

CUSTOMER SATISFACTION ANALYSIS ON SALES ENGINEERING SERVICE USING SERVQUAL AND FACTOR ANALYSIS IN PACKAGING INDUSTRY

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Abstract. To achieve client satisfaction, every company must be able to do its best. Companies must be able to provide services that meet or surpass their consumers' expectations to achieve customer satisfaction. As a result, the goal of this research is to look at client satisfaction with the Sales Engineer services that have been delivered. Reliability, responsiveness, assurance, empathy, and tangible customer satisfaction at PT XYZ are the characteristics used in this study. 150 consumers who were served by Sales Engineers provided the data for this study. To perform data processing, this research used SERVQUAL and Factor Analysis for determining customer satisfaction. Based on the findings of the data processing with SERVQUAL, it has been determined that two variables, Assurance, and Empathy, are capable of bringing consumer satisfaction. Based on the overall analysis using Factor Analysis, it can be concluded that the majority of the services provided by the Sales Engineer are able to meet the expectations of customers, particularly in terms of the most important factor in the emergence of customer satisfaction, to encourage these customers to be loyal to the company. Customers, as well as being responsible for and the ultimate action taken by sales in response to consumer complaints.

Keywords: customer satisfaction, factor analysis, Sales Engineer, SERVQUAL.

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1. INTRODUCTION

Consumer behavior and the efforts made to suit their requirements have altered as a result of scientific discoveries and technical changes in the commercial world [1]. As a result, one of the competencies in meeting consumer wants, aspirations, and expectations in order to provide convenience is service quality [2]. Client satisfaction might be simple, complicated, or complex, according to the abstract concept of satisfaction for every current customer [3]. As a result, direct and online customer care activities have become one of the company's customer satisfaction strategies [4]. Every business needs favorable feedback from customers in order to build customer loyalty [5].

Due to the high level of competition in the business sector, every organization must be able to build an image that can capture customers' attention and keep them loyal [6]. With the rise of business fields with the same type of goods, each company must have its own unique charm in order to maintain consumer happiness. One of the most important factors in achieving customer satisfaction is to engage in promotional activities and learn how to respond effectively to customers [7].

In the corporate sector, sales play a crucial function as a link between businesses and their customers [8]. As a result, a salesman must be able to gather consumer information, understand consumer wishes and concerns, and respond appropriately to customers [9].

Each sort of service supplied can be further studied to determine the characteristics that drive consumers [10]. To promote customer satisfaction, the level of service supplied by the company to its customers must be in line with consumer perceptions [11]. Good and exceptional service quality to fulfill services is able to safeguard and raise the level of service or services it provides, ensuring that consumers will continue to use the company's services or services as a result of their pleasure [12].

PT XYZ is a manufacturing company that specializes in this form of packaging. PT XYZ has a Sales Engineer that may give services and design goods that consumers demand as an intermediary between the company and the consumers. Salespeople, on the other hand, are frequently perplexed when it comes to offering the finest service to each customer. Because of the lack of feedback from customers regarding their satisfaction and the factors that influence this satisfaction when provided by the sales party, the sales party continues to be perplexed when offering services to customers. As a result, more research is needed to determine whether the consumer's services were able to deliver customer satisfaction or not.

The methods of factor analysis and multiple linear regression analysis can be used in multivariate analysis to quantify the level of customer satisfaction in the form of statistical data. Susilo's prior study, which used factor analysis, found that service and product are two of the most important aspects in achieving consumer satisfaction [13]. A comparable study by Hangganingrum et al. demonstrates that factor analysis can identify the type of service that will satisfy each consumer [14]. According to the findings of the two-prior research, factor analysis is able to describe the criteria for the sort of service that gives its own satisfaction to consumers and to analyze the quality of service that has been carried out.

Based on these problems, this study combines SERVQUAL and factor analysis to determine customer satisfaction at PT XYZ in light of these issues. SERVQUAL can be used to determine the extent to which the sales side has delivered high-quality service. Factor analysis is performed to determine which elements support consumer satisfaction. The goal of this study is to determine to what extent Sales Engineers provide services to consumers and what factors can assist Sales Engineers in performing their duties so that the company can develop more appropriate strategies to improve Sales Engineers' service quality and increase customer satisfaction.

2. RESEARCH METHODS

The descriptive quantitative research method was employed to conduct this study [15]. The data in this study was processed using primary data, which is material that isn't already in the public domain [16]. Data was collected by sending online questionnaires via Google Forms, which were then shared on social media. There are 150 total respondents in the survey who are PT XYZ customers that have direct experience with the Sales Engineer's services. The SERVQUAL approach was utilized in this study to detect customer satisfaction, and factor analysis was performed to analyze the most relevant aspects in establishing customer satisfaction.

