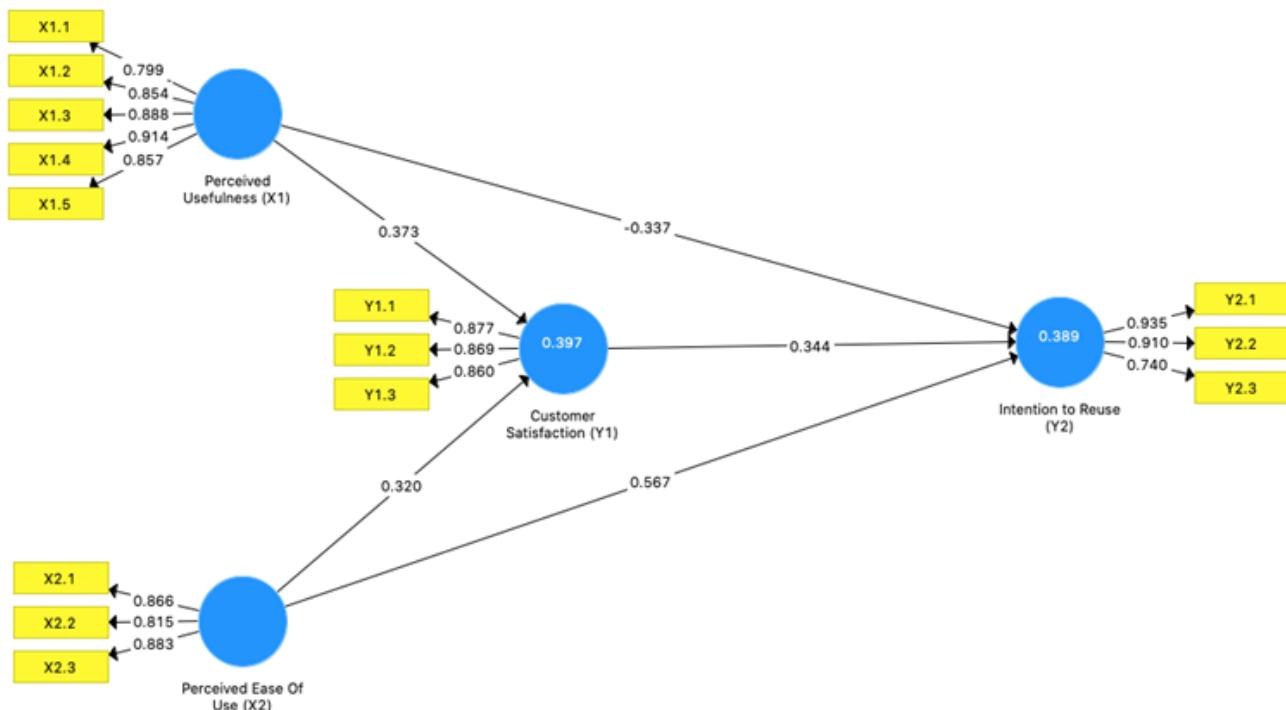


Figure 5.1 Analysis Model

Source: Processed by researchers (2023)

In this study, the indicator values were all above 0.70 so that there was no indicator elimination.

5.2.2 Validity Loading Factor Test (Outer Model)

Table 5.1 Validity Loading Factor Test (Outer Model)

Variable	Indikator	Nilai	Keterangan
Perceived Usefulness (X1)	Work more quickly (X1.1)	0,799	Accepted
	Job Performance (X1.2)	0,854	Accepted
	Increase Productivity (X1.3)	0,888	Accepted
	Makes Job Easier (X1.4)	0,914	Accepted
	Useful (X1.5)	0,857	Accepted
Perceived Ease of Use (X2)	Easy to learn (X2.1)	0,866	Accepted
	Understandable (X2.2)	0,815	Accepted
	Ease of Use (X2.3)	0,883	Accepted
Customer Satisfaction (Y1)	Overall Satisfaction (Y1.1)	0,877	Accepted
	Expectation (Y1.2)	0,869	Accepted
	Experience (Y1.3)	0,860	Accepted
Intention to Reuse (Y2)	Will transact (Y2.1)	0,935	Accepted
	Would recommend (Y2.2)	0,910	Accepted
	Continue to use (Y3.3)	0,740	Accepted

Source: Processed by researchers (2023)

From Table 5. 1 It can be concluded that all indicators in the table are acceptable because they have a loading factor value above 0.70. In this study, all indicators have a high value so that they have a high contribution in measuring latent constructs.

5.2.3 Validity Average Variance Extracted Test

Table 5.2 Validity Average Variance Extracted Test

Variable	Value	Description
Perceived Usefulness (X1)	0,746	Accepted
Perceived Ease of Use (X2)	0,731	Accepted
Customer Satisfaction (Y1)	0,754	Accepted
Intention to Reuse (Y2)	0,750	Accepted

Source: Processed by researchers (2023)

According to Abdillah and Jogiyanto (2015) in Effendy (2018), the minimum value for the average variance extracted validity test is above 0.50. From Table 5.2 It can be seen that all variables have values above 0.50, so it can be concluded that all variables in this study are valid.

