E-SERVQUAL ANALYSIS ON TOKOPEDIA APPLICATION (CASE STUDY ON GENERATION Z IN DKI JAKARTA)

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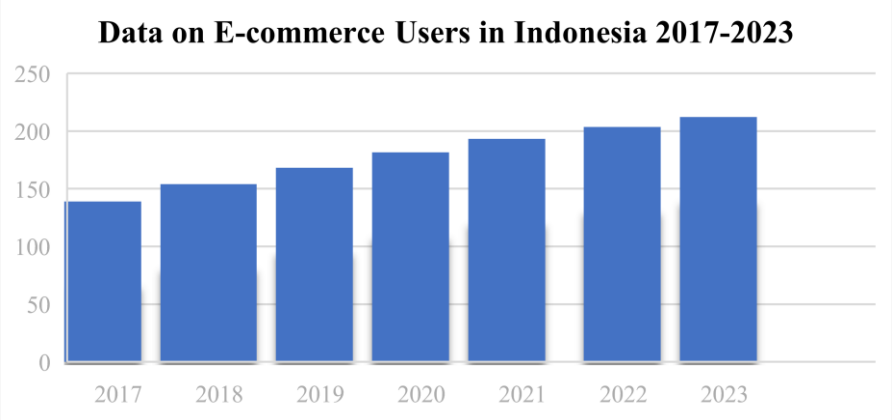
Abstract

E-Servqual or Electronic Service Quality is an important part of an e-commerce that relates to how users assess existing services. This study aims to determine E-Servqual on the Tokopedia Application according to Generation Z in DKI Jakarta. This study uses five dimensions, namely Tangibility, Reliability, Responsiveness, Assurance, and Empathy. Data collection was carried out using a questionnaire method distributed online. The population in this study are users of the Tokopedia application who are included in the Generation Z category in DKI Jakarta. A sample of 130 respondents was obtained according to the research criteria. Instrument tests were carried out using SPSS version 27 software for validity and reliability tests. Data is processed using Descriptive Analysis techniques, Zone of Tolerance, and E-Servqual. The results of this study are that the Tokopedia Application E-Servqual has not met the expectations of Generation Z in DKI Jakarta. Based on the Zone of Tolerance analysis, it is found that E-Servqual on all attributes can no longer be tolerated by users. Based on the E-Servqual Gap analysis, all attributes have a minus gap with the Empathy, Responsiveness, and Assurance dimensions occupying the highest average gap in order and needing immediate improvement.

Keyword: E-Servqual; Tokopedia Application; E-Commerce; Generation Z; Zone of Tolerance; Tangibility; Reliability; Responsiveness; Assurance; Empathy.

1. Introduction

Globalization has significantly impacted human life, particularly through the advancement of digital technology. Today, almost every aspect of daily life is conducted via digital means, including communication, entertainment, education, and commerce, all facilitated by internet connectivity and social media (Faradiba et al., 2021). Social media serves as a communication platform connecting people; however, technological developments and consumer trends have led to more complex uses of these platforms. The COVID-19 pandemic marked a turning point that accelerated online purchasing activities. Prior to the pandemic, people enjoyed the freedom to engage in outdoor activities and face-to-face interactions. However, government mandates for social distancing and staying at home to curb virus transmission restricted direct interactions, causing a surge in social media usage. Consequently, the significant decline in traditional shopping during the early pandemic transitioned into a robust online shopping environment.



Graph 1. Data on E-commerce Users in Indonesia 2017-2023
Source: Databoks (2023)

The high rates of online shopping are largely due to the convenience it offers consumers, allowing transactions from anywhere at any time, all-day accessibility, clear product descriptions, and options for complaints and exchanges, which have contributed to its popularity (Faulina et al., 2021). This shift has encouraged businesses to utilize online media as a distribution channel. One of the largest e-commerce platform in Indonesia is Tokopedia. Despite its numerous features and achievements, Tokopedia faces stiff competition, with Shopee leading as the most visited e-commerce platform in Indonesia, attracting 2.35 billion visitors compared to Tokopedia's 1.25 billion (Ahdiat, 2024). This indicates that Tokopedia must continue to enhance its app quality to become the top choice among Indonesian consumers.

Tokopedia must continuously enhance its services to maintain its position as a favored e-commerce platform among Indonesians of all generations, particularly the dominant demographic. According to the 2020 census by Indonesia's Central Statistics Agency, individuals born between 1997 and 2012, known as Generation Z, constitute the largest group at 74.93 million, or 27.94% of the population. Following them are those born from 1981 to 1996 (Millennials) at 69.38 million (25.87%), and those born between 1965 and 1980 (Generation X) at 58.65 million. This data indicates that Generation Z is the most populous

group in Indonesia, highlighting the importance for Tokopedia to cater to their preferences and needs in order to thrive in the competitive e-commerce landscape.

In 2023, Tokopedia experienced a decline in transaction volume despite a rise in 2022. According to (Setyowati, 2022), Tokopedia's sales reached IDR 107 trillion in 2021. By August 2023, Databoks reported that Tokopedia's sales for 2022 amounted to IDR 132.47 trillion, but this fell to IDR 121.48 trillion in 2023. The decrease in transactions is attributed to reduced discounts offered by the platform, as stated by GoTo, which oversees Tokopedia's operations.

