Analysis of the Effect of Service Quality on Customer Satisfaction with Full Time Equivalent, Customer Satisfaction Index, and Importance Performance Matrix in the Time Care Service Center Section

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Abstract. Timecare Service Center is an official service center in Indonesia that provides aftersales services for watch products with certain brands that have established cooperation. Timecare Service Center has problems in the field of service estimators that have the task of repairing damage to customer products. The service estimator department often experiences an overload, which has a negative impact on employees and customers. A service quality analysis is carried out to determine the influence of these dimensions on customer satisfaction, and then customer satisfaction calculations are carried out. The customer satisfaction index, importance-performance matrix, full-time equivalent, and hypothesis analysis were used in the study. Based on the calculation results, a customer satisfaction index of 85.71% was obtained, which showed a high Time Care customer satisfaction index. The FTE value 2.22 is > 1.28, categorized as a workload in the service overload estimator process. Five dimensions of service quality: four dimensions positively and significantly influence customer satisfaction. The mapping results with the Importance Performance Matrix are known to have two items that must be improved: tangibles and responsiveness.

1 Introduction

Human resources (HR) is one of the important factors that affect the efficiency and effectiveness of a company. HR has a role in driving production activities, so management needs to be carried out, which aims to determine the quality and quantity of work provided. HR is one of the benchmarks that provides added value to the success of a business (Larasati, 2018) [1]. The proportion of tasks to labor capabilities must be considered to improve process quality and speed up task completion without reducing production quality. One of the things that must be considered to achieve these goals is the performance of employees.

Performance is one of the parameters of the success of workers in carrying out a job. There are several factors that affect employee performance, such as workload and work environment. Workload is the ability of the worker's body to accept a job. The workload given to workers must be balanced and in accordance with their physical and psychological abilities (Bruggen, 2015) [2].

Timecare Service Center is an after-sales care provider company that is a retailer for PT Time International. Timecare is an authorized service center in Indonesia that provides aftersales services for watch products with certain brands that have established cooperation. Timecare Service Center has problems in the field of estimator service, which has the task of repairing damage to customer products. The estimator service section often experiences overload, which has a negative impact on employees and customers. One of the negative impacts for employees is that it can cause fatigue for workers due to work overload; besides that, this overload can also cause delays in service completion, thereby reducing customer satisfaction.

Fig. 1. Customer Service Frequency

Figure 1 shows that during the months of October to December 2022, the arrival of customers who want to do service exceeds the available service capacity by 50 people. In October, 66 customers came, then in November, as many as 73 people, and finally in December, as many as 72 people. The number of customers who exceed the service capacity has a negative impact on employees. One of the negative impacts for

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employees is that it can cause fatigue for workers due to work overload; besides that, this overload can also cause delays in service completion, thereby reducing customer satisfaction. The delay in service completion that occurred during the period of October to December is described in Figure 2 below.

![Bar chart showing service overdue during October-December 2022]

**Fig. 2. Service Overdue October-December 2022**

Figure 2 provides data on delays in completing services that are the responsibility of the company. It is known that in October the delay was 2 customers, then in October it increased to 3 customers, and finally in December there were 5 customers. December is the month with the highest level of tardiness because the number of working days is lower when compared to other months. The company itself has a policy of guaranteeing on-time service completion, but the actual company is unable to achieve this target, and it is found that the completion time exceeds the specified schedule. In the long run, this problem can affect customer satisfaction. Currently, based on company data, it is known that the level of satisfaction measured in 2021 will be 79.3%, where the service speed factor is the main thing that many customers complain about.

Customer satisfaction is an important thing that must be created by companies where one of the important elements in achieving customer satisfaction is the quality of service provided to customers [3]. Customer satisfaction will increase along with the high quality of service provided by the company. The level of customer satisfaction can be measured based on using the Servqual dimension. Servqual is a method or way to evaluate service quality services in an organization and can be used to measure the level of user satisfaction with the Servqual dimensions. Servqual has been widely applied to improve the quality of an organization. Research results in the health sector using Servqual to evaluate patient satisfaction with the quality of hospital health services [4]. In the banking sector, [6] conducted research on the relationship between Servqual and user satisfaction user satisfaction at the bank. In general, customer satisfaction will be achieved if the performance and quality of service obtained are in accordance with what is expected by the customer [6].