2.1 Validity and Reliability Test

Prior to doing SERVQUAL and factor analysis, the data obtained from the survey must be checked for validity and reliability. As a result, a research instrument is said to be good if it is said to be valid and reliable. An instrument is said to be valid if it can reveal data from an actual variable. When an instrument can capture data that can be trusted, it is said to be reliable. As a result, a validity and reliability test are required to understand it. Test validity is a test that is carried out to understand the accuracy of measurements to make something. Reliability, on the other hand, is linked to the consistency of any given item. [17].

2.2 SERVQUAL Method

The SERVQUAL approach is a method for assessing service quality by comparing a customer's expectations with the service's performance [17]. Researchers can calculate the gap that exists between a customer's expectations and the reality by using the SERVQUAL approach (performance of a service). This is because one of the premises of the SERVQUAL approach is that consumers are satisfied if the performance of these services surpasses their expectations.

The SERVQUAL technique has five flaws. The first gap illustrates the misalignment of customer expectations and management beliefs. Gap 2 is the perspective of management in relation to service quality criteria. Service quality criteria are linked to service delivery in Gap 3. Gap 4 depicts the disconnect between service delivery and communication with the outside world. Customer expectations are compared to service execution in Gap 5. Gap 5 is only measured in this study because it is considered a result of the other four gaps: 5th gap = f (gap 1, gap 2, gap 3, gap 4). The SERVQUAL technique uses 23 variables grouped into five dimensions to assess service quality: tangibles, reliability, responsiveness, assurance, and empathy. The actual facilities, equipment, and appearance of staff are all part of the tangible dimension. The reliability dimension refers to a service's ability to provide accurate services without making any mistakes, as well as to deliver services on time. The willingness and ability of staff to assist clients and follow up on their requests, as well as provide information about when services will be provided and then provide them immediately, is measured in the responsiveness dimension. The assurance dimension is concerned with the behaviour of personnel who are able to encourage client trust in services as well as the ability of services to provide customers with a sense of security. Assurance also entails ensuring personnel are always polite and have the necessary knowledge and skills to address any customer queries or complaints. Concern and personal attention from employees to clients make up the final degree of empathy. Table 1 shows the indicators that were used to conduct the SERVQUAL study.

Table 1. Research Variable

| Dimension | | |
|-------------|----|--|
| Tangible | T1 | Complete equipment used |
| | T2 | The service room's clean and tidy |
| | T3 | Nice and comfortable company layout |
| | T4 | Adequate means of transportation |
| Reliability | R1 | Available service |
| | R2 | Reliable troubleshooting |
| | R3 | Good service delivery |
| | R4 | Delivery of services as promised |
| | R5 | Sales information active and appropriate |
| Responsive | P1 | Responsive sales |
| | P2 | Fast services |
| | P3 | Active in helping |
| | P4 | Question can be answered well |
| | P5 | Readiness to respond and extra services |

| Dimension | | |
|-----------|----|---|
| Assurance | A1 | Compensation if there's an error |
| | A2 | Easy to complain |
| | A3 | The service system's not disturbed |
| | A4 | Easy to contact if there's a problem |
| Empathy | E1 | Caring after sales action |
| | E2 | Sales are friendly when responding |
| | E3 | Sales are able to communicate well and pleasant |
| | E4 | New services are always communicated |
| | E5 | There's a place to criticism and suggestion |

Customer satisfaction then measured using the following formula:

$$SQ_j = \frac{\sum_{i=1}^n P_{ij} - E_{ij}}{n} \quad (1)$$

where SQ_j is the average value of service quality for indicator j , P_{ij} is the value of service performance for indicator j assessed by customer i , E_{ij} is the value of customer expectations i on indicator j , and n is the number of customers surveyed.

2.3 Factor Analysis

Factor analysis is a statistical technique for reducing the number of independent variables [18]. The structure of the link between variables in the form of factors was explained using factor analysis [19]. Factors are random quantities that could not previously be determined directly. The original variables are grouped based on the higher loading value in one factor for factor interpretation. The created factors must be labeled after grouping to reflect the original variables that make them up.

3. RESULTS AND DISCUSSION

Based on the data that has been obtained from the previous questionnaire, there are 150 respondents who will be used in conducting data processing. The stages used in processing the data are Validity and Reliability Test, SERVQUAL Analysis, and Factor Analysis.

