Determinants of Consumers’ E-satisfaction in E-commerce Website: Role of E-service Quality Dimensions

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Abstract:
The rapid development of e-commerce over the past few years has attracted the attention of many parties, especially marketing experts. As a business entity oriented to customer satisfaction, there are still inconsistencies and various kinds of problems revealed in some previous studies so that further testing is needed. This study aims to analyze the effect of e-service quality on e-satisfaction by measuring consumer perceptions online. This research uses a quantitative approach, and the process of collecting primary data is done by distributing questionnaires online to e-commerce customers who have conducted transactions at least two times. The number of samples that met the criteria of 146 respondents based on purposive sampling technique. Data analysis techniques using simple linear regression. The results showed that e-service quality had a positive and significant effect on customer e-satisfaction. This finding provides practical and theoretical contributions to policymakers.

Keywords: E-service quality, E-satisfaction, E-commerce, Marketing Management, Management

1. Introduction

The growth of the internet led to a variety of online-based companies (virtual). The impact depicted in the map of the increasingly competitive e-commerce business (Turban et al., 2015). Each company is required to raise the level of performance of their services in building and determining online business strategies (Li & Suomi, 2009; Ashoer et al., 2019). To achieve it, they began competing to provide various lucrative promotional offers, for example, giving promos or free shipping, discounts, and so on (Mashur et al., 2019). Until now, this classic method is quite useful to be used to capture potential consumers on the internet.

Satisfying consumer needs is the desire of every company, in addition to being a determinant of corporate survival, satisfying consumer needs can also increase competitive advantage in the online market (Fang et al., 2014). Consumers who are satisfied with services tend to repurchase products and reuse services when the same needs reappear later (Al-Dmour et al., 2017). That is why consumer satisfaction in the online market plays a vital role in achieving the goals of e-commerce companies. In other words, e-satisfaction is a crucial factor for consumers in making repeat purchases which is nothing but giving the largest presentation of the company’s total sales volume (Anderson & Srinivasan, 2003). Apart from the success of e-commerce, focusing on promotion strategies alone is certainly not enough to create frustration and maintain online consumer loyalty (Giovanis & Athanasopoulou, 2014). When consumer interest is accustomed to shopping only because of the attractive promos offered by the company, once the promo period ends, then they tend to switch to other companies that provide them with lucrative promos. When customers perceive service quality inferiorly, it is likely to trigger certain behaviours that tend to be negative, such as severing relationships with the company, reducing or stopping shopping with the company, and submitting complaints (Mohamed et al., 2014). This kind of behavioral intentions will give a sign of whether the customer will remain loyal or switch (Ashoer et al., 2019).

This issue concern that should not be ignored, bearing in mind that the company will lose or even never have a loyal customer to the company. However, the type of company that exists on the internet; the quality of electronic services inevitably is one of the determinants that can affect customer satisfaction. Several prior studies have analyzed the effect of service quality on satisfaction such as Grace & Chia-Chi (2009), Yasa & Savitri (2012), and Vo et al. (2019) have resulted that e-service quality had a significant effect on satisfaction. Hence, service quality and satisfaction became one of the essential factors in business for retaining consumers. This study aims to analyze how the influence of e-service quality on e-satisfaction of e-commerce customers is Tokopedia.com. The results of this study are expected to have managerial implications for e-commerce practitioners in Indonesia.
2. Theoretical Review

2.1. E-Commerce

Turban et al. (2015) define e-commerce as the use of the internet and intranet to buy, sell, transport, or trade data, goods, or services. A popular perception of e-commerce is how to use the internet and computers with web browsers to buy and sell products (Turban et al., 2018). E-commerce can be pure or partial, depending on the nature of its three main activities: ordering and payment, order fulfilment, and delivery to customers (Laudon & Traver, 2014).

2.2. E-Service Quality

E-service quality explains as the extent to which a website facilitates efficient and effective shopping, purchasing and shipping activities (Parasuraman et al., 2005; Zeithaml, 2002). Parasuraman et al. (2005) then classified the seven dimensions of E-ServQual into four core dimensions used by customers to assess websites where they did not experience questions or problems are (1) Efficiency, ease and speed of accessing and using the site. (2) Fulfilment, the extent to which site promises regarding order availability and item availability are fulfilled. (3) System availability, the correctness of the technical functions of the site. (4) Privacy, the extent to which the site is safe and protects user information. And the three dimensions that customers use to assess recovery services when they have a problem or question are (1) Responsiveness, effective problem handling and returns through the site. (2) Compensation, the extent to which the site compensates customers for problems. (3) Contact, the availability of assistance by telephone or online representative.

