THE EFFECT OF PERCEPTIONS OF USE, PERCEPTIONS OF EASE OF USE, AND SECURITY ON THE INTENTION OF MILLENNIAL CUSTOMERS TO USE BNI MOBILE BANKING THROUGH CUSTOMER TRUST AS INTERVENING VARIABLES

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ABSTRACT

The rapid development of science and technology in the digital era, affects people's lifestyles when accessing a lot of information in various service functions through electronic means. Banks utilize information technology in mobile banking. The purpose of this study was to determine and analyze the effect of perceived benefits, perceived ease of use, and security on Millenial Generation customers' interest in using BNI Mobile Banking through customer trust as an intervening variable. The research method uses primary data obtained from distributing questionnaires to 100 millennial generations who have used BNI Mobile Banking in Jabodetabek. The analytical tools used are validity test, reliability test, R-square test, path coefficient test, indirect effect (path analysis), predictive relevance, and model suitability test. The results showed that perceived usefulness, perceived ease of use, and security had an effect on intention to use through customer trust in BNI Mobile Banking users. Perceived Usefulness, Perceived Ease of Use, and Security affect the Intention to Use BNI Mobile Banking Users. Perceived Usefulness, Perceived Ease of Use, and Security have direct and indirect effects on intention to use through Customer Trust in BNI Mobile Banking users.

Keywords: perceived usefulness, perceived ease of use, security, customer trust, intention to use

1. INTRODUCTION

The rapid development of science and technology in the current digital era, affects people's behavior and lifestyle when accessing a lot of information with various service functions through various electronic means. The development of the internet in Indonesia will greatly help people from various fields to carry out their daily activities. One of the industries following the improvement of internet technology is the banking industry. The Bank always innovates in introducing various new products to its customers and the facilities that support them. The form of Indonesia's industrial progress related to online banking is digital banking. Mobile banking is increasingly emerging in today's digital world. Mobile banking can be used as a more practical transfer and payment medium.

PT Bank Negara Indonesia has a BNI Mobile Banking service called mobile banking which occupies the first position for the mobile banking performance in the Bank Service Excellence Monitor (BSEM) survey in 2021. BNI Mobile Banking provides a variety of superior digital service features so that it can surpass mobile banking otherowned by national banks that provide similar services. This shows that the innovation of banking services offered by Bank Negara Indonesia has good performance in the eyes of the public.

![Figure 1 Best Mobile Banking Performance In 2021](source: new.detik.com (2021))
Based on Figure 1, BNI Mobile Banking ranks first with the highest number of users with a percentage of 94.92% or 8.56 million users in Indonesia. The high number of BNI Mobile Banking users is due to some of the best services available in BNI Mobile Banking, including the digital account opening feature with facial recognition, which is useful for new customers. BNI Mobile Banking is always ready to help and serve the public for cashless.

These include perceived of usefulness, perceived of ease of use, and security required by users of this application service. Based on research conducted by Mitra and Nur (2021), perceived usefulness has a direct effect on the intention to use mobile banking. This shows that BNI Mobile Banking must be able to provide benefits to its users so that customers are interested in transacting using mobile banking quickly without having to queue at the bank so that it is more practical and does not take a long time. According to Asmar and Kusuma (2022) stated that the perception of ease of use and security has a direct effect on customer intentions in using mobile banking. BNI Mobile Banking provides various services for financial transactions such as balance information, transfer media, and so on. In terms of security, mobile banking is currently sufficient to provide customers with a sense of calm and security when using the application. Increasing the security of mobile banking can increase customer interest in using mobile banking. Based on research obtained by Asmara and Kusumadewi (2022), customer trust has a direct effect on intentions to use mobile banking. Customer trust in a bank suggests the public to use mobile banking in transactions.

