

# The Relationship between Service Quality and Online Repurchase Intention in Malaysia

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## Abstract

The advancement of technology and the Internet has transformed the way people interact with the digital world, enabling activities such as online communication, information searching and shopping. The Internet's convenience and accessibility, allowing users to connect anytime and anywhere, have made it an integral part of daily life. Among these activities, online shopping has become particularly popular. However, challenges such as negative reviews, limited communication, and fraudulent sellers can significantly impact consumers' intention to make repeat purchases online. Therefore, service quality plays an important role in consumers repurchase intention. This study focuses on the relationship between service quality and online repurchase intention in Malaysia only. Thus, this study aims to identify the level of service quality toward online repurchase intention in Malaysia, the level of online repurchase intention in Malaysia and the relationship between service quality and online repurchase intention in Malaysia. The Service Quality (SERVQUAL) Model is adopted as the theoretical foundation in this study. This study surveyed 271 respondents in Malaysia. All the collected data were analysed using Statistical Package for Social Science (SPSS) to develop quantitative reports presented in the form of frequency, percentage, mean and standard deviation. This study helps service providers and online sellers to improve the service quality towards online shopping. As a result, all variables have a significant relationship with online repurchase intention. All the hypotheses were accepted in this study. Responsiveness dimension is the highest level towards online repurchase intention, and reliability is the dimension with the highest correlation coefficient of 0.659.

## 1. Introduction

The proliferation of connected technologies, including artificial intelligence (AI) and the Internet of Things (IoT) has driven e-tailers like Amazon and Alibaba to integrate this technology (Bandara *et al.*, 2019; Bayer *et al.*, 2020; Mofokeng, 2023). This integration allows them to present innovative products and services, deliver intelligent consumer experiences, analyse purchasing behaviour and optimise logistics, ultimately transforming the online buying and selling (Bandara *et al.*, 2019; Bayer *et al.*, 2020; Mofokeng, 2023). This has led to online shopping

becoming the preferred choice for most online users, and this has made online shopping a common activity around the world (Erjavec & Manfreda, 2022; Gulfracz *et al.*, 2022; Shao *et al.*, 2022). According to the statement by Tang *et al.* (2023), in 2021, approximately 60 million people experienced online shopping for the first time, but the number of users who have had an online shopping experience has reached 840 million. This is due to the significant economic slowdown in much of the world in 2020 and 2021, due to restrictions imposed by various countries, which has favoured strong growth in digital business activity (Higuera-Castillo *et al.*, 2023; Modgil *et al.*, 2022; Shareef *et al.*, 2021). Due to online shopping offering convenience to consumers, online shopping has gained popularity among consumers (Jiang, 2023; Rita *et al.*, 2019). Consumers can shop anytime and anywhere and pay via credit card or e-wallet (Rita *et al.*, 2019). This has resulted in a gradual increase in the number of online shopping users. This will naturally cause some e-tailers to start paying attention to consumer repurchases.

Repurchase is the result of consumers wishing to purchase a certain product repeatedly to obtain further benefits (Tang *et al.*, 2023). Consumer repurchase intention means the intention of consumers to buy again after the initial purchase (Wei *et al.*, 2023). Due to online shopping being different from offline shopping, online shopping has limitations in its ability to attract people in a short period of time, leading to increased uncertainty among consumers. These uncertainties will affect consumers' online shopping experience, causing consumers to be reluctant to purchase online (Tang *et al.*, 2023). When consumers have no intention to shop online, they will naturally have no intention to repurchase. After consumers purchase online, consumers will decide whether to make repeat purchases based on what they receive. Thus, the quality of service received by consumers will have a direct impact on online repurchase intention (Lin & Lekhawipat, 2014). The advancement of the Internet has led to its continued growth in access and usage worldwide, driven by its unique flexibility (Gezginci *et al.*, 2024). Due to the lockdown, the use of various digital technologies has once again reached higher levels, such as internet-based services for communicating, working from home and online shopping (De' *et al.*, 2020; Erjavec & Manfreda, 2022). Online shopping as a way to purchase goods and services is a closely related concept in today's world due to the increasing popularity of technology and the Internet. This has made online shopping an opportunity to gradually gain popularity among consumers (Jiang, 2023; Rangaswamy *et al.*, 2022).

According to the Internet Users Survey (IUS) 2022 from Malaysia Communication and Multimedia Commission (MCMC, 2022b), the number of Internet users in Malaysia has grown from 4.1 billion in 2019 to 4.9 billion in 2022, and 66.6% of the Internet users have the purpose of online shopping. Moreover, according to the E-commerce Consumers Survey (ECS) 2022 from MCMC (2022), the percentage of Malaysian E-commerce consumers in 2022 stood at 78.3%, an increase of 27.1 percentage points (pp) compared with 2018 (51.2%). Both data show an increase in the number of consumers using online shopping, indicating that Malaysians are gradually using online shopping. Despite the many benefits of online shopping and its growing popularity, consumers still face risks due to the nature of online shopping and the number of online shopping complaints caused by service quality.

