

FACTORS AFFECTING CUSTOMER
SATISFACTION TOWARDS LIVE-STREAM
SHOPPING IN MALAYSIA

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FACTORS AFFECTING CUSTOMER SATISFACTION
TOWARDS LIVE-STREAM SHOPPING IN
MALAYSIA

BY

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DECLARATION

I hereby declare that:

- (1) This undergraduate FYP is the end result of my own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Sole contribution has been made by me in completing the FYP.
- (4) The word count of this research report is 11000 words.

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Date: 14 April 2022

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The Covid-19 pandemic has caused more and more people started to adapt live-stream shopping recently because they avoid taking risks to buy things physically in store during pandemic and they can purchase goods easily at the comfort of their homes through live streams. The rapid growth of this live-stream shopping has emphasized the role of live stream sellers to ensure the customer satisfaction. In this study, the researcher is aimed to determine the factors that affect customer satisfaction towards live-stream shopping in Malaysia as well as examine the impact of information quality, perceived product quality and service quality on the Malaysian live stream shopper satisfaction.

Quantitative approach is used to conduct this study and data was collected from 258 respondents who shopped live streams between 18 to 57 years old in Malaysia by using questionnaire. Cronbach's Alpha and multiple linear regression analysis were conducted to test the relationship between the quality of information, perceived product and service with the customer satisfaction. The data was analyzed using the SPSS software. The result of the study showed that information quality, perceived product quality and service quality are having positive and significant relationship with customer satisfaction towards live-stream shopping in Malaysia.

DEDICATION

I would like to dedicate this study to my supervisor, Puan Azrina binti Ahmad who has been guiding me along the way to finish the research project. Other than that, I would also like to dedicate this study to my dearest families and friends who have been giving me continuous and endless support, encouragement and motivation while I am conducting this study. Lastly, I would like to dedicate this study to my university, UTAR that has offered this course which given me the opportunity to conduct this study.

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LIST OF ABBREVIATIONS

IS	Information Systems
EDT	Expectation Disconfirmation Theory
CS	Customer Satisfaction
IQ	Information Quality
PPQ	Perceived Product Quality
SQ	Service Quality

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PREFACE

This research project was conducted is due to that it is one of the compulsory courses that I have to take in order to complete my degree study for Bachelor of International Business (Hons). The title of the research project is ‘Factors affecting customer satisfaction towards live-stream shopping in Malaysia’. This topic is chosen because people nowadays has changed their buying behaviours and live-stream commerce is growing rapidly which become a popular trend in recent years. The technological advancement and social media platforms had attracted many online sellers to start up their live stream businesses easily and it is still lacking strict rules and regulations being imposed to monitor the live stream commerce environment in Malaysia. Hence, the quality in terms of the information, product and service were still being the main concern for the consumers when they want to buy things through live stream. This is because somehow what they get at the end is not same with what they initially expected and this may affect their shopping experience. Thus, this study will provide the business entities and consumers with a better understanding and deeper insights into which factors will influence customer satisfaction towards live-streamed shopping.

ABSTRACT

The Covid-19 pandemic has caused more and more people started to adapt live-stream shopping recently because they avoid taking risks to buy things physically in store during pandemic and they can purchase goods easily at the comfort of their homes through live streams. The rapid growth of this live-stream shopping has emphasized the role of live stream sellers to ensure the customer satisfaction. In this study, the researcher is aimed to determine the factors that affect customer satisfaction towards live-stream shopping in Malaysia as well as examine the impact of information quality, perceived product quality and service quality on the Malaysian live stream shopper satisfaction. Quantitative approach is used to conduct this study and data was collected from 258 respondents who shopped live streams between 18 to 57 years old in Malaysia by using questionnaire. Cronbach's Alpha and multiple linear regression analysis were conducted to test the relationship between the quality of information, perceived product and service with the customer satisfaction. The data was analyzed using the SPSS software. The result of the study showed that information quality, perceived product quality and service quality are having positive and significant relationship with customer satisfaction towards live-stream shopping in Malaysia.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

This chapter provides the background of the research, the descriptions of research problem and the research objectives that consists of main and specific objectives. Following that, research questions are developed to meet research objectives. The last part of this chapter will discuss the significance of this research to government, community and industry.

1.1 Research Background

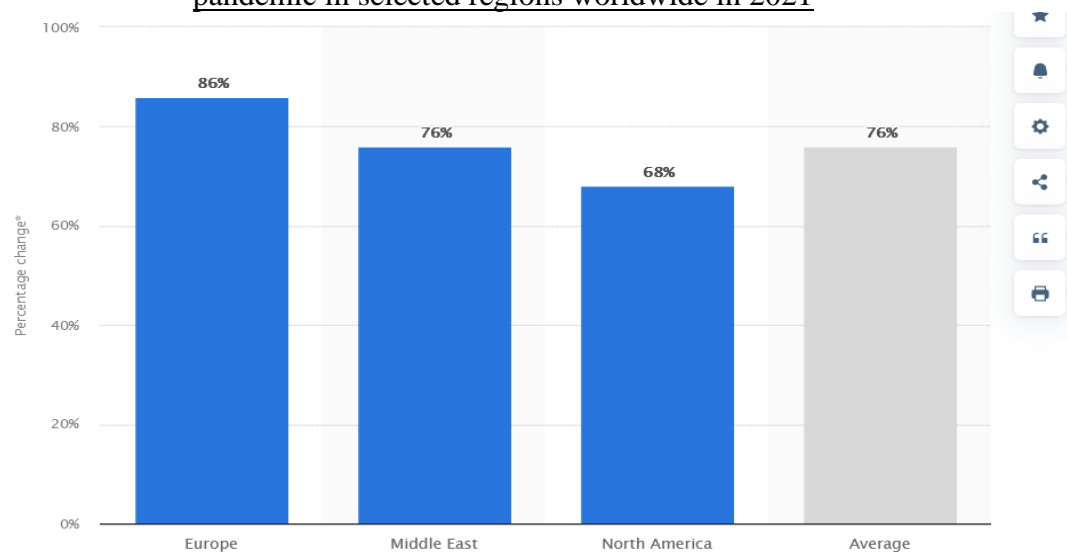
Live-stream commerce has become a popular trend nowadays with the technology advancement. According to Tran (2021), it is a new sales channel that is used by online sellers to attract more customers and generate revenue. Recently, there are many platforms available with the live-streaming features that can facilitate the selling of products such as e-commerce sites (e.g. Taobao Live, Shopee Live) and social networking sites (e.g. Facebook Live, Instagram Live). These live streaming platforms provide live streamers and viewers with a virtual environment for real-time interaction, entertainment, social activities, and commerce (Lee & Chen, 2021). Unlike traditional e-commerce platforms which only provide pictures and product information, live-streaming has enabled the streamers to demonstrate and explain the product's features, meanwhile customers are able to ask some questions about the product and get immediate response from the streamers which could then encourage customers to make purchase decision on the spot (Zahari et al., 2021). Furthermore, in order to facilitate transactions in short time, the vendors also can provide the shopping link during live streams which can lead the customers to check out the product by clicking on the embedded link (Liu, Sun, & Lee, 2021).