According to the research conducted by (Zainah, 2023), the decline in visitors and sales in e-commerce indicates a low quality of service. The study emphasizes that high-quality services create comfort and convenience, which in turn fosters customer loyalty and serves as a response to increasing competition among e-commerce platforms. This quality of service in e-commerce is referred to as Electronic Service Quality, or E-Servqual (Sasono et al., 2021). (Irawati and Pibriana, 2021) describe the E-Servqual method as a means to measure service quality in the context of e-commerce, adapting the existing Servqual method. This approach evaluates five key dimensions: Tangibility, Reliability, Responsiveness, Assurance, and Empathy. By utilizing these dimensions, E-Servqual helps assess the gap between customer expectations and the actual services received, providing valuable insights for future service quality improvements.

Based on the issues outlined in the background, the researchers are interested in exploring the theme "**E-Servqual Analysis on Tokopedia Application (Case Study on Generation Z in DKI Jakarta)**." This research aims to delve deeper into the Electronic Service Quality (E-Servqual) that influences Generation Z in DKI Jakarta when making purchases through the Tokopedia application. The study will examine how various dimensions of E-Servqual impact the shopping behavior and satisfaction of this demographic.

2. Literature Review

E-Servqual

E-Servqual, as defined by Parasuraman in (Pranitasari and Sidqi, 2021), refers to the assessment of how effectively and efficiently an application facilitates user needs. (Damayanti and Putro, 2022) describe E-Servqual as the overall impression consumers have from the initial navigation to the final stages of using an application. Based on the definitions provided, the researchers concludes that E-Servqual is the assessment of how effectively and efficiently a website and application facilitate user needs, influencing how activities within online applications interact and operate with other online services, as well as how customers can conduct transactions easily and quickly. The overall definitions emphasize the importance of effective and efficient electronic service quality (E-Servqual) in meeting customer needs.

The dimensions of E-Servqual according to Parasuraman, as discussed in (Irawati and Pibriana, 2021) and (Qing et al., 2023), are as follows:

1) Tangibility, refers to the physical appearance of a company or its application and website. Indicators of Tangibility include attractive appearance, ease of operation, clear features, proper grammar, understandable navigation, and appealing design.

2) Reliability, denotes the company's ability to provide services accurately and dependably as promised. Indicators of Reliability include always updated information, complete and clear information, good search functionality, accuracy of information, and relevant content.
3) Responsiveness, relates to the company's ability to deliver quick and precise service to customers, with clear communication of information. Indicators of Responsiveness include easy to contact, feedback mechanisms, quick responses, email replies, relevant email content.
4) Assurance, involves the knowledge, courtesy, and capability of employees to instill confidence in customers regarding the company. Indicators of Assurance include security of payment systems, safety in providing personal information, transaction security, trustworthiness, and good reputation.
5) Empathy, reflects how businesses provide genuine, personalized attention to customers by striving to understand their desires. Indicators of Empathy include quality of service, providing attention, customer-focused approach, environmental awareness, and support for customers.

3. Material and Method

3.1 Design Study

This study employs a quantitative research approach utilizing a survey method and questionnaire technique, engaging 130 respondents. The questionnaire was distributed online via Google Forms, chosen for its convenience, allowing respondents to easily provide their information tailored to their needs.

Population

The population in this study consists of Generation Z individuals in DKI Jakarta who have either visited or made purchases on the Tokopedia application. This demographic is defined as individuals born between 1997 and 2012, making them a significant portion of the population in the region.

Sample

The sampling method used in this research is non-probability sampling, which indicates that not all members of the population have an equal chance of being selected as part of the sample (Suriani et al., 2023). The authors used purposive sampling, a technique that selects samples based on specific criteria relevant to the study (Ariani, 2019).

The criteria for the sample in this study are as follows:

a. Respondents must have visited or made a purchase on the Tokopedia application.
b. Respondents should be part of Generation Z (aged 12-27 years).
c. Respondents must reside in the DKI Jakarta area

In this research, the Hair formula was utilized to determine the sample size, as the exact population size is not known (Saputra & Bahrun, 2023). The formula for calculating the sample size is given by:

N = Number of Indicators x 5
N = 26 x 5
N = 130

Based on this calculation, a minimum sample size of 130 respondents was determined for the study.

3.2 Data Analysis

Descriptive Analysis

Descriptive Analysis is used to provide a comprehensive overview of a phenomenon by processing the collected data. This method does not aim to identify cause-and-effect relationships or make generalizations applicable to a broader population. The responses from the questionnaire collected serve as a general depiction of users' views on the E-Servqual of the Tokopedia application, based on the actual scores, expectations, and minimums across each dimension using the following statistical formula (Ruheli, 2022):

$$\text{Interval} = \frac{\text{Highest Score} - \text{Lowest Score}}{\text{Number of Categories}}$$

$$\text{Interval} = \frac{4 - 1}{4} = 0{,}75$$

Based on the calculations, the classification intervals are as follows:

Table 1. Descriptive Analysis Criteria

Interval	Perceived	Expectations	Minimum
3,26 – 4,00	Very Satisfied	Very Important	Very Important
2,51 – 3,25	Satisfied	Important	Important
1,76 – 2,50	Dissatisfied	Unimportant	Unimportant
1,00 – 1,75	Very Dissatisfied	Very Unimportant	Very Unimportant

Source: Data processed by researcher (2024)

