

## Exploring E-Customer Satisfaction Using e-SERVQUAL Among Online Shoppers

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**Abstract:** When interacting with a company's products and services, customer satisfaction is an overall feeling of contentment that a client is experiencing. Previous studies have shown an increase in revenue when a company prioritizes customer satisfaction with its products or services. Around 70 percent of Malaysians are dynamic online consumers, with most of them shopping via websites. e-SERVQUAL assesses the efficacy and efficiency of a website in facilitating shopping, purchase, and delivery processes. It encompasses the pre-purchase and post-purchase phases. The e-SERVQUAL dimensions (privacy, website design, responsiveness, reliability, usability, and information quality) are elements that impact e-customer satisfaction. A total of 100 respondents at Bandar Utama City Centre who shop online participated in the survey. According to the data, males outnumber females among the respondents. The survey comprised three sections: A, B, and C. Section A comprised the demographic information of the respondents, Section B concentrated on the e-SERVQUAL aspects, and Section C addressed e-customer satisfaction. The data was examined utilizing the Statistical Package for the Social Sciences (SPSS). The results indicated that the majority of respondents expressed satisfaction with the quality. However, website design improvements should be made to encourage more online shopping. The recommendation in this study is beneficial to online service providers and future studies on e-SERVQUAL should be extended to another dimension to explore more aspects of determining quality service in an online setting.

**Keywords:** *eCustomer Satisfaction, eSERVQUAL, Privacy, Website Design, Responsiveness, Reliability, Usability, Information Quality*

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### 1. Introduction and Background

Electronic trade indicates the execution of commercial transactions between businesses and consumers via electronic platforms, such as the Internet. Companies are increasingly employing this business channel to compete with their competitors in the online marketplace. Business-to-consumer (B2C) constitutes a fundamental category of transactions within e-commerce. Consequently, contemporary consumers can place orders via several platforms and payment methods from the convenience of their homes and await delivery to their doorsteps (Rita Oliveira & Farisa, 2019). Courier services available through internet-enabled devices, such as laptops and mobile phones, facilitate the efficient delivery of commodities, including merchandise and foodstuffs (Wirapraja, Aribowo, & Setyoadi, 2021). Amjad-ur Rehman, Qayyum, and Javed (2019) also provide support for this argument, stating that online purchasing enables customers to conduct their shopping activities more effectively and efficiently.

The Internet has become an essential tool for conducting business today, and offering quality information and technology services to clients has become one of firms' key aims (Baber, 2019). To support this, 80 percent of Malaysia's population was active Internet users in 2021, with mobile phone penetration at 84.2 percent (MATRADE, 2022). According to the Department of Statistics Malaysia (DOSM, 2021), e-commerce revenue reached RM801.2 billion, up 23.1 percent from 2020.

Consequently, the rise in e-commerce platform usage in Malaysia requires an understanding of consumer satisfaction levels. In the electronic context, consumer satisfaction is referred to as e-satisfaction. Anderson and Srinivasan (2003) define e-satisfaction as the fulfillment experienced by consumers during online shopping, especially within the B2C market. The study indicates a strong and significant correlation between e-SERVQUAL and e-satisfaction in the context of e-commerce. E-service quality indicates the online services offered to customers, who view internet-based services as more efficient in terms of time and cost for conducting transactions (Juwaini et al., 2022). Alam (2020) defines service quality as a business's ability to

provide services associated with products, processes, and the environment that fulfill consumer expectations. The quality of a company's services significantly influences customer satisfaction, with the quality of e-services determining consumer satisfaction or dissatisfaction (Komara & Ariningrum, 2013).

## 2. Literature Review

### **e-Service Quality (e-SERVQUAL)**

e-SERVQUAL is characterized as the degree to which a website supports efficient and effective buying, purchasing, and delivery (Parasuraman et al., 2005). This definition clarifies that the e-SERVQUAL concept encompasses both the pre-purchase phase (including ease of use, product information, ordering information, and personal information protection) and the post-purchase phase (comprising shipping, customer support, fulfillment, and return policy). Parasuraman et al. (2005) assert that the examination of e-SERVQUAL necessitates the creation of scales that surpass the adaptation of traditional offline scales.

Santos (2003) defined e-SERVQUAL as the comprehensive assessments and evaluations of the quality and excellence of e-service delivery in the digital marketplace. Research conducted over the last twenty years has demonstrated that service quality affects consumer choices; however, these insights have only recently been utilized in the context of e-commerce (Ilieva, Yankova, Klisarova, & Dzhabarova, 2022).

