Analysis of e-service quality and website quality effect on e-customer loyalty through e-customer satisfaction (case study: Tokopedia)

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Abstract. Online transactions is getting increase and based on data in iNews, 2019, Tokopedia is the most popular e-commerce visited in Indonesia. This study empirically examines the relationship between e-Service Quality and Website Quality to e-Customer Loyalty as independent and dependent variables through e-Customer Satisfaction as intervening variable. The primary data were obtained from 260 respondents spread throughout JABODETABEK by using questionnaires distributed through personal contacts. Path Analysis is used to test the proposed research hypotheses. From the results obtained, there is a significant influence between the e-Service Quality and Website Quality on the e-Customer Loyalty, both directly and indirectly through e-Customer Satisfaction. In the E-Service Quality variable, there are six dimensions and the most prominent one is the Efficiency dimension.

1. Introduction
Technological developments and globalization make us have to move faster because through globalization, countries in the world become an integrated force and are not limited by territories and this has an impact on almost all areas of human life, both in the social, cultural, technological, political, and more. impact on the economic sector [1]. The internet is an example of technological developments that we can feel the benefits of in all fields, from communication to business shifting to using the internet.

Online buying and selling transactions are a clear evidence of a cultural shift in business, where each of us will more often make buying and selling using the help of the internet. According to data from the Indonesian Internet Service Providers Association (APJII), internet use itself has increased quite significantly from 2016 to 2018. Internet user data in 2018 experienced a significant increase, namely 10.12% from 2017 or approximately 279.1 million people.

Based on APJII data in 2018, it shows that the profession as an online shop trader is in the 3rd position after large entrepreneurs and teachers for jobs that use the internet to support their work. Therefore, the data in 2018 shows that online sales in Indonesia have experienced a very drastic growth, and this is due to the generation of Millennials who have an online shopping lifestyle.

With the increase in online sales, the greater the preference of the Indonesian people in choosing a place (platform) to shop online. This is also supported by the number of people who choose the
profession as an online merchant. Based on data from iNews in 2019 shown at figure 1 [2], Tokopedia is the most popular e-commerce site visited by Indonesians, followed by Shopee and Bukalapak in second and third positions. These results also show that in 2019 the pattern of Indonesians has shifted to making transactions online.

![Figure 1. Top 10 e-Commerce Indonesia 2019][2]

2. Literature Review

2.1. E-Service Quality
The definition of service [3], is a series of activities that provide benefits or benefits to other companies or groups, where the services that have been provided no longer have ties or ownership of the things produced. Service quality electronics [4] broadly include all stages of customer interaction with a website, where the website facilitates shopping, buying, and shipping.

2.2. Website Quality
The quality of a website plays an important role in attracting new customers to retaining existing customers. A website that has good quality [3] is the main reason for a customer to decide whether to purchase goods online or not. If a customer feels that the website visited has detailed and clear quality information, the customer will have higher trust in the seller of the item. In the journal "The Impact of E-Business Website Quality on Customer Satisfaction", [5] states that there are 5 concept models that make up Website Quality, namely website design, information quality, security and privacy, transaction and payment capability, and delivery service.

2.3. E-Customer Satisfaction
Satisfaction is a feeling of satisfaction that is obtained after the benefits obtained are in accordance with the initial expectations of consumers for a (goods or services) [6]. Consumers who feel that their needs are satisfied by the company will tend to repeat their transactions at a later date in the same place, and if this is well maintained, a sustainable competitive advantage will be created. In other word, e-satisfaction [4] is described as customer satisfaction that comes from previous real purchase experiences with certain electronic companies. e-Satisfaction is an important component in determining the success of online shopping.
2.4. E-Customer Loyalty
E-loyalty is very important to marketing, because the cost of acquiring new customers is higher than retaining existing customers [4]. Online purchase loyalty is related to the behavior of the buyer experience and is defined as an attitude that benefits customers towards electronic business that results in repeat buying behavior. Loyal customers are valuable assets for a company. In fact, the success or failure of a company from an online business is seen from repeated purchases from loyal customers. Consumer retention is a complex and key process for the success of an organization. Loyal consumers are less sensitive to price changes and motivate potential customers by using certain service providers that are spread positively by word of mouth[7].

3. Research Method
This study uses an associative-quantitative method to analyze the factors associated with the problem between two or more variables. This research is obtained from quantitative data, objective measurements, and statistics through scientific calculations used in research, starting from the process of collecting and processing data until a research result is obtained that can answer the problem formulation.

The data used in this research is primary data and comes from external data obtained from online questionnaires to get data from Tokopedia and Shopee users. This study also uses literature study which is carried out by studying, researching, and examining various sources in the form of supporting books, articles and studies that have been obtained from lectures related to the problem under study. In this study, the data used are time series with the timeframe used in the data.