Service quality is a very important component in any business-related activity (Rita *et al.*, 2019). This is because service quality will influence consumers online repurchase intention. Previous studies show that online repurchase intention will be affected by consumer satisfaction based on the service quality perceived by consumers (Rita *et al.*, 2019). This study examined five key dimensions of service quality: reliability, responsiveness, assurance, empathy and tangibles (Parasuraman *et al.*, 1988). According to Parasuraman *et al.*, (1988), reliability refers to the ability to reliably and accurately perform promised services. Responsiveness refers to the ability and willingness to help customers and provide timely services (Parasuraman *et al.*, 1988). Next, assurance refers to the knowledge and courtesy of employees and their ability to inspire trust and confidence in customers (Parasuraman *et al.*, 1988). Empathy refers to the care and personalised attention that the company provides to its customers (Parasuraman *et al.*, 1988). Finally, tangibles refer to the physical facilities, equipment, and appearance of personnel (Parasuraman *et al.*, 1988).

Consumers are more likely to purchase products through online platforms, as online shopping offers greater convenience and ease for consumers (Rita *et al.*, 2019). Online shopping offers one-stop shopping, saving time and money, simplicity and comfort, and a wide range of choices and facilities to compare (Danielle Zanzalari, 2022; Mustafa *et al.*, 2022). According to ECS 2022 (MCMC, 2022a), 78.3% of respondents are engaged in e-Commerce activities compared to only 51.2% of respondents who were engaged in e-Commerce activities in 2018, which includes both online sellers and online shoppers. This shows that the trend of online shopping continues to rise. Moreover, online shopping has become an increasingly popular way of shopping for Malaysians (Said & Saad, 2023). Therefore, the researcher feels the need to study deeper into online shopping.

The first issue related to online repurchase intention in Malaysia is for online platforms. Shopee is one of the most popular and widely used online stores among millennials, and one of Shopee's competitors is Lazada (Lok, 2022). According to Jeremy Chew (2018) and Ru *et al.* (2021), Shopee's monthly website visit rate in 2018 was lower than Lazada's. However, recent trends indicate a significant increase in Shopee's usage, which is now more than double that of Lazada. On Semrush, Shopee ranks 5<sup>th</sup> among the most visited websites in Malaysia, and 6<sup>th</sup> on Similarweb in May 2024 (Semrush, 2024; Similarweb, 2024). This makes researcher wonders what exactly causes

such a large gap between them. Therefore, the researcher believes that it is necessary to conduct a deeper study on online platforms and repurchase intention.

Consumer shopping experience influences future consumer behaviour, including repurchase intention, store revisit intention, and word of mouth (WOM), whether in physical shopping or online shopping (Hsin Chang & Wang, 2011; Rita *et al.*, 2019). This shows that consumers shopping intentions are influenced by various factors. Previous studies think that consumers' shopping intentions are influenced by consumers' perception, trust, and attitude (Mustafa *et al.*, 2022; Wang *et al.*, 2023). Consumer perception plays an important role in shaping consumer satisfaction with shopping (Wang *et al.*, 2023). However, negative reviews, lack of communication and fake online sellers may affect consumers' purchase intentions (Mohd Paiz *et al.*, 2021). According to previous studies, consumer satisfaction had a positive impact on repurchase intention, word-of-mouth, and site revisit and was impacted by service quality (Lin & Lekhawipat, 2014; Rita *et al.*, 2019). This illustrates that repurchase intention is influenced by consumer satisfaction with service quality. Customers repurchase intention is beneficial to the online business (Har *et al.*, 2011).

The last issue is related to the context of the study. Although several studies were about the relationship between consumer satisfaction and repurchase intention, there is still a lack of studies that specifically look at the Malaysian context, as other studies focus on other countries (Do *et al.*, 2023; Liu *et al.*, 2023; Wei *et al.*, 2023). In Malaysia, there have been previous studies about online shopping, but the study is about online shopping intention focusing on online grocery shopping (OGS) adoption from the elderly's perspective in Klang Valley, Malaysia (Yap *et al.*, 2023). There is much research on online shopping and behaviour. Thus, this study investigates the relationship between service quality and online repurchase intention in Malaysia.

Therefore, to achieve the research objectives, the dimension of online shopping service quality that is rated highly by the customers and the level of online repurchase intention in Malaysia are determined. Consequently, the relationship between service quality and online repurchase intention is identified.

## 2. Literature Review

### 2.1 Conceptualisation of Online Repurchase Intention

Isa *et al.* (2020) and Kukar-Kinney & Close Scheinbaum (2009) believe that online purchase intention stems from purchase intention. Consumers' online purchase intention will determine the strength of their willingness to make specific purchases through the Internet (Kukar-Kinney & Close Scheinbaum, 2009; Salisbury *et al.*, 2001). According to Wei *et al.* (2023), customers' purchase intention includes customers' initial purchase intention and repurchase intention. Customer repurchase intention means the intention of the consumer to purchase again after the initial purchase (Do *et al.*, 2023; Wei *et al.*, 2023). Purchase intention is often used as an indicator to predict customers' actual purchase behaviours. Purchase intention is one of the components of consumer behaviour, which refers to the way an individual intends to acquire a particular brand (Isa *et al.*, 2020). Thus, based on the above statement, researchers believe that online repurchase intention refers to consumers' willingness to repurchase a specific product online after their initial purchase.