Zone of Tolerance

Service quality is assessed using three scores: Perceived Service Level (actual service), Adequate Service Level (minimum acceptable service), and Desired Service Level (expected service). The Zone of Tolerance refers to the range of service quality that customers find acceptable, lying between the adequate and desired service levels. Analyzing the Zone of Tolerance involves calculating several values, including the Measure of Service Adequate (MSA), Measure of Service Superiority (MSS), and the Zone of Tolerance itself. These values help determine how the current service provided compares to customer expectations (Nurfiriyah, 2019). The formulas for the Zone of Tolerance (ZOT) according to (Puspasari, 2022) are as follows:

a. Measure of Service Adequacy (MSA)
   MSA = Actual Service – Minimum Service
b. Measure of Service Superiority (MSS)
   MSS = Actual Service – Expected Service
c. Zone of Tolerance (ZOT)
   ZOT = Expected Service – Minimum Service
d. Position of MSA = ZOT – MSA
e. Position of MSS = ZOT- MSS
f. Current Service Position = Actual Service – Minimum Service

After the calculations were completed, the positioning of MSA, MSS, and Current Service Position onto the Zone of Tolerance map resulted in the following interpretations:

a. If the Current Service Position is above both MSS and MSA:
   The service quality received by users is highly satisfactory and does not require any improvements.
b. If the Current Service Position is below MSS but above MSA:
   The service meets user tolerance limits but falls short of their expectations. It can be considered somewhat satisfying but needs improvement to meet full expectations.
c. If the Current Service Position is below both MSS and MSA:
   The service fails to meet user tolerance limits or is unsatisfactory and requires immediate improvement.

E-Servqual Analysis

The E-Servqual method assesses electronic service quality by collecting statements from various dimensions. Its goal is to calculate a score representing the difference between customer satisfaction with received services and their expectations for those services. Positive gap values indicate satisfying attributes, while negative gaps signify unsatisfying aspects for customers (Sembiring & Sinaga, 2021).

The calculation of the E-Servqual Analysis according to (Rahmawati et al., 2023), are:

a. Calculating the average ($\bar{X}$) and ($\bar{Y}$)

$$Xi = \frac{\Sigma Yi}{n}$$

$$Yi = \frac{\Sigma Xi}{n}$$

Description:
$\bar{X}$ i= Average value of i-th perception
$\bar{Y}$ i= Average value of i-th expectation
n = Number of respondents

b. Calculating the gap between perception and expectation

$$NSi = \bar{X}i - \bar{Y}i$$

Description:
NSi= Servqual score (Gap) variabel ke-i

Importance-Performance Analysis (IPA)

Importance Performance Analysis (IPA) is a method used to assess customer performance and satisfaction by identifying service attributes based on their importance levels. This approach distinguishes between performance value, which reflects the actual service received, and importance value, which represents users' expectations or desires regarding the service. Thus, IPA serves as a diagnostic tool that helps organizations understand which areas need improvement to enhance customer satisfaction and the quality of services provided. The Importance Performance Analysis (IPA) framework maps service attributes into a Cartesian diagram divided into four quadrants, each with distinct implications (Damayanti and Palupi, 2023):

a. Quadrant I (Priority for Improvement): Attributes in this quadrant are deemed highly important by users but receive poor quality from service providers, leading to dissatisfaction. These attributes should be prioritized for improvement.

b. Quadrant II (Maintain Performance): Attributes here are considered highly important and are delivered with good quality. It is essential to maintain these attributes to ensure continued user satisfaction.
c. Quadrant III (Low Priority for Improvement): This quadrant contains attributes that users find less important and that also have poor performance. Consequently, these attributes are given low priority for enhancement.
d. Quadrant IV (Excessive): Attributes in this quadrant are seen as less important by users but are delivered at a high quality. As a result, these attributes may be viewed as excessive and not necessarily required.

4. Result

4.1 Validity Test

The validity test was carried out on the research instrument with the aim of measuring whether the instrument used in this study was valid or not. Researchers used the Pearson Product Moment correlation formula with a significance level of 5%, so the value of r table = 0.1449. The result is that all of the indicators are valid.

Table 2. Validity Test

Dimension	Attribute	r-Count Perceived	r-Count Expectations	r-Count Minimum	R Table	Description
Tangibility	Attractive Display	0,836	0,801	0,940	0,1449	**Valid**
	Easy to Operate	0,923	0,874	0,976	0,1449	**Valid**
	Clear Features	0,908	0,873	0,977	0,1449	**Valid**
	Grammar	0,899	0,888	0,971	0,1449	**Valid**
	Understandable Navigation	0,905	0,858	0,977	0,1449	**Valid**
	Attractive Design	0,874	0,793	0,986	0,1449	**Valid**
Reliability	Always updated	0,890	0,803	0,976	0,1449	**Valid**
	Complete and Clear Information	0,903	0,877	0,978	0,1449	**Valid**
	Good Search Facility	0,859	0,888	0,987	0,1449	**Valid**
	Accuracy of Information	0,879	0,880	0,955	0,1449	**Valid**
	Related Content	0,824	0,726	0,964	0,1449	**Valid**
Responsive-ness	Easy to Contact	0,796	0,830	0,937	0,1449	**Valid**
	Feedback	0,834	0,876	0,958	0,1449	**Valid**
	Quick Answer	0,775	0,792	0,967	0,1449	**Valid**
	Responding to Emails	0,881	0,910	0,968	0,1449	**Valid**
	Email Content as Needed	0,860	0,837	0,944	0,1449	**Valid**
Assurance	System Security	0,935	0,883	0,967	0,1449	**Valid**
	Security of Providing Personal Information	0,818	0,839	0,969	0,1449	**Valid**
	Transaction Security	0,939	0,920	0,980	0,1449	**Valid**
	Trusted	0,928	0,903	0,979	0,1449	**Valid**
	Good Reputation	0,890	0,756	0,984	0,1449	**Valid**