5.2.4 Validity Cross Loading Test

Table 5.3 Validity Cross Loading Test

	Customer Satisfaction (Y1)	Intention to Reuse (Y2)	Perceived Ease of Use (X2)	Perceived Usefulness (X1)
X1.1	0,440	0,143	0,469	0,799
X1.2	0,466	0,217	0,569	0,854
X1.3	0,433	0,159	0,615	0,888
X1.4	0,610	0,194	0,595	0,914
X1.5	0,526	0,276	0,562	0,857
X2.1	0,459	0,410	0,866	0,644
X2.2	0,404	0,342	0,815	0,554
X2.3	0,555	0,587	0,883	0,501
Y1.1	0,877	0,482	0,565	0,484
Y1.2	0,869	0,328	0,402	0,465
Y1.3	0,860	0,389	0,482	0,562

Y2.1	0,479	0,935	0,595	0,295
Y2.2	0,384	0,910	0,414	0,123
Y2.3	0,331	0,740	0,360	0,163

Source: Processed by researchers (2023)

The table above shows that each indicator that measures each variable has met the criteria for description validity because it has the largest outer loading value (bolded value) for the variable it measures and not for other variables. So that according to the results of the test the validity of the description can be declared valid.

5.2.5 Reliability Cronbach Alpha Test

Table 5.4 Reliability Cronbach Alpha Test

Variable	Value	Description
<i>Perceived Usefulness (X1)</i>	0,838	Accepted
<i>Perceived Ease of Use (X2)</i>	0,830	Accepted
<i>Customer Satisfaction (Y1)</i>	0,820	Accepted
<i>Intention to Reuse (Y2)</i>	0,915	Accepted

Source: Processed by researchers (2023)

According to Abdillah and Jogiyanto (2015) in Effendy (2018), a good value for the Cronbach alpha reliability test is above 0.70. Based on Table 5.11, it can be seen that all variables have values above 0.70, so the variables in this study can be said to be reliable.

5.2.6 Reliability Composite Test

Table 5.5 Reliability Composite Test

Variable	Value	Description
<i>Perceived Usefulness (X1)</i>	0,902	Accepted
<i>Perceived Ease of Use (X2)</i>	0,899	Accepted
<i>Customer Satisfaction (Y1)</i>	0,891	Accepted
<i>Intention to Reuse (Y2)</i>	0,936	Accepted

Source: Processed by researchers (2023)

According to Abdillah and Jogiyanto (2015) in Effendy (2018), the recommended value for the composite reliability test is above 0.70. Based on Table 5.12 it can be seen that all variables have values above 0.70, so the variables in this study can be said to be reliable.

5.2.7 R Square (Coefficient of Determination)

Table 5.6 R Square

Variable	R Square
<i>Customer Satisfaction (Y1)</i>	0,397
<i>Intention to Reuse (Y2)</i>	0,389

Source: Processed by researchers (2023)

Perceived usefulness and perceived ease of use have an influence of 39.7% on customer satisfaction using the BRImo application. Perceived usefulness and perceived ease of use have an influence of 38.9% on the Intention to reuse the BRImo application.

5.2.8 Hypothesis Test

Table 5.7 Results of Path Coefficients (direct)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Perceived Usefulness (X1) -> Customer Satisfaction (Y1)	0,373	0,381	0,123	3,036	0,003
Perceived ease of use (X2) -> customer satisfaction (Y1)	0,320	0,332	0,109	2,927	0,004
Perceived Usefulness (X1) -> Intention to Reuse (Y2)	-0,337	-0,316	0,139	2,416	0,016
Perceived Ease of Use (X2) -> Intention to Reuse (Y2)	0,567	0,564	0,128	4,430	0,000
Customer Satisfaction (Y1) -> Intention to Reuse (Y2)	0,344	0,341	0,142	2,416	0,016

Source: Processed by researchers (2023)

The first hypothesis is accepted because perceived usefulness has a significant effect on customer satisfaction among employees of PT Bank Rakyat Indonesia Regional Office Surabaya. The second hypothesis is accepted because perceived ease of use has a significant effect on customer satisfaction among employees of PT Bank Rakyat Indonesia Regional Office Surabaya. The third hypothesis is accepted because perceived usefulness has a significant effect on the intention to reuse in employees of PT Bank Rakyat Indonesia Regional Office Surabaya. The fourth hypothesis is accepted because perceived ease of use has a significant effect on the intention to reuse in employees of PT Bank Rakyat Indonesia Regional Office Surabaya. The fifth hypothesis is accepted because customer satisfaction has a significant effect on the intention to reuse in employees of PT Bank Rakyat Indonesia Regional Office Surabaya.

Table 5.8 Results of Path Coefficients (indirect)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Perceived Usefulness (X1) -> Customer Satisfaction (Y1) -> Intention to Reuse (Y2)	0,128	0,126	0,064	1,998	0,046
Perceived Ease of Use (2) -> Customer Satisfaction (Y1) -> Intention to Reuse (Y2)	0,110	0,118	0,071	1,541	0,124

Source: Processed by researchers (2023)

The influence of customer satisfaction is an intervening variable between perceived usefulness variables on intention to reuse, and customer satisfaction does not have an intervening variable between perceived ease of use and intention to reuse.