3.1. The Validity and Reliability Test

Based on the Pearson Correlation (r) value with a large amount of data (n) of 150, the degrees of freedom acquired (df) were 148, resulting in a value of 0.159 for the r table with alpha of 0.05 and degrees of freedom 148. The questions from the questionnaire are considered valid if r count $>$ r table. In the meantime, if r counts r table, the questionnaire's questions are deemed invalid. The results of the data processing that was carried out are provided in Table 2 below, based on the results of the questionnaires that were acquired.

Table 2. Validity Test Result

| Dimension | | Expectation | Reality | r-table | Description |
|-------------|----|-------------|---------|---------|-------------|
| Tangible | T1 | 0,182 | 0,161 | 0,159 | Valid |
| | T2 | 0,194 | 0,194 | 0,159 | Valid |
| | T3 | 0,168 | 0,166 | 0,159 | Valid |
| | T4 | 0,245 | 0,223 | 0,159 | Valid |
| Reliability | R1 | 0,261 | 0,169 | 0,159 | Valid |
| | R2 | 0,283 | 0,171 | 0,159 | Valid |
| | R3 | 0,248 | 0,166 | 0,159 | Valid |
| | R4 | 0,387 | 0,17 | 0,159 | Valid |
| | R5 | 0,267 | 0,293 | 0,159 | Valid |

| Dimension | | Expectation | Reality | r-table | Description |
|------------|----|-------------|---------|---------|-------------|
| Responsive | P1 | 0,67 | 0,398 | 0,159 | Valid |
| | P2 | 0,226 | 0,261 | 0,159 | Valid |
| | P3 | 0,327 | 0,252 | 0,159 | Valid |
| | P4 | 0,377 | 0,272 | 0,159 | Valid |
| | P5 | 0,426 | 0,246 | 0,159 | Valid |
| Assurance | A1 | 0,406 | 0,297 | 0,159 | Valid |
| | A2 | 0,401 | 0,181 | 0,159 | Valid |
| | A3 | 0,35 | 0,194 | 0,159 | Valid |
| | A4 | 0,484 | 0,258 | 0,159 | Valid |
| Empathy | E1 | 0,281 | 0,214 | 0,159 | Valid |
| | E2 | 0,44 | 0,17 | 0,159 | Valid |
| | E3 | 0,399 | 0,227 | 0,159 | Valid |
| | E4 | 0,415 | 0,183 | 0,159 | Valid |
| | E5 | 0,245 | 0,204 | 0,159 | Valid |
| Empathy | E1 | 0,281 | 0,214 | 0,159 | Valid |

Based on Table 2, it can be deduced that because each value from expectation and reality is aligned with the r-table value, every valid indicator research variable can be used as a research instrument. The reliability test is described in Table 3, which contains the results of the reliability test.

Table 3. The Reliability Test Result

| Cronbach's Alpha | N of Items | r-table | Description |
|------------------|------------|---------|-------------|
| 0,613 | 47 | 0,159 | Valid |

According to Table 3, the Cronbach's alpha value of the research indicators is higher than the r-table. This demonstrates that the questionnaire's variables are all highly reliable.

3.2. SERVQUAL Analysis

To assess the extent to which the services given can create customer satisfaction, the gap between the customer's desired expectations and the actuality obtained by the customer is analyzed to determine the SERVQUAL value that has been carried out by the Sales Engineer. The value of service quality is displayed in Table 4 below, based on the findings of the questionnaire that has been analyzed.

Table 4. Service Quality Value

| Dimension | | Expectation | Reality | Gap | Service Quality |
|-------------|----|-------------|---------|-------|-----------------|
| Tangible | T1 | 4,53 | 4,48 | -0,05 | 0,99 |
| | T2 | 4,56 | 4,53 | -0,03 | 0,99 |
| | T3 | 4,51 | 3,99 | -0,52 | 0,88 |
| | T4 | 4,58 | 3,78 | -0,80 | 0,83 |
| Reliability | R1 | 4,89 | 4,54 | -0,35 | 0,93 |
| | R2 | 4,48 | 4,57 | 0,09 | 1,02 |
| | R3 | 4,51 | 4,57 | 0,06 | 1,01 |
| | R4 | 4,53 | 4,58 | 0,05 | 1,01 |
| | R5 | 4,54 | 4,65 | 0,11 | 1,02 |
| Responsive | P1 | 5,00 | 4,68 | -0,32 | 0,94 |
| | P2 | 4,49 | 4,73 | 0,23 | 1,05 |
| | P3 | 4,71 | 4,97 | 0,26 | 1,06 |
| | P4 | 4,75 | 4,98 | 0,23 | 1,05 |
| | P5 | 4,73 | 4,97 | 0,23 | 1,05 |