Dimensi-on	Attribute	r-Count Perceived	r-Count Expectations	r-Count Minimum	R Table	Description
Empathy	Willingness to Serve Customers	0,693	0,769	0,964	0,1449	**Valid**
	Provide Attention	0,833	0,788	0,969	0,1449	**Valid**
	Customer Focus	0,780	0,775	0,976	0,1449	**Valid**
	Attention to the Environment	0,806	0,761	0,945	0,1449	**Valid**
	Customer Support	0,846	0,730	0,972	0,1449	**Valid**

Source: Data processed by researcher (2024)

4.2 Reliability Test

Based on the reliability test that has been carried out using SPSS 27 software, it can be seen in table 4.6 that all Cronbach Alpha values on all three scores, namely the reality score, expectations, and also the minimum, are more than 0.60. It can be concluded that all research instruments can be trusted or reliable.

Table 3. Reliability Test

Dimensi	N	Nilai Alpha	*Cronbach Alpha*	Keterangan
Kenyataan	130	0,947	0,60	**Reliabel**
Harapan	130	0,919	0,60	**Reliabel**
Minimum	130	0,989	0,60	**Reliabel**

Source: Data processed by researcher (2024)

4.3 Descriptive Analysis

Table 4. Data of *Zone of Tolerance* (ZOT)

Attribute	Perceived	Expectations	Minimum
T1	3.06	3.75	2.88
T2	3.01	3.73	2.89
T3	2.97	3.77	2.89
T4	2.98	3.75	2.81
T5	2.98	3.72	2.88
T6	3.05	3.70	2.85
R1	2.77	3.78	2.85
R2	2.78	3.82	2.88
R3	2.80	3.78	2.87
R4	2.72	3.78	2.92
R5	2.72	3.76	2.85
RE1	2.32	3.83	2.97
RE2	2.35	3.80	3.01
RE3	2.18	3.86	3.01
RE4	2.32	3.75	2.98
RE5	2.32	3.75	2.99
A1	2.39	3.76	3.02
A2	2.06	3.84	3.02
A3	2.35	3.76	3.00
A4	2.48	3.78	3.01

Attribute	Perceived	Expectations	Minimum
A5	2.48	3.78	3.00
E1	2.17	3.84	3.12
E2	2.09	3.81	3.08
E3	2.09	3.85	3.11
E4	2.19	3.65	3.02
E5	2.03	3.84	3.12

Source: Data processed by researcher (2024)

Based on the results of descriptive analysis, it is found that the Tokopedia Application E-Servqual at the perceived level with a value of (2.50) is in the "Unsatisfied" category (1.76 - 2.50). This indicates that the Tokopedia application service has a level of reality that does not satisfy user expectations.

At the expectation level, it is found that the Tokopedia Application E-Servqual has a value of (3.78) which is in the "Very Important" category (3.26 - 4.00). This indicates that the Tokopedia application service has a very important level of expectation for users.

At the minimum level, it is found that the Tokopedia Application E-Servqual has a value of (2.97) which is in the "Important" category (2.51 - 3.25). This indicates that the Tokopedia application service has a minimum level that is important to users.

4.4 Zone of Tolerance

The following Zone of Tolerance data is obtained from the reality, expectation, and minimum scores:

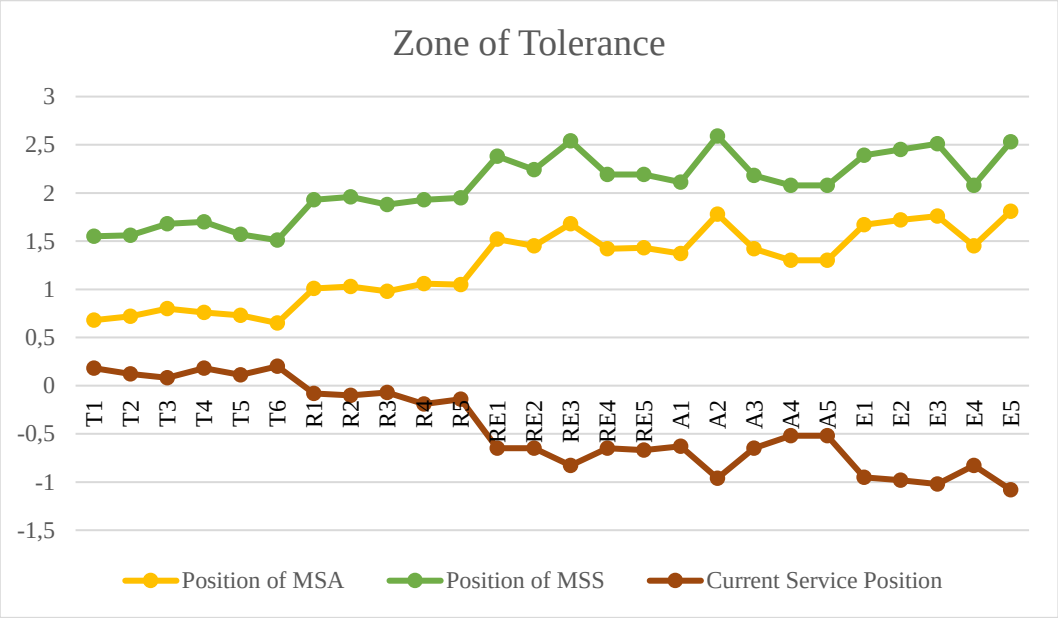
Table 5. The Calculation Result of *Zone of Tolerance* (ZOT)