5.3 Discussion

5.3.1 The Effect of Perceived Usefulness on Customer Satisfaction

The average result of the overall perceived usefulness indicator is 6,654 which shows that employees agree that perceived usefulness is one of the variables that can affect customer satisfaction in using the BRImo application. As a technology facility by banks, BRI always updates the features in BRImo to provide convenience for its users. This can be seen based on the highest average value in the X1.4 perceived usefulness indicator, namely they believe that when using the BRImo application it is easy to be equipped to complete the work they want. which is indicated by an average score of 6,743.

5.3.2 The Effect of Perceived Ease of Use on Customer Satisfaction

Based on the average result of the overall perceived ease of use indicator which is 6,762 it shows that employees agree that perceived ease of use is one of the variables that can affect customer satisfaction in using the BRImo application. BRI continues to provide ease of access and operation when using mobile banking, this is evidenced by the ease of accessing the BRImo application. This can be seen based on the highest average value in the X2.2 perceived ease of use indicator, namely they believe that when using the BRImo application as needed, they do not feel any difficulty in operating which is shown by an average value of 6,793.

5.3.3 The Effect of Perceived Usefulness on Intention to Reuse

Based on the average result of the overall perceived usefulness indicator of 6,654 which shows that employees agree that perceived usefulness is one of the variables that can affect customer satisfaction in using the BRImo application. As a technology facility by banks, BRI always updates the features in BRImo to provide convenience for its users, for example, logging in using only a face ID. This can be seen based on the highest average value in the X1.4 perceived usefulness indicator, namely they believe that when using the BRImo application it is easy to be equipped to complete the work they want. which is indicated by an average score of 6.743.

5.3.4 The Effect of Perceived Ease of Use on Intention to Reuse

Based on the average result of the overall perceived ease of use indicator which is 6,762 it shows that employees agree that perceived ease of use is one of the variables that can affect customer satisfaction in using the BRImo application. BRI continues to provide ease of access and operation when using mobile banking, this is evidenced by the ease of accessing the BRImo application anywhere and anytime as well as a hotline for complaints of problems that is fast and responsive in providing solutions. This can be seen based on the highest average value in the X2.2 perceived ease of use indicator, namely they believe that when using the BRImo application as needed, they do not feel any difficulty in operating which is shown by an average value of 6,793.

5.3.5 The Effect of Customer Satisfaction on Intention to Reuse

Based on the average results of the overall customer satisfaction indicator of 6,900 which shows that employees agree that customer satisfaction is one of the variables that can affect the intention to reuse the use of the BRImo application. The satisfaction felt by users makes the BRImo application one of the mobile banking that provides more services in transactions, it can be seen that there are still users who provide positive reviews of the services provided by BRI through BRImo. This can be seen based on the highest average value in the Y1.2 customer satisfaction indicator, namely the suitability of the BRImo application to what they need and what they expect with an average value of 6,914.

6. Conclusion and Suggestion

6.1 Conclusion

- A. The first hypothesis is perceived usefulness has a significant influence on customer satisfaction so the first hypothesis is declared accepted, which means that the higher the perceived usefulness value, the higher the customer satisfaction in the use of the BRImo application by employees of PT Bank Rakyat Indonesia Regional Office Surabaya.
- B. The second hypothesis is that perceived ease of use has a significant influence on customer satisfaction, meaning that the higher the ease of use of the BRImo application, the higher the satisfaction felt by users.
- C. The third hypothesis is that perceived usefulness affects the intention to reuse is declared accepted, the higher the perceived usability value when using the BRImo application, the higher a person's interest in reusing the application.
- D. The fourth hypothesis is that perceived ease of use affects the intention to reuse, meaning that the easier the operation when using the BRImo application, the higher one's interest in using the application
- E. The fifth hypothesis is that customer satisfaction affects the intention to reuse is declared accepted, the higher the perceived customer satisfaction, the higher one's interest in using the BRImo application.
- F. Perceived usefulness mediated by customer satisfaction against the intention to reuse is declared accepted and has an influence, the higher the value of customer satisfaction which is influenced by the perceived usability, the higher a person's interest in reusing the BRImo application.
- G. Perceived ease of use mediated by customer satisfaction against intention to reuse is declared rejected, then there is no influence on customer satisfaction which is influenced by the perceived ease when using the BRImo application to increase interest in reusing the BRImo application.

6.2 Suggestion

- A. Companies should continue to pay attention to technological advances in the banking world or even technology in other industries that can be adopted and implemented in the BRImo application to improve the quality of the BRImo application than other m-banking applications.
- B. It should be noted that user responses to BRImo application reviews on the smartphone Appstore, this is to attract problems that occur in the BRImo application when used by users.
- C. In future research, researchers can provide other independent variables that affect the intention to reuse in an application such as e-service quality, perceived security, and customer engagement.

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