| Dimension | | Expectation | Reality | Gap | Service Quality |
|-----------|----|-------------|---------|------|-----------------|
| Assurance | A1 | 4,72 | 4,97 | 0,25 | 1,05 |
| | A2 | 4,73 | 4,98 | 0,25 | 1,05 |
| | A3 | 4,71 | 4,97 | 0,27 | 1,06 |
| | A4 | 4,66 | 4,98 | 0,32 | 1,07 |
| Empathy | E1 | 4,75 | 4,98 | 0,23 | 1,05 |
| | E2 | 4,69 | 4,98 | 0,29 | 1,06 |
| | E3 | 4,69 | 4,97 | 0,28 | 1,06 |
| | E4 | 4,74 | 4,97 | 0,23 | 1,05 |
| | E5 | 4,49 | 4,59 | 0,10 | 1,02 |

The reality value is divided by the predicted value to determine whether the service quality supplied is capable of bringing customer satisfaction. If the service quality rating is 1, the service quality is good and capable of delivering client satisfaction. According to Table X, each dimension of Tangible, Reliability, Responsive, Assurance, and Empathy has a Service Quality value that can lead to client satisfaction from the Sales Engineer's services. According to the findings of these calculations, 17 criteria, namely R2, R3, R4, R5, P2, P3, P4, P5, A1, A2, A3, A4, E1, E2, E3, E4, and E5, have been able to bring consumer satisfaction. Despite the fact that the remaining 6 values are less than 1, the results obtained have neared the value 1, indicating that the actuality of the customer's service has approached the customer's desire.

The average of each feature of the estimated service quality outcomes is made in the form of a Cartesian diagram, as shown in Figure 1, below:

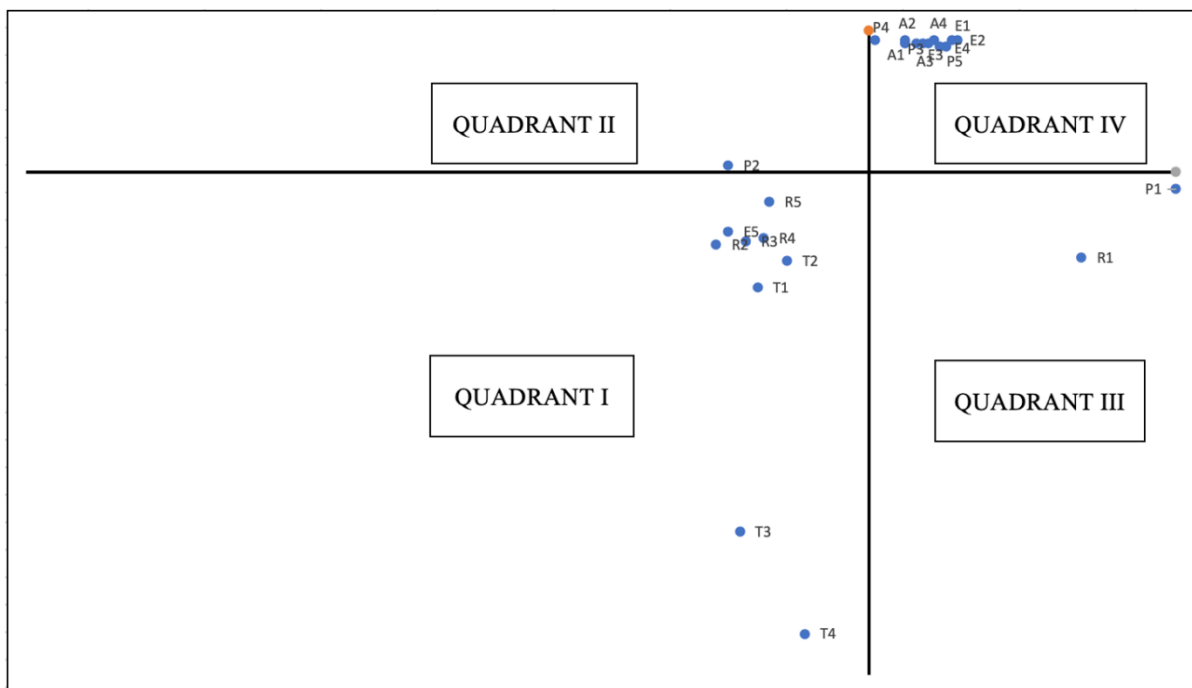


Figure 1. Cartesian Diagram

In the Cartesian diagram, the assessment is divided into 4 quadrants, namely:

Quadrant I: The producer must be careful because the level of desire from consumers is very high and Sales must concentrate on the items that have been given to consumers in this quadrant.