The determination of the sample in this study, which states that the appropriate sample size is in the range of 5-10 times the question indicator [8]. So, the research sample is a minimum of 260 respondents and a maximum of 520 respondents. From the results of the distribution of the questionnaire, there were 298 respondents, but the data used were 260 because 38 data were invalid because they did not meet the criteria for domicile in JABODETABEK.

The data collection technique used in this study was participant, namely by spreading some questions about the e-Service Quality and Web Quality factors that the company gave to e-Customer Satisfaction and e-Customer Loyalty by distributing questionnaires online. The data obtained were then performed several tests to measure the correctness of the data, namely through validity, reliability, normality, multicollinearity, and heteroscedasticity tests. Data that has met all the testing criteria will then be processed again using path analysis. Path analysis [9] is used to analyze patterns of relationships between variables with the aim of knowing the direct or indirect effect of a set of independent variables on the dependent variable.

4. Discussion

4.1. Classic assumption test
All data used have been tested with classical assumptions beforehand, namely testing the validity test 0.158-0.779 with 95% confidence level, reliability test with Conbrach’s Alpha from 0.691 to 0.948, Sig 0.82 for normality test, VIF score 3.812 in multicollinearity test, and heteroscedasticity test with Sig 0.30 to 0.751. And from the data that has been processed, the results show that all data are declared valid for validity testing, all data are declared reliable for reliability tests, all data are normally distributed, and the data used does not occur multicollinearity and heteroscedasticity.

4.2. Path Analysis Test
Path Analysis is used to examine the relationship between variables either directly or indirectly. The path analysis test is divided into 2 parts, namely Sub-Structure 1 for the E-Service Quality (X1) variable, Website Quality (X2) for E-Customer Satisfaction (Y), and Sub-Structure 2 for the E-Service variable. Quality (X1), Website Quality (X2) and E-Customer Satisfaction (Y) to E-Customer Loyalty (Z).
In Figure 2, it can be seen that the path coefficient of the relationship between the variables studied, there are 2 types of relationships in this path analysis, namely the direct relationship and the indirect relationship through the intervening variable $Y$. The following is a discussion of the results of path analysis:

E-Service Quality ($X_1$) has a significant effect on e-Customer Satisfaction ($Y$) with a path coefficient of 0.084. These results are in accordance with the results of research by Ting [4] which states that e-service quality significantly affects e-satisfaction of online shoppers.

Website Quality ($X_2$) has a significant effect on e-Customer Satisfaction ($Y$) with a path coefficient of 0.111. These results are in accordance with the findings [7] which states that website quality significantly affects e-customer loyalty directly.

E-Customer Satisfaction ($Y$) has a significant effect on e-Customer Loyalty ($Z$) with a path coefficient of 0.259. These results are in accordance with the findings [11] which states that satisfaction is a bridge between behavioral and attitudinal loyalty, or in other words e-customer satisfaction has a significant relationship with e-customer loyalty.

E-Service Quality ($X_1$) has a significant effect on e-Customer Loyalty ($Z$) through e-Customer Satisfaction ($Y$) with a path coefficient of 0.022. These results are in accordance with the results of research by Ting [4], which states that e-service quality significantly affects e-satisfaction of online buyers, which in turn will affect the loyalty of these buyers.

Web Quality ($X_2$) has a significant effect on e-Customer Loyalty ($Z$) through e-Customer Satisfaction ($Y$) with a path coefficient value of 0.029. These results are in accordance with the findings [9] which states that website quality significantly affects e-customer loyalty through the intervening variable customer satisfaction.

5. Conclusion

By looking at the results of the analysis and discussion of "The effect of e-Service Quality and Web Quality on e-Customer Satisfaction and its impact on e-Customer Loyalty on Tokopedia" with a thorough examination, the following conclusions can be drawn:

1. There is a significant influence 0.084 between the E-Service Quality variable on E-Customer Satisfaction
2. There is a significant influence 0.111 between the Website Quality variable on E-Customer Satisfaction
3. There is a significant influence 0.022 between the E-Service Quality variable on E-Customer Loyalty through E-Customer Satisfaction
4. There is a significant influence 0.029 between the Website Quality variable on E-Customer Loyalty through E-Customer Satisfaction

Based on the research that has been done, here are some suggestions that can be given to Tokopedia to broaden their horizons regarding the expectations of consumers. The first is Tokopedia can improve service quality, especially in the responsiveness factor in responding to consumer needs, this can be in the form of being swift in managing guarantees, returning goods and refunds.

The second suggestion is to improve the quality of existing websites, namely in terms of website appearance or design and to make it easier for users to operate and find goods that consumers want to find. Tokopedia can consider providing free shipping to customers in order to increase customer satisfaction and make customers loyal to the company.

Further researchers are expected to continue or review this research by adding other independent variables not included in this study, such as brand image and promotion.

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