In 2020, an unexpected Covid-19 pandemic or coronavirus outbreak has shocked the entire world and spread rapidly all over the world, whereby it caused up to 4 million death cases due to the infection of the virus and the numbers of death is still

counting on until today (Raj S. & Gohain, 2021). Due to the safety reasons, Malaysia government implemented movement control order (MCO) which restrict gatherings and non-essential businesses are not allowed to operate (Shariff & Hamid, 2021). Hence, people shifted to have online and live stream shopping where a survey stated that 57% of Malaysians increase online shopping as compared to pre-pandemic (The Star, 2021) and live stream shopping grow drastically by 53% in quarter 1 of 2021 compared to quarter 4 of 2020 (Oppotus, 2021).

Live-stream shopping might not be a recommended choice until a couple of years ago, during 2019, live-stream shopping started to surface in China with the rise of two iconic live streamers namely Li Jiaqi and Viya (Chen, Lu, & Zheng, 2020). Through live streaming, Li Jiaqi made \$145 million US dollars in sales during China's Singles' Day campaign (Ma, 2021). Based on the statistics done by China Internet Network Information Center (2020), there were about 309 million of live-stream commerce users in 2020 which had occupied 32.9% of all Internet users in China. Not only in China, live-stream shopping also growing rapidly around the world, especially during Covid-19 pandemic. The Figure 1.1 below has showed that the live stream purchases in European countries rose by 86% and Middle East countries increased by 76% in 2021 during Covid-19 pandemic (Chevalier, 2021).

Figure 1.1 Change in livestream purchases from before to during the COVID-19 pandemic in selected regions worldwide in 2021



Source: (Chevalier, 2021)

In Malaysia, the survey done by Muller (2022) has showed that 62% of the respondents chose to have online shopping during pandemic as of May 2020 is because they practice social distancing and wanted to minimize the time at outdoors, whereas 54% of the respondents is due to the reason that non-essential businesses are forced to closed temporarily. The statistics indicate that there is an evolution on shopping method from conventional shopping to online shopping whereby consumers can buy goods easily at the comfort of their homes without taking risks to buy things physically in store during pandemic. Hence, the lockdowns implemented by the government has increased the demand for digital shopping experience which gradually attracts more businesses to start adopting live stream commerce. Lazada Malaysia had achieved sales of about half a tons of the fresh crustaceans within an hour through its live-streaming platform which known as LazLive and another prawns sales live stream also attracted over 55,000 viewers (Boey, 2020). Therefore, it shows that Malaysian have shifted not just to online shopping but also to live-stream shopping.

1.2 Research Problem

The Covid-19 pandemic has changed people lifestyle and the ways they buying things. Live-stream shopping has become a new norm recently. Live stream shopping enables the customers to have real time communication with the streamers where they can ask any questions they want to know about the product in live streams and get immediate response and reply from the streamers which in turn can save the time for them to search for the product information (Zahari et. al, 2021). The study by Ismagilova et al. (2020) found that the important indicator of information quality is source expertise. Customer satisfaction can be increased when there is high quality of information (Peterson et al., 1997). Influencer marketing is commonly used in many businesses to boost their sales. In Malaysia, some brands have invited key opinion leaders (KOLs) such as YouTubers or Instagram influencers to host the live streams and sell their products via live-streaming. The research conducted by Zak & Hasprova (2020) has showed that only 21.9% of the respondents will buy the product just because that it was promoted by their favourite influencer and majority of the respondents (63.5%) see the skills and

expertise as the most desired characteristics of the influencers before they make buying decisions. However, the research has also mentioned that most of the customers think that influencers promote a particular product is just because they get paid for it and companies will perceive risks to collaborate with influencers that previously promoted inappropriate product which can discourage customers to buy since they do not trust the influencers (Zak & Hasprova, 2020). Thus, the expertise of the influencer to provide clear, sufficient and reliable information of the product in live streams is still remain questionable. If influencers or live streamers cannot provide high quality of information that customers needed to make a purchase decision, they may dissatisfy and leave the live stream rooms without purchasing anything.

Other than that, it is very easy for online sellers to start their business via live-streaming. For instance, they only need to have camera, hardware (e.g. laptop, smartphones), and internet connection, then they can start selling products on Facebook Live. They do not need to obtain license for selling things through live streaming so there are no strict restrictions being implemented and still lacking government authorities to monitor the live stream selling environment. Hence, the product quality could not be guaranteed. From the year 2017 to 2020, it is reported that there was a total of 2,997 cases of counterfeit products from online retailers in Malaysia (Nathan, 2021). Therefore, customers may receive fake, defective or low quality products via live-stream shopping which can cause their dissatisfaction.