2.3. E-satisfaction

E-satisfaction describes how the quality of e-service quality is acceptable and provides benefits to users of online company sites (Ribbink et al., 2004; Zeithaml et al., 2002). The quality of electronic services/e-service quality is defined as 'the extent to which the website facilitates shopping, purchasing and shipping of products and services effectively and efficiently' (Giovannis & Athanasopoulou, 2014; Parasuraman et al., 2005a). According to Anderson & Srinivasan (2003), e-satisfaction is the gratification from customers that comes from previous real buying experiences with individual electronic trading companies.

![Figure 1: Conceptual Framework Model of Analysis](source)

Based on the explanation above, the hypothesis proposed in this study as follows:

- H1: There is an influence of efficiency on consumers e-satisfaction.
- H2: There is an influence of fulfilment on consumers e-satisfaction.
- H3: There is an influence of service availability on consumers e-satisfaction.
- H4: There is an influence of privacy on consumers e-satisfaction.
- H5: There is an influence of responsiveness on consumers e-satisfaction.
- H6: There is an influence of compensation on consumers e-satisfaction.
- H7: There is an influence of contact on consumers e-satisfaction.

3. Research Method

This study is categorized into descriptive and causal research with a quantitative approach. Quantitative research methods are methods based on the philosophy of positivism, used to test hypotheses that have been established (Sekaran & Bougie, 2017). Population determination refers to the interests or interests of investigators (Zikmund, 2013). The population in this study are all Tokopedia customers. This company was chosen because it has a reputation and a trusted track record in providing e-retail services and has been rewarded with many awards by credible e-commerce institutions.

Determination of the sample using a purposive sampling technique. In other words, only samples that have certain elements and criteria will be determined as respondents. The sample criteria established are consumers who have transacted at least twice via the website of Tokopedia. This consideration was taken because respondents were considered to be more experienced, making it easier to obtain more valid research results. Determination of the number of samples referred to (Zikmund, 2013), which states that the ideal number ranges from 100-200 respondents. Data collection techniques are carried out using an electronic questionnaire designed utilising the help of the Google Drive application (www.google.com/drive). The survey was disseminated to netizens online via e-mail and social media. Polls that have been provided online are distributed through social media so that respondents click on the link and then can immediately fill out...
the questionnaire. Based on the screening results, 142 online questionnaires were selected that met the sample criteria. To test the relationship of influence between the independent variables (X) and the dependent (Y), multiple linear regression analysis was used with the help of SPSS 24.00 software.

4. Result and Discussion

4.1. Respondents

| Characteristics | F     | %   |
|-----------------|-------|-----|
| **Gender**      |       |     |
| Male            | 54    | 36% |
| Female          | 92    | 63% |
| **Age**         |       |     |
| ≤ 20 years old  | 43    | 29.4% |
| 21-30 years old | 76    | 52.1% |
| 31-40 years old | 27    | 18.5% |
| **Education Level** |     |     |
| Junior-High School Student | 12 | 8.00% |
| College Students | 69   | 47.2% |
| Post-graduate Students | 65 | 44.5% |
| **Frequent of Online Shopping via Tokopedia** | | |
| Twice | 37 | 25.3% |
| More than two times | 109 | 74.7% |

Table 1: Demographic of Respondents (N=146)

Table 1 shows the characteristics of Tokopedia customers, where the number of female respondents (63%) dominates the percentage compared to men (37%). This number was reasonable, considering that Tokopedia is an e-commerce that offers quite a lot of women's fashion products to stimulate customers' buying intentions. Furthermore, it can be conveyed that the highest number of respondents is in the age range of 21-30 years (52.1%). The age range is a productive period for customers because they have a variety of activities that require e-commerce services such as Tokopedia that offer a quick and easy transaction process. The next characteristic is the level of education, where respondents are level 1 and 2 students who have experience in technology. They considered having been able to determine their own online purchasing decisions. The last category illustrates that respondents with a shopping frequency of more than three times have a dominant presentation, as respondents rated Tokopedia as has satisfied their online needs and wants.

4.2. Validity and Reliability Test

Instrument testing was conducted on 142 study samples. Validity test refers to the Bivariate Pearson (Pearson Product Moment Correlation) criteria with a significance level of < 0.05 (5%). The instrument is claimed to be valid if r-stats > r-table (Sekaran & Bougie, 2016). While, the reliability test relate to the Cronbach Alpha coefficient with reliable criteria if the Cronbach Alpha value > 0.6 (Sekaran & Bougie, 2016). The instrument test results for each variable statement item presented in Tables below:

| Variables       | Items                                                                 | r-stats | Test       |
|-----------------|-----------------------------------------------------------------------|---------|------------|
| Efficiency (X1) | X11: The Tokopedia site ease me to find what I need (e.g. types and prices of products, payment methods, etc.). | 0.741   | Valid      |
|                 | X12: The Tokopedia site loads pages quickly.                           | 0.702   |            |
| Fulfillment (X2)| X21: The Tokopedia site is honest with every offer given (for example; promos or discounts offered according to the time of payment). | 0.739   | Valid      |
|                 | X22: The Tokopedia site always keeps promises (for example; it guarantees that my shopping activities are always safe, comfortable, and so on). | 0.725   | Valid      |
| System Availability (X3) | X31: The Tokopedia website system runs customer requests accurately. | 0.740   | Valid      |
|                 | X32: The Tokopedia website system rarely experiences errors.            | 0.684   | Valid      |
| Privacy (X4)    | X41: The Tokopedia site protects information about my shopping activities. | 0.735   | Valid      |
|                 | X42: The Tokopedia site maintains my transaction information (credit / debit card, e-banking, and so on). | 0.624   | Valid      |
| Responsiveness (X5) | X51: The Tokopedia site handled my purchase problem / complaint simply. | 0.652   | Valid      |
|                 | X52: The Tokopedia site processes my purchase problem / complaint inmediately. | 0.677   | Valid      |
| Compensation (X6)| X61: The Tokopedia site offers a refund / return / exchange of goods if the goods do not match, want to be replaced, and so on. | 0.744   | Valid      |
| Contact (X7)    | X71: The Tokopedia Website provides contacts (telephone, email, etc.) to solve my shopping problems / complaints. | 0.782   | Valid      |
|                 | X72: The Tokopedia website provides online customer service that is always ready. | 0.791   | Valid      |

Table 2: Validity of E-Service Quality Items

*Significant Level At 0.05 (2-Tailed), *R-Table (Cut-Off)= >0.311; Df:147-8=135
The significance test used to determine the level of significance or linearity of the regression. Criteria can be determined based on the significance value test (Sig), with provisions if the Sig value < 0.05. Summary of test as presented below:

### Variables | Items | r-stats | Test |
|---|---|---|---|
| **E-Satisfaction** (Y) | Y1.1 I am satisfied with using my time to shop on the Tokopedia site. | 0.727 | Valid |
| | Y2.1 I am satisfied with the number of offers (promotions) on the Tokopedia site. | 0.628 | Valid |
| | Y3.1 I am satisfied with the navigation / direction guide in finding the search menu, login, etc. on the Tokopedia site. | 0.634 | Valid |
| | Y4.1 I am satisfied that Tokopedia protects my privacy well (for example; shopping activities, etc.). | 0.780 | Valid |
| | Y5.1 I am satisfied with the complaint service on the Tokopedia site | 0.803 | Valid |

**Table 3: Validity of e-satisfaction items**
*Significant level at 0.05 (2-tailed), *r*-table (cut-off) = >0.311; df:146-8=138

| Variabel | Cronbach Alpha | Cut-off | Test |
|---|---|---|---|
| Efficiency (X1) | 0.877 | 0.6 | Reliable |
| Fulfillment (X2) | 0.882 | 0.6 | Reliable |
| System Availability (X3) | 0.805 | 0.6 | Reliable |
| Privacy (X4) | 0.829 | 0.6 | Reliable |
| Responsiveness (X5) | 0.899 | 0.6 | Reliable |
| Compensation (X6) | 0.826 | 0.6 | Reliable |
| Contact (X7) | 0.798 | 0.6 | Reliable |

**Table 4: Reliability Test**

Based on the presented above, it can be shown that all statement items for measurement variables have values above r-table (0.308), or the question items correlate significantly to the total score. Thus, all measurement instruments can be declared valid because they meet the criteria of r-count value (Corrected Item-Total Correlation) > r-table. Furthermore, the results of the statement item reliability testing showed that the Cronbach Alpha value > 0.6 or met the criteria. Thus, all variables in this study can be declared reliable.

### 4.3 Multiple Regression Analysis

The significance test used to determine the level of significance or linearity of the regression. Criteria can be determined based on the significance value test (Sig), with provisions if the Sig value < 0.05. Summary of test as presented below:

| Independent Variable | Coefficient | T-Statistic | P-Value | Decision |
|---|---|---|---|---|
| Efficiency (X1) | .373 | 4.921 | .000 | Supported |
| Fulfillment (X2) | .131 | 2.644 | .007 | Supported |
| System Availability (X3) | .148 | 2.130 | .016 | Supported |
| Privacy (X4) | .355 | 4.325 | .000 | Supported |
| Responsiveness (X5) | .408 | 7.091 | .000 | Supported |
| Compensation (X6) | .312 | 3.188 | .002 | Supported |
| Contact (X7) | .146 | 2.201 | .020 | Supported |