2. LITERATURE REVIEW

2.1. Mobile Banking
According to the Financial Services Authority, mobile banking is banking transactions with the help of mobile media, both in the form of m-banking applications and default applications from mobile operators. In addition to the services provided by branches and ATMs, the Bank also provides mobile banking services to meet the needs and convenience of the public in banking transactions. With this mobile banking service, people do not need to waste a lot of time waiting in line at bank offices and ATMs, because banking transactions can now be easily accessed from their mobile phones anytime and anywhere.

2.2. Perceived of Usefulness
According to Santi and Fanti (2020), perceived usefulness are the extent to which a person believes that using information technology can improve performance at work. In the context of user acceptance of mobile banking services, the perceived usefulness among customers arise because of the awareness of the advantages of mobile banking (Sharafi1, et al., 2018).

According to Gultom and Nur (2021), several indicators that influence the perceived of usefulness are:

a. Work more quickly.
b. Improve job performance.
c. Increase productivity.
d. Make job easier.
e. Effectiveness.

2.3. Perceived of Ease of Use
Meanwhile, according to Ramos, et al (2018), ease of use is defined as a form of belief in using individual forms about the lack of effort to learn new technologies. The mobile banking services provided must make it easy for customers to use and banking transactions can be done anytime and anywhere.

According to Gultom and Nur (2021), indicators of perceived ease of use are:

a. Easy to learn.
b. Clear and understandable.
c. Ease to use.
d. Easy to become skilled.
e. Flexible.

2.4. Security
Suryadarma (2019) states that information security is a procedure, policy, and technical measure that can be used to prevent unauthorized access, data theft, program changes or physical damage to information systems. In terms of the security context in banking services, customers will have the perception that the services provided by the bank can guarantee security, so they have shown greater trust in mobile banking (Ramos, et al., 2018).
According to Bachtiar, Erawati, and Ika (2020), the indicators of security are:
a. System security.
b. Assurance of service security.
c. Ensure security and confidentiality.
d. Personal information is guaranteed and protected.
e. Will not misuse customer’s personal information.

2.5. Customer Trust
Trust is the belief that someone will find what they want in others, not what they fear (Sari and Nyoman, 2020). Asmara and Kusumadewi (2022) say that customer trust in the bank will also influence the intention to use mobile banking to transact on the internet. If there is an increase in customer trust in the bank, the higher the intention to use mobile banking in online transactions.

According to Gultom and Nur (2021), the indicators of customer trust are:
a. An be trusted.
b. Protect interests.
c. Information provided.
e. Tendency to believe.

2.6. Intention To Use
Gultom and Nur (2021), states that intention is related to something that is profitable and can bring satisfaction to an individual. According to Jogiyanto in Bachtiar, Erawati, and Ika (2020), it can be defined as a form of customer desire to use or reuse mobile banking in the future. According to Asmara and Kusumadewi (2022), interest can predict customer behavior in the future, which means that, if a bank customer has a high intention to use a mobile banking, it can be assumed that the bank customer will actually be interested in using the application.

According to Bachtiar, Erawati, and Ika (2020), the indicators of interest in using are:
a. Desire.
b. Suitability.
c. Transaction.
d. Quality.
e. Recommendation.

2.7. Research Framework
This research model explains the relationship between perceived benefits, perceived ease of use and interest in using it through customer trust.

![Figure 2 Research Model](image-url)
Hypothesis:
H1: Perceived of usefulness has a direct effect on customer trust in BNI Mobile Banking.
H2: Perceived of ease of use has a direct effect on customer trust in BNI Mobile Banking.
H3: Security has a direct effect on customer trust in BNI Mobile Banking.
H4: Perceived Usefulness has a direct effect on intentions to use BNI Mobile Banking.
H5: Perceived Ease of Use has a direct effect on intention to use BNI Mobile Banking.
H6: Security has a direct effect on intention to use BNI Mobile Banking.
H7: Customer trust has a direct effect on intention to use BNI Mobile Banking.
H8: Perceived usefulness has an indirect effect on the intention to use BNI Mobile Banking customer trust.
H9: Perceived ease of use has an indirect effect on the intention to use BNI Mobile Banking customer trust.
H10: Security has an indirect effect on the intention to use BNI Mobile Banking customer trust.