Attribute	MSA	MSS	ZOT	Position of MSA	Position of MSS	Current Service Position
T1	0.18	-0.68	0.86	0.68	1.55	0.18
T2	0.12	-0.72	0.84	0.72	1.56	0.12
T3	0.08	-0.80	0.88	0.80	1.68	0.08
T4	0.18	-0.76	0.94	0.76	1.70	0.18
T5	0.11	-0.73	0.84	0.73	1.57	0.11
T6	0.20	-0.65	0.85	0.65	1.51	0.20
R1	-0.08	-1.01	0.92	1.01	1.93	-0.08
R2	-0.10	-1.03	0.93	1.03	1.96	-0.10
R3	-0.07	-0.98	0.91	0.98	1.88	-0.07
R4	-0.19	-1.06	0.87	1.06	1.93	-0.19
R5	-0.14	-1.05	0.91	1.05	1.95	-0.14
RE1	-0.65	-1.52	0.86	1.52	2.38	-0.65
RE2	-0.65	-1.45	0.79	1.45	2.24	-0.65
RE3	-0.83	-1.68	0.85	1.68	2.54	-0.83
RE4	-0.65	-1.42	0.77	1.42	2.19	-0.65
RE5	-0.67	-1.43	0.76	1.43	2.19	-0.67
A1	-0.63	-1.37	0.74	1.37	2.11	-0.63
A2	-0.96	-1.78	0.82	1.78	2.59	-0.96
A3	-0.65	-1.42	0.76	1.42	2.18	-0.65
A4	-0.52	-1.30	0.78	1.30	2.08	-0.52
A5	-0.52	-1.30	0.78	1.30	2.08	-0.52
E1	-0.95	-1.67	0.72	1.67	2.39	-0.95

Attribute	MSA	MSS	ZOT	Position of MSA	Position of MSS	Current Service Position
E2	-0.98	-1.72	0.73	1.72	2.45	-0.98
E3	-1.02	-1.76	0.75	1.76	2.51	-1.02
E4	-0.83	-1.45	0.62	1.45	2.08	-0.83
E5	-1.08	-1.81	0.72	1.81	2.53	-1.08

Source: Data processed by researcher (2024)

Through the Zone of Tolerance data, a mapping of MSA Position, MSS Position, and Current Service Position is made into a Zone of Tolerance Map. The following is the Zone of Tolerance map:



Graph 2. *Zone of Tolerance* (ZOT) Map
Source: Data processed by researcher (2024)

In graph 4.1, it can be seen that the Current Service Position for all attributes is below the MSA Position and also the MSS Position with the Tangibility (T) dimension being closest to the MSA Position and followed by the Reliability (R) dimension. Meanwhile, the Empathy (E), Assurance (A) and Responsiveness (RE) dimensions are in a lower position with the E5 attribute occupying the lowest Current Service Position. Therefore, there needs to be service improvements, especially in the three dimensions with the lowest Current Service Position values.

4.5 E-Servqual Analysis

The following is the data of E-Servqual gap based on the perceived and expectation scores:

Table 6. *Gap E-Servqual*

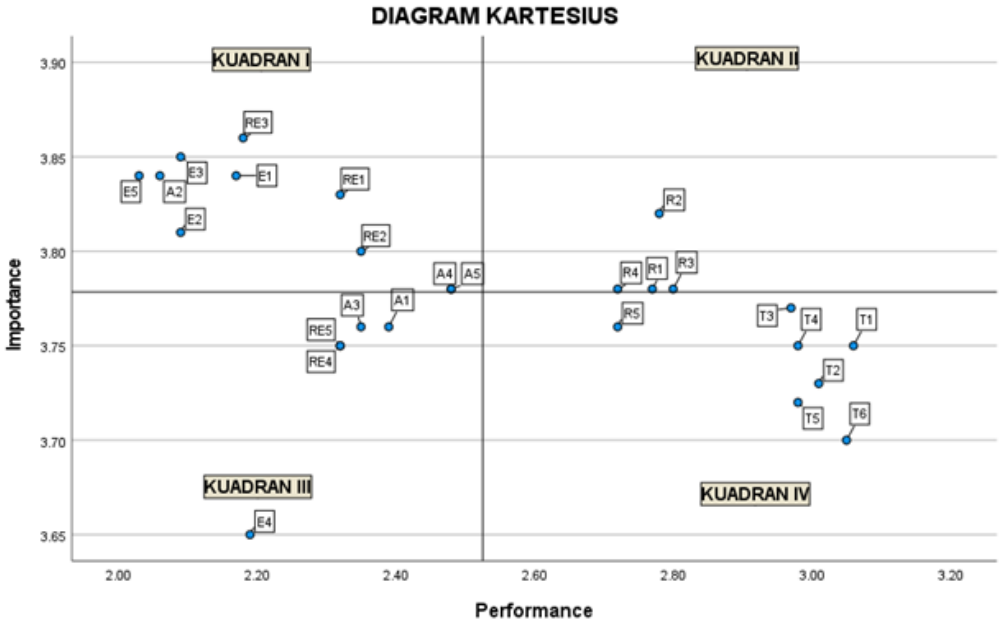
Dimension	Attribute	Perceived Average	Expectations Average	*Gap*
Tangibility	Attractive Display	3,06	3,75	-0,68
	Easy to Operate	3,01	3,73	-0,72
	Clear Features	2,97	3,77	-0,80
	Grammar	2,98	3,75	-0,76

