Increasing Customer Loyalty through Strengthening Digital Banking and Customer Relationship Management with Customer Satisfaction as an Intervening Variable (Case Study at PT. Bank Negara Indonesia (Persero) Tbk Cibinong Branch Office).

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Abstract

Research related to customer loyalty shows that customer satisfaction greatly influences customer loyalty both directly and indirectly. The aim of this research is to test and reveal empirically the factors that influence customer loyalty, both direct factors, namely Digital Banking and Customer Relationship Management and indirect factors, namely customer satisfaction. This research was conducted at the BNI Cibinong Branch Office which consists of the Main Branch, 4 sub-branch offices and 2 cash offices under the management of KC Cibinong and used quantitative data (from questionnaires). The research sample consisted of 125 emerald BNI KC Cibinong customers. SEM analysis is used to determine the influence between research variables. The research results show, 1) There is a positive and significant influence of Digital Banking on Customer Loyalty, 2) There is a positive and significant influence of Customer Relationship Management on customer loyalty, 3) There is a positive and significant influence of customer satisfaction on customer loyalty, 4) There is a positive and significant influence of Digital Banking has a significant impact on customer satisfaction, 5) There is a positive and significant influence of Customer Relationship Management on customer satisfaction, 6) There is a positive and significant influence of Digital Banking on customer loyalty through customer satisfaction and 7) There is a positive and significant influence of Customer Relationship Management on customer loyalty through customer satisfaction. This research proposes several recommendations for strong indicators that have a high contribution to Digital Banking, Customer Relationship Management and customer satisfaction in order to increase customer loyalty.

Keywords

Customer loyalty; Customer satisfaction; Digital Banking; Customer Relationship Management

I. Introduction

Banks have an important role in supporting the nation's economy. Through banking, people can save funds in various forms, for example: savings, current accounts, time deposits and other forms of investment. Apart from that, it is also possible for the public to obtain productive business capital through credit distributed by banks. It is appropriate for banks to ensure that existing customers survive and strive to continue to add new customers. This can be done by maintaining customer loyalty so that banking can last a long time.

According to Hurriyati (2010), customer loyalty is a customer's deep commitment to re-subscribe or make repeat purchases of selected products or services consistently in the future, even though the situation and marketing efforts have the potential to cause changes

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in behavior. Jones (1996) added that customer loyalty is a feeling of attachment or affection towards the people, products or services of a company.

PT. Bank Negara Indonesia (Persero), Tbk is one of the banks in Indonesia in the form of an Indonesian state-owned enterprise (BUMN) that provides financial services. PT. Bank Negara Indonesia (Persero), Tbk Cibinong Branch Office/KC currently has 5 outlets, namely Sub-Branch Office/KCP Mayor Oking, Sub-Branch Office/KCP Cileungsi, Sub-Branch Office/KCP Gunung Putri, Cash Office/KK Sentul and Cash Office /KK Bojong Gede. In running its business, PT. Bank Negara Indonesia (Persero), Tbk Cibinong Branch Office under Regional Office/KanWil 14 carries out business flows in accordance with applicable regulations.

Based on the initial identification of 30 respondents, the results obtained for the independent variables that influence the Customer Loyalty Variable can be seen in table 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Independent Variable</th>
<th>Number of Respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What are your considerations when using the services at Bank BNI KC Cibinong?</td>
<td>Product</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Digital Banking</td>
<td>9</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Flower</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Customer Relationship Management</td>
<td>7</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Promotion si</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Data Source: Preliminary Survey, 2023.*

Based on the table above, it can be explained that the customer's consideration for using services for financial transactions at Bank BNI KC Cibinong is the Digital Banking factor, which is 30%, Customer Relationship Management (CRM) namely 23%, interest and promotions which have the same value, namely 20% each and products, namely 7%. So it can be assumed that Digital Banking and Customer Relationship Management (CRM) has a positive influence on customer loyalty at Bank BNI KC Cibinong both directly and indirectly through Customer Satisfaction.

Therefore, it is necessary to research whether the factors Digital Banking, Customer Relationship Management (CRM), and Customer Satisfaction as an intervening variable influences Customer Loyalty either directly or indirectly, whether positive and significant or not.

**II. Literature of Review**

The research location was carried out at Bank BNI KC Cibinong, which oversees 4 KCPs, namely KCP Mayor Oking, KCP Cileungsi, KCP Gunung Putri and KCP Citereup and 2 KK namely KK Bojong Gede and KK Sentul City.