3. RESEARCH METHODS
This study uses primary data through the process of distributing questionnaires with google form media. The object of research is BNI Mobile Banking. The population used in this study are BNI Mobile Banking users in the Greater Jakarta area. The sampling method used is non-probability sampling. As for the determination of sampling in this study, it was done by using purposive sampling technique. According to Hair, Risher, Sarstedt, and Ringle (2019), the sample calculation can be determined with the minimum number of samples in the Structural Equation Model (SEM) method, which is 100-200 respondents using Maximum Likelihood Estimation as many as 100 millenial generation customers who have used or are currently using BNI Mobile Banking in the Greater Jakarta area. The questionnaire provides responses containing a list of questions with 5 levels of assessment scores in measuring respondents' responses. The research data was processed with the help of Smart PLS 3.0 software. The analytical tools used are validity test, reliability test, R-squared test, path coefficient test, indirect effect (path analysis), predictive relevance, and goodness of fit model test.

4. RESULTS AND DISCUSSION
4.1 Validity Test
Validity test is carried out to estimate the ability of the research instrument to measure what it is supposed to measure (Sudiantini, 2020).

4.1.1 Convergent Validity Test
Convergent Validity Test
The convergent validity test has a relationship with various measures of a construct that has a large correlation (Sudiantini, 2020).
Based on the Table 1, it shows that the indicators in each variable have an outer loading value greater than 0.50 and an Average Variance Extracted (AVE) value greater than 0.50, which means that all indicators are said to be valid.

4.1.2 Discriminant Validity Test

Discriminant validity test is a type of measurement model with reflective indicators determined based on cross loading measurements with constructs (Sudiantini, 2020).

Based on the Table 2, it shows that each indicator in each variable has a cross loading value on the variables it forms, it is stated that the indicators used in this study have good discriminant validity in compiling each variable.
4.2 Reliability Test
The reliability test is used to measure the consistency of measuring instruments in measuring a concept or to measure the consistency of respondents in answering questions (Sudiantini, 2020).

<table>
<thead>
<tr>
<th>Table 3 Reliability Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>Perceived of Usefulness (X1)</td>
</tr>
<tr>
<td>Perceived of Ease of Use (X2)</td>
</tr>
<tr>
<td>Security (X3)</td>
</tr>
<tr>
<td>Customer Trust (Z)</td>
</tr>
<tr>
<td>Interest in Using (Y)</td>
</tr>
</tbody>
</table>

Source: From Data Processing SmartPLS 3.0 (2022)

Based on the results of the Table 3, the Composite Reliability on all variables has a value of 0.70 and Cronbach’s Alpha > 0.60. So it can be concluded that all variables have a high level of reliability and have been tested for reliability.

4.3 R-Square Test
According to Hair (2017), R-Square is the squared correlation of the actual and predicted values, thus, includes all the data that has been used for model estimation to assess the predictive power of the model, it represents a measure of the predictive power in the sample.

<table>
<thead>
<tr>
<th>Table 4 R-Square Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Customer Trust (Z)</td>
</tr>
<tr>
<td>Intention To Use (Y)</td>
</tr>
</tbody>
</table>

Source: From Data Processing SmartPLS 3.0 (2022)

Based on the Table 4, the results obtained:
a. The value of R-Square of customer trust is 0.758 or 75.8%. This explains that perceived usefulness, perceived ease of use, and security are able to explain the construction of customer trust by 75.8% and the remaining 24.2% is explained by other variables not included in the study such as perceived risk, service quality, and promotion.
b. The value of R-Square on intention to use is 0.825 or 82.5%. This explains that perceived usefulness, perceived ease of use, and security are able to explain the construction of intention to use by 82.5% and the remaining 17.5% is explained by other variables not included in the study such as perceived risk, service quality, and promotion.