Besides that, delivery and customer service are some important indicators for service quality which become main concerns for customers in live stream shopping as well. A delay in the product delivery brings negative impact to customer satisfaction (Liu et al., 2008). Moreover, Chen and Chang (2003) also stated that many complaints that commonly occurred in Internet transactions are refund and billing disputes, return and exchange policies, and poor customer service. If customers are not satisfied with the service provided by the online vendor, they will not watch that vendor's live streams again and repurchase from that live stream vendor.

There have been many studies conducted previously regarding the purchase intention or impulse buying behaviour towards live-stream commerce (Tran, 2021; Lee & Chen, 2021; Ming et al., 2021; Zahari et al., 2021). However, there are limited studies about the customer satisfaction with live-stream shopping (Ma, 2021; Chen, Lu, & Zheng, 2020). The research by Ma (2021) investigated the determinants of the customer satisfaction with live-stream shopping but her study was only focusing on China context. The similar topic within Malaysia context is still lacking. Thus, this research is conducted to study the factors that influencing customer satisfaction towards live-stream shopping in Malaysia.

1.3 Research Objectives

From the problems highlighted above, a general objective and several specific objectives are developed for this research.

1.3.1 General Objective

The main objective of this research is to identify the determinants of customer satisfaction towards live-stream shopping in Malaysia.

1.3.2 Specific Objectives

- a) To examine the relationship between the independent variables (information quality, perceived product quality, service quality) and dependent variable (customer satisfaction) towards live-stream shopping in Malaysia.
- b) To examine the influence of independent variables (information quality, perceived product quality, service quality) on dependent variable (customer satisfaction) towards live-stream shopping in Malaysia

1.4 Research Questions

The following research questions are developed to assist this research in achieving the objectives set above:

- a) What is the relationship between the independent variables (information quality, perceived product quality, service quality) and dependent variable (customer satisfaction) towards live-stream shopping in Malaysia?
- b) What is the influence of independent variables (information quality, perceived product quality, service quality) on dependent variable (customer satisfaction) towards live-stream shopping in Malaysia?

1.5 Research Significance

This research is mainly identifying the factors that contribute to the customer satisfaction towards live-stream shopping in Malaysia. As the similar topic remains limited in Malaysia context, thus this research's findings are important to help other researchers to understand better on which factors will influence the Malaysian live-stream shopper satisfaction. This research can also become their future reference when they studying any issues related to live-stream shopping and customer satisfaction.

The trend of live-stream shopping keeps rising in Malaysia recently, especially during the pandemic period. Therefore, this study is vital to provide business entities a better insight on which variables have significant impact and should be emphasized on, so they can adjust their business strategies to increase customer satisfaction and build customer loyalty. Besides, this study can let the business entities know the variables that have stronger influence, then they can utilize their resources to make improvement on these areas, so that they will not waste their spending on areas that do not have significant effect on customer satisfaction. This could help them to save costs and gain competitive advantage among competitors in the industry.

Apart from that, the result of this study will also help the customers to understand what are the factors that can affect their satisfaction towards live stream shopping. Thus, they will know the common criteria that they can expect and build up their standards in term of the factors that can make them to have higher customer satisfaction from the live stream sellers.

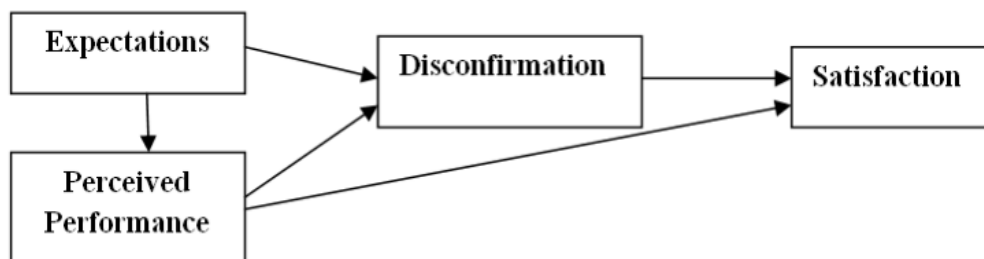
CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter discuss about the underlying theory that used to examine this study and the variables' review that includes dependent variable and independent variables. After that, conceptual framework is formed according to the research objectives and research questions. The last part of this chapter consists of the hypothesis development to examine the validity of this study.

2.1 Underlying Theories

Figure 2.1: EDT Model



Source: Elkhani, N., & Bakri, A. (2012). Review on “Expectancy Disconfirmation Theory” (EDT) Model in B2C E-Commerce. *Journal of Information Systems Research and Innovation*, 95-102.

This study adopted the Expectation Disconfirmation Theory (EDT) as shown in Figure 2.1 to investigate the customer satisfaction towards live-stream shopping in Malaysia. This theory is used to examine the satisfaction resulting from the difference between customers' expectation towards products or services and their actual experience (Oliver, 1980). According to Churchill and Surprenant (1982), expectation refers to the anticipations that customer possesses about products and service. The discrepancy between the pre-expectation of customer and post-consumption experience is defined as disconfirmation, whereby positive disconfirmation indicates satisfaction if perceived performance of a product or service exceeds customer's initial expectation, while negative disconfirmation

indicates dissatisfaction when the service or product's actual performance fails to meet customer's expectation (Elkhani & Bakri, 2012). Furthermore, EDT proposed that customer satisfaction is not only measure on the performance of product or service, but it also can be evaluated by the perceived information at the pre-purchase stage. A company should first satisfy its customers from perceived information to gain their trust on its products or services, hence, positive disconfirmation will occur and lead to satisfaction when the perceived information about the product or service match with their pre-expectations (Elkhani & Bakri, 2012).

In this study, customers' expectations regarding the information, product and service are compared to their actual experience via live-stream shopping. Their satisfaction depends on the degree the quality of information, product and service they perceive. If the perceived quality of information, product and service meet the customers' expectation, then they will be satisfied with their live-stream shopping experience. On the other hand, there will be customer dissatisfaction when the quality of information, product and service that customers perceive are below their anticipation towards their live-stream shopping experience.