This research method uses quantitative methods using survey techniques. Surveys were conducted for all variables in this research, including Digital Banking, Customer
**Relationship Management** (CRM), Customer Satisfaction and Customer Loyalty through distributing questionnaires.

This type of research is associative correlational, research that has the aim of analyzing the relationship or influence of two or more variables. This research is intended so that researchers can find out the influence of **Digital Banking, Customer Relationship Management** (CRM) on Customer Loyalty through Customer Satisfaction.

As for the research constellation model with structural equations,

- Equality 1: \( \eta_1 = \gamma_{11} \xi_1 + \gamma_{12} \xi_2 + \zeta_1 \)
- Equality 2: \( \eta_2 = \gamma_{21} \xi_1 + \gamma_{Z2} \xi_2 + \beta_{21} \eta_1 + \zeta_{22} \)

### III. Research Methods

**3.1 Structure Equation Modeling (SEM)**

Hypothesis testing in this research was carried out through SEM and Sobel tests. SEM is used to evaluate the proposed research model.

**Confirmatory Analysis (CFA) Test**

**Digital Banking Test**

Digital Banking variable is measured by 5 indicators. The results of testing the validity and reliability of each indicator are presented in table 2:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SLF</th>
<th>Error</th>
<th>SLF^2</th>
<th>AVE</th>
<th>CR</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Order CFA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficiency</td>
<td>0.73</td>
<td>0.46</td>
<td>0.54</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Privacy</td>
<td>0.86</td>
<td>0.26</td>
<td>0.74</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Digital based</td>
<td>0.86</td>
<td>0.25</td>
<td>0.75</td>
<td>0.7098</td>
<td>0.9241</td>
<td>Valid</td>
</tr>
<tr>
<td>Internet network stability</td>
<td>0.86</td>
<td>0.27</td>
<td>0.73</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Banking Activities</td>
<td>0.89</td>
<td>0.21</td>
<td>0.79</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4.20</td>
<td>1.45</td>
<td>3.55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Primary data processed by researchers with LISREL May 2024*

The data in table 3.5 shows that all **Standardizes Loading Factor** (SLF) \((\lambda) \geq 0.50\), meaning that all indicators are declared to have good validity. Likewise, the reliability of the measurement model is shown by a **Construct Reliability** (CR) value \( \geq 0.70\). All indicators and variables were also declared good. Thus it is concluded that all indicators are declared valid and reliable for measuring **digital banking variables**.

**3.2 Customer Relationship Management (CRM) CFA Test**

The **Customer Relationship Management (CRM)** variable is measured by 5 indicators. The results of testing the validity and reliability of each indicator are presented in table 4.21:
The data in table 3.6 shows that all Standardizes Loading Factor (SLF) (\( \lambda \)) \( \geq 0.50 \), meaning that all indicators are declared to have good validity. Likewise, the reliability of the measurement model is shown by a Construct Reliability (CR) value \( \geq 0.70 \). All indicators and variables were also declared good. Thus it is concluded that all indicators are declared valid and reliable for measuring the Customer Relationship Management (CRM) variable.

### 3.3 CFA Test of Customer Satisfaction

The Customer Satisfaction variable is measured by 5 indicators. The results of testing the validity and reliability of each indicator are presented in table 3.7

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SLF</th>
<th>Error</th>
<th>SLF^2</th>
<th>AVE</th>
<th>CR</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Order CFA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People</td>
<td>0.83</td>
<td>0.31</td>
<td>0.69</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Process</td>
<td>0.94</td>
<td>0.11</td>
<td>0.89</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Technology</td>
<td>0.91</td>
<td>0.17</td>
<td>0.83</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Service</td>
<td>0.90</td>
<td>0.19</td>
<td>0.81</td>
<td>0.8039</td>
<td>0.9534</td>
<td>Valid</td>
</tr>
<tr>
<td>Comprehensive approach</td>
<td>0.90</td>
<td>0.20</td>
<td>0.80</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Total</td>
<td>4.48</td>
<td>0.98</td>
<td>4.02</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data processed by researchers with LISREL May 2024