According to Aritonang in [7] measuring customer satisfaction can be measured using the Customer Satisfaction Index (CSI) method. If the system service performance does not meet customer expectations, customer satisfaction will decrease. The greater the difference between performance and expectations, the lower the customer satisfaction. One method of measuring service performance is Importance Performance Analysis (IPA), which compares user ratings based on the importance of service quality and service performance [8].

Based on the description above, the researcher is interested in knowing the relationship between the dimensions of Service Quality and customer satisfaction, then measuring the level of customer satisfaction of Time Care, analysing the difference between the quality of service that has been provided by Time Care and the expectations of customers that can be used as recommendations for improving service quality so that Time Care customer satisfaction can be met using the Customer Satisfaction Index (CSI), Importance Performance Analysis (IPA), and Full Time Equivalent methods.

Customer Satisfaction Index is used as a research standard to determine the level of customer satisfaction based on predetermined attributes and then see the difference between performance and expectations. The Importance Performance Analysis method was chosen as a further development of service quality attributes to determine the mapping of each attribute and determine improvements that must be made. In the formulation of improvements, the Full Time Equivalent method is applied because it is suitable for measuring workload based on the length of time needed to complete a job which is then converted into an index value.

### 2 Literature Review

Measurement of workload using the Full Time Equivalent (FTE) method, a workload analysis method carried out by measuring the length of time to complete a job, then the results of the time measurement are converted into the FTE index value. FTE is a method of calculating workload by comparing the time needed to complete a job with the effective working time available [9]. The FTE method aims to simplify work measurement by converting workload hours into the number of workers needed to complete a job.

Servqual is a method or way to evaluate service quality services in an organization and can be used to measure the level of user satisfaction with Servqual dimensions. This framework uses five dimensions to explain service quality, namely, tangibles, reliability, responsiveness, assurance, and empathy [10].

A person's feeling of pleasure or disappointment after comparing expectations or perceptions of product results or performance is the definition of satisfaction according to [11]. The difference between expectations and perceived performance or results is a function of the level of satisfaction [12]. Customers will feel satisfied if the performance or product results match expectations, customers will feel very satisfied if the performance or product results are more than expected, and customers will feel disappointed if the performance or product results are not as expected [13].

According to [8], the overall level of satisfaction from consumers can be analysed using the Customer Satisfied
Index (CSI) through the level of performance and the level of importance of existing attributes. CSI can be used by companies or institutions for evaluation in improving services that are considered lacking or improving services [7].

This approach enables managers to improve their management strategies as it indicates key factors that require immediate response (improvement) [14]. IPA makes it possible to prioritize improvement concepts to improve specific targets, identifying the most important areas for specific action [15].

3 Research Methodology

This research was conducted with the object of Time International company, especially in Time Care service as the official after sales service center of the brand sold by Time International. The stages of the research flow are described in the Figure 3.

![Flowchart of this research](https://example.com/flowchart.png)

**Fig. 3.** Flowchart of this research

- **a.** Field study. Field study is conducted to observe and analyze the specific behavior of the subject in that environment. Observations will produce an overview of the subject and the problems that occur to be linked to the theory.

- **b.** Problem identification. The identification of research problems refers to the picture obtained during the field study stage. Observation is carried out thoroughly at Time Care to find out the problems that occur and the appropriate methods used in solving them.

- **c.** Problem formulation. Problem formulation is the process of defining the scope of the problem, formulating one or more specific questions about the problem, and determining the assessment methods needed to answer these questions.

- **d.** Research objectives. Research objectives explain what the research aims to achieve. These objectives summarize the research approach and objectives and help focus the research results. The research was conducted to determine the customer satisfaction index of Time Care services and then determine attributes that can be improved, one of which is an analysis of workload to improve service quality that drives customer satisfaction.