**Dependent Variable = E-Satisfaction**

| Beta (β) | Adjusted R Square (R²) | T-Hitung (ANOVA) | T-Table | P-Value (Sig) |
|---|---|---|---|---|
| 5.895 | 0.541 | 17.982 | 1.96 (df = 146-8=136) | < 0.05 |

**Table 5: Summary of Hypothesis Test**

Based on the results of table 5, the coefficient of determination (R²) is 0.541 or 54.1%, which means that the dimensions of e-service quality (Efficiency (X1), Fulfillment (X2), System Availability (X3), Privacy (X4), Responsiveness (X5), Compensation (X6), Contact (X7)) affect the consumers e-satisfaction (Y) 54.1%, while the remaining 45.9% is influenced by other factors not examined in this study.

Hypothesis testing refers to two criteria, namely the significant value and t-stats. Based on the summary table of the results of the regression analysis, all the research variables obtained significance values that were smaller than 0.05 (<0.05), and the t-test value was higher than the t-table value (> 1.96). Hence, it can be concluded that Efficiency (X1), Fulfillment (X2), System Availability (X3), Privacy (X4), Responsiveness (X5), Compensation (X6), Contact (X7) simultaneously and partially have a positive and significant impact on consumers e-satisfaction (Y) on the Tokopedia e-commerce site.
4.4. Discussion

Hypothesis testing results show that the variables Efficiency (X1), Fulfillment (X2), System Availability (X3), Privacy (X4), Responsiveness (X5), Compensation (X6), Contact (X7) have positive and significant effects on customer e-satisfaction. The outcome indicates that excellent or lousy e-service quality will have a significant influence on customer e-satisfaction. The findings of this study are in line with several previous studies particularly (Al-Dmour et al., 2017; Mashur et al., 2019; Parasuraman, Zeithaml, & Malhotra, 2005b; Vo et al., 2019; Zeithaml et al., 2002) which stated that e-service quality affects e-satisfaction positively and significantly.

Responsiveness (X5) is the dominant variable in influencing e-satisfaction of Brodo customers. Respondents assume that feedback is a major factor in making purchasing decisions. The faster consumers get responses to the various problems they face, the more satisfied they are with Tokopedia. Furthermore, the privacy aspect (X4) perceived as necessary features of the information that consumers provide when making transactions is protected and well guarded so as not to spread or be used by irresponsible parties. This security is fully guaranteed by the company Tokopedia. Also, security in conducting transactions online (internet banking or mobile banking) guaranteed by Tokopedia. Another aspect is the ease of shopping or efficiency (X2), which is presented by the Tokopedia website is considered significant by respondents so that it has an impact on the experience in making product order transactions so far.

The complete set of Tokopedia e-service quality items involving seven dimensions has a very vital role in presenting product information online so that the service performance perceived by customers is high. The average value of the questionnaire items proves this finding with a mean acquisition of 3.93. It is vital for e-commerce, such as Tokopedia to continue to improve their business features because it can create customer satisfaction. When customers are satisfied with the electronic services that consumers receive, they tend to return to the same online store to get the shopping experience that was previously felt. Therefore, the factors that contribute to the creation and improvement of e-satisfaction of customers need to be fully considered by Tokopedia to continue to compete and maintain their online business presence amid fierce competition in the e-commerce business sector.

5. Conclusion and Implications

Based on the results of the analysis and hypothesis testing, several conclusions can be drawn that: Among the seven dimensions of e-service quality, responsiveness variables are the most dominant in influencing e-service quality. In this case, Tokopedia prioritizes speed in responding to consumer problems. A good e-service quality will have a significant influence on customer e-satisfaction on the Tokopedia website. Therefore, Tokopedia management needs to focus attention on maintaining and improving the dimensions of e-service quality on an ongoing basis. This effort will enhance convenience and facilitate customers in conducting online transactions so that they are expected to be able to influence customer satisfaction.

The development of a trustworthy information system availability is still a homework for Tokopedia, by continuing to strive to minimize system errors during the online transaction process. Related to the website quality, in this case, it is expected to load pages faster, the response to complaints or problems of buyers, and compensation services after purchase need to be further improved so that it gets better and can satisfy Tokopedia customers.

This research is inseparable from several limitations, including the method of collecting data in this study using an online questionnaire. Future studies can use interview methods to informants so that the information obtained is more in-depth and specific. Furthermore, research with other variables or add dependent variables related to e-satisfaction and e-service quality such as e-loyalty and e-trust. Thus, the scope of research can be more developed and comprehensive. Finally, this study only examines one e-commerce object, so the range of generalization is minimal. Therefore, subsequent analysis can conduct studies on several e-commerce companies simultaneously.

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