The data in table 4.21 shows that all Standardizes Loading Factor (SLF) (\( \lambda \)) \( \geq 0.50 \), meaning that all indicators are declared to have good validity. Likewise with the reliability of the measurement model indicated by a Construct Reliability (CR) value \( \geq 0.70 \). All indicators and variables were also declared good. Thus it is concluded that all indicators are declared valid and reliable for measuring the Customer Satisfaction variable.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SLF</th>
<th>Error</th>
<th>SLF^2</th>
<th>AVE</th>
<th>CR</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Order CFA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy and Emotional Factors</td>
<td>0.92</td>
<td>0.15</td>
<td>0.85</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Positive response</td>
<td>0.88</td>
<td>0.23</td>
<td>0.77</td>
<td>0.8112</td>
<td>0.9555</td>
<td>Valid</td>
</tr>
<tr>
<td>Product quality</td>
<td>0.92</td>
<td>0.15</td>
<td>0.85</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Positive experience</td>
<td>0.90</td>
<td>0.19</td>
<td>0.81</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Exceeding Expectations</td>
<td>0.89</td>
<td>0.22</td>
<td>0.78</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Total</td>
<td>4.50</td>
<td>0.94</td>
<td>4.06</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data processed by researchers with LISREL May 2024

The data in table 4.21 shows that all loading standardizes factor (SLF) (\( \lambda \)) \( \geq 0.50 \), meaning that all indicators are declared to have good validity. Likewise with the reliability of the measurement model indicated by a Construct Reliability (CR) value \( \geq 0.70 \). All indicators and variables were also declared good. Thus it is concluded that all indicators are declared valid and reliable for measuring the Customer Satisfaction variable.
3.4 CFA Test of Customer Loyalty

The Customer Loyalty variable is measured by 5 indicators. The results of testing the validity and reliability of each indicator are presented in table 4.22:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SLF</th>
<th>Error</th>
<th>SLF^2</th>
<th>AVE</th>
<th>CR</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Order CFA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Makes regular repeat purchases</td>
<td>0.91</td>
<td>0.17</td>
<td>0.83</td>
<td></td>
<td>0.594</td>
<td>Valid</td>
</tr>
<tr>
<td>Consistent with a brand</td>
<td>0.95</td>
<td>0.18</td>
<td>0.91</td>
<td>0.877</td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Demonstrate an Immunity to the pull of the Competitor (demonstrate immunity to the pull of the competitor)</td>
<td>0.95</td>
<td>0.09</td>
<td>0.91</td>
<td>0.877</td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td>Refers Others (Referring to other people)</td>
<td>0.90</td>
<td>0.20</td>
<td>0.80</td>
<td></td>
<td></td>
<td>Valid</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4.57</td>
<td>0.90</td>
<td>4.19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data processed by researchers with LISREL May 2024

The data in table 4.22 shows that all loading standardizes factor (SLF) (λ) ≥ 0.50, meaning that all indicators are declared to have good validity. Likewise, the reliability of the measurement model is shown by a Construct Reliability (CR) value ≥ 0.70. All indicators and variables were also declared good. Thus it is concluded that all indicators are declared valid and reliable for measuring the Customer Loyalty variable.

3.5 Validity Test and Reliability Test of Loading Factors/Manifest Variables

SEM Validity and Reliability Test aims to test how valid and reliable the construction of an instrument is. The instrument in this case is loading factors/ Manifest Variables. Furthermore, a summary of the SEM validity and reliability tests is presented in table 4.23.

<table>
<thead>
<tr>
<th>Latent Constructs</th>
<th>Observed Variable</th>
<th>Standardized Loading Factor (SLF)</th>
<th>Sum of SLF</th>
<th>Measurement Error (ME)</th>
<th>Sum of ME</th>
<th>Construct Reliability (CR)</th>
<th>Squared SLF</th>
<th>Sum of Squared SLF</th>
<th>Avera ge Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Banking (X)</td>
<td>X1.1</td>
<td>0.728</td>
<td>4.19</td>
<td>0.470</td>
<td>1.45</td>
<td>0.924</td>
<td>0.530</td>
<td>3.541</td>
<td>0.708</td>
</tr>
<tr>
<td></td>
<td>X1.2</td>
<td>0.871</td>
<td>1.49</td>
<td>0.241</td>
<td>0.759</td>
<td>0.711</td>
<td>0.748</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1.3</td>
<td>0.843</td>
<td>0.289</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1.4</td>
<td>0.865</td>
<td>0.252</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Based on table 3.9, it can be seen that the latent variables Digital Banking (X₁), Customer Relationship Management (CRM) (X₂), Customer Satisfaction (Y), and Customer Loyalty (Z) have values construct reliability coefficient (CR) which is greater than or equal to the critical value (CR ≥ 0.70), then all indicators/manifest variables/factor loadings are declared valid, and have value average variance extracted (AVE) coefficient that is greater than or equal to the critical value (AVE ≥ 0.50). This shows that the four latent constructs have good reliability, then all indicators/manifest variables/factor loadings are declared reliable.