- **e.** Data collection. Data was collected through a survey method with questionnaire instruments, observation, documentation, and field practice. The questionnaire was used to collect data on the level of customer interests and expectations. The questionnaire contains a list of statements related to the performance and expectations of Time Care services. The questionnaire was distributed to the entire population of customers who have used Time Care services. Customers will receive a questionnaire consisting of statements from the Service Quality dimension. The following are the criteria for determining the research sample customers who have done Time Care service in the period 2022-2023 and direct customer who interacts with employees in the period 2022-2023. In accordance with these criteria, the total population of customers who meet as many as 840 customers is obtained. The error rate is determined at 10% which will be used as a reference in determining the number of samples. So, it is known that the sample amounted to 90 people.

- **f.** Validity and reliability test. Data quality tests were carried out to determine the level of validity and reliability.

- **g.** Data analysis. Data will be processed by statistical testing methods of hypothesis testing, calculation of customer satisfaction index, Importance Performance Analysis mapping using SPSS software, and finally will be analyzed workload using Fulltime Equivalent. Hypothesis testing is carried out to determine the effect of Service Quality on customer satisfaction. In addition, observations were made to analyze the current service conditions, especially related to the workload of estimator employees.

- **h.** Conclusion and suggestions. In the end, the research developed conclusions to answer the formulation of the problem and objectives and suggestions as input.
4 Results And Discussion

Based on the data that has been collected through data collection methods, the data has been processed using various methods as follows:

4.1 Results

4.1.1 Validity test

The questionnaire will be distributed to customers to then recapitulate each customer's perception of the level of performance and expectations of Time Care services. Validity testing based on the correlation of product moment, it is known that N = 90 and the significance level used is α = 0.05 (5%). So the calculation for df = 90-2 = 88. Based on the table, it is known that the R table 5% = 0.2702. The results show that at the level of importance and performance both have valid results because R count > R table.

4.1.2 Reliability test

Reliability testing is carried out to determine the level of precision or accuracy of the measurement tool or a measure [16]. It can be said that the reliability test aims to test the consistency of the statements on the questionnaire when applied to other samples. It is known that the Cronbach’s alpha value for performance is 0.973 and for importance is 0.952, both have values above the reliable acceptance standard of 0.70. It can be concluded that both have met the reliability criteria.

4.1.3 Classical Assumptions test

The data has met the classical assumption test with normality and multicollinearity where the results show that the data meets the prerequisites and can be continued to the next data processing.

4.1.4 Multiple Regression test

Regression analysis is a set of statistical methods used to estimate the relationship between a dependent variable and one or more independent variables. The model of the research multiple regression analysis is as follows,

\[
Y = 1.074 + 0.065X_1 + 0.204X_2 + 0.167X_3 + 0.172X_4 + 0.201X_5 + e
\]

Details:
- \(Y\) = Customer Satisfaction
- \(X_1\) = Tangible
- \(X_2\) = Reliability
- \(X_3\) = Responsiveness
- \(X_4\) = Empathy
- \(X_5\) = Assurance
- \(e\) = Error

4.1.5 Coefficient Of Determination Test

The coefficient of determination test aims to determine the proportion or percentage of the total variation in the dependent variable which is explained by the independent variables together. Based on the coefficient of determination test, it is found that the R² value in the regression model is 0.718, which means that the variables in Service Quality are able to explain the influence of the purchasing decision variable by 71.8%.

