p–ISSN: 2723 - 6609 e-ISSN: 2745-5254
Vol. 5, No. 11, November 2024 http://jist.publikasiindonesia.id/

Shopee E-Commerce Website Quality Analysis Based on User Perception Using the Webqual Method

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Keywords: shop, webqual, usability, information quality, service interaction.

ABSTRACT

This study aims to analyze the quality of Shopee's e-commerce site using the WebQual method approach. Three main dimensions, namely usability, information quality, and service interaction, are used to evaluate the quality of the Shopee website from the user's point of view. This method measures users' perception of the main aspects that determine their experience in using the Shopee website. The results of the study show that although Shopee has succeeded in providing a responsive and informative platform, several areas need improvement, especially related to aspects of service interaction and the security of users' personal information. In conclusion, Shopee needs to optimize several important aspects to improve the user experience and strengthen its position as a leading e-commerce platform in Southeast Asia. Improved design and navigation of a more modern and intuitive interface can make it easier for users to navigate the platform. In addition, real-time updates of product information regarding stock and prices will help prevent user dissatisfaction. Shopee also needs to improve customer service, both with the addition of staff and technology such as advanced chatbots, to answer customer needs faster. Finally, increased security and transparency regarding transactions and protection of personal data will strengthen user trust in this platform. Through these efforts, Shopee is expected to be able to provide a better shopping experience and maintain the loyalty of its users amid fierce e-commerce competition.

Introduction

The main factor that affects the success of a website is the level of quality of its services. System developers often assume that only service providers or application developers can provide high-quality evaluations. (Masthori, Nugroho, & Ferdiana, 2016b). However, assessment criteria that can provide a complete picture are needed as service-based information system applications evolve – especially those that use web technology. (Utomo & Tambotoh, 2023).

For many institutions, institutions, businesses, and organizations around the world, using websites to represent themselves and offer online services has become essential. This phenomenon is also happening in Indonesia, where web-based services have shown themselves to be a successful way for the public and private sectors to convey information and goods. (Kusumawati, Mursityo, & Rusydi, 2021).

One of the leading e-commerce platforms in Southeast Asia is Shopee, which provides online buying and selling services for various types of products. The Shopee website is not only designed to facilitate buying and selling transactions between sellers and buyers but also serves as a platform to provide an optimal online shopping experience for users. (Masthori, Nugroho, & Ferdiana, 2016a). With the rapid growth of internet users and e-commerce services, the Shopee website plays an important role in maintaining the quality of service and satisfying its users. However, until now, a detailed evaluation of the quality of Shopee website services from the user's perspective has not been done. (Sembodo, Fitriana, & Prasetyo, 2021).

According to research by Belash et al., the level of user satisfaction with a website can be measured through several variables such as overall user experience, service security, and speed in completing transactions. In the context of e-commerce, new users who use the website for the first time and loyal users who often transact are the two main groups that provide important input regarding service quality. This group can provide information on what aspects of the website need to be improved, both from the technical side and customer service. (Nurlindah, Mustami, & Musdalifah, 2020).

In line with the advancement of information technology and increasing user expectations for online services, e-commerce websites must be able to provide fast, precise, and efficient services. The quality of a website's services not only affects customer loyalty but also the platform's ability to compete globally. In this digital era, e-commerce websites such as Shopee are not only a transaction tool, but also the main online representation of the company. Riyanto & Bachri, (2019) Stated that a well-managed website will support the internal efficiency and also the external power of the platform, both at the national and international levels.

In the context of e-commerce, the quality of content and user experience are the determining factors for the success of a website. (Sutrisno, Andre, & Susilawati, 2021) Emphasized the importance of accurate, relevant, and reliable content, as well as ease of navigation and convenience when transacting. Shopee website users are expected to be able to quickly find the products they are looking for, make transactions safely, and get responsive help when experiencing problems.