### IV. Results and Discussion

#### 4.1 Structural Model Testing

First, test the influence of Digital Banking and Customer Relationship Management on satisfaction. The second step is to test the influence of Digital Banking, Customer Relationship Management, customer satisfaction on customer loyalty. The following is the modeling of the results of structural model calculations using LISREL 8.80 which is shown in Figure 4.9
Based on the results of statistical testing on structural measurements in the research, the following structural equation is produced:

\[ Y = 0.538 \times X_1 + 0.439 \times X_2, \text{ Errorvar.} = 0.0657, \ R^2 = 0.696 \]
\[ (0.0920) \ (0.0657) \ (0.0112) \]
\[ 5,853 \ 6,688 \ 5,848 \]

\[ Z = 0.790 \times Y + 0.286 \times X_1 + 0.165 \times X_2, \text{ Errorvar.} = 0.0409, \ R^2 = 0.869 \]
\[ (0.104) \ (0.0904) \ (0.0671) \ (0.00830) \]
\[ 7,583 \ 3,165 \ 2,457 \ 4,922 \]

**Information:**

DB/X1 = Digital Banking Variable
CRM/X2 = Customer Relationship Management (CRM) Variable
KN = Customer Satisfaction Variable
LN = Customer Loyalty Variable
\( R^2 \) = Coefficient of Determination

**4.2 Statistical Hypothesis Testing and Structural Equations**

Based on Figure 4.9 above, hypothesis testing is carried out by comparing the t-count value with the t-table at an alpha confidence level of 5%, namely 1.96, where if the t-count value > t-table then the hypothesis is accepted.

**H1. The Effect of Digital Banking on Customer Loyalty**

Based on the first hypothesis (H1) in this study to determine the direct effect of Digital Banking \( (\xi_1) \) on Customer Loyalty \( (\eta_2) \) expressed in the following statistical hypothesis:

\[ H_0 = \gamma_{Zx1} \leq 0 \quad \text{Digital Banking has no direct positive effect on customer loyalty.} \]
\[ H_1 = \gamma_{Zx1} > 0 \quad \text{Digital Banking has a direct positive effect on customer loyalty.} \]
<table>
<thead>
<tr>
<th>Influence</th>
<th>Path Coefficient</th>
<th>t-count</th>
<th>t-table</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>X₁ → Z</td>
<td>0.205</td>
<td>3.165</td>
<td>1.96</td>
<td>Reject H₀</td>
</tr>
</tbody>
</table>

*Source: Lisrel Data Processing (May 2024)*

From the results of the table above, it is obtained that H₁ is accepted, meaning *Digital Banking* (X₁) has a significant positive direct effect on Customer Loyalty (Z).

The structural equation of the influence of these variables is as follows:
\[ \eta^2 = 0.205 \xi_1 + \zeta_2 \]
\[ 3.165 \]

Information
\[ \eta_2 = \text{Customer Loyalty} \]
\[ \xi_1 = \text{Digital Marketing} \]
\[ \zeta_2 = \text{Other influences outside the model} \]

In testing the first hypothesis (H₁) a conclusion was obtained which stated that Digital Banking had a positive direct effect towards BNI KC Cibinong customer loyalty.

This is in line with research results from Mochamad Yusuf, et al, (2022) concluding that digital banking has a positive and significant effect on customer loyalty.

**H2. The influence of Customer Relationship Management (CRM) on Customer Loyalty**

Based on the second hypothesis (H₂) in this research, to determine the direct positive influence of Customer Relationship Management (CRM) (ξ₂) on customer loyalty (η₂) is stated in the following statistical hypothesis:
\[ H_0 = \gamma_{\xi z}_{2} \leq 0 \] Customer Relationship Management (CRM) has no direct positive effect on customer loyalty

\[ H_1 = \gamma_{\xi z}_{2} > 0 \] Customer Relationship Management has a direct positive effect on customer loyalty.