2.2 Review of Variables

2.2.1 Customer Satisfaction

Customer satisfaction is referred to the consequence of customer's comparison between the prior expectation and post-shopping experience (Duarte et al., 2018; Nguyen et al., 2021). According to Kotler (1997) as cited in Liu et al. (2008), satisfaction is resulted from customer's experiences in various purchasing stages including need identification, information search, evaluation of alternatives, purchase decision, and post-purchase behaviour. Hence, customer satisfaction can be attained when the actual experience of customers meets or go beyond their expectations (Khristianto et al., 2012). It is critical for a business to achieve customer satisfaction. Research done by Zhou (2011) showed that the customer satisfaction acts as a prerequisite and has a significant impact on customer

loyalty. Furthermore, the study of Nguyen et al. (2021) illustrated that customer repurchase intention is positively influenced by customer satisfaction.

According to Schiffman et al. (2015), a customer who is satisfied will recommend the product or service to others and it leads to the spread positive word-of-mouth. In addition, it can enhance the reputation of a business. Besides that, a company's profitability and competitive advantages have positive correlation with customer satisfaction (Liao et.al, 2017). This is due to that it is more profitable for a company to retain existing customers than getting new customers to replace lost ones. Hence, it is vital for live stream sellers to satisfy their customers because it might keep them being loyal and make repeat purchase, subsequently, customer satisfaction may help to increase business's profitability and strengthen its competitive advantage.

2.2.2 Information Quality

Based on the Information Systems (IS) success model developed by DeLone and McLean (2004), information quality is described as the customers' perception on the quality of information that given by the retailer. Information plays an important role in online business environment because it acts as guidance for customers to make purchase decision since they are unable to have physical interaction with the products or service provided by the online sellers (Ludin & Cheng, 2014). Nowadays, Internet has enabled customers to access information about the product or service easily before they make any purchase. In the study of Liu et al. (2008), information quality is one of the factors that researchers use to examine customer satisfaction at the information search and alternatives' evaluation stage, and the researchers have proved that higher information quality will enhance online customers' satisfaction. Moreover, there are different studies mentioned that quality of information is reliable indicator of the satisfaction and willingness to purchase or reuse in the cases of government mobile

services (Wang & Teo, 2020) and health information sites (Shim & Jo, 2020).

Information quality can be determined in terms of accuracy, relevancy, consistency, timeliness and completeness of information (DeLone & McLean, 2004). In the live-stream shopping context, the information relevancy and reliability can be improved via the real-time interactions between the live streamers and viewers (Zhang et al., 2020; Sun et al., 2019). This is due to that the viewers are able to get detailed information they want by watching the product's demonstration as well as the face expressions of live streamers that cannot be edited in advance, asking questions during live streams and get immediate answers from live streamers (Wongkitrungrueng & Assarut, 2020). According to Zhang et al. (2020), the visual presentation form during live streams can reduce the customers' uncertainty and strengthen their perceptions of information quality. If more extensive quality of information is provided to customers, they can make better judgement and purchase decision with lesser time and effort, thus resulting a higher level of satisfaction (Ludin & Cheng, 2014). There is another research done by Ma (2021) showed that the information quality has positive and significant impact on live-stream shopper satisfaction.

2.2.3 Perceived Product Quality

According to Kotler & Amstrong (2012), product quality is referred to the characteristic of a product that influences its ability to meet the implied needs. The quality of a product can be evaluated on few dimensions including performance, features, reliability, compliance, durability, service ability, aesthetics, and perceived quality (Kotler & Amstrong, 2012). Meanwhile, Chen et al. (2020) has defined perceived product quality as the overall assessment of consumers about the product quality when they make use of the product. Due to that customers' expectation on a product is always changing, so that product quality will be a constantly changing condition (Sitanggang et al., 2019). Besides that, the product quality and shopping

experience has positive effect on the customers' willingness to buy a product (Ling et al., 2010).

Moreover, if the product quality does not meet the customers' perception such as there is occurrence of product defect, it can cause customers to return the product back to the online seller (Hsiao & Chen, 2011). According to Razak et al. (2016), it is stated that customers will think the quality of a product is good quality and being satisfied when the perceived product quality exceeds or aligns with their expectation and vice versa. Therefore, it is important to review this variable in live-stream shopping context as well. The study done by Saleem et al. (2015) found that there is direct positive relationship between perceived product quality, customer satisfaction and purchase intention, whereby higher perceived product quality will strengthen customer satisfaction, subsequently, it will increase the purchase intention of customers.

2.2.4 Service Quality

There are few definitions of service quality by different researchers. Parasuraman et al. (1995) defined service quality as the perceptions and evaluations of consumers about the services provided by an enterprise, whereas DeLone and McLean (2004) stated that service quality is referred to the overall supporting services provided by the retailers or service providers. Khristianto et al. (2012) stated that online sellers who provide outstanding service quality have the superiority to learn the expectation of their customers and fulfilling their demands can lead to higher customer satisfaction. Based on the SERVQUAL model by Parasuraman et al. (1988), there are five dimensions to evaluate service quality on satisfaction of customer which are tangibles, reliability, responsiveness, assurance and empathy.