4.1.6 Customer Satisfaction Index

Measurement of the level of customer satisfaction is needed to determine future goals and to determine the level of satisfaction generated by an attribute. In calculating the level of customer satisfaction, the Costumer Satisfaction Index (CSI) method was used. Calculation of consumer performance levels using the Costumer Satisfaction Index (CSI) requires an average score of the level of importance and an average score of the performance level of existing attributes in Time Care services. The following are the results of the calculation of customer satisfaction as listed in Table 1.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>MSSI</th>
<th>MIS</th>
<th>WS</th>
<th>WS</th>
<th>CSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>4.53</td>
<td>4.24</td>
<td>5.62</td>
<td>25.46</td>
<td>85.71%</td>
</tr>
<tr>
<td>T2</td>
<td>4.50</td>
<td>4.24</td>
<td>5.62</td>
<td>25.27</td>
<td></td>
</tr>
<tr>
<td>T3</td>
<td>4.42</td>
<td>4.32</td>
<td>5.72</td>
<td>25.29</td>
<td></td>
</tr>
<tr>
<td>REA1</td>
<td>4.48</td>
<td>4.37</td>
<td>5.78</td>
<td>25.87</td>
<td></td>
</tr>
<tr>
<td>REA2</td>
<td>4.48</td>
<td>4.38</td>
<td>5.79</td>
<td>25.94</td>
<td></td>
</tr>
<tr>
<td>REA3</td>
<td>4.47</td>
<td>4.46</td>
<td>5.90</td>
<td>26.33</td>
<td></td>
</tr>
<tr>
<td>RES1</td>
<td>4.17</td>
<td>4.37</td>
<td>5.78</td>
<td>24.07</td>
<td></td>
</tr>
<tr>
<td>RES2</td>
<td>4.46</td>
<td>4.11</td>
<td>5.44</td>
<td>24.24</td>
<td></td>
</tr>
<tr>
<td>RES3</td>
<td>4.30</td>
<td>4.22</td>
<td>5.59</td>
<td>24.02</td>
<td></td>
</tr>
<tr>
<td>RES4</td>
<td>4.46</td>
<td>4.28</td>
<td>5.66</td>
<td>25.22</td>
<td></td>
</tr>
<tr>
<td>A1</td>
<td>4.50</td>
<td>4.19</td>
<td>5.54</td>
<td>24.94</td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>4.49</td>
<td>4.28</td>
<td>5.66</td>
<td>25.41</td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>4.48</td>
<td>4.27</td>
<td>5.65</td>
<td>25.28</td>
<td></td>
</tr>
<tr>
<td>A4</td>
<td>4.50</td>
<td>4.23</td>
<td>5.60</td>
<td>25.21</td>
<td></td>
</tr>
<tr>
<td>E1</td>
<td>4.53</td>
<td>4.32</td>
<td>5.72</td>
<td>25.93</td>
<td></td>
</tr>
<tr>
<td>E2</td>
<td>4.37</td>
<td>4.21</td>
<td>5.57</td>
<td>24.33</td>
<td></td>
</tr>
<tr>
<td>E3</td>
<td>4.46</td>
<td>4.37</td>
<td>5.78</td>
<td>25.74</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>75.58</td>
<td>72.86</td>
<td>-</td>
<td>428.55</td>
<td></td>
</tr>
</tbody>
</table>

4.1.7 Importance Performance Analysis

The mapping results on the Importance Performance Analysis matrix divide the 17 dimensional statements of Service Quality into four quadrants. Quadrant A is known to be a quadrant that has low performance but has a high level of importance for customers so that it needs to be a priority for improvement. In quadrant A there are 2 indicators that require improvement. Furthermore, quadrant B is known to be a quadrant that has a high level
of performance and a high level of importance, there are 5 indicators. Quadrant C is known to be a quadrant that has a low level of performance and importance, so it is not a priority for improvement, it is found that there are 2 statement indicators. Finally, quadrant D is known to be a quadrant that has high performance and low importance, there are 8 indicators. Figure 4 shows the importance performance analysis mapping.

![Image of importance-performance analysis mapping]