4.4 Path Coefficient Test
Sugiyono (2021) says that the path coefficient shows the strong influence of the independent variable on the dependent variable. The research hypothesis can be declared accepted if the path coefficient shows the TStatistics > T-Table (1.96) and P-Value <0.05.

<table>
<thead>
<tr>
<th>Table 5 Path Coefficient Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship Between Variables</td>
</tr>
<tr>
<td>-------------------------------------</td>
</tr>
<tr>
<td>Perceived of Usefulness (X1) → Customer Trust (Z)</td>
</tr>
<tr>
<td>Perceived of Usefulness (X1) → Intention To Use (Y)</td>
</tr>
<tr>
<td>Perceived of Ease of Use (X2) → Customer Trust (Z)</td>
</tr>
<tr>
<td>Perceived of Ease of Use (X2) → Intention To Use (Y)</td>
</tr>
<tr>
<td>Security (X3) → Customer Trust</td>
</tr>
</tbody>
</table>

50
The following is an explanation of the results of the path coefficients shown in Table 5, namely:

**Perceived of Usefulness on Customer Trust.**
Based on the calculation on the path coefficient, the variable perceived of usefulness on customer trust obtains $T$-Statistics $2.410 > T$-table $1.96$, and has a $P$-Value of $0.016 < 0.05$. This means that perceptions of usefulness have a direct influence on customer trust. The results of this study are supported by research conducted by Ramos, et al (2018) and Ramli and Rahmawati (2020) which state that perceived usefulness has a direct influence on customer trust in using mobile banking.

**Perceived of Usefulness on Intention To Use.**
Based on the calculation on the path coefficient, the variable perceived of usefulness of using interest obtained $T$-Statistics $2.373 > T$-table $1.96$, and has a $P$-Value of $0.018 < 0.05$. The results of this study are supported by research conducted by Mitra and Nur (2021) and supported by Ramos, et al (2018) which states that perceived benefits have a direct influence on intention to use mobile banking.

**Perceived Ease of Use on Customer Trust.**
Based on the calculation of the path coefficient, the perceived ease of use variable on customer trust obtained $T$-Statistics $2.849 > T$-table $1.96$, and had a $P$-Value of $0.005 < 0.05$. This means that the perception of ease of use has a direct influence on customer trust. The results of this study are supported by research conducted by Ramli and Rahmawati (2020) which states that the perceived ease of use has a direct influence on customer trust. Then the results of this study were strengthened by Asmara and Kusumadewi (2022).

**Perceived Ease of Use on Intention To Use.**
Based on the calculation on the path coefficient, the perceived ease of use variable on interest in using obtained $T$-Statistics $2.890 > T$-table $1.96$, and has a $P$-Value of $0.004 < 0.05$. This means that the perception of ease of use has a direct influence on interest in using. BNI Mobile Banking provides steps in operating banking transactions in the application. The results of this study are supported by research conducted by Alexander (2019) and reinforced by Ramli and Rahmawati (2020) who state that perceived ease of use has a direct influence on intention to use.

**Security on Customer Trust.**
Path coefficient test, the security variable on customer trust obtains $T$-Statistics $4.419 > T$-table $1.96$, and has a $P$-Value of $0.000 < 0.05$. This means that the perception of ease of use has a direct influence on customer trust. The results of this study are supported by research conducted by Asmara and Kusumadewi (2020) and reinforced by Ramos, et al (2018), which states that security has a direct influence on customer trust.

**Security on Intention To Use**
Based on the calculation on the path coefficient, the security variable is of intention to use $T$-Statistics $2.425 > T$-table $1.96$, and has a $P$-Value of $0.016 < 0.05$. This means that security has a direct influence on interest in using. The results of this study are supported by research conducted by Yendra, et al (2017) and reinforced by Ramos, et al (2018) which states that security has a direct influence on intention to use mobile banking.