<table>
<thead>
<tr>
<th>Influence</th>
<th>Path Coefficient</th>
<th>t-count</th>
<th>t-table</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>X₂ → Z</td>
<td>0.155</td>
<td>2.457</td>
<td>1.96</td>
<td>Reject H₀</td>
</tr>
</tbody>
</table>

*Source: Lisrel Data Processing (May 2024)*

From the results of table 4.27 above, it is found that H₁ is accepted, meaning *Customer Relationship Management (CRM)* (X₂) has a significant positive direct effect on Customer Loyalty (Z).

The structural equation of the influence of these variables is as follows:
\[ \eta^2 = 0.155 \xi_2 + \zeta_2 \]
\[ 2.457 \]

Information
\[ \eta_2 = \text{Customer Loyalty} \]
\[ \xi_2 = \text{Customer Relationship Management (CRM)} \]
\[ \zeta_2 = \text{Other influences outside the model} \]
In testing the second hypothesis (H₂) a conclusion was obtained which stated that Customer Relationship Management (CRM) had a direct positive effect towards BNI KC Cibinong customer loyalty.

This is in line with research results. Kartika Imasari Kezia Kurniawati Nursalin (2019) replicated Lawson et al. (2004), concluded that Customer Relationship Management (CRM) has a positive and significant effect on customer loyalty.

**H3. The Influence of Customer Satisfaction on Customer Loyalty**

Customer satisfaction (η₁) has a positive direct effect on customer loyalty (η₂) stated in the statistical hypothesis:

- \( H_0 = \gamma_{z\eta} \leq 0 \) satisfaction does not have a direct positive effect on customer loyalty.
- \( H_1 = \gamma_{z\eta} > 0 \) satisfaction has a direct positive effect on customer loyalty.

<table>
<thead>
<tr>
<th>Influence</th>
<th>Path Coefficient</th>
<th>t-count</th>
<th>t-table</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y → Z</td>
<td>0.656</td>
<td>7.583</td>
<td>1.96</td>
<td>Reject H0</td>
</tr>
</tbody>
</table>

*Source: Lisrel Data Processing (May 2024)*

From the results of table 4.29 above, it is found that H₁ is accepted, meaning that Customer Satisfaction (Y) has a significant direct positive effect on Customer Loyalty (Z).

The structural equation of the influence of these variables is as follows:

\[ \eta_2 = 0.656 \eta_1 + \zeta_2 \]

Information
- \( \eta_2 \) = Customer Loyalty
- \( \eta_1 \) = Customer Satisfaction
- \( \zeta_2 \) = Other influences outside the model

In testing the third hypothesis (H₃) a conclusion was obtained which stated that customer satisfaction had a direct positive effect towards BNI KC Cibinong customer loyalty.

This is in line with the research results of Roesdian Bayu Ardiyanto (2020), concluding that customer satisfaction has a positive and significant effect on customer loyalty. Furthermore, Mochamad Yusuf et al.’s research concluded that customer satisfaction had a positive and significant effect on customer loyalty at Bank Syariah Indonesia Pekalongan Pemuda.

**H4. Influence of Digital Banking (ξ₁) on customer satisfaction**

Digital Banking (ξ₁) has a direct positive effect on customer satisfaction (η₁) stated in the statistical hypothesis:

- \( H_0 = \gamma_{x\eta} \leq 0 \) Digital Banking has no direct positive effect on customer satisfaction.
- \( H_1 = \gamma_{x\eta} > 0 \) Digital Banking has a direct positive effect on customer satisfaction.
Table 10. Path Coefficient and t-count X₁ -> Y

<table>
<thead>
<tr>
<th>Influence</th>
<th>Path Coefficient</th>
<th>t-count</th>
<th>t-table</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>X₁ -&gt; Y</td>
<td>0.464</td>
<td>5,853</td>
<td>1.96</td>
<td>Reject H₀</td>
</tr>
</tbody>
</table>

Source: Lisrel Data Processing (May 2024)

From the results of the table above, it is obtained that H₁ is accepted, meaning *Digital Banking (X₁)* has a significant positive direct effect on *Customer Satisfaction (Y)*.

The structural equation of the influence of these variables is as follows:

\[ \eta_1 = 0.464 \zeta_1 + \zeta_1 \]

5,853

Information

\( \eta_1 \) = Customer Satisfaction

\( \zeta_1 \) = Digital Banking

\( \zeta_1 \) = Other influences outside the model

In testing the fourth hypothesis (H₄), a conclusion was obtained which stated that *Digital Banking* had a direct positive effect on customer satisfaction BNI KC Cibinong.

