Implementation of Importance Performance Analysis to Analyze Customer Satisfaction in PT. Bank Tabungan Negara KCP Simalingkar Medan

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Abstract. The method Importance Performance Analysis (IPA) aims to measure the relationship between consumer perceptions and priorities for improving the quality of services/products which is also known as quadrant analysis. In improving the quality of service to give satisfaction to the consumer the State Savings Bank Branch Office (KCP) Simalingkar Terrain require businesses to meet the expectations of customers, so that customers gain satisfaction with the services provided State Savings Bank KCP Simalingkar Medan. To find out how the level of customer satisfaction with service quality at the State Savings Bank KCP Simalingkar Medan, customer satisfaction was measured using the method Importance Performance Analysis (IPA). There are 25 valid attributes that are asked to customers who use the services of the State Savings Bank. The value of the highest level of service quality compliance is 98.53%, namely the security and confidentiality of customer data. The suitability value from the results of the comparison between performance and interest obtained an average value of 95.70% so that it can be concluded as a whole that the attribute is included in the appropriate category if the value of the level of conformity is close to 100% and is above the average, it can be said that the level of quality conformity The services of the State Savings Bank of KCP Simalingkar Medan are good.

Keyword: Branch Office (KCP), Importance Performance Analysis (IPA), Level of Conformity, Service Quality

Abstrak. Metode Importance Performance Analysis (IPA) bertujuan untuk mengukur hubungan antara persepsi konsumen dan prioritas peningkatan kualitas jasa/produk yang dikenal pula sebagai kuadran analisis. Dalam meningkatkan kualitas pelayanan untuk memberikan kepuasan kepada konsumen pihak Bank Tabungan Negara Kantor Cabang Pembantu (KCP) Simalingkar Medan memerlukan usaha untuk memenuhi harapan nasabah, sehingga nasabah memperoleh kepuasan atas pelayanan yang diberikan Bank Tabungan Negara KCP Simalingkar Medan. Untuk mengetahui bagaimana tingkat kepuasan nasabah terhadap kualitas pelayanan di Bank Tabungan Negara KCP Simalingkar Medan dilakukan...

Kata Kunci: Importance Performance Analysis (IPA), Kualitas Pelayanan, Tingkat Kesesuaian

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1 Introduction

In the current era of globalization, competition in the business world is getting tougher. This competition requires business people to be able to maximize the company's performance in order to compete in the market. Companies must strive to learn and understand the needs and wants of their customers. By understanding the needs, wants and demands of customers, it will provide important input for companies to design marketing strategies in order to create satisfaction for their customers.

In conditions of intense competition like today, the main thing that is the most prioritized by companies engaged, especially in the service sector, is satisfaction customers in order to survive, compete, and dominate market share. Banking are service businesses based on the principle of trust so that service quality issues become a very decisive factor in business success [1]. Service quality is a form of consumer assessment of the level of service received (perceivedservice) with the level of service expected (expectedservice). In order to compete, survive and develop, banking companies are required to be able to provide quality services that can meet the needs and desires of customers.

The method Importance Performance Analysis (IPA) has the main function of displaying information related to service factors which according to customers greatly affect their satisfaction and loyalty, and factors service which according to customers need to be improved because current conditions are not satisfactory.

2 Literature Review

2.1 Customer Satisfaction

Customer satisfaction as a conscious evaluation or cognitive assessment regarding whether the product performance is relatively good or bad or whether the product is suitable or not suitable for its purpose or use [2].
2.2 Service Quality

Quality is an aspect that focuses on efforts to meet the needs and desires of customers so as to create a balance between performance and consumer interests.

2.3 Sample

Sample is part of the number and characteristics possessed by the population. In drawing the number of sample sizes, if the population is not known for certain [3]. The technique or formula is as follows:

\[
n = 0.25 \left( \frac{Z_{\alpha/2}}{E} \right)^2
\]

\( n \) = Number of respondents
\( z_{\alpha/2} \) = Value obtained from the normal distribution table at the level of confidence (certain confidence level)
\( E \) = Sampling error

2.4 Likert

Scale Likert scale is used to measure attitudes, opinions, and perceptions of a person or group of events or social phenomena. The data that has been collected through questionnaires is then processed in quantitative form, namely by setting a score for answers from statements that have been answered by respondents.