**Fig. 4. Importance-Performance Analysis Mapping**

<table>
<thead>
<tr>
<th>Quadrant</th>
<th>Attribute</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadrant A</td>
<td>T3</td>
<td>Ease of contacting Time Care service</td>
</tr>
<tr>
<td></td>
<td>RES1</td>
<td>Service is provided quickly</td>
</tr>
<tr>
<td>Quadrant B</td>
<td>REA1</td>
<td>Service is fully available</td>
</tr>
<tr>
<td></td>
<td>REA2</td>
<td>Time care answers the need for product problems</td>
</tr>
<tr>
<td></td>
<td>REA3</td>
<td>Accurate estimator check result information</td>
</tr>
<tr>
<td></td>
<td>E1</td>
<td>Friendliness of employees in serving complaints</td>
</tr>
<tr>
<td></td>
<td>E3</td>
<td>Employees understand the specific needs of customers</td>
</tr>
<tr>
<td>Quadrant C</td>
<td>RES3</td>
<td>Be responsive in responding to customers</td>
</tr>
<tr>
<td></td>
<td>E2</td>
<td>Concern for customer suggestions and criticisms</td>
</tr>
<tr>
<td>Quadrant D</td>
<td>T1</td>
<td>Technology used by officers during service</td>
</tr>
<tr>
<td></td>
<td>T2</td>
<td>The comfort and beauty of the customer service space</td>
</tr>
<tr>
<td></td>
<td>RES2</td>
<td>Readiness to face problems</td>
</tr>
<tr>
<td></td>
<td>A1</td>
<td>Knowledge or insight of service advisors in consulting</td>
</tr>
<tr>
<td></td>
<td>A2</td>
<td>Courtesy and friendliness of service advisors in serving customers</td>
</tr>
<tr>
<td></td>
<td>A3</td>
<td>No repeat crashes after service</td>
</tr>
<tr>
<td></td>
<td>A4</td>
<td>The estimator explains in detail the results of the examination</td>
</tr>
</tbody>
</table>

Based on observation data in one day, there is a frequency of service dates that must be handled by service estimators as many as 30. Therefore, here is the calculation for total hours. The Importance Performance Analysis Mapping as follows.

<table>
<thead>
<tr>
<th>Quadrant</th>
<th>Attribute</th>
<th>Statement</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadrant A</td>
<td>T3</td>
<td>Ease of contacting Time Care service</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RES1</td>
<td>Service is provided quickly</td>
<td></td>
</tr>
</tbody>
</table>

### 4.1.8 Workload Analysis

1. Normal time calculation
   Normal time is the cycle time of work taking into account adjustment factors. The adjustment method used is the Westinghouse method.

   ![Image of Westinghouse table]

   **Table 4. Westinghouse table**

<table>
<thead>
<tr>
<th>Faktor</th>
<th>Class</th>
<th>Symbol</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills</td>
<td>Good</td>
<td>C1</td>
<td>+0.06</td>
</tr>
<tr>
<td>Effort</td>
<td>Good</td>
<td>C1</td>
<td>+0.05</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>Good</td>
<td>C</td>
<td>+0.02</td>
</tr>
<tr>
<td>Consistency</td>
<td>Good</td>
<td>C</td>
<td>+0.01</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>+0.14</td>
</tr>
</tbody>
</table>

   The calculation of the adjustment factor is carried out
   \[ P = 1 + \text{Adjustment factors} \]
   \[ P = 1 + 0.14 \]
   \[ P = 1.14 \]

   Normal time calculation
   \[ W_n = W_s \times p \] (2)
   \[ W_n = 1527.1 \times 1.14 \]
   \[ W_n = 1740.894 \text{ detik} \]

   In addition, there is also an inevitable allowance for personal needs for men of 2.5%, so the total allowance is 30.5%
   \[ W_b = W_n + P \] (3)
   \[ W_b = 1740.894 + 530.97 \]
   \[ W_b = 2271.87 \text{ detik} \]

   So that the default time required for the service estimator is 2271.87 seconds or 37.86 minutes.

2. Calculation Of FTE
   Based on observation data in one day, there is a frequency of service dates that must be handled by service estimators as many as 30. Therefore, here is the calculation for total hours.
   \[ Total \text{ Hour} = \frac{\text{Freq} \times \text{process time} \times \text{working day}}{60} \] (4)
   \[ Total \text{ Hour} = \frac{30 \times 37.86 \times 234}{60} = 4430.14 \]
3. Workload analysis calculations
   Based on observation data in one day, there is a frequency of service dates that must be handled by service estimators as many as 30. Therefore, here is the calculation for total hours.
   \[ \text{FTE} = \frac{\text{Total Hour}}{\text{Effective hours/Years}} \]  
   \[ \frac{4430.14}{1872} = 2.37 \]  

4.2 Discussion

4.2.1 Hypothesis test analysis

1. Tangible relationship to customer satisfaction
   Based on calculations, it is known that the sig calculates 0.463 > 0.05 with a variable coefficient value of 0.065. It can be concluded that the null hypothesis is accepted and the alternative hypothesis is rejected, tangibles (X1) have a positive and insignificant influence on Time Care customer satisfaction. This is contrary to several studies, one of which is in research. Where it was found that tangibles have a positive and significant influence on customer satisfaction. However, this finding is supported by research conducted where it is known that tangibles have no significant effect on customer satisfaction. This can happen because Time Care itself is a service provider for hours that has expensive prices and can be accessed by the upper middle class. Sometimes customers do not come directly but are represented. So this dimension is not a dimension that can directly affect customer satisfaction.