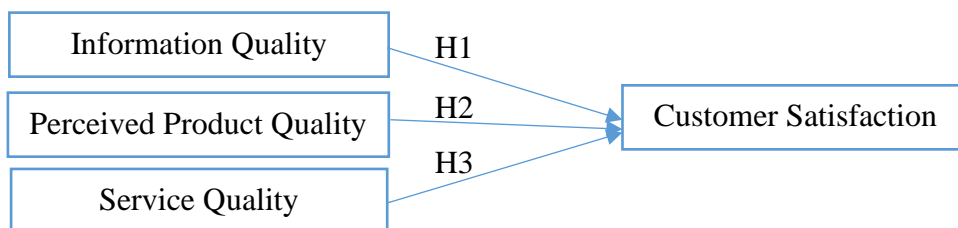
In this live-stream shopping context, four dimensions can be used to measure live-stream shopper satisfaction. Reliability may referred to the

ability of live streamer to deliver customer’s orders within the promised shipping period; responsiveness can be resulted from live streamer’s fast response to customers’ enquiries when they posted questions in live streams; assurance can be referred to the politeness and professionalism that live streamers show in providing service such as demonstrate products’ functions or answer viewer’s questions in order to create viewer’s trust confidence in live-stream shopping; and empathy can be seen when live streamers pay personal attentions to different customers’ needs by provide customer service to handle complaints or refund issues. The study carried out by Liu et al. (2008) declared that customer service, safe and rapid delivery of goods have strong are highly correlated to customer satisfaction. Additionally, excellent service provided by online sellers can also ease the refund process and let customers have better shopping experience, thus customer satisfaction is improved (Tzeng et al., 2021).

According to Söderlund and Sagfossen (2017), it is discovered that better service quality leads to higher customer satisfaction. Satisfying customers on service quality is critical and it brings benefits to a business. Kim (2010) mentioned that customer satisfaction has strong effect on repeat purchase, and satisfied customers are more likely to recommend their friends or relatives regarding the service which can help a business to spend lower cost to find new customers, in turns, it results a raise in profit (Pham & Ahammad, 2017). Hence, it is vital to review the impact of service quality on Malaysia’s customer satisfaction in live-stream shopping.

2.3 Research Framework

Figure 2.2: Conceptual Framework



Source: Developed for the research

2.4 Hypothesis Development

2.4.1 Information Quality and Customer Satisfaction

There are several past studies have shown that information quality positively and significantly influences the satisfaction of online customers (Dharmesti & Nugroho, 2013; Ludin & Cheng, 2014; Kaur & Pang, 2013; Liu et al., 2008). In addition, another research by Chen and Lauffer (2012) claimed that information quality has positive effect on the customer satisfaction towards mobile shopping in Taiwan. Furthermore, the previous study by Lin et al. (2011) found that information quality is important to satisfaction but it has less significant impact than other factors such as delivery quality and system quality. In line with the previous studies, the hypothesis is developed as below:

H1: Information quality has a significant and positive relationship with the customer satisfaction towards live stream shopping.

2.4.2 Perceived Product Quality and Customer Satisfaction

One of the previous studies from Guo et al. (2012) proved that product quality has positive influence on the customer satisfaction towards e-shopping in China context. In addition, the positive relationship between customer satisfaction and perceived product quality is supported by the study of Chen et al. (2020). There is another research also claimed that perceived product quality is significantly and positively affects the overall satisfaction of customers on their Single's Day shopping experience (Tzeng et al., 2021). Based on the past researches, the following hypothesis is proposed:

H2: Perceived product quality has a significant and positive relationship with the customer satisfaction towards live stream shopping .

2.4.3 Service Quality and Customer Satisfaction

Several past empirical studies indicated that service quality is positively correlated with the customer satisfaction in online shopping (Ludin & Cheng, 2014; Khristianto et al., 2012). Other than that, there are some researches concluded that e-service quality has significantly influence the customer satisfaction in e-shopping (Sabiote et al., 2012; Kim & Kim, 2010; Sarwar et al., 2016). Besides that, the study of Ma (2021) discovered that service quality is significant indicator and has strong impact on live-stream shoppers' satisfaction in China. Hereby, the hypothesis is formulated as below:

H3: Service quality has a significant and positive relationship with the customer satisfaction towards live stream shopping.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter describes the research design and the sampling design which decides the sample used for this study. After that, the data collection method is being discussed as well as the research instrument that used to measure the research variables. The last part of this chapter will propose several tools that will be used for data analysis in this study.

3.1 Research Design

According to Zikmund et al. (2009), research design is a framework which specified the methods and procedures of collecting and analyzing the needed information to show how the researchers carrying out the research in order to meet the research objectives. Quantitative research is used in to gather the data for statistical analysis (Goertzen, 2017). Thus, quantitative research is used in this study to determine the factors that will influence the live stream's customer satisfaction in Malaysia. Furthermore, descriptive research and causal research are also used in this study. The descriptive research will bring an insight about the background of the respondents. Whereas, the causal research is used to help identify the cause and effect between the variables in order to examine how the information quality, perceived product quality, and service quality could affect customer satisfaction of Malaysian live stream shopper.

3.2 Sampling Design

Sampling design is referred to the plans and methods that have to be followed by researchers when selecting sample from the target population to compute the sample statistics (Kabir, 2016). This is to know and infer the characteristic of the whole population.

3.2.1 Target Population

According to Kabir (2016), target population refers to an entire group that researchers are desired to know more information and make conclusion from the group. The target population of this study is the live stream shoppers in the age range between 18 to 57 years old in Malaysia. The reason of selecting this target population is because that they have the ability to earn income, so they have higher purchasing power to shopping in live stream. Moreover, this study included both males and females respondents.

3.2.2 Sampling Element

Sampling element is a unit of analysis in the population. In this study, the sampling element is the individual live stream shopper from age range of 18 to 57 years old. The researcher chose them to be the respondents to answer the questionnaires.

3.2.3 Sampling Frame and Sampling Location

Sampling frame is referred to a list of the actual units from which the sample is drawn (Taherdoost, 2016). The sampling frame for this study is those shoppers who purchase products from the live stream sellers in their daily life. The sampling frame includes male and female customers who are college students and working adults with disposable income. Apart from that, the sampling location selected for this study is within Malaysia since the questionnaire may be collected from different states of Malaysia. However, this study will mainly focusing on Selangor due to the reason that it has the largest population with 6.57 million as stated by Hirschmann (2021).