### 2.2 Conceptualisation of Service Quality

Many factors can influence online repurchase intentions and service quality is a key contributor (Liu *et al.*, 2023; Rita *et al.*, 2019). According to Liu *et al.* (2023) and Putra & Lestari (2023), service quality plays an important role in online shopping as it will affect consumer satisfaction and intention to repurchase goods. are many factors that can influence online repurchase intention and service quality is one of them (Liu *et al.*, 2023; Rita *et al.*, 2019). According to Liu *et al.* (2023) and Putra & Lestari (2023), service quality plays an important role in online shopping as it will affect consumer satisfaction and intention to repurchase goods.

According to Oxford Dictionary (2017), a service is a government system or private organisation that is responsible for a particular type of activity or provides specific things that people need. Service quality is the assessment of the performance of a company in relation to the service expectations of its customers (Law *et al.*, 2022; Rasaily *et al.*, 2023). It is influenced by the price paid compared to the perceived value of the good or service (Law *et al.*, 2022). Excellent service or goods will create consumers' satisfaction. Therefore, consumer satisfaction will lead to repurchase intention (Said & Saad, 2023). In summary, researchers conclude that when consumers' service expectations match the company's performance, consumer' satisfaction will be generated and lead to consumer repurchase intention. Basically, service quality is measured by the SERVQUAL model.

In the SERVQUAL model, service quality is one of the factors that consumers use to evaluate e-commerce performance and is a factor that determines consumer satisfaction and consumer trust (Ellyawati, 2017; Laksana & Ruswanti, 2023). Service quality is described as how customers perceive responsiveness, empathy, and assurance (Agag & El-Masry, 2016; Putra & Lestari, 2023). Most online platforms retain customers by providing high-quality services to build long-term relationships with them (Mohammad Shafie & Ahghar Bazargan, 2018).

## 2.3 The Relationship between Service Quality and Online Repurchase Intention

In previous studies, a few studies showed that service quality has a relationship towards online repurchase intention. Some of the studies found that in online shopping, service quality has a significant impact on purchase intention (Putra & Lestari, 2023; Rita *et al.*, 2019; Yin *et al.*, 2019). Furthermore, studies show that service quality is positively correlated with customer repurchase intention (Rasaily *et al.*, 2023). In addition, some of the studies show that service quality had a positive impact on customer satisfaction (Law *et al.*, 2022; Rita *et al.*, 2019). Besides, some of the studies show that service quality affected consumers satisfaction then led to repurchase intention (Do *et al.*, 2023; Liu *et al.*, 2023; Rita *et al.*, 2019; Said & Saad, 2023). Consumers satisfaction plays a mediating role between service quality and consumers repurchase. However, a study shows that there is no significant effect between service quality and consumer satisfaction (Law *et al.*, 2022).

## 2.4 Theoretical background

Several theories have been proposed to explain online repurchase intention. There are Service Quality (SERVQUAL) model and Information System (IS) Success Model (Delone & McLean, 2003; Parasuraman *et al.*, 1988). These theories had been used from previous paper (Har Lee *et al.*, 2011; Liu *et al.*, 2023; Rasaily *et al.*, 2023; Wen *et al.*, 2011). However, for the purpose of this study, only the SERVQUAL model was used to discuss and explain service quality towards online repurchase intention.

## 2.5 Research Framework

The process of conceptualising the research framework and factors that lead to online repurchase intention is influenced by the work of Rasaily *et al.* (2023), Liu *et al.* (2023) and Wang *et al.* (2023). Their studies have discussed the factors leading to repurchase intention. Rasaily *et al.* (2023) adopted SERVQUAL model for their study. This study will use the SERVQUAL model to explain the relationship between service quality towards online repurchase intention. The purpose of the research framework is to give the key components included in the framework, which include the independent and dependent variables of this study. This study contains 1 dependent variable and 1 independent variable with 3 dimensions as shown in Fig. 1. The 3 dimensions refer to the SERVQUAL model, which includes empathy, reliability and responsiveness. This is due to the study of Liu *et al.* (2023), which discovered that assurance and tangibility contribute to measuring offline service quality. Therefore, the assurance and tangibility dimensions are not included in this research framework. Further discussion of these variables will be explained in the next section. Figure 1 displays a theoretical framework of service quality towards online repurchase intention.

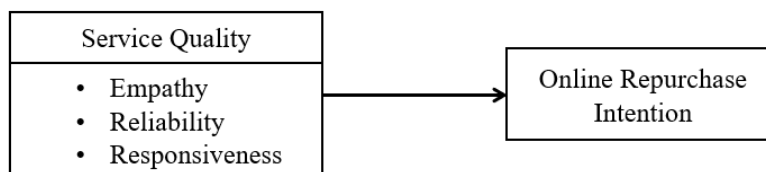


Fig. 1 Research framework

### 2.5.1 Empathy dimension

Empathy refers to the caring and individualised attention the organisation provides its consumers (Parasuraman *et al.*, 1988). According to Rasaily *et al.* (2023), empathy is the firm providing individual attention to the consumers. Empathy is the least important dimension in determining consumer repurchase intention in Rasaily *et al.* (2023) study. Empathic responses have both cognitive and emotional aspects. Empathy should not be confused with sympathy, which involves feeling sorry for someone less fortunate or imagining what it's like to experience a negative event. Empathy improves perceptions of service quality and increases consumer compliance (Bove, 2019).