Furthermore, high-standard e-SERVQUAL signifies the means through which potential advantages can be actualized for online consumers (Yang, 2001). The online comparison of product specifications and costs is far more convenient than through traditional methods, making e-SERVQUAL a crucial element for consumers (Santos, 2003). Consequently, online consumers anticipate a standard of service quality that meets or exceeds that of traditional channel consumers. Collier and Bienstock (2006) define e-service quality as customers' perceptions of service outcomes and their recovery perceptions in the event of an issue.

### **e-Service Quality Dimension**

The revised SERVQUAL scale items were utilized in this study to determine the dimensions of e-service quality through information quality, efficiency, security and privacy, responsiveness, website design, and reliability. The relationship between e-service quality dimensions, overall service quality, and customer satisfaction is suggested and examined below:

When it comes to traditional SERVQUAL instruments, reliability is crucial. Yang et al. (2005) define it as the execution of a promised service accurately and promptly, along with the delivery of intact and correct items at times suitable for clients. Perceptions of reliability are influenced by the proper technical operation of the site and the user interface's technical features, whereas the outcome aspect is determined by the accuracy of service promises, billing, and product details (Zeithaml, Parasuraman & Malhotra, 2002). Studies indicate that customer satisfaction increases when services are perceived as dependable and reliable (Lukman, 2024; Woldemichael, 2024; Almurshidee, 2018). Almurshidee (2018) emphasizes that the dependability of e-banking services is a crucial determinant of consumer satisfaction in the Saudi banking sector. Anjum and Saha (2020) assert that a customer's total opinion of e-service quality is closely related to their enjoyment, emphasizing the significance of reliability.

Website design includes the aesthetics, content, and structure of an online catalog (Cai & Jun 2003). A well-structured and visually appealing website serves as the first point of contact for online clients, changing their opinion of the company and promoting interaction with its digital offerings (Ighomereho, Ojo, Omoyele, & Olabode, 2022). According to Sohn and Tadisina (2008), a website's design is similar to that of a traditional store, influencing users' views of the online service provider and consequent behavioral intentions.

Responsiveness is crucial in influencing consumer satisfaction across multiple service sectors, including e-retailing (Ahmed et al., 2022; Tabash, Albugami, Salim & Akhtar, 2019). This aligns with the findings of Kim and Jackson (2009), which indicated that responsiveness significantly influences e-satisfaction among online consumers. Consequently, online shopping providers must focus on offering substantial guarantees, addressing customer concerns and issues, and providing quick return choices. A provider's promptness in responding to inquiries correlates positively with the evaluation of service quality (Van Riel et al, 2003). These findings are

consistent with Khatoon, Zhou, and Hussain (2020) research, which emphasizes that responsiveness in electronic banking services is essential to maintaining high levels of customer satisfaction.

Perceived usability is comprised of convenience of ordering, ease of understanding, ease of use, and ease of purchase, as determined by Tandon et al. (2016). Kim and Stoel (2004) discovered that a comprehension of the website is the catalyst for online purchases. According to Mustakim et al. (2022), perceived usability and perceived utility have a substantial impact on customer satisfaction on e-commerce platforms, which further corroborates the notion that usability is a critical determinant of customer satisfaction. This claim is supported by Chong (2023), who claims that perceived utility is crucial in shaping consumer behavior, thereby connecting usability to overall satisfaction. For instance, Nourallah (2021) has discovered that customer loyalty is indirectly influenced by usability by its effect on customer satisfaction, underscoring the significance of usability in mobile banking applications. This implies that improving usability can result in increased consumer satisfaction, which in turn encourages loyalty.

Security and privacy are essential components of online shopping platforms, as they significantly affect perceptions of overall quality and, consequently, user satisfaction. The information provided on the website serves as a significant indicator of user satisfaction (Sabiote, Frias, & Castaneda, 2012). Lee and Lin (2005), Parasuraman et al. (2005), and Van Riel et al. (2003) identified privacy and security as critical components of e-SERVQUAL. Reichheld and Scheffer (2000) assert that online customers rely on their trust in the shopping platform, as they lack direct interaction with employees and physical store facilities. Febriarizka (2023) highlights that website security and privacy significantly influence customer satisfaction in e-commerce. When customers perceive high levels of security and privacy, their satisfaction with the service increases correspondingly (Febriarizka, 2023). Security is a crucial factor in the adoption of digital wallet services, indicating that customers expect robust security mechanisms to protect their transactions and personal information (Muhtasim et al., 2022).

