ABSTRACT

This study aims to determine the effect of product and service quality on customer satisfaction at Andaf Corp Digital Printing in Bekasi. The research methodology used is the Associative method. The population in this study were all consumers who purchased at Andaf Corp Digital Printing in 2021. As many as 1,990 people using the Slovin Formula, a sample of 95 respondents was obtained. Methods of data analysis using simple linear regression test the results showed that There is an effect of product quality on consumer satisfaction at Andaf Corp Digital Printing in Bekasi. There is an effect of service quality on customer satisfaction at Andaf Corp Digital Printing in Bekasi. There is an effect of product quality and service quality on customer satisfaction at Andaf Corp Digital Printing in Bekasi. The correlation value is 0.892. The value of the coefficient of determination is 79.6%.

Keywords: Product Quality, Service Quality, Consumer Satisfaction.

1. INTRODUCTION

Consumer satisfaction is an aspect that is no less important for a company's progress. In general, satisfaction is a person's happiness or disappointment that arises from comparing the product's perceived performance to their expectations. If performance fails to meet expectations, consumers will be dissatisfied, and if performance meets expectations, then consumers will be satisfied. Companies will act wisely by measuring customer satisfaction regularly because one of the keys to retaining customers is customer satisfaction (Kotler & Keller, 2017).

Andaf Digital Printing is a digital printing press located in the city of Bekasi and has more than 10 years of experience in the world of digital printing. Andaf Digital Printing provides various services, including Digital Printing of t-shirts, custom e-money, brochures, flyers, roll banners, photos, stickers, ID cards, and many more. Understanding consumer behavior and attitudes dramatically influences the production level of printed goods in this company.

Field data shows that there has been a decrease in the number of consumers making purchase transactions with Andaf Corp Digital Printing during the 2019-2021 period. In 2019, the number of consumers who made purchase transactions was 3,129, and then in 2020, it decreased to 2022. In 2021, the number of consumers who made purchase transactions again decreased to 1,990. This decrease is likely due to low consumer satisfaction with Andaf Corp Digital Printing. Low customer satisfaction causes losses, which ultimately result in losing customers. Maintaining customer satisfaction is an important thing that must be maintained so that they remain loyal to using the company's products, goods, or services.

Product quality is a determining factor in the level of satisfaction obtained by consumers after purchasing and using a product. According to Kotler and Armstrong (2017), product quality is the ability of a product to carry out its function, including durability, reliability, accuracy, ease of operation, repair, and other valuable attributes. A good or bad experience with a product will influence consumers whether to make a repeat purchase or not. Cost and convenience: Consumers will be more satisfied if it is relatively easy, comfortable, and efficient to obtain products or services.

From field data, the number of complaints regarding product quality at Andaf Corp Digital Printing during the 2019 – 2021 period always increases every year. In 2019, the number of complaints regarding product quality at Andaf Corp Digital Printing was 322; in 2020, the number of complaints regarding
product quality at Andaf Corp Digital Printing increased again to 424 complaints. Thus, Andaf Corp Digital Printing must, of course, be able to improve product quality and consumer satisfaction by maximizing pleasant experiences for them and minimizing or eliminating unpleasant experiences for consumers.

Tjiptono (2017) stated that service quality measures how well the level of service meets consumer expectations. Maximum service quality is the right strategy to realize consumers' desires and expectations. A company must have a good strategy in marketing its products to ensure that its consumer presence can be maintained, and it is hoped that the number can be further increased. If consumers are satisfied, they will make repeated purchases of the services or products offered by the company. Andaf Corp Digital Printing always tries to improve the quality of service to its consumers so that they feel satisfied with the services provided, but there are still complaints from consumers (Prahiawan et al., 2021; Sutia et al., 2020).

The data found that consumer complaints regarding the quality of service provided did not meet consumer expectations (Ivana et al., 2021; Juwaini et al., 2022); this can be seen from the increase in the number of consumer complaints over three years. This data shows that in 2019, the number of consumer complaints was 289 people. In 2020, the number of consumer complaints rose to 316 people; in 2021, the number of consumer complaints increased again to 410 people. With consumers complaining, it can be interpreted that consumer satisfaction at Andaf Corp Digital Printing in Bekasi is in a condition where their expectations are not met. Good service quality will encourage consumers to establish good relationships with the company (Fahlevi & Alharbi, 2021). This way, companies can increase consumer satisfaction by minimizing unpleasant consumer experiences.

Complaints regarding product quality and service quality need to be evaluated because the complaint data shows consumer dissatisfaction with the company regarding product quality and service quality. Hence, companies must set strategies to minimize consumer complaints and prioritize the best performance to increase consumer satisfaction.