### 2.5.2 Reliability dimension

Reliability refers to the ability to reliably and accurately perform promised services (Parasuraman *et al.*, 1988). According to Rasaily *et al.* (2023) and Said & Saad (2023), reliability is the ability to perform the promised service to consumers. As online shopping participation continues to expand, consumers' demand for reliable and personalised services during online shopping is increasing (Liu *et al.*, 2023; Sadesh *et al.*, 2023). The attribute of reliability is providing services as promised, reliable in handling customer service and delivering services according to the promised time (Setiono & Hidayat, 2022).

### 2.5.3 Responsiveness dimension

Responsiveness refers to the ability and willingness to help customers and provide timely services (Parasuraman *et al.*, 1988). According to Rasaily *et al.* (2023), responsiveness is ready to provide timely service and help customers anytime. The attribute of responsiveness is prompting service for customers, willingness to help customers and readiness to respond to customer requests (Setiono & Hidayat, 2022). According to Bruschi *et al.* (2019), responsiveness refers to efficiency, performance and processing speed of the service.

### 2.5.4 Online Repurchase Intention

Few studies related to online repurchase intention have been done by other researchers. Online purchase intention will determine the intensity of consumers' willingness to make specific purchases through the Internet (Kukar-Kinney & Close Scheinbaum, 2009; Salisbury *et al.*, 2001). There are many factors that will influence the online repurchase intention, and one of them is service quality (Rita *et al.*, 2019). According to the SERVQUAL model (Parasuraman *et al.*, 1988), assurance, empathy, reliability, responsiveness, and tangibility are the dimensions of service quality. However, the dependent variable of this study is online repurchasing intention, and the study of Liu *et al.* (2023) has discovered that assurance and tangibility contribute to measuring offline service quality.

## 2.6 Hypothesis

Research hypotheses are formulated based on the research questions. "What is the relationship between service quality and online repurchase intentions in Malaysia?" is the most interesting question in this study. To understand this question, we explore the variables through the SERVQUAL model by Parasuraman *et al.* (1988).

According to Rasaily *et al.* (2023), empathy is significantly related to customer repurchase intention. Besides that, empathy had a significant relationship with purchase intention (Putra & Lestari, 2023). According to Setiono & Hidayat (2022), reliability shows a positive impact on consumers purchase intention.

According to Rasaily *et al.* (2023), reliability is significantly related to consumer repurchase intention. According to Liu *et al.* (2023), reliability significantly affects consumers repurchase intention. Furthermore, Wang *et al.* (2023) say that reliability shows a positive impact on consumers' purchase intention. There is a significant relationship between reliability and repurchase intention (Said & Saad, 2023).

According to Rasaily *et al.* (2023), responsiveness is positively correlated with repurchase intention, but not significantly. Besides that, responsiveness had a significant relationship with purchase intention (Liu *et al.*, 2023; Putra & Lestari, 2023; Salamah *et al.*, 2022). In addition, Wang *et al.* (2023) say that responsiveness shows a positive impact on consumers' purchase intention. Based on these arguments, it was hypothesised that:

H1: There is a significant relationship between empathy and online repurchase intention.

H2: There is a significant relationship between reliability and online repurchase intention.

H3: There is a significant relationship between responsiveness and online repurchase intention.

## 3. Research Methodology

### 3.1 Research Design

Fig. 2 illustrates the overall research design of this study. The process begins with defining the research problem, reviewing relevant literature, and developing the theoretical model. Based on this, the hypotheses and survey instruments are formulated. Data are then collected, analysed, and discussed to validate the model and test the hypotheses.