2.5 Validity Test

Validity comes from the word validity which means the extent to which the accuracy and accuracy of a measuring instrument (test) in carrying out its measuring function. Validity is the level of reliability and validity of the measuring instrument used. The instrument is said to be valid, meaning that the measuring instrument used to obtain the data is valid or can be used to measure what should be measured. The formula used to test the validity of the formula is the Pearson product moment as follows [4]:

\[
R_{X,Y} = \frac{n \sum X_i Y - \sum X_i \sum Y}{\sqrt{n \sum X_i^2 - (\sum X_i)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}
\]

\( n \) = number of respondents
\( X_i \) = score variables (respondents)
\( Y \) = total score of variables for respondents to-n
Further calculations used to calculate the value of $r_{table}$ using the formula as follows:

$$r_{table} = \frac{t_{table}}{\sqrt{df - (t_{table})^2}}$$

(3)

Description:

$t_{table}$ = value obtained from the $t$ table

$df$ = degrees of freedom ($df = n - 2$)

$n$ = number of samples

Validity valid by comparing the value of $r_{xy}$ with value $r_{table}$. If $r_{xy} \geq r_{table}$ then the questions or instrument is said to be valid if $r_{xy} < r_{table}$ then the questions are said to be invalid, with a significance level of 5%.

2.6 Reliability Test

Reliability is a measure that shows that the measuring instrument used in behavioral research has reliability as a measuring instrument, including through the consistency of measurement results from time to time if the measured phenomenon does not change. The test criteria is when the value of Cronbach’s Alpha $\geq 0.6$ then the attributes said to be reliable. And if the value of Cronbach's Alpha $< 0.6$ then the attribute is said to be unreliable. Statistical formula used for reliability testing:

1. Calculating the value of any performance variant of the questions

$$s_i^2 = \frac{\sum X_i^2 - (\sum X_i)^2}{n}$$

(4)

2. Calculate the total variance questions

$$\sum s_i^2 = s_1^2 + s_2^2 + s_3^2 + \cdots + s_n^2$$

(5)

3. Calculate the total interest variance

$$s_t^2 = \frac{\sum Y^2 - (\sum Y)^2}{n}$$

(6)

4. Calculate The reliability value

$$r = \left(\frac{k}{k-1}\right) \left(1 - \frac{\sum s_i^2}{s_t^2}\right)$$

(7)

Description:

$r$ = reliability of instrument

$k$ = number of the questions

$\sum s_i^2$ = number of variants of the questions $i$

$s_t^2$ = the number of variants of the total questions

$X_i$ = respondents for each of the questions
2.7 Methods Importance Performance Analysis (IPA)

Method Importance Performance Analysis (IPA) the purpose for measuring the relationship between consumer perceptions and priorities for improving the quality of products/services is also known as quadrant analysis [5]. The formula used to is:

\[ T_{ki} = \frac{X_i}{Y_i} (100\%) \]  \hspace{1cm} (8)

Description:
\[ T_{ki} = \] Respondent's level of conformity  
\[ X_i = \] Performance assessment score  
\[ Y_i = \] Score of interest assessment (respondent interests)

In the Importance Performance Analysis (IPA), mapping is carried out into 4 quadrants for all variables that affect service quality, the horizontal axis (X) will be filled by the score of the level of implementation or performance, while the upright (Y) will be filled by the importance level score. In simplifying the formula, then for any factors that affect the service satisfaction with rumus as follows:

\[ \bar{X} = \frac{\sum X_i}{n} \quad \text{and} \quad \bar{Y} = \frac{\sum Y_i}{n} \]  \hspace{1cm} (9)

Notes:
\[ \bar{X} = \] skor average penilaian execution performance of  
\[ \bar{Y} = \] skor average penilaian kepentingan  
\[ X_i = \] value provisions Likert scale for the assessment of the performance of  
\[ Y_i = \] the value of permanence scale Likert for importance assessment  
\[ n = \] number of frequencies

At the interpretation stage, to facilitate interpretation of the value of the consumer satisfaction index and refer to the grouping of service unit performance quoted from the Algifari book, the index obtained is grouped as follows:

<table>
<thead>
<tr>
<th>Value of Interval IKM</th>
<th>QualityService</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00 – 1.799</td>
<td>Very</td>
</tr>
<tr>
<td>1.80 – 2.599</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>2.60 – 3.399</td>
<td>Fairly Satisfactory</td>
</tr>
<tr>
<td>3.40 – 4.199</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>4.20 – 5.000</td>
<td>Very Satisfactory</td>
</tr>
</tbody>
</table>
2.8 Cartesian Chart