**Customer Trust on Customer Trust.**
Based on the calculation of the path coefficient, the variable of customer confidence in the use of interest obtained $T$-Statistics $3.355 > T$-table $1.96$, and has a $P$-Value of $0.001 < 0.05$. This means that customer trust has a direct influence on interest in using. The results of this study are supported by research conducted by Asmara and Kusumadewi (2022) and strengthened by Sharafil (2018), which states that customer trust has a direct influence on intention to use.

<table>
<thead>
<tr>
<th>(Z)</th>
<th>(Y)</th>
<th>T-Statistics</th>
<th>P-Value</th>
<th>Influential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security (X3) → Intention To Use (Y)</td>
<td>0.173</td>
<td>2.425</td>
<td>0.016</td>
<td>Influential</td>
</tr>
<tr>
<td>Customer Trust (Z) → Intention To Use (Y)</td>
<td>0.352</td>
<td>3.355</td>
<td>0.001</td>
<td>Influential</td>
</tr>
</tbody>
</table>

Source: From Data Processing SmartPLS 3.0 (2022)
4.5 INDIRECT EFFECT TEST

According to Juliandi (2018), the indirect effect analysis can be used to test the hypothesis of the indirect effect of the affected variable (exogenous) to the affected variable (endogenous) mediated between by the intervening variable. The research hypothesis can be declared accepted if the indirect effect shows the T-Statistics > T-Table (1.984) and P-Value < 0.05.

Table 6: Specific Indirect Effect Test Results

<table>
<thead>
<tr>
<th>Relationship Between Variables</th>
<th>Original Sample (O)</th>
<th>T-Statistics (O/STDEV)</th>
<th>P-Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived of Usefulness (X1) → Customer Trust (Z) → Intention To Use (Y)</td>
<td>0.085</td>
<td>2.040</td>
<td>0.042</td>
<td>Influential</td>
</tr>
<tr>
<td>Perceived of Ease of Use (X1) → Customer Trust (Z) → Intention To Use (Y)</td>
<td>0.124</td>
<td>2.112</td>
<td>0.035</td>
<td>Influential</td>
</tr>
<tr>
<td>Security (X3) → Customer Trust (Z) → Intention To Use (Y)</td>
<td>0.129</td>
<td>3.004</td>
<td>0.003</td>
<td>Influential</td>
</tr>
</tbody>
</table>

Source: From Data Processing SmartPLS 3.0 (2022)

The following is an explanation of the results of the indirect effect shown in Table 6, namely:

**Perceived of Usefulness on Interest in Using through Customer Trust.**

Based on the calculation on the specific indirect effect, the variable perceived of usefulness on interest in using customer trust obtained T-Statistics 2.040 > T-table 1.96, and has a P-Value of 0.042 <0.05. Perceived usefulness indirectly affect interest in using through customer trust. This study is in line with research conducted by Ramos, et al (2018), that the perceived usefulness is indirectly influenced by intention to use mobile banking through customer trust. Then, it was strengthened by research conducted by Ramli and Rahmawati (2020).

**Perceived of Ease of Use on Interest in Using through Customer Trust.**

Based on calculations on the specific indirect effect, the variable perceived of ease of use on interest in using through customer trust obtained T-Statistics 2.112 > T-table 1.96, and had a P-Value of 0.035 <0.05. This means that the perceived of ease of use indirectly affects the interest in using it through customer trust. This research is in line with research conducted by Ramli and Rahmawati (2020) and strengthened by research by Yendra, et al. (2017), that the perceived of ease of use is indirectly influenced by intention to use mobile banking through customer trust.

**Security of Interests to Use through Customer Trust.**

Based on the calculation on the specific indirect effect, the security variable on interest in using customer trust obtained T-Statistics 3.004 > T-table 1.96, and has a P-Value of 0.003 <0.05. This means that security indirectly affects interest in using through customer trust. This is in line with research conducted by Asmara and Kusumadewi (2022) and strengthened by research obtained by Ramos, et al (2018) which says that security has an indirect effect on intention to use it through customer trust.