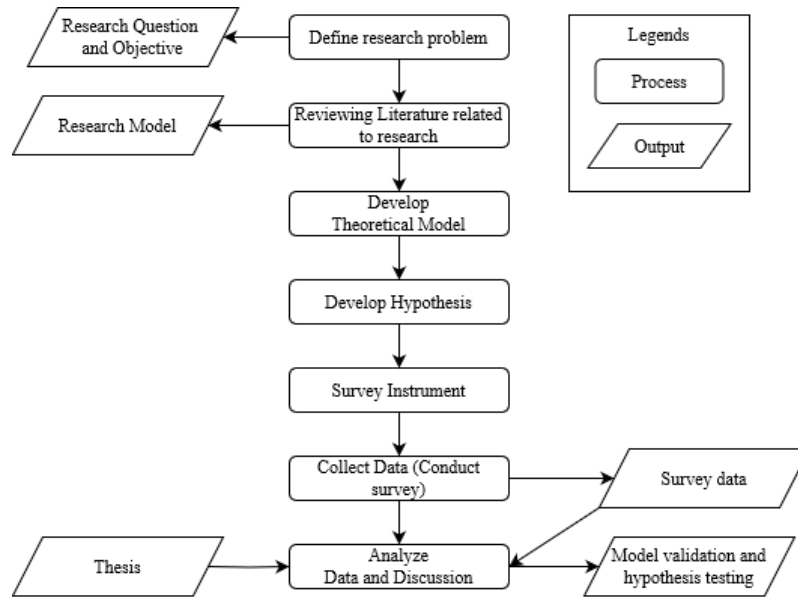


Fig. 2 Flowchart research design of this study

### 3.2 Sampling Method

This study used convenience sampling techniques in selecting respondents. Convenience sampling is a non-probability sampling technique. It is easy to use and accurate representation of larger populations. The researcher selected this technique because of its easy accessibility to the researcher. This study was conducted in Malaysia. According to Paweloszek & Bajdor (2020), almost half of the respondents are 18 to 24 years old. So, the population of the study, which consists of the whole resident living in Malaysia aged 18 years old and above, is estimated at 23.8 million people according to the Department of Statistics Malaysia (DOSM, 2024). Based on the sampling method schedule provided by Krejcie & Morgan (1970), a total of 384 respondents were selected for this study to answer the questionnaires.

### 3.3 Research Instrument

This study used quantitative methods, and a questionnaire was used in this study. A questionnaire is one of the quantitative methods used to obtain information from respondents. The questionnaire was divided into three sections: A, B, and C. Section A is the demographic of the respondents. Section B consisted of items related to the level of service quality influencing online repurchase intentions in Malaysia, while Section C consisted of items related to the level of online repurchase intentions in Malaysia. The questionnaire was adopted and adapted from the study by Rasaily *et al.* (2023).

### 3.4 Data Collection

Data collection is the process of obtaining information from all relevant sources to answer research questions, test hypotheses, and assess outcomes. Data collection is separated into two categories: primary data collection and secondary data collection. Primary data collection is data obtained by researchers from primary sources through questionnaires or interviews. This study will use survey questionnaires as the main source to examine the relationship between service quality and online repurchase intention in Malaysia. Secondary data collection is data collection that researchers have not collected themselves. It can be gathered from journal articles or surveys from another research.

### 3.5 Data Analysis

A pilot study refers to a feasibility study, which is a small-scale survey conducted before the main study. Researchers conducted a pilot study in the whole of Malaysia. A total of 30 respondents were used in carrying out the pilot test. Table 1 shows the values of Cronbach’s alpha for the questionnaire.

Table 1 Interpretation of Cronbach’s alpha values

No	The Cronbach’s alpha	Interpretation
1	$\alpha > 0.9$	Very Good
2	$0.9 > \alpha > 0.8$	Good

3	$0.8 > \alpha > 0.7$	Acceptable
4	$0.7 > \alpha > 0.6$	Questioned
5	$0.6 > \alpha > 0.5$	Weak
6	$\alpha < 0.5$	Not Acceptable

### 3.6 Data Analysis

All collected data will be systematically organised. For ease of understanding, the researcher will present it in diagrams. Data analysis was performed to determine the findings and to determine whether this study achieved the research objectives.

#### 3.6.1 Descriptive Analysis

Descriptive analysis is a method that uses recent and historical data to analyse and identify trends and relationships. In this study, the researcher used descriptive analysis and inferential analysis to determine how to extract population information from the sample. Statistical Package for Social Sciences (SPSS) software was used to conduct statistical analysis of the data for this study.

#### 3.6.2 Correlation Analysis

Correlation analysis is a statistical method that identifies the relationship between two or more variables. Correlation analysis also identifies how strong the relationship between variables may be. In this study, correlation analysis will be used to understand how to measure the degree of correspondence between variables. The value of  $r$  always lies between -1 and 1 inclusive ( $-1 \leq r \leq 1$ ).

## 4. Results and Discussion

### 4.1 Response Rate

In this study, respondents are all residents living in Malaysia aged 18 years old and above. The total population of Malaysians who are aged 18 years old and above was estimated to be 23.8 million according to the Department of Statistics Malaysia (DOSM, 2024a). According to Krejcie & Morgan (1970), this study required at least 384 respondents to answer the survey questionnaire. Therefore, the online questionnaire had been distributed through WhatsApp, Facebook and Telegram to the respondents, but only 271 responses were received. Based on this, the response rate for this study was 70.57%.

**Table 2** Survey return rate

Population	Sample Size	Questionnaire Distributed	Questionnaire Received	Percentage (%)
23,800,000	384	384	271	70.57

### 4.2 Reliability Test

In this study, the values of Cronbach's alpha have been used to observe the reliability and consistency of the measure before the actual study was conducted. If the Cronbach's alpha value is above 0.9 and it is close to 1, it is considered that the data collected has a very good reliability. However, if the Cronbach's alpha value is below 0.5, the data collection is considered unacceptable (Cortina, 1993).