Quadrant II: Between consumers and Sales do not pay too much attention to the assessment of this quadrant so that it can be used as the last priority for Sales efforts to improve their performance.

Quadrant III: Sales have done their best for customers or consumers so, what needs to be done is to maintain attitudes, quality and work processes if consumers give an assessment.

Quadrant IV: Overskill in Sales so that it exceeds the expectations of consumers and is able to bring customer satisfaction. From the Cartesian diagram in Figure 1, it can be seen that each criterion from the Tangible, Reliability, Responsive, Assurance, and Empathy aspects has been divided into four quadrants. For more details, the division into each quadrant is recapitulated in Table 5, below:

Table 5. SERVQUAL Aspect Quadrant Division

| Dimension | Quadrant I | Quadrant II | Quadrant III | Quadrant IV |
|-------------|----------------|-------------|--------------|----------------|
| Tangible | T1, T2, T3, T4 | - | - | - |
| Reliability | R2, R3, R4, R5 | - | R1 | - |
| Responsive | - | P2 | P1 | P3, P4, P5 |
| Assurance | - | - | - | A1, A2, A3, A4 |
| Empathy | E5 | - | - | E1, E2, E3, E4 |

Table 5 shows that Assurance and Empathy are the most important aspects in achieving customer satisfaction. In Assurance, all criteria can enter quadrant IV, and in Empathy, nearly all aspects can enter quadrant IV. There are three criteria that can fall into quadrant IV for the Responsive dimension; however, two more items must be considered because negligence might lead to a drop in customer satisfaction. Furthermore, the Empathy dimensions of Tangible, Reliability, and E5 must be addressed because the value is still falling short of the customer's expectations.

3.3. Factor Analysis

The Assurance and Empathy dimensions were chosen from the SERVQUAL study results in order to see the link between components in order to build customer satisfaction. Several tests were run during factor analysis to evaluate if the variables employed were worthy of further investigation.

3.3.1 Bartlett's Test of Sphericity and KMO

The KMO test was employed in this study to determine whether the variables were worthy of further investigation. The data utilized is legitimate if the KMO and Bartlett's Test values are greater than 0.5. Table 6 below shows the results of the KMO test calculations.

Table 6. KMO and Bartlett's Test Result

| | | |
|---|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | | 0,751 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 184,576 |
| | df | 28 |
| | Sig. | 0,00 |

Based on Table 6, it can be seen that the data that was used was suitable for a more in-depth analysis. The constant data also shows a significance value below 0.01.

3.3.2 The Anti-Image Test

The Anti-Image test can be used to determine the strength of correlations between variables that are utilized as factors. When the MSA value is greater than 0.5, the variable can be used in factor analysis. The Anti-Image test calculation findings are provided in Table 7.

Table 7. The Anti-Image Test Result

| Variable | MSA |
|----------|-------|
| A1 | 0,563 |
| A2 | 0,824 |
| A3 | 0,721 |
| A4 | 0,776 |
| E1 | 0,559 |
| E2 | 0,588 |
| E3 | 0,811 |

| Variable | MSA |
|----------|-------|
| E4 | 0,604 |

Based on Table 7, it can be seen that the data used is feasible for further analysis because the MSA value is more than 0.5.

3.3.3 Communalities

An explanation of Communalities is the degree of variance in an initial variable that can be explained by existing components. The closer the association between the factors produced, the higher the value of Communalities on a variable. Table 8 below shows the results of the Communalities computation.

Table 8. Communalities Result

| Variable | Extraction |
|----------|------------|
| A1 | 0,568 |
| A2 | 0,542 |
| A3 | 0,732 |
| A4 | 0,62 |
| E1 | 0,59 |
| E2 | 0,608 |
| E3 | 0,549 |
| E4 | 0,567 |

Based on Table 8, it can be seen that the A3 variable has a Communalities value of 0.732. This shows that 73.2% of the variance of the A3 variable can be explained by the formed factors and also applies to the Communalities value of the other variables. However, from the results of the Communalities, the A3 variable has the most closely related relationship of the factors formed because the A3 variable has the highest variance value compared to other variables.

3.3.4 Total Variances Explained

The next stage is to establish the factors that can be generated from the variables utilized after they have been determined to be suitable for analysis. Table 9 illustrates the factors derived from the study's eight variables.