Cartesian Chart is a figure which is divided into four parts which are divided into four parts. Limit two lines that intersect perpendicularly at the points \((\bar{X}, \bar{Y})\) where \(\bar{X}\) is the average of the average score of the level of service performance all the factors or attributes and \(\bar{Y}\) is the average of the average score of the level of interest of the entire fax for or attributes that affect service. By using the following formula:

\[
\bar{X} = \frac{\sum X}{K} \quad \text{and} \quad \bar{Y} = \frac{\sum Y}{K}
\]  

(10)

Notes:

\(\bar{X}\) = the average of the average performance appraisal
\(\bar{X}\) = average score of performance appraisal
\(\bar{Y}\) = the mean of the average rating of interest (interest of the respondent)
\(\bar{Y}\) = the average score of the assessment of interest (interest of the respondent)
\(K\) = number of attributes that affect the service

Division of Importance Performance analysis can be seen in the following figure:

![Diagram Cartesian](image)

**Figure 1:** Diagram Cartesian

Description:

1. Quadrant I (priority main) shows the area that includes factors that are considered important by the respondents, but the performance of these factors have not been in accordance with the interests of the respondent (the level is still satisfaction low derived) variables that go into this quadrant must be improved.

2. Quadrant II (achievement defense) indicates the area that contains factors that are considered by the respondent to be in accordance with what they feel so that the level of satisfaction is relatively higher. i must be maintained because this variable makes the product or service superior in the eyes of the respondent.

3. Quadrant III (low priority) shows areas that contain factors that are considered less important by respondents, and whose performance is not too special. The increase in the variables included in this quadrant can be reconsidered because the effect on the respondent is very small.
4. Quadrant IV (excessive) shows the area that contains factors that are considered less important by respondents, and are considered too excessive. The variables included in this quadrant can be reduced so that the company can save costs.

3. Research Method

The steps to analyze are as follows:

1. Conduct a literature study by looking for written sources, either in the form of books, articles, and research journals that have to do with the method Importance Performance Analysis (IPA).
2. Testing the validity and reliability of the sample data that has been obtained.
3. Data Processing Importance Performance Analysis (IPA) Method
   a. Finding the average level of bank performance and customer interests
   b. Look for the level of conformity between the level of bank performance and the interests of customers
   c. Calculating the average rating of the bank's performance level and the level of customer interest, then making a Cartesian diagram.
4. Drawing conclusions from suggestions from the results of calculations.

4. Results And Discussion

4.1 Characteristics of Respondents

Before distributing the questionnaire, the researcher first determines the number of respondents who will be used as samples in the study. Determination of the number of respondents is done using equation (1), with a confidence of 90% and a sampling error of 10%. The technique or formula is as follows:

\[ n = 0.25 \left( \frac{Z_{\alpha/2}}{E} \right)^2 \]  

\[ n = 0.25 \left( \frac{1.65}{0.1} \right)^2 \]

\[ n = 0.25(272.25) \]

\[ n = 68.06 \approx 70 \]

4.2 Data Validity Test

To find the value manually, the first statement is a strategic office location that is easy for customers to reach.
### Table 2 First Variable Score Calculation Respondent Performance

<table>
<thead>
<tr>
<th>No</th>
<th>X</th>
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<th>(Y^2)</th>
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</tr>
</tbody>
</table>
following seeks to find the value of $r_{XY}$ manually for questions about office locations that are strategic and easy to reach by customers.

$$r_{X1Y} = \frac{n \sum X_i Y - \sum X_i \sum Y}{\sqrt{[n \sum X_i^2 - (\sum X_i)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$r_{X1Y} = \frac{10523}{\sqrt{489158849}} \cdot \frac{10523}{27352.49} = 0.385$$

Based on the above calculation, the value of $r_{X1}$ is 0.385, then per the calculation of the value of $r_{table}$ based on equation (3):

$$r_{table} = \frac{t_{table}}{\sqrt{df + t_{table}^2}}$$
Based on the above calculation, the value of $r_{table}$ is 0.235. Validity test performed on each attribute of the questionnaire with the following criteria:
1. If $r_{xy} \geq r_{table}$ then the questions invalid.
2. If $r_{xy} < r_{table}$ then the question item is not valid.
3. $r_{xy}$ can be seen in the column Corrected Item Total Correlation
4. $r_{table}$ with the provisions of $df = (n - 2)$ and a significance level of 5%, namely $df = (70 - 2) = 68$, using Microsoft Excel and based on the calculation of $r_{table}$ above, then the value of $t_{table} = 1.99457$ so that the value of $r_{table} = 0.235$ is obtained.