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### **Customer Satisfaction**

Research demonstrates that customer satisfaction is determined not just by product quality but also by service quality, customer experience, and the overall value perceived by customers (Williams & Naumann, 2011; Drosos et al., 2019). Customer happiness is essential for establishing enduring relationships and enhancing profitability, particularly for online retailers. Deng et al. (2009) assert that a company's capacity to generate elevated customer satisfaction is pivotal in differentiating products and forging robust connections with consumers. In the realm of e-commerce, "e-satisfaction" denotes the favorable emotions clients experience when their expectations or objectives are fulfilled during an online shopping encounter. This is especially crucial in the B2C (business-to-consumer) sector, as client happiness can determine a company's success (Anderson and Srinivasan, 2003). Zhang and Von Dran (2000) define e-satisfaction as an emotional response that influences customer perceptions of products and services, hence molding their loyalty.

A shopper's overall satisfaction with an online retailer is closely tied to how well the website performs and the quality of the products it offers (Eid, 2011). Enjoyment also plays a big part, as Cai and Xu (2006) noted, with satisfied customers often reporting that they had fun while shopping online. Additionally, Yao and Liao (2011) found that a good decision-making process, smooth shopping experience, and overall satisfaction with online services are all critical to driving e-satisfaction.

Customer satisfaction is often considered a reflection of the quality of service, but it can be hard to define because it covers so many aspects (Sattar & Sattar, 2012). One major factor that boosts customer satisfaction in online shopping is the quality of electronic services (eSERVQUAL). High-quality e-services strengthen the relationship between online sellers and shoppers, benefiting both sides by improving customer loyalty and

seller performance. Measuring and improving e-service quality which focusing on aspects like website design, reliability, responsiveness, security, and privacy which can lead to higher e-satisfaction among shoppers (Zha, Ju, & Wang, 2006).

### Relationship between eSERVQUAL and Customer Satisfaction

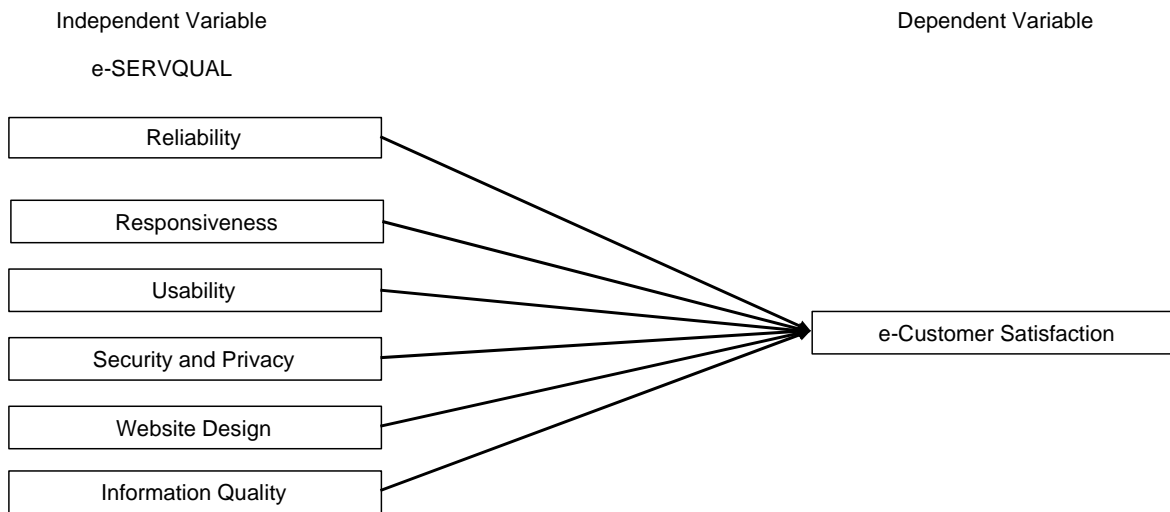
The correlation between eSERVQUAL and customer satisfaction is a critical study area within online services. eSERVQUAL, a modification of the conventional SERVQUAL model, primarily pertains to the quality of electronic services, which is more relevant in the contemporary digital marketplace. Numerous studies have demonstrated a substantial positive association between e-service quality and customer satisfaction, suggesting that enhanced perceived e-service quality results in elevated customer satisfaction.