Table 9. Total Variances Explained

| Variable | Total | % of Variance | Cumulative (%) |
|----------|-------|---------------|----------------|
| Factor 1 | 2,465 | 30,818 | 30,818 |
| Factor 2 | 1,169 | 14,614 | 45,432 |
| Factor 3 | 1,14 | 14,252 | 59,684 |

Based on Table 9, it can be seen that there are three factors that can be formed with an eigenvalue above 1. If all variables are explained by one factor, then the variance that can be explained by one factor is 30.818%. If all variables are explained by two factors, then the variance that can be explained by factor one is 30.818% and factor two is 14.614%. If all variables are explained by three factors, then the variance that can be explained by factor one is 30.818%, factor two is 14.614%, and factor three is 14.252%. From this, the three factors formed can explain the overall variable of 59.684%. The shape of the scree plot to see the factors that can be formed is shown in Figure 2 below.

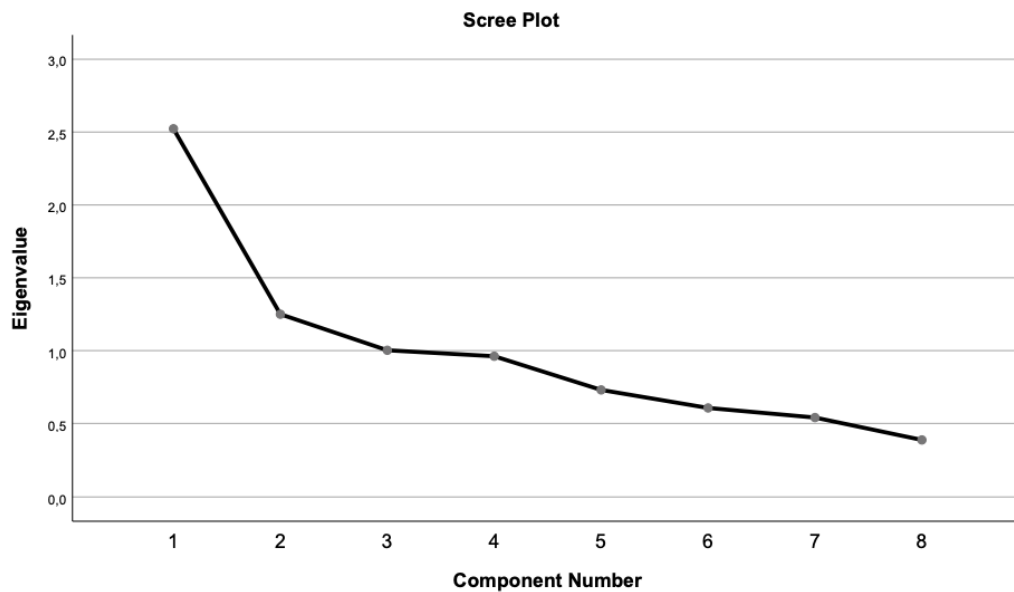


Figure 2. Scree Plot

3.3.5 Component Matrix

When grouping variables, the component matrix is used to group each variable that contributes to each factor. Table 10 below shows the values of the component matrix.

Table 10. Component Matrix

| Variable | Component | | |
|----------|-----------|--------|--------|
| | 1 | 2 | 3 |
| A1 | 0,227 | 0,539 | 0,475 |
| A2 | 0,729 | -0,077 | -0,068 |
| A3 | 0,821 | -0,149 | -0,188 |
| A4 | 0,784 | -0,38 | -0,06 |
| E1 | 0,17 | 0,572 | -0,483 |
| E2 | 0,18 | -0,609 | 0,452 |
| E3 | -0,739 | 0,001 | -0,043 |
| E4 | 0,207 | 0,48 | 0,542 |

Based on the results from Table 10, it can be seen that there are still variables that have a large correlation value for several factors, so rotation of the component matrix results is needed.

3.3.6 Rotated Component Matrix

After each variable's factors have been generated, each variable must be rotated to fit into the factors that have been formed. The VARIMAX method is used to determine the variables that contribute to a factor in order to rotate each component. Table 11 below summarizes the results of the VARIMAX calculations.