This is in line with the research results of Noneng Masitoha et al (2021), concluding that there is an influence of digital banking *reliability, accessibility and efficiency* on customer satisfaction at Bank BNI Tasikmalaya Branch. Subsequent research by Annisa Fitria et al (2020), concluded that there was a positive and significant influence of digital banking (internet banking, mobile banking and SMS banking).

H5. Influence of *Customer Relationship Management (CRM) (X₂)* against Customer Satisfaction

*Customer Relationship Management (CRM) (X₂)* has a positive direct effect on customer satisfaction (\( \eta_1 \)) stated in the statistical hypothesis:

\[ H_0 = \gamma_{yX₂} \leq 0 \quad \text{Customer Relationship Management has no direct positive effect on customer satisfaction} \]

\[ H_1 = \gamma_{yX₂} > 0 \quad \text{Customer Relationship Management has a direct positive effect on Customer Satisfaction} \]

Table 11. Path Coefficient and t-count X₂ -> Y

<table>
<thead>
<tr>
<th>Influence</th>
<th>Path Coefficient</th>
<th>t-count</th>
<th>t-table</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>X₂ -&gt; Y</td>
<td>0.498</td>
<td>6,688</td>
<td>1.96</td>
<td>Reject H₀</td>
</tr>
</tbody>
</table>

Source: Lisrel Data Processing (May 2024)

From the results of the table above, H₁ is accepted, meaning *Customer Relationship Management (CRM) (X₂)* has a significant positive direct effect on *Customer Satisfaction (Y)*.

The structural equation of the influence of these variables is as follows:

\[ \eta_1 = 0.498 \zeta_2 + \zeta_2 \]

6,688

Information

\( \eta_1 \) = Customer Satisfaction

\( \zeta_2 \) = Customer Relationship Management (CRM)

\( \zeta_2 \) = Other influences outside the model
In testing the fifth hypothesis (H₅) a conclusion was obtained which stated that Customer Relationship Management (CRM) had a direct positive effect on customer satisfaction. BNI KC Cibinong.

This is in line with the results of research by Dodi Putra Sirati (2018), concluding that there is an influence positive and significant Customer Relationship Management (CRM) and service quality partially affect customer satisfaction variables at PT Matahari Department Store Jambi City and are also in line with subsequent research by Nelli Purnama Sari, et al. (2022) concluded that there is a positive and significant influence of Customer Relationship Management (CRM) on satisfaction with Bank Bni WJB.

H₆. Indirect effect of Digital Banking (ξ₁) towards Loyalty Customer Through Satisfaction

Digital Banking (ξ₁) has a positive indirect effect on customer loyalty (η₂) through customer satisfaction (η₁) stated in the statistical hypothesis:

\[ H₀ = β_{ξ₁η₁} ≤ 0 \] There is no positive indirect effect of Digital Banking on customer loyalty through satisfaction customers.

\[ H₁ = β_{ξ₁η₁} > 0 \] There is a positive indirect effect Digital Banking on customer loyalty through customer satisfaction.

<table>
<thead>
<tr>
<th>Table 12. Path Coefficient and t-count X₁ -&gt; Y -&gt; Z</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Influence</strong></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>X₁ -&gt; Y</td>
</tr>
<tr>
<td>Y -&gt; Z</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

From the results of the table above, it is obtained that H₁ is accepted, meaning Digital Banking (X₁) has a significant positive direct effect on Customer Loyalty (Z) through Customer Satisfaction (Y). The t-count result was 4.633, where the t-count >t-table means that the conclusion is that H₁ is accepted and H₀ is rejected. So it can be concluded that Digital Banking has a direct positive effect on customer loyalty through customer satisfaction.

This is in line with Zulyanatunnisa Fathul Jannah’s research results, concluding that customer satisfaction is positive and significant in mediating the influence of digital banking on loyalty with the original sample (O) value showing positive results with a value of 0.264, a statistical T value of 4.054 > 1.96, and the value ρ is 0.000 < 0.05.