Dimension	Attribute	Perceived Average	Expectations Average	*Gap*
	Understandable Navigation	2,98	3,72	-0,73
	Attractive Design	3,05	3,70	-0,65
		Average		**-0,72**
Reliability	Always updated	2,77	3,78	-1,01
	Complete and Clear Information	2,78	3,82	-1,03
	Good Search Facility	2,80	3,78	-0,98
	Accuracy of Information	2,72	3,78	-1,06
	Related Content	2,72	3,76	-1,05
		Average		**-0,82**
Responsiveness	Easy to Contact	2,32	3,83	-1,52
	Feedback	2,35	3,80	-1,45
	Quick Answer	2,18	3,86	-1,68
	Responding to Emails	2,32	3,75	-1,42
	Email Content as Needed	2,32	3,75	-1,43
		Average		**-1,50**
Assurance	System Security	2,39	3,76	-1,37
	Security of Providing Personal Information	2,06	3,84	-1,78
	Transaction Security	2,35	3,76	-1,42
	Trusted	2,48	3,78	-1,30
	Good Reputation	2,48	3,78	-1,30
		Average		**-1,43**
Empathy	Willingness to Serve Customers	2,17	3,84	-1,67
	Provide Attention	2,09	3,81	-1,72
	Customer Focus	2,09	3,85	-1,76
	Attention to the Environment	2,19	3,65	-1,45
	Customer Support	2,03	3,84	-1,81
		Average		**-1,68**

Source: Data processed by researcher (2024)

Based on Table 4. 23, it can be concluded that the E-Servqual of the Tokopedia application is not satisfactory as evidenced by the gap value (-1.23). Tokopedia needs to pay special attention to the dimensions with the highest average gap, namely the dimensions of Empathy (-1.68), Responsiveness (-1.50), and Assurance (-1.43) in order to prioritize improving service quality.

4.6 Importance-Performance Analysis



Graph 3. Importance-Performance Analysis Diagram
Source: Data processed by researcher (2024)

Based on Figure 4.2, it is found that all attributes of the Tokopedia Application E-Servqual have been grouped in quadrants according to the value of reality (performance) and expectations (importance). The following is an analysis of the attributes in each quadrant:

Table 7. Quadran I (Priority to Improve)

No	Attribute	Statement
1	E5	Tokopedia provides a higher level of support to customers when needed
2	A2	I feel safe when providing personal information to Tokopedia
3	E3	Tokopedia always focuses on specific customer needs
4	E2	Tokopedia always gives individual attention to customers
5	RE3	Tokopedia answers customer questions quickly
6	E1	Tokopedia has a willingness to serve customers
7	RE1	Tokopedia provides online services that are easy to contact
8	RE2	Tokopedia is interested in getting feedback from users
9	A4	I feel Tokopedia is trustworthy
10	A5	I feel Tokopedia is widely known and has a good reputation

Source: Data processed by researcher (2024)

In Quadrant I, there are ten attributes that require immediate improvement for the Tokopedia application's services. These attributes have low performance scores but high importance ratings, indicating they are crucial for enhancing user satisfaction. The attributes in this quadrant originate from three dimensions: four from Empathy, three from Assurance, and three from Responsiveness. This highlights the need for urgent attention to these essential features to meet users' expectations effectively.

Table 8. Quadran II (Maintain Performance)

No	Attribute	Statement
1	R4	Information on the Tokopedia application is accurate
2	R2	The information on the Tokopedia application is complete and clear
3	R1	The Tokopedia application is always updated
4	R3	The search facility on the Tokopedia application works well

Source: Data processed by researcher (2024)

In Quadrant II, there are four attributes that are considered strong and should maintain their service quality. These attributes have high importance values, and Tokopedia has performed well in delivering these services. The attributes in this quadrant are derived from the Reliability dimension, showcasing Tokopedia's commitment to providing reliable service to its customers.

Table 9. Quadran III (Low Priority for Improvement)

No	Attribute	Statement
1	E4	Tokopedia listens to the complaints of customers' friends and family
2	RE5	Tokopedia sends email content that suits customer needs
3	RE4	Tokopedia responds to relevant and accurate user emails
4	A3	I feel safe when making online transactions at Tokopedia
5	A1	I feel safe with Tokopedia's electronic payment system

Source: Data processed by researcher (2024)

In Quadrant III, there are five attributes categorized as low priority for service improvement. This is evidenced by their low performance scores, indicating poor service quality, alongside a low importance rating, suggesting that these services are not critical for improvement. The attributes in this quadrant include one from the Empathy dimension, two from Responsiveness, and two from Assurance.