3.2.4 Sampling Technique

Non-probability sampling method is used to select samples in which the probability of a selected subject is unknown. The non-probability sampling technique being applied in this study is convenience sampling technique. Convenience sampling is used to select sample based on the convenience of the researcher. Thus, researcher has chosen the respondents from UTAR students, friends and families to participate this study by answering the questionnaire. This can help researcher to reach the target population easily with minimum costs and times.

3.2.5 Sample Size

Roscoe (1975) had claimed that the appropriate sample size in most of the researches should be at least 30 and not more than 500 to prevent the sampling error that is unacceptable. Moreover, Eldred (1987) had also stated that the sample size over 200 is a large sample that is enough to obtain useful results. Hence, the sample size of this study is set to have 250 respondents to complete the questionnaire.

3.3 Data Collection Method

According to Kabir (2016), data collection is the process to gather data and measure information in systematic way that enables respondents to answer the research questions, make hypotheses testing and assess the outcome. The objectives of data collection are to obtain quality evidence that can be translated into rich data analysis and provide credible answers to the questions that have been asked (Kabir, 2016).

3.3.1 Primary Data Collection

Primary data is described as the original data that gathered by the researcher from the first hand experience or primary sources which is more reliable, authentic and objective (Kabir, 2016). There are several sources of primary data such as survey, interview, questionnaire, experimentation and observation. In this study, the questionnaire survey method is being used as the main source to obtain primary data from the respondents.

3.4 Research Instrument

According to Salkind (2010), the measurement tool that being used to gather and measure the research's variables is known as research instrument. This part consists of the questionnaire design and construct measurement.

3.4.1 Questionnaire Design

Questionnaire is commonly used as a tool to collect information regarding a specific issue directly from the respondents' opinions. It is a cheaper method for researcher to get large amount of data. In this study, the researcher used self-administered questionnaire to collect data in which the respondents read and provide the answers themselves based on their own experience without the distraction of interviewers (Wagenaar, 2005). The questionnaire is designed and distributed in Google Form.

The questionnaire is divided into three sections. Section A consists of six questions regarding the respondent's demographic profile and general questions which ask the respondents' gender, age, race, monthly income, product category that regularly purchased in live stream and the frequency of the respondent's live stream shopping per month. Meanwhile, Section B has 18 questions related to the construct measurement to determine the relationship between the independent variables and the dependent variable.

These two sections are asked in close-ended questions where respondents choose answers from the options given. Lastly, Section C consists of one open-ended question which need respondents to answer in their own words regarding the suggestion of improvement could done by live streamer to strengthen customer satisfaction. This open-ended question is to provide some insights for researcher to draw conclusion.

3.4.2 Pilot Test

According to Hassan et al. (2006), pilot test is a small study to test the data collection instruments and research protocols in order to find out potential problems and prevent problems occur in the full study. Therefore, the researcher has conducted the pilot test by distributing 30 sets of questionnaires before the actual test started. The reliability analysis for this pilot test has been conducted and the result is shown in Table 3.1 where all of the items in each variables have good reliability value and are reliable.

Table 3.1: Pilot Test Result

Construct	Variable	No. of Items	Cronbach's Alpha
Independent Variables	Information Quality	5	0.872
	Perceived Product Quality	4	0.834
	Service Quality	5	0.774
Dependent Variable	Customer Satisfaction	4	0.897

Source: Developed for the research

3.4.3 Construct Measurement

3.4.3.1 Scale of Measurement

There are three types of scale measurement used to design the questionnaire of the study which are nominal scale, ordinal scale and interval scale. According to Dalati (2018), nominal scale is the simplest scale that widely used in the surveys to identify or classify the categories but not for quantitative implications. In the questionnaire, two questions of Section A are determined by nominal scale which is the ‘gender’ to differentiate male and female, and ‘race’ classification in terms of Malay, Chinese, Indian and other.

Next, ordinal scale is used when the objects are being arranged and classified following their degree in an ordered relationship (Dalati, 2018). Ordinal scale has been used by the researcher to measure the 18 questions in Section B of the questionnaire with the use of Likert scale. The 5-point Likert scale is used to let respondents imply their level of agreement towards each of the statements for independent and dependent variables from 1 = Strongly Disagree to 5 = Strongly Agree.

Interval scale is used in the measurement of interval data that have equal distance between the attribute (Dalati, 2018). Two questions in Section A are indicated in interval scale which are the age group and monthly income. For example, the age group is divided with the same gap of 10 units such as 18 to 27 years old, 28 to 37 years old.

3.4.3.2 Origin of Construct

Table 3.2: Origin of Construct

Variables	Statements	Sources
Information Quality	1. The live streamer always provide up-to-date product information.	(Tzeng, Ertz, Jo, &
	2. The product information provided by live streamer is sufficient.	Sarigollu, 2021)

	3. There are consistencies in the product information shared by the live streamer.	
	4. Most of the time, the information provided by the live streamer is clear to me.	(Liu, He, Gao, & Xie, 2008).
	5. The information provided by the live streamer is easily understandable.	
Perceived Product Quality	1. The product I bought from the live streamer has good quality.	(Chen, Lu, & Zheng, 2020)
	2. I am easily satisfied with the quality of products I bought from the live streamer.	
	3. The quality of products purchased on the live streamer's channel are the same as my expectations.	
	4. The product that I got is of equal quality as those in physical stores.	(Fang, George, Shao, & Wen, 2016)
Service Quality	1. I received my products purchased from live streamer on time.	(Tzeng, Ertz, Jo, & Sarigollu, 2021)
	2. The live streamer provides customer service and after-sale support.	
	3. It is not difficult for me to place orders with the live streamer.	
	4. Paying for an item purchased from the live streamer is easy.	
	5. Most of the time, live streamer allows for returns and refunds.	
Customer Satisfaction	1. Overall, I am satisfied with my experience in shopping from the live streamer.	(Chen, Lu, & Zheng, 2020)

	2. Overall, I think my experience in shopping from the live streamer is good.	
	3. I believe that shopping from the live streamer is a wise decision.	
	4. If I had to do it over again, I'd make my most recent online purchase in live streams.	(Liu, He, Gao, & Xie, 2008).