This study uses the modified WebQual method to explore the quality of the Shopee website from three main dimensions, namely usability, information quality, and service interaction. These three dimensions were chosen because they are very relevant in assessing the user experience on e-commerce sites. Through this approach, the research aims to make a significant contribution to the literature on evaluating the quality of website services, especially in the context of e-commerce platforms such as Shopee.

This study uses a descriptive quantitative approach with a survey method to analyze the quality of the Shopee website based on user perception. Data collection was carried out through the distribution of questionnaires compiled based on the WebQual method, which consisted of three main dimensions: quality of use, quality of information, and quality of service interaction. Each indicator in these dimensions is measured with a Likert scale to find out how far the quality of the Shopee website is perceived by users compared to their expectations.

The purpose of this study is to conduct an in-depth evaluation of the quality of the Shopee e-commerce website by detailing user perceptions using a method, namely the WebQual Method. Webqual is one of the methods of measuring website quality developed by Stuart Barnes and Richard Vidgen.

Method

The instrument used in this study is a questionnaire developed based on the three-dimensional WebQual. Each dimension is measured through a series of statements using a Likert scale of 1–5, where 1 indicates strongly disagree and 5 indicates strongly agree. The questionnaire consists of 15 questions, with five questions for each WebQual dimension (information quality, interaction, and display).

The questionnaire was distributed online to 150 selected respondents. Prior to data collection, the validity and reliability of the instrument were tested to ensure that the questionnaire could be used accurately in measuring user perception.

Test Instrument

Validity and reliability testing is an essential stage in ensuring the reliability and accuracy of the measuring instruments used in this study. (Pamungkas & Saifullah, 2019). Validity testing, which often involves determining the relationship between each instrument item's score and the overall score, verifies whether respondents understand the content of the questionnaire. Meanwhile, reliability indicates the extent to which the measuring instrument used can be trusted and reliable. A reliable instrument can provide consistent results when applied many times or in different contexts. Reliability measurements often involve internal testing of consistency, such as Cronbach's alpha calculations. The questionnaire is declared reliable if it gives a high alpha score or > 0.60 (Yandra et al., 2019)

The following is a detailed explanation of each of the WebQual dimensions for this study, accompanied by a table of indicators.

Dimensi Usability

The usability dimension in this study focuses on the extent to which the Shopee website is easy to use by visitors. It includes several indicators such as easy navigation, attractive interface design, and the suitability of the website's appearance to the user's expectations. The usability aspect is crucial in ensuring that users can quickly understand

how the platform works and make purchases without experiencing technical difficulties. Poor navigation or unintuitive design can cause users to abandon the platform.

Table 1
Usability Dimension Indicator

Code	Indicator
USA1	Interactions are clear and understandable.
USA2	Easy to navigate
USA3	Attractive display
USA4	Design according to expectations
USA5	Ease of learning how to use
USA6	Overall positive experience

Information Quality Dimension

This dimension evaluates the quality of information presented by the Shopee website. The indicators measured include the accuracy of product information, clarity of descriptions, and reliability of the data provided. For e-commerce platforms, the quality of information is very important because users rely on the product details displayed when making purchase decisions.

Table 2
Information Quality Dimension Indicator

Code	Indicator
INF1	Accurate and relevant information
INF2	Information is easy to understand
INF3	Information updated regularly
INF4	Reliable product information
INF5	Information is presented in an easy-to-read format.
INF6	Detailed product description

Service Interaction Dimensions

This dimension focuses on user experience related to interaction with the services provided by Shopee, such as customer service responsiveness, transaction security, and the system's ability to handle complaints. Users want efficient and secure interactions, especially in the payment process as well as product delivery.

Table 3
Service Interaction Dimension Indicator

Code	Indicator
SERV1	Security in transactions
SERV2	Implementation of services as promised
SERV3	Ease of communicating with customer service
SERV4	Customer service responsiveness
SERV5	Security of personal information
SERV6	Customer service is easily accessible (live chat, email, etc)

Results and Discussion

Characteristics Respondent

This study involved 150 respondents who are active users of the Shopee platform. Respondents consisted of various age and occupation categories, the majority of whom were regular users who made transactions at least once a month on Shopee. Based on the gender distribution, 60% of respondents are women and 40% are men. In terms of age, 70% of respondents are between 18–35 years old, 20% are between 36–50 years old, and 10% are over 50 years old.