2. LITERATURE REVIEW

a. Product Quality
According to Kotler and Armstrong (2017), product quality is a product or service's characteristics corresponding to its ability to meet stated or implied customer needs. Product quality is one of the central positioning tools of a marketer. According to Tjiptono (2017), product quality is the expected level of quality and controlling diversity in achieving this quality to meet consumer needs. According to Arianto (2018), Product quality is an overall evaluation process for consumers to improve the performance of a product. According to Alma (2016), product quality is the overall combination of characteristics of goods and services from marketing, engineering, manufacturing, and maintenance that make the products and services used to meet customer expectations. Meanwhile, according to Utami and Saputra (2017), Product quality is one of the supporting factors that make a product chosen by the public for purchase and consumption. The quality of the product offered will determine how interested the public is in the product. According to Tjiptono (2017), product quality has eight indicators as follows:

1. Performance(performance)
   - It relates to the functional aspects of an item and is main characteristic that is the basis for customer considerations when purchasing the item.

2. Features(additional features or characteristics)
   - Complementary or secondary characteristics that can be used and are useful for adding basic functions related to product choices and development.

3. Reliability(reliability)
   - Relates to the probability or possibility that the item can successfully carry out its function whenever it is used under certain conditions and over a particular time.

4. Conference to Specifications(conformity to specifications)
   - Relates to the level of conformity to previously determined specifications based on customer wishes. Conformity here reflects the degree of accuracy between the product design characteristics and the standard quality characteristics that have been determined.

5. Durability(Durability)
   - This relates to the period a product can be used without causing problems during use.

6. Serviceability(service capability)
   - Includes speed, competence, comfort, ease of repair, and satisfactory handling of complaints.

7. Aesthetics(Aesthetics)
   - The physical appearance of the goods or shop, the attractiveness of the service presentation, and the pleasant atmosphere in which the service or product is received. This indicator includes technical age and economic age.

8. Perceived Quality(perceived quality)
   - Perceived quality is the consumer's perception of a product's overall quality or superiority. Usually, due to the buyer's lack of knowledge about the attributes or characteristics of the product to be purchased, the buyer perceives its quality as from the aspects of price, brand name, advertising, company reputation, and country of manufacture.

b. Service Quality
Tjiptono (2017) states that service quality is the expected level of excellence and control over this level of excellence to fulfill consumer desires. According to Abdullah and Tantri (2019), service quality is a good or service's overall characteristics and characteristics that influence its ability to satisfy stated or implied needs. According to Utami (2017), service quality can be explained as a multi-dimensional conception built through the evaluation of the construction of some attributes related to services. Manap (2016) suggests that service quality is defined as a consumer's assessment of the superiority or privilege of a product or service as a whole.

According to Kotler and Keller (2017), service quality is the totality of features and characteristics of a product or service that can satisfy stated or implied needs. Meanwhile, according to Lupiyoadi (2016), service quality is a form of performance of a product or service to meet needs or even exceed consumer expectations, not once but repeatedly so that it can provide satisfaction, then the consumer gives the perception that the product or The services used are of quality.
Tjiptono and Chandra (2017) state that there are five service quality indicators, as follows.

1. Physical Evidence (Tangibles)
   Physical evidence of the services provided is the appearance and facilities owned by the company, such as company building facilities, room layout, and employee appearance.

2. Reliability
   The company's ability to provide services accurately and reliably as promised. Such as accuracy in serving consumers, avoiding errors in service, and the company's ability to keep promises following the services that have been mutually promised.

3. Responsiveness (Responsiveness)
   The service provided is fast and responsive to consumers and helps consumer problems, for example, conveying clear information to consumers and not leaving them waiting without giving an apparent reason.

4. Guarantee (Assurance)
   The company's ability to have knowledge, courtesy, and guarantees such as security can provide a high sense of self-confidence and no doubt consumers to evaluate the company.

5. Concern (Empathy)
   The company's ability to provide sincere individual or individual attention to consumers in the hope of knowing all the consumers’ wants and needs attracts consumers' interest in using the services provided and listening to specific complaints or wishes regarding the services provided.

c. Consumer Satisfaction

Priansah (2017) states that consumer satisfaction is a person’s feeling of happiness or disappointment that arises after comparing the predicted product performance (results) with the expected performance. If performance is below expectations, consumers are dissatisfied. If performance meets expectations, consumers are satisfied. If performance exceeds expectations, consumers are very satisfied/happy. Tjiptono (2017) defines consumer satisfaction as a conscious evaluation or cognitive assessment regarding whether the product's performance is relatively good or bad or whether it is suitable for its purpose or use.