Anjum and Saha (2020) state that customer satisfaction is closely associated with service quality, mentioning that e-service quality reflects customers' overall evaluation of e-service delivery in the banking sector of Bangladesh. This finding aligns with the study by Almurshidee (2018), which identifies the quality of e-banking services as a fundamental pillar for ensuring customer satisfaction and retention in Saudi commercial banks.

Rita, Oliviera, and Farisa (2019) state that e-service quality is a crucial factor in determining consumer satisfaction in online buying contexts, underscoring the significance of this relationship in shaping customer behavior. Research by Utami (2024) indicates that e-service quality promotes customer satisfaction and is essential for improving client loyalty, thereby demonstrating a direct correlation between the quality of electronic services and total customer satisfaction. Additionally, research on electronic banking service quality indicates substantial effects on customer happiness, underscoring the need for excellent service delivery in digital environments to attain elevated satisfaction levels (Khatoun et al., 2020). This study underscores the importance of eSERVQUAL aspects in shaping customer experiences and satisfaction.

The conceptual structure for this study, derived from the literature review, is presented below, comprising e-SERVQUAL as the independent variable and e-customer satisfaction as the dependent variable.

**Figure 1: Conceptual Framework**



### 3. Research Methodology

Non-experimental research was carried out using the correlational research approach to investigate the relationship between e-SERVQUAL and customer satisfaction in online shopping platforms. This study was carried out to investigate the relationship between the two. A total of one hundred people were included in this study's population. The population of this study was derived by calculating the average number of persons who shop online every month in the Bandar Utama City Centre. A method known as purposive sampling was utilized in the course of this research project. The screening questions were asked to the respondents before the

questionnaire was distributed to them. The purpose of these questions was to determine whether or not the respondents had recently utilized any of the e-commerce platforms. It is planned to construct a collection of questionnaires, which will then be given to the respondents. The use of a questionnaire makes it simple to collect information from the individuals who are participating in the study. To facilitate the participant's interpretation of the questions and to provide useful responses for the research, the questionnaire was meticulously constructed to include characteristics that are relevant to the interests of online consumers. All of the responses to the questionnaire were checked to ensure that they were comprehensive before being included in the data analysis system. Statistical Packages for Social Science (SPSS) was utilized to perform the analysis of the data that was acquired. To conduct the analysis, descriptive statistics were utilized. These data included frequency, percentage, and the Pearson Product Moment Correlation Coefficient.

#### 4. Results

##### Demographic Background

This study includes participants of both genders, male and female, employed at Bandar Utama City Centre, aged between 18 and over 56 years, with a significant number of respondents falling within the 26 to 35 years age bracket. A significant portion of the respondents, comprising 76.0%, identified as Malay, while 64.0% of the participants reported being single. The findings indicate that a significant portion of respondents engage in purchasing activities every month, with 34.0% of the total respondents reflecting this behavior. 58.0% of participants selected Shopee as their favored online platform. 36.0% of respondents selected electronic items as their preferred choice on online shopping platforms.

##### Relationship between e-SERVQUAL and Customer Satisfaction

The results of the correlation between e-SERVQUAL and e-customer satisfaction in online shopping among shoppers at Bandar Utama City Centre are presented in Table 1. All correlations were analyzed and documented. Table 1 demonstrates a notable correlation between the dimensions of e-SERVQUAL and e-customer satisfaction in the context of online shopping among employees at Bandar Utama City Centre.

The relationship between privacy and e-customer satisfaction exhibits a notable strength, indicated by a correlation coefficient of ( $r = 0.673^{**}$ ,  $p > 0.05$ ). This indicates that addressing privacy concerns is likely to lead to an increase in customer satisfaction. Furthermore, a significant correlation exists between responsiveness and e-customer satisfaction, evidenced by a correlation coefficient of ( $r = 0.713^{**}$ ,  $p > 0.05$ ). The relationship between website design and e-customer satisfaction is significant, evidenced by a correlation value of ( $r = 0.739^{**}$ ,  $p > 0.05$ ), underscoring the influence of an effective website layout on customer satisfaction. Fourth, usability shows a significant correlation with e-customer satisfaction ( $r = 0.731^{**}$ ,  $p > 0.05$ ), highlighting the critical role of user-friendly interfaces in improving the customer experience. The relationship between reliability and e-customer satisfaction exhibits a strong correlation, quantified at ( $r = 0.652^{**}$ ,  $p > 0.05$ ). The relationship between information quality and e-customer satisfaction is moderate, indicated by a correlation of ( $r = 0.548^{**}$ ,  $p > 0.05$ ). The strength of this relationship, while still significant, is somewhat lower than that of the other dimensions, suggesting that information quality exerts a moderate influence on e-customer satisfaction. The results indicate that several critical components of e-SERVQUAL, such as privacy, responsiveness, website design, usability, and reliability, have a significant effect on e-customer satisfaction, whereas information quality exerts a moderate influence.