H₇. Positive indirect influence of Customer Relationship Management on customer loyalty (η₂) through customer satisfaction (η₁)

Customer Relationship Management (ξ₂) has a positive indirect effect on customer loyalty (η₂) through customer satisfaction (η₁) stated in the statistical hypothesis:

\[ H₀ = β_{η₂η₁} ≤ 0 \] There is no positive indirect influence on Customer Relationship Management on customer loyalty through customer satisfaction.

\[ H₁ = β_{η₂η₁} > 0 \] There is a positive indirect effect Customer Relationship Management on customer loyalty through customer satisfaction.
Table 13. Path Coefficient and t-count X → Y → Z

<table>
<thead>
<tr>
<th>Influence</th>
<th>Path Coefficient</th>
<th>t-count</th>
<th>t-table</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>X → Y → Z</td>
<td>0.498 x 0.656 = 0.327</td>
<td>5.016</td>
<td>1.96</td>
<td>Reject H0</td>
</tr>
</tbody>
</table>

*Source: Lisrel Data Processing (May 2024)*

From the results of the table above, H₁ is accepted, meaning Customer Relationship Management (CRM) (X) has a significant positive direct effect on Customer Loyalty (Z) through Customer Satisfaction (Y). The t-count result was 5.016, where the t-count > t-table means that the conclusion is that H₁ is accepted and H₀ is rejected. So it can be concluded that Customer Relationship Management (CRM) has a positive indirect effect on Customer Loyalty through customer satisfaction.

This is in line with the results of Aditya Yoga Prasetya's research (2022), concluding that there is an indirect influence on Customer Relationship Management (CRM) positively and significantly on customer loyalty through customer satisfaction as an intervening variable. With a T-statistic value of 6.346 and α value of 0.000 on CV. Created by Adhi Nugraha Creative. Subsequent research by Mayang Sari Widhi, etc. (2023), concluded that there was an indirect influence on Customer Relationship Management (CRM) positively and significantly on customer loyalty through customer satisfaction with a T-Statistic of 3.244 and α a Value of 0.001 at PT. Nasmoco Siliwangi Semarang.

### V. Conclusion

1. There is a positive and significant influence of Digital Banking on Customer Loyalty as indicated by a path coefficient of 0.205 and \( t_{hitung} \ 3.165 > 1.96 \). This means that to increase customer loyalty, strong Digital Banking is needed at BNI KC Cibinong.
2. There is a positive and significant influence of Customer Relationship Management/CRM on customer loyalty as indicated by path coefficients of 0.155 and \( t_{hitung} \ 2.457 < 1.96 \). This means that to increase customer loyalty, strong Customer Relationship Management/CRM is needed at BNI KC Cibinong.
3. There is a positive and significant influence of customer satisfaction on customer loyalty which is indicated by path coefficients of 0.656 and \( t_{hitung} \ 7.583 > 1.96 \). This means that to increase customer loyalty it is necessary to increase high customer satisfaction for BNI KC Cibinong customers.
4. There is a positive and significant influence of Digital Banking on customer satisfaction as indicated by a path coefficient of 0.464 and \( t_{hitung} \ 5.853 > 1.96 \). This means that to increase high customer satisfaction it is necessary to strengthen Digital Banking at BNI KC Cibinong.
5. There is a positive and significant influence of Customer Relationship Management/CRM on customer satisfaction as indicated by a path coefficient of 0.498 and \( t_{hitung} \ 6.688 > 1.96 \). This means that to increase high customer satisfaction, good Customer Relationship Management/CRM is needed.
6. There is a positive and significant indirect effect of Digital Banking on customer loyalty through customer satisfaction with a coefficient of 0.304 and \( t_{hitung} \ 4.633 > 1.96 \). This means that to increase customer loyalty, strong Digital Banking is needed which is
based on customer satisfaction. When strong Digital Banking which is based on customer satisfaction increases, ultimately BNI KC Cibinong customer loyalty also increases.

7. There is a positive and significant indirect effect of Customer Relationship Management/CRM on customer loyalty through customer satisfaction with a path coefficient of 0.327 and $t = 5.016 > 1.96$. This means that to increase customer loyalty, good Customer Relationship Management/CRM based on customer satisfaction is needed. When Customer Relationship Management/CRM based on customer satisfaction improves, it will ultimately increase BNI KC Cibinong customer loyalty.

References


Financial Services Authority, Digital Banking, https://sikapiuangmu.ojk.go.id

Financial Services Authority Regulation Number 12/POJK.03/2021 of 2021 concerning Commercial Banks