Based on the survey results, most respondents (80%) have been using Shopee for more than a year, and most (65%) spend 2–3 hours per week shopping or browsing products on the platform. The majority of respondents stated that they often use Shopee to search for daily necessities and fashion products.

Validity and Reliability Test

Before further analysis, a validity and reliability test was carried out on a questionnaire consisting of 22 website quality indicators based on the WebQual method. The validity test showed that all items in the questionnaire had a significant correlation with the total value, so they were considered valid. In addition, the Cronbach's Alpha value obtained from the reliability test is 0.89, which means that the instrument has a high level of reliability. (Pratiwi, Hanggara, & Maghfiroh, 2022).

Average Score of Shopee Website Quality Based on WebQual Dimensions

The data obtained from the questionnaire was analyzed based on WebQual's three dimensions: usability, information quality, and service interaction. The following are the results of the assessment based on these dimensions:

Table 4
Average Weighted Indicator Value

Variable	Code	Indicator	Perf	Imp
Usability	USA1	Interactions are clear and easy to understand	4.5	5.3
	USA2	Easy to navigate	4.4	5.2
	USA3	Attractive display	4.6	5.3
	USA4	Design according to expectations	4.3	5.2
	USA5	Ease of learning how to use	4.7	5.4
	USA6	Overall positive experience	4.5	5.3
Quality of Information	INF1	Accurate and relevant information	4.2	5.3
	INF2	Information is easy to understand	4.4	5.2
	INF3	Information updated regularly	4.0	5.3
	INF4	Reliable product information	4.1	5.3
	INF5	Detailed product description	4.1	5.4
	INF6	Information in an appropriate and easy-to-read format	4.3	5.2
Service Interaction	SERV1	Security in transactions	4.0	5.3
	SERV2	Execution of services as promised	4.2	5.4
	SERV3	Ease of communication with services	3.9	5.3
	SERV4	Customer service responsiveness	3.8	5.3
	SERV5	Security of personal information	3.7	5.2

	SERV6	Customer service is easily accessible (live chat, email)	4.1	5.3
		Average	4.2	5.3

Gap Analysis

Based on the results of data processing, the gap value between actual quality (*performance*) and ideal quality (*importance*) was obtained for each indicator of the three dimensions of WebQual. The gap value is calculated using the following formula:

$$Qi(Gap) = Perf(i) - Imp(i)$$

A quality level that is considered good is indicated by a positive or zero gap value ($Qi \geq 0$). Conversely, if the gap value is negative ($Qi < 0$), then the actual quality has not met the user's expectations.

Table 5
Usability Indicator Gap Value

Code	Indicator	Perf	Imp	Q(P-I)/Gap
USA1	Interactions are clear and easy to understand	4.5	5.3	-0.8
USA2	Easy to navigate	4.4	5.2	-0.8
USA3	Attractive display	4.6	5.3	-0.7
USA4	Design according to expectations	4.3	5.2	-0.9
USA5	Ease of learning how to use	4.7	5.4	-0.7
USA6	Overall positive experience	4.5	5.3	-0.8
	Average	4.5	5.3	-0.78

The results above show that the *usability* dimension in general has a negative gap with an average gap of -0.78. Although the value of the gap is not very large, there are some aspects that need to be improved, especially on the interface design indicator (USA4).

Table 6
Gap Value of Information Quality Indicators

Code	Indicator	Perf	Imp	Q(P-I)/Gap
INF1	Accurate and relevant information	4.2	5.3	-1.1
INF2	Information is easy to understand	4.4	5.2	-0.8
INF3	Information updated regularly	4.0	5.3	-1.3
INF4	Reliable product information	4.1	5.3	-1.2
INF5	Detailed product description	4.1	5.4	-1.3
INF6	Information in an appropriate and easy-to-read format	4.3	5.2	-0.9
	Average	4.5	5.3	-1.14

The information quality dimension has a significant gap value with an average gap of -1.14. Indicators that need special attention are periodic information updates (INF3) and product information accuracy (INF4).