Table 11. Rotated Component Matrix

| Variable | Component | | |
|----------|-----------|--------|--------|
| | 1 | 2 | 3 |
| A1 | 0,079 | 0,745 | 0,86 |
| A2 | 0,734 | 0,047 | -0,014 |
| A3 | 0,852 | -0,069 | 0,012 |
| A4 | 0,782 | 0,089 | 0,01 |
| E1 | 0,164 | 0,054 | 0,748 |

| Variable | Component | | |
|----------|-----------|--------|--------|
| | 1 | 2 | 3 |
| E2 | 0,189 | -0,031 | -0,756 |
| E3 | -0,718 | -0,179 | 0,031 |
| E4 | 0,057 | 0,751 | -0,002 |

Variables included in factor 1 are the variables that are easy to submit complaints (A2), the service system is not disrupted (A3), the ease of contacting in case of complaints (A4), and friendly sales in replying to consumers (E2), according to the data from Table 11. Factor 1 is named after the attitude of sales service in responding to customer complaints, which is derived from the elements included in factor 1. The new service variable, which is always transmitted, is one of the variables contained in factor 2 (E4). Factor 2's naming becomes the most recent service in replying to clients based on the variables that go into it. Finally, for the variables contained in factor 3, namely compensation in the event of an error (A1) and after-sales care (A2) and (E1). Factor 3's naming becomes the responsibility and ultimate action of sales in responding to client complaints, out of the variables included in the factor.

4. CONCLUSIONS

According to the findings of the study, three dimensions are capable of bringing PT XYZ customers' satisfaction, namely the Responsive dimension, which includes three of the five criteria, the Assurance dimension, which includes all five criteria, and the Empathy dimension, which includes four of the five criteria. Furthermore, the number of service quality values that are greater than or equal to 1 of the remaining criteria qualifies the Sales Engineer's services as customer satisfaction. To avoid customer unhappiness, the Sales Engineer and the organization can improve each criterion in quadrant I to ensure that all efforts to satisfy customer expectations are met. Two dimensions with quadrant IV criterion in the Cartesian diagram were chosen as representations of customer satisfaction variables in order to learn what aspects influence customer satisfaction. According to the findings of the factor analysis, there are three main factors that influence customer satisfaction: the attitude of sales service in responding to customer complaints, the most recent service in responding to customers; and the responsibility and final action of sales in responding to customer complaints. This demonstrates that customers value the availability of courteous, quick, and responsive customer service, particularly when they have concerns about services or products they have received. Based on the overall analysis, it can be concluded that the majority of the services provided by the Sales Engineer are able to meet the expectations of customers, particularly in terms of the most important factor in the emergence of customer satisfaction, in order to encourage these customers to be loyal to the company. customers, as well as being responsible for the ultimate action taken by sales in response to consumer complaints.

REFERENCES

- [1] T. Agustina, N. Oktiani, and N. E. P. Lestari, "MENINGKATKAN KEPUASAN PELANGGAN PADA PT . UNIBLESS INDO MULTI JAKARTA SELATAN JIMEA | Jurnal Ilmiah MEA (Manajemen , Ekonomi , dan Akuntansi)," *J. Ilm. MEA (Manajemen, Ekon. dan Akuntansi)*, vol. 5, no. 1, pp. 175–184, 2021.
- [2] W. Ismanto, "ANALISIS FAKTOR-FAKTOR YANG MEMPENGARUHI KEPUASAN ANALYSIS OF FACTORS AFFECTING CONSUMER SATISFACTION PENDAHULUAN Komunikasi merupakan suatu hal yang penting yang dianggap dapat membantu dan sangat berpengaruh bagi kehidupan manusia . Sejak ditemukannya a," vol. 9, no. 3, pp. 536–548, 2020.
- [3] J. A. Laksono, A. Faktor, and F. Yang, "Analisis Faktor - Faktor Yang Mempengaruhi Kepuasan Konsumen Serta Pengaruhnya Terhadap Word of Mouth (Wom) Pada Cv Aneka Usaha Di Semarang," *J. Sains Pemasar. Indones.*, vol. 13, no. 2, pp. 160–169, 2014.
- [4] D. N. Rinaldi, F. N. Azizah, and C. G. G. Putra, "Cluster and Conjoint Analysis for Determining Online Shop Shopee Customers Preference Based on E-Service Quality," *BAREKENG J. Ilmu Mat. dan Terap.*, vol. 15, no. 2, pp. 361–372, 2021, doi: 10.30598/barekengvol15iss2pp361-372.
- [5] Hanifan Bisma A, "Pengaruh Kepuasan Pelanggan dan Hambatan Berpindah Terhadap Loyalitas Pelanggan First Media di Sidoarjo," *J. Bisnis Indones.*, vol. 8, no. 2, pp. 119–129, 2017.
- [6] A. Nurrofi, "Analisis Faktor-Faktor yang Mempengaruhi Kepuasan Pelanggan di Indomaret Hayam Wuruk Purwodadi," *J. Ilm. Aset*, vol. 23, no. 2, pp. 97–107, 2021, doi: 10.37470/1.23.2.180.
- [7] Z. Effendi and R. Chandra, "Pengaruh Promosi Dan Kualitas Pelayanan Terhadap Kepuasan Konsumen Melalui Keputusan