3.5 Proposed Data Analysis Tool

Once all the data is collected, then data analysis will be carried out by the researcher to analyze and interpret the findings. Data analysis is defined as the process of performing certain calculations and evaluation to get relevant information from the data collected (Ibrahim, 2015). The software that the researcher used to complete the data analysis in this study is the Statistical Package for the Social Sciences (SPSS) that developed by IBM corporation.

3.5.1 Descriptive Analysis

According to Zikmund et al. (2009), descriptive analysis is known as the primary data transformation in a way that describes the basic characteristics like central tendency, distribution and variability. Moreover, frequency distribution of variables which also known as tabulation is used to summarize the data in order to ease the researcher in making comparison and interpretation (Ali & Bhaskar, 2016). The frequency and percentages of each variables can be calculated and put into tabular form which then can be represented graphically using histograms, bar graphs and pie charts.

3.5.2 Reliability Analysis

In this study, the researcher applied the reliability test that is most commonly used for internal consistency measure which is Cronbach Alpha coefficient in order to test the research's validity and reliability (Saunders et al., 2012). Furthermore, this model is seen as the most appropriate measure of reliability when using the Likert scale, according to Whitley (2002) as cited in Taherdoost (2016). It is used to test multiple items of each variable to see whether the items are reliable or highly related. The result of Cronbach Alpha that ranges 0 to 1 in value where 0 is indicated as no consistency and 1 showed complete consistency. According to Hair et al. (2006) as cited in Zikmund et al. (2009), the scales with a coefficient alpha value between 0.8 and 0.95 means very good reliability, and if the coefficient alpha value that less than 0.6 showed the scale has poor reliability. Thus, an acceptably reliable scale should have at least 0.6 coefficient alpha value.

3.5.3 Inferential Analysis

3.5.3.1 Pearson Correlation Coefficient

Pearson correlation coefficient is the measurement that used to determine the strength of the linear relationship between two variables (Zikmund et al., 2009). In this study, it is used to test how well the variables are related with each other. Higher correlation coefficient means that there is stronger relationship between the two variables. The correlation coefficient ranges from -1 to +1 whereby -1 represents perfect negative relationship; 0 represents no linear relationship; and +1 represents perfect positive relationship. According to Schober et al. (2018), the correlation coefficient within 0.00 to 0.10 means negligible correlation; 0.10 to 0.39 means weak correlation; 0.40 to 0.69 means moderate correlation; 0.70 to 0.89 means strong correlation; and 0.90 to 1.00 means very strong correlation between the variables.

3.5.3.2 Multiple Linear Regression Analysis

Generally, multiple linear regression analysis is used to predict a continuous dependent variable with multiple independent variables (Zikmund et al., 2009). In other words, it is also used to know the correlation between two or more variables that have a causal relationship, and make predictions using the calculated relationship (Uyanık, & Güler, 2013). In this study, this multiple linear regression analysis is used with the purpose of determining whether the three independent variables (information quality, perceived product quality, service quality) will have impact on the dependent variable (customer satisfaction) towards live stream shopping in Malaysia. The equation of the multiple linear regression is shown as below:

$$Y = \beta_0 + \beta_1 IQ + \beta_2 PPQ + \beta_3 SQ$$

Y = Dependent Variable (customer satisfaction)

IQ = information quality

PPQ = perceived product quality

SQ = service quality

β_0 = constant variable

$\beta_1, \beta_2, \beta_3$ = slope coefficient of each independent variable

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

This chapter is about the data analysis after running the survey's data through SPSS. The findings will be analyzed, interpreted and presented in table form and pie charts for clearer understanding. There are several statistical measures have been used to analyze the data which are Cronbach's Alpha, Pearson Correlation Analysis and Multiple Regression Analysis.

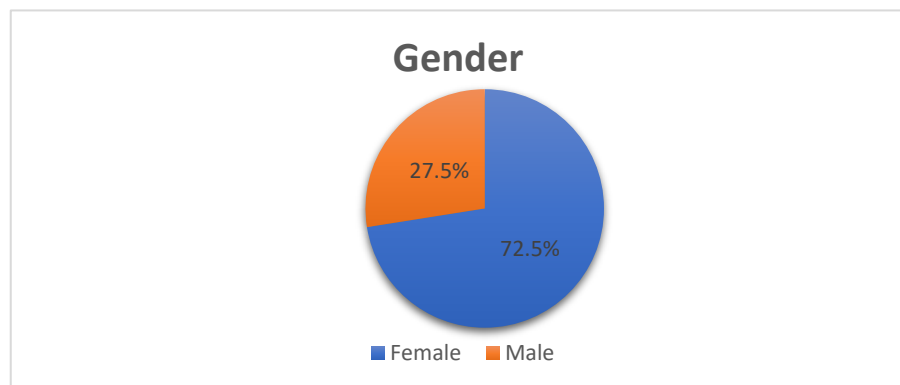
4.1 Descriptive Analysis

4.1.1 Respondent Demographic Profile

There is a total of 258 sets of questionnaires being used for data analysis. This section describes the demographic data and general information obtained from the respondents which consists of the gender, age, race, monthly income, product category that they buy regularly via live-streaming and the frequency they making purchase in a month. The data will be analyzed and presented in term of frequency and percentage.