According to Sunyoto (2016), consumer satisfaction is one of the reasons consumers decide to shop at a place. If consumers are satisfied with a product, they tend to continue to buy and use it and tell others about their pleasant experiences. According to Sopiah and Sangadji (2016), consumer satisfaction is when consumer expectations for a product match the reality consumers receive. If the product is far below expectations, consumers will be disappointed. Conversely, if the product meets expectations, consumers will be satisfied. According to Tjiptono (2017), indicators that form consumer satisfaction consist of:

1. Conformity to Expectations
   It is the level of conformity between the service performance expected by consumers and that perceived by consumers.

2. Interested in visiting again
   This is the willingness of consumers to visit again or reuse related services.

3. Willingness to recommend
   This is the willingness of consumers to recommend services they have experienced to friends and family.

### 3. RESEARCH METHODS

This type of research is quantitative research. Quantitative research is used because the data that is the object of this research is quantitative in the form of numbers produced from a Likert scale (Sugiyono, 2017). The population in this study is all consumers who purchase from Andaf Corp Digital Printing; in 2021, there will be 1,990 people. The sampling technique used in this research is proportional random sampling. According to Sugiyono (2017), Proportional Random Sampling is a method of taking samples from members of the population using a random method without paying attention to the strata in the population. It is said to be random because each subject in the population has the same opportunity to be selected as a sample. Determining the minimum number of samples can be calculated using the Slovin formula.

### 4. RESULTS AND DISCUSSION

Validity and Reliability Test

Validity test to test whether the statement in each question item on the questionnaire is valid or not. To process the validity test, the researcher used SPSS Version 26 with the criteria, if the calculated \( r \) value > \( r \) table, then the instrument is valid.

<table>
<thead>
<tr>
<th>Statement</th>
<th>rcount</th>
<th>rtable</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>0.690</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P2</td>
<td>0.738</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P3</td>
<td>0.683</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P4</td>
<td>0.729</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P5</td>
<td>0.780</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P6</td>
<td>0.772</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P7</td>
<td>0.776</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P8</td>
<td>0.722</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P9</td>
<td>0.591</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P10</td>
<td>0.708</td>
<td>0.201</td>
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<td>P11</td>
<td>0.690</td>
<td>0.201</td>
<td>Valid</td>
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<tr>
<td>P12</td>
<td>0.705</td>
<td>0.201</td>
<td>Valid</td>
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<td>P13</td>
<td>0.761</td>
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<tr>
<td>P14</td>
<td>0.755</td>
<td>0.201</td>
<td>Valid</td>
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<tr>
<td>P15</td>
<td>0.729</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P16</td>
<td>0.650</td>
<td>0.201</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023

<table>
<thead>
<tr>
<th>Statement</th>
<th>rcount</th>
<th>rtable</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>0.589</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P2</td>
<td>0.891</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P3</td>
<td>0.886</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P4</td>
<td>0.896</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P5</td>
<td>0.924</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P6</td>
<td>0.786</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P7</td>
<td>0.885</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P8</td>
<td>0.821</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P9</td>
<td>0.868</td>
<td>0.201</td>
<td>Valid</td>
</tr>
<tr>
<td>P10</td>
<td>0.879</td>
<td>0.201</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2023
Based on the chart information above, all variables obtained $r_{count} > r_{table}$ (0.201), so that all questionnaire items were claimed to be valid. For this reason, the questionnaire used is suitable for processing as research data.

Table 4. Reliability Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach Alpha</th>
<th>Stdanar</th>
<th>Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Quality (X1)</td>
<td>0.937</td>
<td>0.600</td>
<td>Reliable</td>
</tr>
<tr>
<td>Service Quality (X2)</td>
<td>0.955</td>
<td>0.600</td>
<td>Reliable</td>
</tr>
<tr>
<td>Consumer Satisfaction (Y)</td>
<td>0.987</td>
<td>0.600</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Table 5. One-Sample Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th>N</th>
<th>95</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.000000</td>
</tr>
</tbody>
</table>

Based on Table 6, it can be seen that the tolerance value for the product quality and service quality variables is 0.383 > 0.10 and the VIF value for the product quality and service quality variables is 2.612 < 10, so it can be concluded that the product quality and service quality variables do not have symptoms of multicollinearity.

Table 7. Model Summary

Based on Table 7, autocorrelation testing using the Durbin Watson test can be seen that the Durbin Watson value of 1.971 is in the interval 1.55 – 2.46 so it can be concluded that the data in this research variable does not contain autocorrelation.

Based on the results, the points on the scatter plot graph do not have a clear distribution pattern or do not form specific patterns, and the points are spread above and below the number 0 on the Y axis. Thus, this shows that there is no heteroscedasticity disturbance in the regression model so that this regression model is suitable for use.