Table 10. Quadran IV (Excessive)

No	Attribute	Statement
1	R5	Content that appears on the Tokopedia Application according to user preferences
2	T3	Tokopedia application features are clear to use
3	T4	The grammar in the Tokopedia application is easy to understand
4	T5	The navigation on the Tokopedia application is understandable
5	T2	The Tokopedia application is easy to operate
6	T1	The appearance of the Tokopedia application is attractive
7	T6	The design of the Tokopedia application is attractive

Source: Data processed by researcher (2024)

In Quadrant IV, there are seven attributes categorized as excessive. This indicates that while the services provided are of high quality, these attributes are considered less important for user satisfaction. Therefore, no further improvements are necessary for these attributes. The

attributes in this quadrant include one from the Reliability dimension and six from the Tangibility dimension

5. Discussion

The analysis of the Zone of Tolerance (ZOT) for Tokopedia's application indicates that the services provided are currently below both the Minimum Satisfactory Level (MSA) and the Minimum Satisfactory Standard (MSS). This suggests that customers do not find the service satisfactory, as all dimensions of E-Servqual for Tokopedia's application are rated unsatisfactory. Notably, improvements are urgently needed in the areas of Empathy, Responsiveness, and Assurance to enhance overall service quality.

The E-Servqual Analysis reveals significant gaps between user expectations and perceived service quality across various dimensions. The negative gap score indicates that customers feel dissatisfied with Tokopedia's E-Servqual, underscoring the necessity for comprehensive service improvements.

Furthermore, the Importance-Performance Analysis (IPA) categorizes service attributes into four quadrants based on their performance and importance ratings. Quadrant I identifies ten attributes requiring immediate improvement due to their low performance but high importance to users, particularly in Empathy, Assurance, and Responsiveness. Quadrant II includes attributes performing well and should be maintained, primarily within the Reliability dimension. In contrast, Quadrant III highlights attributes with low importance and performance that do not require urgent intervention. Finally, Quadrant IV consists of attributes performing well but deemed less critical for user satisfaction, indicating that resources could be better allocated to other areas needing improvement.

6. Conclusion, Implication, and Recommendation

6.1 Conclusion

Based on the results of the Tokopedia Application E-Servqual data analysis in this study, it can be concluded that:

1. Tangibility: The E-Servqual analysis indicates that the Tokopedia application does not meet user expectations and falls below the service tolerance threshold, evidenced by a negative gap value. All tangibility attributes are in Quadrant IV of the Importance-Performance analysis, suggesting no need for improvement.
2. Reliability: Similar to tangibility, the reliability dimension also shows a negative gap, indicating unmet user expectations. However, four reliability attributes fall into Quadrant II, suggesting good service quality that should be maintained, while one attribute is in Quadrant IV, indicating no need for improvement.
3. Responsiveness: The analysis reveals that responsiveness does not meet user expectations and is below the tolerance threshold. Three attributes are in Quadrant I (high priority for improvement), and two in Quadrant III (low priority), highlighting the need for Tokopedia's customer service to become more responsive and accurate.
4. Assurance: Assurance also fails to meet user expectations, with a negative gap indicating dissatisfaction. Three attributes are in Quadrant I (high priority for improvement), while two are in Quadrant III (low priority), suggesting that Tokopedia needs to enhance its reliability.

5. Empathy: The empathy dimension shows a negative gap, indicating dissatisfaction among users. Four attributes are in Quadrant I (high priority for improvement), and one in Quadrant III (low priority), emphasizing the need for improved empathy from Tokopedia's customer service to enhance customer satisfaction.

6.2 Implication

The research employs the E-Servqual theory to assess the E-Servqual level of the Tokopedia application among Generation Z in DKI Jakarta. It focuses on five dimensions: Tangibility, Reliability, Responsiveness, Assurance, and Empathy. Various analytical methods are utilized, including descriptive analysis and the Zone of Tolerance. The findings indicate that improvements in E-Servqual for Tokopedia are most urgently needed in the dimensions of Empathy, Responsiveness, and Assurance, as identified by ten attributes in Quadrant I (Service Improvement Priority) from the Importance-Performance Analysis. This study serves as a reference for Indonesian e-commerce, particularly Tokopedia, to enhance its electronic service quality by addressing the identified areas requiring urgent service improvements.

6.3 Recommendation

Researchers are encouraged to explore ways to access official data from Tokopedia, such as collaborating with the company or utilizing secondary data from organizations that have customer and sales data access. Additionally, they should implement interview methods to gain in-depth insights from respondents regarding the quality of electronic services.