2. Reliability relationship to customer satisfaction
   Based on calculations, it is known that the sig calculates 0.040 < 0.05 with variable coefficient values 0.463. It can be concluded that the null hypothesis is rejected and the alternative hypothesis is accepted, Reliability (X2) has a positive and significant influence on Time Care customer satisfaction. This is similar to the research conducted where Reliability has a positive and significant effect on customer satisfaction. Time Care which focuses on watch repair services is also referred to as a form of after sales service from watch products sold by Time Indonesia company. Products that are sold at expensive prices and exclusively have a market segmentation of the upper middle class. Products cannot be repaired carelessly, Time Care itself has available estimators that meet the requirements of the brand and have attended special training. This exclusivity causes Time Care to be reliable to meet customer satisfaction.

3. Responsiveness relationships to customers satisfaction
   Based on calculations, it is known that the sig calculates 0.011 < 0.05 with a variable coefficient value of 0.167. It can be concluded that the null hypothesis is rejected and the alternative hypothesis is accepted, Responsiveness (X3) has a positive and significant influence on Time Care customer satisfaction. As the only after sales repair service from Time International, Time Care must be responsive in dealing with its customers. This is in accordance with research conducted [17] which explains that responsiveness has a positive and significant relationship with customer satisfaction. Nowadays customers tend to demand fast and satisfying service. Responsiveness is a necessity in providing quality services, especially in service provision companies [18].

4. Empathys relationship to customer satisfaction
   Based on calculations, it is known that the sig calculates 0.033 < 0.05 with a variable coefficient value of 0.172. It can be concluded that the null hypothesis is rejected and the alternative hypothesis is accepted, Empathy (X4) has a positive and significant influence on Time Care customer satisfaction. As a service provider, an empathy dimension is needed so that the services provided focus more on customer personality and answer different customer complaints. This is in accordance with research conducted which explains that empathy has a positive and significant relationship with customer satisfaction.

5. Assurance relationship to customer satisfaction
   Based on calculations, it is known that the sig calculates 0.016 > 0.05 with a variable coefficient value of 0.204. It can be concluded that the null hypothesis is rejected and the alternative hypothesis is accepted, Assurance (X5) has a positive and significant influence on Time Care customer satisfaction. As the only company that is integrated with Time Indonesia, Time Care must also ensure that services are provided properly and the accuracy of the improvement process provided. This is so that customers always trust and feel assured to improve their hours at Time Care. This is in accordance with research conducted which states that assurance has a positive and significant relationship with customer satisfaction.

4.2.2 Customer satisfaction index analysis

The results show that the customer satisfaction index is 85.71% which indicates that the customer satisfaction index of Time Care customers is high. Although high, the company remains committed to making continuous improvements to increase customer satisfaction. If the system service performance does not meet customer expectations, customer satisfaction will decrease. The greater the difference between performance and expectations, the lower the customer satisfaction. Meanwhile, if the perceived performance exceeds expectations, then customers will feel very satisfied and will remain loyal and they will share information with others about their experience of perceived performance. In general, customer satisfaction will be achieved if the performance and quality of service obtained are in accordance with what is expected by the customer [6].
4.2.3 Workload analysis using FTE

FTE calculation is done by first calculating the total hours by calculating the process time multiplied by the frequency of arrival hours each day multiplied by the number of effective working days. The number of effective working days is obtained from the number of effective working days in one year, minus the number of days off due to holidays. The results of the total effective hours will be divided by the effective working hours, so that the FTE value index is 2.37. According to [19], the FTE value index is categorized into 3, including: underload, normal, and overload. The FTE value is said to be underloaded if the FTE value is between 0 - 0.99 or the workload is still lacking. The normal category if the FTE value is between 1 - 1.28 or the workload is appropriate. Overload category if the FTE value is more than 1.28 or the workload is too much. Based on the calculation results, the FTE value is 2.22 which is > 1.28 so that the workload in the service estimator process is categorized as overload. Furthermore, an analysis is carried out regarding the appropriate number of operators to be able to divide the workload. Based on the calculation, it is found that the appropriate operator is 2 people. This is to divide the workload in the process so that employee productivity can be maintained and balanced.