#### 4.2.1 Pilot Study

A total of 30 questionnaires had been distributed to respondents who are residents living in Malaysia aged 18 years old and above, and the data had been analysed by using SPSS. If the Cronbach's alpha value is above 0.9 and it is close to 1, it is considered that the data collected has a very good reliability. However, if the Cronbach's alpha value is below 0.5, the data collection is considered unacceptable (Cortina, 1993).

Table 3 shows the reliability tests for the pilot study. The Cronbach's alpha values for empathy, reliability and responsiveness are 0.697, 0.733 and 0.725, respectively. While the Cronbach's alpha value for online repurchase intention is 0.711. According to Table 3, if the Cronbach's Alpha value is more than 0.7, the data collection is acceptable. The Cronbach's Alpha value for empathy is less than 0.7, but is close to 0.7, which means the data collection is questionable according to Table 3. However, the minimum value of Cronbach's Alpha suggested by Lee & Kim (1999) is 0.65 which empathy exceeds the recommended minimum and is close to 0.7. Therefore, the researcher decided not to change the questionnaire and proceed with the actual study.

**Table 3** Cronbach's Alpha value for 30 respondents

IV/DV	Cronbach's Alpha	No. item
Empathy	0.697	4
Reliability	0.733	5
Responsiveness	0.725	5
Online Repurchase Intention	0.711	4

### 4.2.2 Actual Study

Once the results of the pilot study were found to be valid and reliable, the actual study was conducted. Table 4 shows the results of the reliability test for each variable in the actual study. In this study, 271 respondents were selected to obtain their responses. Based on Table 4, Cronbach's alpha values for empathy, reliability and responsiveness are 0.711, 0.739 and 0.736, respectively, while the Cronbach's alpha value for online repurchase intention is 0.719. The result shows that the reliability level of this questionnaire is more than 0.7, which means that the research instruments used are reliable.

**Table 4** Reliability Test (Actual Study)

IV/DV	Cronbach's Alpha	No. item
Empathy	0.697	4
Reliability	0.733	5
Responsiveness	0.725	5
Online Repurchase Intention	0.711	4

### 4.3 Descriptive Analysis (Demographic)

Table 5 shows questions designed in section A related to demographic information of the respondent. In general, questions related to gender, race, age and frequency of online shopping have been asked. The results show that items studied have an excellent and proven that the data collected in the actual study had a high reliability and validity. Thus, the questions used in this study were suitable for the topic.

**Table 5** Summary of demographic analysis

Item	Frequency	Percent (%)
Gender		
Male	125	46.10
Female	146	53.90
Total	271	100.00
Race		
Malay	83	30.60
Chinese	129	47.60
India	55	20.30
Others	4	1.50
Total	271	100.00
Age		
18 to 24 years old	128	47.20
25 to 34 years old	80	29.50
35 to 44 years old	40	14.80
45 to 54 years old	16	5.90
Above 55 years old	7	2.60
Total	271	100.00
Frequency of online shopping		
Once a week	79	29.20
2-3 times a week	120	44.30
4-6 times a week	54	19.90



Everyday	18	6.60
Total	271	100.00

#### 4.4 Descriptive Analysis (Variables)

This section uses descriptive analysis to determine the features of each variable. Hence, the researcher reviewed the data to describe the mean and standard deviation associated with all the independent and dependent variables, which are empathy, reliability, responsiveness and online repurchase intention. Table 6 shows the level of measurement for each question item in the questionnaire. The mean interpretation scale is set by previous researchers in this study. Based on Table 6, the level is low if the average mean score is between 1.00 and 2.33. If the average mean score is between 2.34 to 3.67, the level is moderate. Besides that, the level is high if the average mean score is between 3.68 to 5.00.

**Table 6** Level of measurement

Average Mean Score	Level
1.00 - 2.33	Low
2.34 - 3.67	Medium
3.68 - 5.00	High

##### 4.4.1 Empathy

Table 7 shows the analysis for each question for empathy variable. Result shows question 1 “Using an online platform for shopping can suggest suitable products for me” has the highest mean value (M=4.21, SD=0.823) while question 2 “Using an online platform for shopping gives me personalised attention” has the lowest mean value (M=4.03, SD=0.757). In this study, the total average mean value is 4.11 and the level of online repurchase intention towards empathy is high.

**Table 7** Analysis for empathy variable

No.	Item Empathy	Mean (M)	Std. Deviation (SD)	Level
1	Using an online platform for shopping can suggest suitable products for me.	4.21	0.823	High
2	Using an online platform for shopping gives me personalised attention.	4.03	0.757	High
3	Using an online platform for shopping can help me understand my specific needs.	4.12	0.800	High
4	When I have a problem using an online platform, there is a personalised service that can solve the problem.	4.06	0.880	High
Total Average		4.11	0.816	High

##### 4.4.2 Reliability

Table 8 shows the analysis for each question for the reliability variable. The result shows that question 5, “The goods received from online shopping are intact without damage or missing”, has the highest mean value (M=4.25, SD=0.716), while question 4, “Using online platforms for shopping can perform the service right at the first time”, has the lowest mean value (M=3.99, SD=0.886). In this study, the total average mean value is 4.13, and the level of online repurchase intention towards reliability is high.