7. References

Ahdiat, A. (2024). 5 E-Commerce dengan Pengunjung Terbanyak Sepanjang 2023. Diakses pada 10 Januari 2024 dari https://databoks.katadata.co.id/datapublish/2024/01/10/5-e-commerce-dengan-pengunjung-terbanyak-sepanjang-2023

Badan Pusat Statistik. (2020). Jumlah Penduduk Hasil Sensus Penduduk 2020 menurut Generasi dan Kabupaten/Kota di Provinsi DKI Jakarta (Jiwa), 2020. Diakses pada tanggal 10 September 2024 dari https://jakarta.bps.go.id/id/statistics-table/2/MTA1NyMy/jumlah-penduduk-hasil-sensus-penduduk-2020-menurut-generasi-dan-kabupaten-kota-di-provinsi-dki-jakarta.html

Damayanti, D., & Putro, S. D. (2022). Pengaruh Electronic Service Quality (E-Servqual) Dan Electronic Word Of Mouth (E-Wom) Terhadap Keputusan Pembelian Online Pengguna Shopee. *Jurnal Riset Akuntansi Dan Bisnis Indonesia*, *2*(1). https://doi.org/10.32477/jrabi.v2i1.432

Damayanti, P. R., & Palupi, G. S. (2023). Penerapan Metode E-Service Quality dan Importance Performance Analysis (IPA) untuk Analisis Kualitas Layanan Transfer Terhadap Kepuasan Pengguna Aplikasi BRImo. JEISBI : *Journal of Emerging Information Systems and Business Intelligence), 4*(03), 115-125

Datanesia. (2022). 10 Wilayah E-Commerce Terbesar di Indonesia. Diakses pada tanggal 08 Oktober 2024 dari https://datanesia.id/10-wilayah-e-commerce-terbesar-di-indonesia/

Faradiba, B., & Syarifuddin, M. (2021). *COVID-19: Pengaruh Live Streaming Video Promotion Dan Electronic Word Of Mouth Terhadap Buying Purchasing* (Vol. 4, Issue 1).

Faulina, A., Dewi, R. S., & Arif, E. (2021). Fenomena Online Shopping sebagai Gaya Hidup dan Strategi Pemberdayaan Ekonomi Umat Islam di Masa Pandemi Covid 19. *Jurnal Pengembangan Masyarakat Islam (TATHWIR)*, *8*(1), 46–55. https://ejournal.uinib.ac.id/jurnal/index.php/tathwir/index

Hernikawati, D. (2021). Analisis Dampak Pandemi COVID-19 terhadap Jumlah Kunjungan pada Situs E-Commerce di Indonesia Menggunakan Uji T Berpasangan. *Jurnal Studi Komunikasi Dan Media*, *25*(2), 191. https://doi.org/10.31445/jskm.2021.4389

Irawati, D. S., & Pibriana, D. (2021). Perbandingan Kualitas Dua E-Commerce Terhadap Kepuasan Pengguna Menggunakan Metode Servqual. *Jurnal Teknologi Sistem Informasi*, *2*(2). https://doi.org/10.35957/jtsi.v2i2.1382

Nurfiriyah, R. (2019). Quality Analysis of Participants in the Training With Servqual Methods and Tolerance Zone in Bdk Semarang. *Dialog*, *42*(2).

Pranitasari, D., & Sidqi, A. N. (2021). Analisis Kepuasan Pelanggan Elektronik Shopee menggunakan Metode E-Service Quality dan Kartesius. *Jurnal Akuntansi Dan Manajemen*, *18*(02). https://doi.org/10.36406/jam.v18i02.438

Puspasari, V. (2022). Perbaikan Kualitas Toko Dunia Foto Dengan Metode Servqual, Zot (Zone Of Tolerance), Dan Siklus PDCA. *SITEKIN: Jurnal Sains, Teknologi Dan Industri*, *19*(2).

Qing, W., Amin, M. Bin, Gazi, M. A. I., Khan, W., Masud, A. Al, & Alam, M. N. (2023). Mediation Effect of Technology Adaptation Capabilities between the Relationship of Service Quality Attributes and Customer Satisfaction: An Investigation on Young Customers Perceptions Toward E-Commerce in China. *IEEE Access*, *11*. https://doi.org/10.1109/ACCESS.2023.3328775

Rahmawati, D., Aulawi, H., & Kurniawati, R. (2023). Pengukuran Kualitas Layanan Berdasarkan Dimensi Service Quality (Servqual) Dengan Metode Zone Of Tolerance (Zot) Dan Kano Pada Pet World. *Jati Undip: Jurnal Teknik Industri*, *18*(1). https://doi.org/10.14710/jati.18.1.21-32

Ruheli, R. (2022). Pengkuran Kinerja Layanan Pemberian Kredit pada Bank Cipatujah Jabar (Cij) Kantor Cabang Rancah dengan Menggunakan Metode Servqual. *Jurnal Media Teknologi (JMT)*, 9*(1).*

Sembiring, J., & Sinaga, B. (2021). Penerapan Metode Servqual Dalam Menentukan Tingkat Kepuasan Masyarakat Terhadap Pelayanan Pengurusan Surat Izin Usaha Mikro Dan Kecil

Pada Kantor Camat Dolat Rayat Kabupaten Karo. *Jurnal Nasional Komputasi Dan Teknologi Informasi*, *4*(2). https://doi.org/https://doi.org/10.32672/jnkti.v4i2.2933

Setyowati, D. (2022) Transaksi Rp 132,5 Triliun, Tokopedia Pimpin Pasar di Indonesia. Diakses pada tanggal 5 April 2024 dari https://katadata.co.id/digital/e-commerce/630df91941e11/transaksi-rp-132-5-triliun-tokopedia-pimpin-pasar-di-indonesia

Zainah, S., Hamzah, M. L., Rozanda, N. E., & Salisah, F. N. (2023). Analisis Kualitas Layanan E-Commerce Shopee Menggunakan Metode E-Servqual Dan Kano. *Jurnal Teknik Informatika Dan Sistem Informas*, *10*(2).