- Pembelian Pada Travel Umroh Dan Haji Plus PT . Inyong Travel Barokah,” *J. Ekon.*, pp. 1–25, 2020.
- [8] R. Wulan and D. Rustandi, “Komunikasi Interpersonal Sales dengan Konsumen pada Proshop Speedo Siliwangi,” vol. 6, no. November 2019, pp. 51–65, 2020, doi: 10.38204/komversal.v6i1.505.
- [9] E. P. Utomo, “Identifikasi Faktor-Faktor yang Mempengaruhi Sales performance pada Perusahaan Media Periklanan : Studi Empirik pada Tenaga Penjual di RCTI,” *J. Ekon. Bisnis dan Kewirausahaan*, vol. 8, no. 1, p. 81, 2019, doi: 10.26418/jebik.v8i1.31549.
- [10] M. Angelia, K. Wijayanti, S. Fadil, and N. Nareswari, “Analisis Faktor Kepuasan Pelanggan terhadap Layanan Perusahaan Daerah Air Minum,” *J. Sains Dan Seni Its*, vol. 10, no. 1, 2021.
- [11] Sambodo Rio Sasongko, “Faktor-Faktor Kepuasan Pelanggan Dan Loyalitas Pelanggan (Literature Review Manajemen Pemasaran),” *J. Ilmu Manaj. Terap.*, vol. 3, no. 1, pp. 104–114, 2021, doi: 10.31933/jimt.v3i1.707.
- [12] Taupik Ismail, “Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pelanggan Kantor Indihome Gegerkalong Di Kota Bandung,” *J. Ilm. MEA (Manajemen, Ekon. dan Akuntansi)*, vol. 5, no. 1, pp. 1124–1135, 2021.
- [13] A. Susilo, “Identifying Factors that Affect Consumer Satisfaction of Parklatz Café in Ponorogo City, East Java, Indonesia: An Application of Exploratory Factor Analysis,” *Falah J. Ekon. Syariah*, vol. 5, no. 1, pp. 1–14, 2020, doi: 10.22219/jes.v5i1.11399.
- [14] M. D. Hanggraningrum, T. Hariyanti, and A. Rudijanto, “the Effect of Service Quality on Outpatient Satisfaction of Dr. Soegiri General Hospital Lamongan,” *J. Apl. Manaj.*, vol. 15, no. 4, pp. 643–650, 2017, doi: 10.21776/ub.jam2017.015.04.11.
- [15] I. Imron, “Analisa Pengaruh Kualitas Produk Terhadap Kepuasan Konsumen Menggunakan Metode Kuantitatif Pada CV. Meubele Berkah Tangerang,” *Indones. J. Softw. Eng.*, vol. 5, no. 1, pp. 19–28, 2019, doi: 10.31294/ijse.v5i1.5861.
- [16] V. O. Ajayi, “Primary Sources of Data and Secondary Sources of Data,” no. September, pp. 1–6, 2017, doi: 10.13140/RG.2.2.24292.68481.
- [17] M. M. Ulkhaq and M. P. Br. Barus, “Analisis Kepuasan Pelanggan dengan Menggunakan SERVQUAL: Studi Kasus Layanan IndiHome PT. Telekomunikasi Indonesia, Tbk, Regional 1 Sumatera,” *J. Sist. dan Manaj. Ind.*, vol. 1, no. 2, p. 61, 2017, doi: 10.30656/jsmi.v1i2.365.
- [18] F. Halimatuzzahro, F. N. Himma, R. Sania, and A. Buamona, “KEPATUHAN MASYARAKAT TERHADAP PROTOKOL KESEHATAN COVID-19 Analysis of Factors Affecting the Level of Community Obedience of COVID- 19 Health Protocols,” vol. 15, no. 4, pp. 629–638, 2021.
- [19] A. M. Monica, S. Sukanta, and W. Winarno, “Analisis Faktor-Faktor Yang Memengaruhi Keputusan Penggunaan Jasa KRL Commuter Line Bekasi Selama Pandemi COVID-19,” *J. Tek. Ind.*, vol. 11, no. 1, pp. 17–22, 2021.