**Table 8** Analysis for reliability variable

No.	Item Reliability	Mean (M)	Std. Deviation (SD)	Level
1	Using online platforms for shopping is reliable.	4.19	0.725	High
2	Using online platforms for shopping can provide the promised services.	4.14	0.704	High
3	Using online platforms for shopping can complete the promised services in time.	4.10	0.746	High
4	Using online platforms for shopping can perform the service right at the first time.	3.99	0.886	High

5	The goods received from online shopping are intact without damage or missing.	4.25	0.716	High
Total Average		4.13	0.755	High

### 4.4.3 Responsiveness

Table 9 shows the analysis for each question for responsiveness variable. Result shows question 1 “Using online platforms for shopping can provide me with timely service” has the highest mean value (M=4.30, SD=0.748) while question 2 “Using online platforms for shopping is always willing to help me with any issues” has the lowest mean value (M=4.03, SD=0.774). In this study, the total average mean value is 4.16 and the level of online repurchase intention towards responsiveness is high.

**Table 9** Analysis for responsiveness variable

No.	Item Responsiveness	Mean (M)	Std. Deviation (SD)	Level
1	Using online platforms for shopping can provide me with timely service.	4.30	0.748	High
2	Using online platforms for shopping is always willing to help me with any issues.	4.03	0.774	High
3	Using online platforms for shopping will inform me when services will be performed.	4.19	0.615	High
4	Using online platforms for shopping can deliver my goods within the promised timeline.	4.14	0.704	High
5	When I am not satisfied with the service, my complaints can be quickly answered by online platforms.	4.14	0.830	High
Total Average		4.16	0.734	High

### 4.4.4 Online Repurchase Intention

Table 10 shows the analysis for each question for online repurchase intention. The result shows that question 1, “I will recommend others to shop through online platforms”, has the highest mean value (M=4.29, SD=0.770), while question 2 “, I will repurchase from the same online platforms”, has the lowest mean value (M=4.00, SD=0.772). In this study, the total average mean value is 4.12, and the level of online repurchase intention is high.

**Table 10** Analysis for online repurchase intention variable

No.	Item Online Repurchase Intention	Mean (M)	Std. Deviation (SD)	Level
1	I will recommend others to shop through online platforms.	4.29	0.770	High
2	I will repurchase from the same online platform.	4.00	0.772	High
3	I will continue to use online platforms for shopping in the future.	4.13	0.725	High
4	In general, online shopping will be my first choice to purchase goods.	4.07	0.779	High
Total Average		4.12	0.762	High

### 4.5 Normality Analysis

Before conducting correlation analysis, normality analysis is required. According to Mishra *et al.* (2019), normality analysis is used to determine whether the data is normally distributed or not. If the data is normally distributed, the Pearson correlation test is used for parametric testing, while if the data is not normally distributed, the Spearman correlation test is used for nonparametric testing. Wrongly picking a representative value from the data set and then further using that value to compute the significance level results in an incorrect interpretation (Mishra *et al.*, 2019). In this study, the researcher used either the Kolmogorov-Smirnov test or the Shapiro-Wilk test for normality analysis.

Table 11 shows the results of the normality test. The analysis used 271 respondents, and since more than 50 respondents, the Shapiro-Wilk test value was considered. The analysis shows that all the values of the variables' p-value are <0.005, which are 0.000, 0.000 and 0.000. As a result, this data is not normal and non-parametric. To define the relationship between independent variables and dependent variables, Spearman's Rho correlation test will be used to achieve the objective of this study.

**Table 11** Normality test

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Empathy	0.141	271	0.000	0.932	271	0.000
Reliability	0.168	271	0.000	0.923	271	0.000
Responsiveness	0.193	271	0.000	0.915	271	0.000
Online Repurchase Intention	0.192	271	0.000	0.928	271	0.000

## 4.6 Correlation Analysis

According to Fowler *et al.* (2013), correlation is used to measure the strength of the relationship between two or more variables. In this study, bivariate correlation is used to estimate the degree of relationship between empathy, reliability, responsiveness, and online repurchase intention. Besides that, the researcher will relate the data that has been collected and analysed with the hypothesis that was developed in Chapter 2 of this study. The strength of the correlation coefficient values is observed based on the guideline made by Fowler *et al.* (2013) in Table 4.17. According to Fowler *et al.* (2013), if the correlation coefficient is less than 0.19, the strength of the correlation is considered a very weak correlation. If the correlation coefficient is between 0.20 and 0.39, the strength of the correlation is considered a weak correlation. In addition, if the correlation coefficient is between 0.40 and 0.69, the strength of the correlation is considered a moderate correlation. Besides, the strength of the correlation is considered a strong correlation if the correlation value is between 0.70 and 0.89. Lastly, if the correlation coefficient value is between 0.90 and 1.00, the correlation coefficient is considered a very strong correlation.