**Table 1: Correlation Results**

Correlation Variable	r	Sig. (2-tailed)
Privacy	0.673**	0.00
Responsive	0.713**	0.00
Website Design	0.739**	0.00
Usability	0.731**	0.00
Reliability	0.652**	0.00
Information Quality	0.548**	0.00

##### Discussion

All dimension in e-SERVQUAL was found out to have a significant relationship with e-customer satisfaction. First, in the aspect of privacy, Al-Hawary and Al-Smeran (2017) indicate that privacy has a significant effect on customer satisfaction within Islamic banks in Jordan, suggesting that customers feel more satisfied when they trust that their personal information is safeguarded during transactions. Vun et. al. (2013) emphasize that consumers express higher satisfaction levels when their confidential information is preserved, reinforcing the idea that privacy is a crucial determinant of customer satisfaction. Furthermore, the findings of Ojochide (2023) reveal that privacy, along with other service quality dimensions, plays a vital role in fostering customer loyalty in the e-commerce market.

The research by Gautam and Sah (2023) demonstrates that responsiveness is a vital element in online banking service practices, with effective customer service associated with increased customer satisfaction levels. Responsiveness and empathy are critical factors influencing customer satisfaction in Islamic banks, indicating that timely attention to customer needs enhances satisfaction levels (Fida et al., 2020). Research in various sectors, including retail and hospitality, confirms the idea that responsive service improves customer satisfaction. Narteh (2018) emphasizes that responsiveness is a vital element of customer satisfaction in retail banking, underscoring its significance in various service contexts. Pakurár et al. (2019) demonstrated that responsiveness correlates with customer satisfaction in the Jordanian banking sector, underscoring the necessity of prompt and effective service responses for sustaining customer satisfaction.

Numerous research studies have shown a significant positive correlation between the quality of website design and customer satisfaction. Atamja (2023) identified that website design significantly influences e-satisfaction among users of e-commerce platforms in Korea. This is consistent with the research of Daniati and Roostika (2021), which highlighted that high-quality website design has a direct impact on e-satisfaction and e-loyalty in e-commerce customers.

Previous studies have also reported a strong positive correlation between perceived usability and e-customer satisfaction. Tandon et al. (2016) demonstrated that perceived usability, website functionality, and perceived usefulness significantly enhance customer satisfaction in online shopping environments. The findings of Belanche Casalo and Guinalú (2012) indicate that website usability has a significant impact on consumer satisfaction and the intention to use a website, implying that increased usability correlates with enhanced satisfaction.

Woldemichael (2024) demonstrated that the reliability dimension of service quality has a significant effect on customer satisfaction within the Ethiopian Electric Utility, suggesting that customer satisfaction increases with the perception of reliable services. This finding aligns with the research by Janahi and Mubarak (2017), which underscores a significant correlation between reliability and customer satisfaction in Islamic banking, indicating that reliable services contribute to elevated levels of customer satisfaction.

This finding is by Maghfur et al. (2021), stated that information quality plays a vital role in customer satisfaction, as it allows customers to feel comfortable and confident when making purchases in online marketplaces. Furthermore, Liu et al. (2008) conducted an empirical study that supports the notion that information quality significantly influences customer satisfaction in online shopping contexts. This aligns with the findings of Nguyen and Khuc (2022) who also emphasize the importance of information quality in enhancing customer satisfaction in mobile banking services.

## **5. Recommendations and Conclusion**

Based on the findings of this study, there are several areas for improvement that online shopping platforms particularly popular ones like Lazada and Shopee should address. While most users are generally satisfied with the current website designs, there is room for further innovation, particularly in terms of technology. Implementing cutting-edge technologies can not only enhance the customer experience but also attract new users and boost sales.

In terms of information quality, improvements are particularly needed in the area of contact details. Some users have reported difficulties in reaching the platform or obtaining solutions quickly due to the lack of readily

available contact numbers. Enhancing the availability of customer support information would improve user satisfaction.

While numerous studies have explored e-SERVQUAL and its impact on customer satisfaction, future research should consider integrating additional variables to gain deeper insights into the factors that influence e-customer satisfaction. This is particularly important as online shopping continues to evolve and become a central part of consumer behavior in today's digital age.

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