The results of the calculation of the validity test from the second statement to the last statement (25th) are contained in the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Performance (rcount)</th>
<th>Importance (rcount)</th>
<th>$r_{table}$</th>
<th>conclusion</th>
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<td>0.699</td>
<td>0.235</td>
<td>Valid</td>
</tr>
<tr>
<td>18</td>
<td>0.744</td>
<td>0.751</td>
<td>0.235</td>
<td>Valid</td>
</tr>
<tr>
<td>19</td>
<td>0.719</td>
<td>0.557</td>
<td>0.235</td>
<td>Valid</td>
</tr>
<tr>
<td>20</td>
<td>0.763</td>
<td>0.630</td>
<td>0.235</td>
<td>Valid</td>
</tr>
<tr>
<td>21</td>
<td>0.527</td>
<td>0.621</td>
<td>0.235</td>
<td>Valid</td>
</tr>
<tr>
<td>22</td>
<td>0.637</td>
<td>0.468</td>
<td>0.235</td>
<td>Valid</td>
</tr>
</tbody>
</table>
Based on Table 8 shows that 25 statement data performance and importance is valid. It can be seen from the value of $r_{xy} \geq r_{table}$.

### 4.3 Test Reliability

Test reliability conducted with the following criteria:

1. If the value of Cronbach's Alpha $\geq 0.6$, the data in this study said reliable.
2. If the value of Cronbach's Alpha $< 0.6$ then the data in this study is said to be unreliable. The formula for Test Reliability as follows:

1. Calculate the value of the bank's performance variants of any of the questions on a per equation is (4):

$$s_i^2 = \frac{\sum X_i^2 - (\sum X_i)^2}{n}$$

$$s_1^2 = \frac{1417 - (311)^2}{70}$$

$$s_1^2 = \frac{1417 - 1381.73}{70}$$

$$s_1^2 = 0.504$$

Based on the above calculation, the variance value of the first question item is 0.504 and to find the variant of the next question item using Microsoft Excel.

2. Calculate the total value of bank performance variants based on the equation (5) as follows:

$$\sum_{i=1}^{25} s^2 = s_1^2 + s_2^2 + s_3^2 + \cdots + s_{25}^2$$

$$\sum_{i=1}^{25} s^2 = 0.504 + 0.300 + 0.266 + 0.267 + 0.449 + 0.332 + 0.240 + 0.383 + 0.294$$

$$+ 0.221 + 0.275 + 0.249 + 0.294 + 0.335 + 0.273 + 0.249 + 0.239$$

$$+ 0.205 + 0.290 + 0.168 + 0.302 + 0.243 + 0.249 + 0.266 + 0.279$$

$$= 7,170$$

3. Calculate the total variance values the interests of customers based on the equation (6) as follows:

$$s_i^2 = \frac{\sum Y^2 - (\sum Y)^2}{n}$$

$$s_1^2 = \frac{929389 - (8047)^2}{70}$$

$$s_1^2 = \frac{929389 - 925060.13}{70}$$

$$s_1^2 = 61,841$$

4. Calculating the value of reliability is based on the equation (7) as follows:

$$r = \left(\frac{k}{k-1}\right)\left(1 - \frac{\sum s_i^2}{s_1^2}\right)$$
Based on the above calculations we get test reliability or valuevalue Cronbach's Alpha of 0.921, so the value of Cronbach's Alpha at performance attributes ≥ 0.6 said to be reliable. For the calculation of the reliability test on the attribute's interest to be calculated using the above calculation and use of Microsoft Excel in order to obtain the value of Cronbach's Alpha of 0.930, so the value of Cronbach's Alpha in the interests of attributes ≥ 0.6 said to be reliable.

4.4 Importance Performance Analysis with Method performance Importance Analysis

To find the value average level of performance \( \bar{X} \), average level of importance \( \bar{Y} \), and the level of conformity (Tk.) using the manual method for the first statement, namely the strategic location of the office and easily accessible to customers, then:

Level of Conformity

\[
TK_1 = \frac{X_1}{Y_1} \times 100%
\]

\[
TK_1 = \frac{311}{330} \times 100% = 94.24%
\]

Performance Level

\[
\bar{X}_1 = \frac{\sum X_1}{n}
\]

\[
\bar{X}_1 = \frac{311}{70} = 4.44
\]

Importance

\[
\bar{Y}_1 = \frac{\sum Y_1}{n}
\]

\[
\bar{Y}_1 = \frac{330}{70} = 4.71
\]

And for the results of the calculation of the value of the average level of concordance (TKi) the level of performance (\( \bar{X} \)) and average important (\( \bar{Y} \)) by way of manual to stayataan second until the last statement (25th) which is in the following table:

![Table 4 Average Value of Respondents](image-url)

<table>
<thead>
<tr>
<th>No.</th>
<th>Attribute Questions</th>
<th>Order Suitability</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Location of offices located and easy to reach customers.</td>
<td>94.24%</td>
<td>4.44</td>
</tr>
<tr>
<td>2</td>
<td>The office atmosphere is neat and clean.</td>
<td>94.97%</td>
<td>4.59</td>
</tr>
<tr>
<td>3</td>
<td>Comfort of customer waiting room.</td>
<td>96.13%</td>
<td>4.61</td>
</tr>
<tr>
<td>4</td>
<td>Appearance of bank officers is always neat and clean.</td>
<td>97.92%</td>
<td>4.70</td>
</tr>
<tr>
<td>5</td>
<td>Convenience and security of the location and parking space provided.</td>
<td>90.99%</td>
<td>4.33</td>
</tr>
<tr>
<td>6</td>
<td>Knowledge, ability and skills of bank officers are good in serving customers.</td>
<td>95.69%</td>
<td>4.44</td>
</tr>
<tr>
<td>7</td>
<td>The bank clerk using a language that is easily understood by customers.</td>
<td>95.83%</td>
<td>4.60</td>
</tr>
<tr>
<td>8</td>
<td>Bank officers try to get to know customers and understand their needs.</td>
<td>93.62%</td>
<td>4.40</td>
</tr>
<tr>
<td>9</td>
<td>Bank officers serve transactions quickly, accurately, and efficiently.</td>
<td>95.00%</td>
<td>4.61</td>
</tr>
</tbody>
</table>
10 Skills and honesty of bank officers in providing services to customers. 97.32% 4.67
11 Availability of employees when customers need. 93.67% 4.44
12 Bank employees provide clear and easy-to-understand information for customers. 96.75% 4.67
13 Easy transaction, filling and use of forms. 96.42% 4.61
14 Affordable administrative costs. 94.91% 4.53
15 Availability of attractive facilities and features (sms banking, internet banking). 95.91% 4.69
16 Bank BTN guarantees satisfaction customer in transactions. 95.89% 4.67
17 Bank officers can instill trust and a sense of comfort in customers. 96.76% 4.70
18 Bank BTN can store data correctly and accurately. 98.24% 4.77
19 Security of documents stored in the bank. 96.77% 4.71
20 Security and confidentiality of customer data. 98.53% 4.79
21 Bank officers are attentive and patient in serving customers. 94.22% 4.43
22 Every customer complaint is always responded to and resolved properly. 94.97% 4.59
23 Bank officers are friendly and polite in serving customers. 96.18% 4.67
24 Speed and accuracy in serving customers. 95.28% 4.61
25 Services are professional, friendly, and responsive in helping the customer problems. 96.18% 4.67
Total 2392.40% 114.96
Average 95.70 4.60

Based on Table 4 above it can be concluded that all attributes the questions answered by the customer were very satisfactory, because the lowest and highest scores of performance were still in the interval 4.20 – 5.00 (very satisfactory). The lowest level of performance according to customers is the convenience and security of the location and the parking space provided is one of the physical evidence (tangible), namely with a value of 4.33. The highest level of performance according to customers is the security and confidentiality of customer data, which is one of the proofs of assurance, with a value of 4.79.

4.5 Cartesian Chart

To calculate the average ratings performance level and the level of interest keselu Ruhan attribute as follows:

\[
\bar{X} = \frac{\sum \bar{X}}{K}, \quad \bar{Y} = \frac{\sum \bar{Y}}{K}
\]

\[
\bar{X} = \frac{114,96}{25} = 4.60, \quad \bar{Y} = \frac{120,11}{25} = 4.80
\]
5. Conclusion

The quality of service at the State Savings Bank KCP Simalingkar Medan generally reflects a very good level of quality. This is evident from the 25 question attributes that have a performance value of 4.60 which is very satisfactory, based on the consumer satisfaction index with an interval value of 4.20-5.000. Service quality conformity is 98.53%, namely the security and confidentiality of customer data, while the value for the low level of conformity is 90.99%, namely the convenience and security of the location and parking space provided. Priority attributes that need to be improved. The value of the suitability of service quality from the comparison between bank performance and customer interests obtained an average value of 95.70% so that it can be concluded as a whole that the attribute is included in the appropriate category if the value of the level of conformity is close to 100% and is above average - average, it can be said that the level of conformity of the service quality of the State Savings Bank KCP Simalingkar Medan is good.

REFERENCES