Table 8. Result of Multiple Linear Regression Test

Based on the results, it can be seen that the value of Asymp. Sig. (2-tailed) of 0.200 > 0.05, it can be stated that the data from the population is normally distributed and can be carried out to the next stage of analysis.
Based on the results of these calculations, the Multiple Linear Regression equation is obtained as follows:

\[ Y = -7.848 + 0.289X1 + 0.677X2 \]

1. The constant of -7.848 means that if the product quality variable and service quality variable, zero or not increase then consumer satisfaction will remain worth -7.848.

2. A regression value of 0.289X1 (positive) coefficient of positive value means that there is a positive effect between product quality and consumer satisfaction thus if the product quality variable (X1) increases by 1 unit assuming a service quality variable (X2) in a fixed state, then consumer satisfaction (Y) will increase by 0.289 units.

3. A regression value of 0.677X2 (positive) coefficient of positive value means that there is a positive effect between service quality and consumer satisfaction thus if the service quality variable (X2) increases by 1 unit, assuming the product quality variable (X1) remains, consumer satisfaction (Y) will increase by 0.677 units.

**Table 9. Simultaneous Hypothesis Results (F Test)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>12532,158</td>
<td>2</td>
<td>6266,079</td>
<td>179,280</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>3215,526</td>
<td>92</td>
<td>34,951</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15747,684</td>
<td>94</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Consumer Satisfaction
b. Predictors: (Constant), Service Quality, Product Quality

Based on Table 9, the Fcount value is 179.280 > Ftable 3.94 with a significance level of 0.000 < 0.05, thus Ho is rejected and Ha is accepted, meaning that there is a simultaneous influence of product quality and service quality on consumer satisfaction at Andaf Corp Digital Printing in Bekasi.

**Table 10. Results of Simultaneous Correlation Coefficient Analysis**

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>.892a</td>
<td>.796</td>
<td>.791</td>
<td>5.912</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Service Quality, Product Quality

Based on Table 10, it can be seen that the variable correlation value product quality (X1) and service quality (X2) are 0.892, entering the interval 0.80 – 1.00, meaning that the level of relationship between the product quality variables (X1) and service quality (X2) simultaneously affects the consumer satisfaction variable (Y) have an extreme level of relationship.

Based on Table 10, it can be seen that the value of the R Square coefficient of determination is 0.796, which means that the product quality and service quality variables simultaneously contribute to the consumer satisfaction variable of 79.6%. The remaining 20.4% is caused by other variables not examined in this study.

**Discussion**

Based on the statistical test results, product quality influences consumer satisfaction at Andaf Corp Digital Printing in Bekasi. The results of this research are supported by previous research conducted by Bassi and Ratnasari (2019), stating that there is a positive influence between product quality and consumer satisfaction. Research conducted by Irfanudin (2019) stated that there is a positive influence between product quality and consumer satisfaction. Also, in Noviyanti's (2018) research, it is stated that there is a positive influence between product quality and consumer satisfaction.

**Conclusion**

Based on the research results of Corp Digital Printing in Bekasi, the following conclusions can be drawn:

1. There is an influence of product quality on consumer satisfaction at Andaf Corp Digital Printing in Bekasi
2. There is an influence of service quality on consumer satisfaction at Andaf Corp Digital Printing in Bekasi
3. There is an influence of product quality and service quality on consumer satisfaction at Andaf Corp Digital Printing in Bekasi.

**Suggestion**

Based on the research results obtained, the suggestions that the author wants to convey are:

1. Based on the questionnaire results, product quality variables were obtained. The lowest statement is “Andaf Corp Digital Printing provides prices according to the quality of the products offered,” where the lowest score was 3.49. So, the author suggests that companies must review price determination following the quality of the products offered to consumers. In providing prices, companies must adjust to market conditions and competition in the market. Companies also need to pay more attention to the prices of similar products prevailing on the market so that companies can react more quickly to the prices of each product and better monitor the prices of competitors from similar companies.
2. The service quality variable was obtained based on the questionnaire results. The lowest statement is "The service provided is fast and accurate," where the lowest score was 3.43. So, the author suggests that companies further improve the speed and accuracy of employees in providing services to consumers. This can be done by providing regular training to employees.

3. Based on the results of the questionnaire on the consumer satisfaction variable, the lowest statement was obtained, namely, "I will persuade my friend to become a customer at Andaf Corp Digital Printing," where the lowest score was 3.35. Thus, Andaf Corp Digital Printing must further improve the quality of the products produced, provide quality service to consumers, be punctual in carrying out consumer orders, and provide guarantees if the products produced do not meet consumer expectations. This needs to be done so that consumers feel satisfied. Furthermore, it will impact the desire to recommend Andaf Corp Digital Printing to other people.

REFERENCES