4.2.4 Improvement recommendations

1. Service is provided quickly (RES1)
   In Time Care services, the main role of the service is the service estimator. Based on the workload analysis conducted, it is known that the service estimator experiences excessive workload or overload. This results in service that cannot be done quickly because the number of hours that come in for service is not proportional to the estimator's capacity to perform service. This condition is a problem because it is not uncommon for customers to want fast service because of the need to spend hours. Quality improvement recommendations can be proposed by adding the appropriate number of operators to be able to divide the workload. Based on calculations, it is found that the appropriate operator is 2 people. This is to divide the workload in the process so that employee productivity can be maintained and balanced. Then, to speed up the processing time in addition to adding workers, the company can also increase training so that estimators are more dexterous at work. Training has a positive impact on increasing the ability and insight of workers, which encourages an increase in processing time [20]. Training is an important means to improve employee performance. This is because training is a skill improvement activity to support employees to work more effectively and efficiently. Training is an important means to improve employee performance. This is because training is a skill improvement activity to support employees to work more effectively and efficiently.

2. Ease of contacting Time Care service (T3)
   Currently, customers contact Time Care service via telephone or email. This is considered difficult because almost all customer service services provide communication channels using social media. The utilization of technological media as a communication channel needs to be done by Time Care to facilitate customers. The same thing was also revealed in the research [21] where it explains that communication channel innovation with the use of technology is needed to facilitate customers who encourage satisfaction. Social media can be used to make it easier for customers to contact customers. Currently, social media can be integrated with each other, such as the use of Instagram official accounts, which are then connected to personalized customer service. Social media can also be used to bring brands closer to customers by actively engaging with them. Social media are a way to build relationships with consumers directly. Through social media, consumers can communicate directly regarding the products being sold. As a service provider, it can provide direct feedback to consumers interactively and quickly [22].

5 Conclusion

The results show that the customer satisfaction index is 85.71%, which indicates that the customer satisfaction index of Time Care customers is high. Although high, the company remains committed to making continuous improvements to increase customer satisfaction. If the system's service performance does not meet customer expectations, customer satisfaction will decrease. The greater the difference between performance and expectations, the lower the customer satisfaction.

Based on the results of the calculation, the workload currently applied to the estimator service section is known. The calculation results show that the workload value index is included in the overload category because the FTE value is greater than 1.28 or the workload is too much. Based on the calculation results, the FTE value is 2.22, which is > 1.28, so the workload in the service estimator process is categorized as overload. The calculation of standard time is used to calculate workload using the FTE method, and the most optimal number of employees is known to be the most optimal number of employees suitable for employment in the service estimator section at Timecare Service Center. Using the Full Time Equivalent method, the appropriate number of employees is 2 to be able to get a workload balance so that employee productivity can be better maintained.

From the five dimensions of service quality, there are four dimensions that have a positive and significant influence on customer satisfaction in the Timecare Service Center section. Tangibles (X1) have a positive influence on customer satisfaction. Reliability (X2), responsiveness (X3), empathy (X4), and assurance (X5) have a positive and significant influence on Time Care customer satisfaction.

Based on the results of the mapping with the Importance Performance Matrix, it is known that there are two items that must be improved. The first priority of improvement is to provide fast service (RES1) and ease...
of contacting time care services (T1). The proposed recommendations are based on the workload analysis that has been carried out, namely by increasing employees in the estimator section according to the workload and then conducting training to improve work effectiveness and efficiency. As for the second priority, the utilization of technology as a communication channel needs to be done by Time Care to facilitate customers.

References