4.6 Predictive Relevance (Q-Square)

Ghozali (2021), defines predictive relevance (Q²) is used to measure how well the observed values generated by the model and estimate parameters. In the Q-Square using data from the R-Square.test, the R-Square value of customer confidence is 0.758 and the R-Square of interest is 0.825. The Q-Square formula is:

\[ Q^2 = 1 - (1-R_1^2)(1-R_2^2) \]

\[ Q^2 = 1 - (1-0.758)(1-0.825) \]

\[ Q^2 = 1 - 0.042 \]

\[ Q^2 = 0.958 \]

This shows that the magnitude of the diversity of the data that can be explained by the research model is 95.8%, the remaining 4.2% is explained by other factors outside the research model, namely risk perception, quality services, and promotions.
4.7 Goodness of the Fit Model Test

Model Testing the Goodness of Fit is one of the tests to test the research hypothesis.

<table>
<thead>
<tr>
<th>Fit Summary</th>
<th>Saturated Model</th>
<th>Estimated</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRMR</td>
<td>0.067</td>
<td>0.067</td>
<td>Good</td>
</tr>
<tr>
<td>NFI</td>
<td>0.745</td>
<td>0.745</td>
<td>Good</td>
</tr>
</tbody>
</table>

Source: From Data Processing SmartPLS 3.0 (2022)

Based on table 7, the results of the goodness of fit test have an SRMR value of 0.067 < 0.08 and an NFI value of 0.745. It can be found that the model in this study is suitable or good for use. So, it can be concluded that the overall model in this study is an acceptable model.

5. CONCLUSIONS, IMPLICATIONS, SUGGESTIONS

5.1 Conclusions

Based on the results of the study, data analysis and explanations that have been described, it can be concluded that:

1. Perceived of Usefulness, Perceived of Ease of Use, and Security have an effect on Intention To Use Customer Trust in BNI Mobile Banking users.
2. Perceived of Usefulness, Perceived of Ease of Use, and Security affect Intention To Use BNI Mobile Banking users.
3. Perceived of Usefulness, Perceived of Ease of Use, and Security have a direct and indirect effect on Intention To Use through Customer Trust in BNI Mobile Banking users.

5.2 Implications

Based on the results of the research that has been done, there are research implications that can be obtained, namely:

1. Perception of Usefulness
   Perception of benefits as the level or condition in which a person believes that using a certain system will improve his performance. BNI Mobile Banking needs to increase the benefits of features that can make financial transactions faster and more effective, and can improve customer performance in daily transactions so as to make customers feel confident and intention to use their mobile banking.
2. Perceived Ease of Use
   Perceived ease of use is a condition or degree in which a person believes that using a particular system does not require effort. BNI Mobile Banking must make the latest innovations easier to learn, and understand for their customers. So, it will make customers trust their mobile banking application, and of course will make customers more intention to use mobile banking.
3. Security
   Security is how someone is able to overcome fraud and find fraud in an information system. BNI Mobile Banking must further improve the security system in its mobile banking, so that the customer's personal data information is guaranteed security. If, BNI Mobile Banking can fulfill this, BNI Mobile Banking can guarantee the confidentiality of consumer personal data from irresponsible parties, it can create a great sense of trust in the minds of customers to be intention to use mobile banking.

5.3 Suggestions

Based on the results of research that has been carried out by researchers there are several suggestions that can be obtained, namely:

1. For companies,
   Companies should strive to improve and maintain performance in providing benefits, convenience, and good security in the use of BNI Mobile Banking service features. So that customers will feel trust and intention to use BNI Mobile banking.
2. For Further
   Research Researchers hope that this research can be useful for students who will conduct similar research or further research. In future research, it is hoped that it can be developed with the help of other variables, such as risk perception, service quality, promotion, and others. So that the information obtained can be more varied and up-to-date.
REFERENCES