Table 7
Gap Value of Service Interaction Indicators

Code	Indicator	Perf	Imp	Q(P-I)/Gap
SERV1	Security in transactions	4.0	5.3	-1.3
SERV2	Execution of services as promised	4.2	5.4	-1.2
SERV3	Ease of communication with services	3.9	5.3	-1.4
SERV4	Customer service responsiveness	3.8	5.3	-1.5
SERV5	Security of personal information	3.7	5.2	-1.5

SERV6	Customer service is easily accessible (live chat, email)	4.1	5.3	-1.2
	Average	4.0	5.3	-1.38

The service interaction dimension has the largest gap value with an average gap of -1.38. The indicators that need the most attention are customer service responsiveness (SERV4) and personal information security (SERV5), both of which have considerable gaps.

Table 8
Gap Values of All Indicators with WebQual Method

Dimension	Perf	Imp	Q(P-I)/Gap
Usability	4.5	5.3	-0.78
Quality of Information	4.2	5.3	-1.14
Service Interaction	4.0	5.3	-1.38
Overall Average	4.23	5.3	-1.10

From the results of the analysis above, it can be concluded that overall the quality of the Shopee website still has some gaps between the actual quality perceived by users and the expected ideal quality. The dimension of service interaction requires the most attention, especially on the aspects of personal information security and customer service responsiveness. The information quality dimension also indicates the need for improvement, especially in terms of accuracy and updating of information. Improvement efforts in these two dimensions will be very useful in increasing user satisfaction, which can ultimately increase user loyalty to the Shopee platform.

The results of this study provide an in-depth overview of the quality of the Shopee website based on the WebQual approach. The analysis is carried out by comparing the performance felt by users and the expected level of importance. This study uses three main dimensions in WebQual, namely usability, information quality, and service interaction. The following is a detailed discussion of the results obtained from each dimension and their implications for Shopee website management.

Dimensi Usability

The usability dimension focuses on how users interact with the Shopee website interface and how the website is able to provide a good user experience. These aspects include ease of navigation, clarity of interaction, and suitability of the design and appearance of the website with user expectations.

Navigation and Ease of Use

In the ease of navigation indicator (USA2), the results show that although the Shopee website is considered quite easy to use with a performance score of 4.4, there is still a significant gap between performance and expectations, which is -0.8. This indicates that users still feel that navigation on the website can be further improved, especially in making it easier for users to find the product or feature they are looking for more quickly and efficiently.

Intuitive navigation is an important element in e-commerce websites, considering that users often want to search for products in a short time without having to go through many complicated stages. A poor user experience when it comes to navigation can lead to frustration, which leads to a decrease in customer retention rates. For this reason, Shopee needs to consider optimizing the navigation structure to make it more accessible and minimize the number of clicks needed to achieve certain goals, such as product purchases or promo searches.

Interface Display and Design

The design as an expected indicator (USA4) also shows a significant gap (-0.9), which means that the visual appearance of the website has not fully met user expectations. Although Shopee has been known for its simple and easy-to-understand design, users are still hoping for updates or improvements in terms of a more modern and responsive interface design.

Current technological developments allow for the implementation of more interactive and friendly designs for various devices, especially mobile devices. Given that most Shopee users access the platform through smartphones, the optimization of responsive design and attractive interfaces on mobile devices needs to be considered. Appropriate design not only improves aesthetics, but also affects the user experience, including in terms of access speed, ease of reading information, and a clearer and more structured display of product images. (Wibowo, Setyanto, & Nasiri, 2018).