### 4.6.1 The Relationship between Empathy and Online Repurchase Intention

Table 12 shows the result of the relationship between empathy and online repurchase intention by using Spearman's correlation coefficient. The result indicates 0.656, which is considered a moderate correlation between empathy and online repurchase intention. There is a highly significant correlation between empathy and online repurchase intention since p-value <0.01 (p=0.000). Thus, the result proves that H<sub>1</sub> is accepted.

**Table 12** Correlation between Empathy and Online Repurchase Intention

		Online Repurchase Intention
Empathy	Correlation Coefficient	0.656**
	Sig. (2 tailed)	0.000
	N	271

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### 4.6.2 The Relationship between Reliability and Online Repurchase Intention

Table 13 shows the result of the relationship between reliability and online repurchase intention by using Spearman's correlation coefficient. The result indicates 0.659, which is considered a moderate correlation between reliability and online repurchase intention. There is a highly significant correlation between reliability and online repurchase intention since p-value <0.01 (p=0.000). Thus, the result proves that H<sub>2</sub> is accepted.

**Table 13** Correlation between Reliability and Online Repurchase Intention

		Online Repurchase Intention
Reliability	Correlation Coefficient	0.659**
	Sig. (2 tailed)	0.000
	N	271

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### 4.6.3 The Relationship between Responsiveness and Online Repurchase Intention

Table 14 shows the result of the relationship between responsiveness and online repurchase intention by using Spearman's correlation coefficient. The result indicates 0.611 which is considered as a moderate correlation between responsiveness and online repurchase intention. There is a highly significant correlation between responsiveness and online repurchase intention since p-value <0.01 (p=0.000). Thus, the result proves that H<sub>3</sub> is accepted.

**Table 14** Correlation between Responsiveness and Online Repurchase Intention

		Online Repurchase Intention
Responsiveness	Correlation Coefficient	0.611**
	Sig. (2 tailed)	0.000
	N	271

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## 5. Conclusion

In conclusion, all research objectives of this study were addressed. All three research questions will be discussed in a sub-topic. The research objectives have been carried out to identify the level of service quality influencing online repurchase intentions and the level of online repurchase intentions in Malaysia, and to determine the relationship between service quality and online repurchase intentions in Malaysia.

In this study, descriptive analysis has been used to describe the average mean score. Based on the three dimensions of service quality, the level of all dimensions, which are empathy, reliability and responsiveness, is at a high level. The result significantly confirms the hypothesis that has been set, which is that there is a positive and significant relationship between empathy, reliability and responsiveness with online repurchase intention. This result shows that service quality is the strong factors that influence online repurchase intention in Malaysia. This study is not consistent with the previous study, which states that reliability is the first crucial dimension, but in this study, it is the second crucial dimension (Rasaily *et al.*, 2023). The result of empathy is consistent with (Rasaily *et al.*, 2023), which least important in repurchase intention.

The finding shows that the overall level of online repurchase intention in Malaysia is high. The results show that empathy, reliability and responsiveness are strong factors that influence online repurchase intention in Malaysia. Most of the respondents agreed that they will recommend others to shop through online platforms. For statement “I will repurchase from the same online platform” is the least important in determining online repurchase intention. This result is consistent with a previous study, which suggests that service quality is important to make repurchase through online platforms (Liu *et al.*, 2023; Rasaily *et al.*, 2023; Salamah *et al.*, 2022).

The result shows that all the hypotheses have been accepted and all of them have a moderate level of correlation coefficient. This result shows that there is a significant and positive relationship between empathy, reliability and responsiveness and online repurchase intention. This study is consistent with the previous studies, in which Rasaily *et al.* (2023) concluded that empathy and reliability have a significant positive relationship with customer repurchase intention. However, the result of responsiveness is not consistent with the conclusions of Rasaily *et al.* (2023), who found that responsiveness is positively correlated with repurchase intention, but not significantly. This result is consistent with another previous study which Liu *et al.* (2023) and Salamah *et al.* (2022) conclude that responsiveness was significantly positively correlated with online repurchase intention.

Service quality plays an important role in online repurchase intention as it influences consumers’ intention to repurchase online. The objective of this study is to identify the level of service quality influencing online repurchase intentions and the level of online repurchase intentions in Malaysia, and to determine the relationship between service quality and online repurchase intentions in Malaysia. In conclusion, responsiveness becomes the most important factor of service quality towards online repurchase intention in Malaysia compared to other variables such as empathy and reliability. The level of online repurchase intention in Malaysia is at a high level. Besides, this study also shows that there is a significant positive relationship for all independent variables with online repurchase intention. The highest significant correlation of independent variables is reliability towards online repurchase intention. Therefore, all the research objectives have been achieved. Finally, this study can contribute to enhancing the knowledge and understanding towards respondents’ insight about service quality towards online repurchase intention in Malaysia.

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## Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

## Author Contribution

The authors confirm contribution to the paper as follows: **study conception and design:** Teh Kah Wai, Siti Aisyah Salim; **data collection:** Teh Kah Wai, Siti Aisyah Salim; **analysis and interpretation of results:** Teh Kah Wai, Siti

Aisyah Salim; **draft manuscript preparation:** *Teh Kah Wai, Siti Aisyah Salim*. All authors reviewed the results and approved the final version of the manuscript.

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