Clarity of Interaction and User Experience

One of the indicators with good performance in the usability dimension is the clarity of interactions (USA1), which obtained a performance score of 4.5. This shows that user interaction with the features on the Shopee website is quite clear and easy to understand. Users feel that they can understand how the site works without any significant difficulty, which is a positive point in terms of usability. However, despite the performance score being quite good, a gap of -0.8 indicates that users still have higher expectations for smoother and faster interactions.

Overall, the usability dimension shows that although the Shopee website is considered to be quite easy to use, there are several aspects that need to be improved, especially in terms of navigation and a more attractive and responsive interface design.

Information Quality Dimension

The dimension of information quality is very important in the context of e-commerce, as users rely heavily on the information presented on the platform to make purchasing decisions. Accurate, relevant, and easy-to-understand information is a key factor in increasing user trust in the platform.

Accuracy and Relevance of Information

The accurate and relevant information indicator (INF1) shows a gap of -1.1 between performance and expectations, indicating that users feel that the product information presented by Shopee is still inaccurate or not always relevant to their needs. Complete and accurate product information is essential, especially in e-commerce, as consumers cannot physically view or inspect the products they are about to buy.

This gap can be caused by inconsistencies in product descriptions provided by sellers on the Shopee platform. Since Shopee is a platform that allows third-party sellers to upload their own products, there is variation in the quality of the information provided. To improve this, Shopee can improve the product information quality control mechanism, for example by implementing stricter standards for product descriptions or providing guidance for sellers on what information must be included.

Update Information

The indicator of periodic information update (INF3) recorded the highest gap in this dimension, which was -1.3. Users feel that information on Shopee, especially related to stock availability and prices, is often not updated in real-time. This can be a source of frustration for users, especially when they find a product that is out of stock or a price that doesn't match what is stated in the description.

Shopee needs to improve its information update system by involving sellers more actively in managing their inventory, or perhaps by introducing an automation feature that can detect and update product status directly when stock runs out or prices change. Fast and proper updates will go a long way in maintaining user trust and increasing their satisfaction.

Product Description and Trust Information

Other indicators that also show significant gaps are detailed product descriptions (INF5) and trustworthy product information (INF4), with gaps of -1.3 and -1.2, respectively. This shows that users feel that product descriptions on Shopee are still lacking in depth or do not provide enough information to make a purchase decision. This can affect the level of user trust in the platform.

Shopee can remedy this by encouraging sellers to provide more detailed and clear product descriptions, including information about product specifications, features, and benefits. In addition, increasing trust in the information presented can be done by

providing clearer and more transparent seller verification, so that users feel more confident when making purchases.

Service Interaction Dimension

The dimension of service interaction is one of the most important dimensions in measuring the quality of an e-commerce website, as it relates directly to the user experience when they need additional assistance or services, including transaction security and personal data privacy.

Security in Transactions

The security indicator in transactions (SERV1) recorded a gap of -1.3. Although Shopee has provided a variety of secure payment methods, including payments via credit cards, e-wallets, and bank transfers, some users still feel unfully confident in the security of their transactions. This can be due to a lack of clear information regarding the security protocols used by Shopee, or user concerns about potential data leaks.

To overcome this, Shopee needs to be more proactive in providing information about the security measures implemented on its platform. In addition, introducing two-factor authentication and end-to-end encryption for financial transactions can increase users' sense of security in making transactions.

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Conclusion

Based on the results of the research, several strategic recommendations can be taken by Shopee managers to improve the quality of their website services, namely, Shopee needs to optimize several important aspects to improve user experience and strengthen its

position as the leading e-commerce platform in Southeast Asia. Improved design and navigation of a more modern and intuitive interface can make it easier for users to navigate the platform. In addition, real-time updates of product information regarding stock and prices will help prevent user dissatisfaction. Shopee also needs to improve customer service, both with the addition of staff and technology such as advanced chatbots, to answer customer needs faster. Finally, increased security and transparency regarding transactions and protection of personal data will strengthen user trust in this platform. Through these efforts, Shopee is expected to be able to provide a better shopping experience and maintain the loyalty of its users amid fierce e-commerce competition.

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