4.1.1.1 Gender

Figure 4.1: Gender



Source: Developed for the research

Table 4.1: Gender

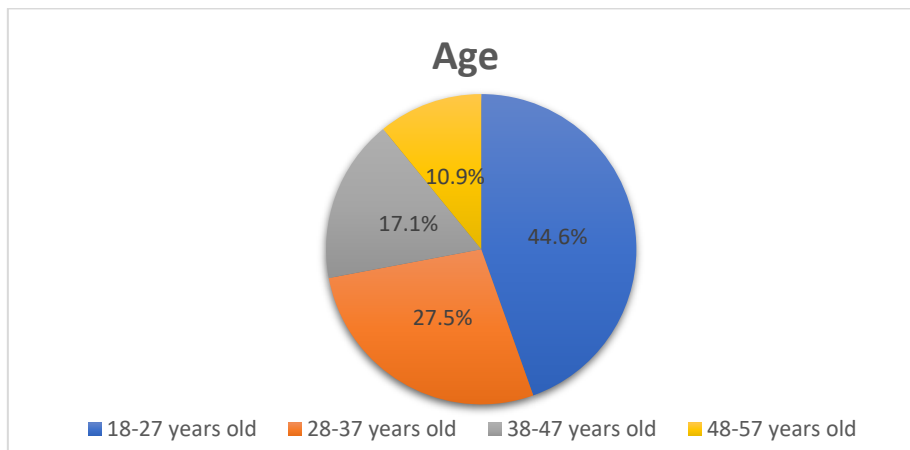
Gender	Frequency	Percentage (%)
Female	187	72.5
Male	71	27.5

Source: Developed for the research

According to Figure 4.1 and Table 4.1, out of 258 respondents who participated in the survey for this research, there are 187 female respondents (72.5%) while there are only 71 male respondents which represents 27.5% of the respondents.

4.1.1.2 Age

Figure 4.2: Age



Source: Developed for the research

Table 4.2: Age

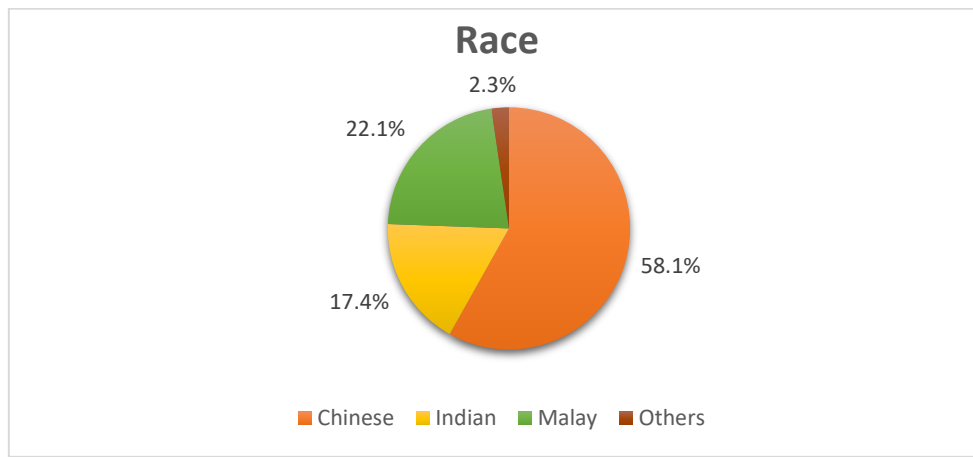
Age group	Frequency	Percentage (%)
18-27 years old	115	44.6
28-37 years old	71	27.5
38-47 years old	44	17.1
48-57 years old	28	10.9

Source: Developed for the research

Based on the Figure 4.2 and Table 4.2, there are 44.6% of the respondents or 115 respondents are aged between 18 to 27 years old. Then, 27.5% of the respondents or 71 respondents are from the age group of 28 to 37 years old, followed by 17.1% of the respondents or 44 respondents that aged between 38 to 47 years old. The lowest percentage is from the age group of 48 to 57 years old which only consisted 10.9% of the respondents or 28 respondents.

4.1.1.3 Race

Figure 4.3: Race



Source: Developed for the research

Table 4.3: Race

Race	Frequency	Percentage (%)
Chinese	150	58.1
Indian	45	17.4
Malay	57	22.1
Others	6	2.3

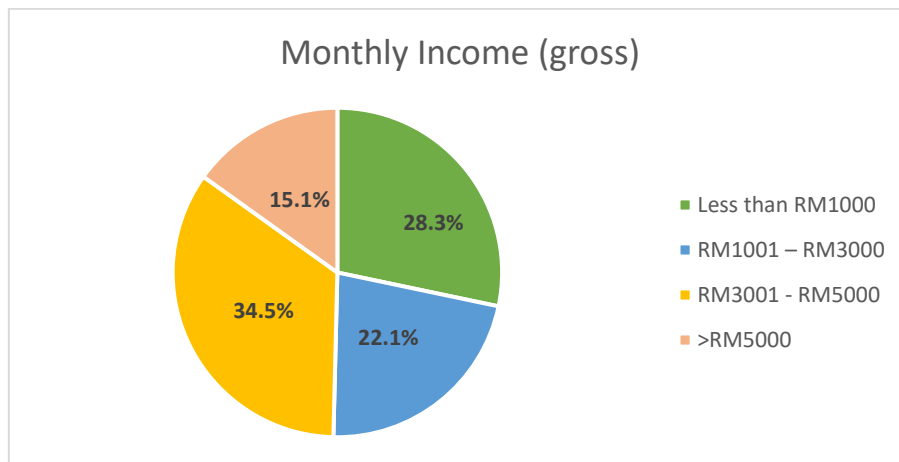
Source: Developed for the research

The Figure 4.3 and Table 4.3 show that most of the respondents that participated in this survey are Chinese with 150 respondents (58.1%). Next,

there are 57 respondents (22.1%) are Malays and 45 respondents (17.4%) are Indians. Moreover, there are only six respondents (2.3%) are from other races.

4.1.1.4 Monthly Income (gross)

Figure 4.4: Monthly Income (gross)



Source: Developed for the research

Table 4.4: Monthly Income (gross)

Monthly income (gross)	Frequency	Percentage (%)
Less than RM1000	73	28.3
RM1001 – RM3000	57	22.1
RM3001 - RM5000	89	34.5
>RM5000	39	15.1

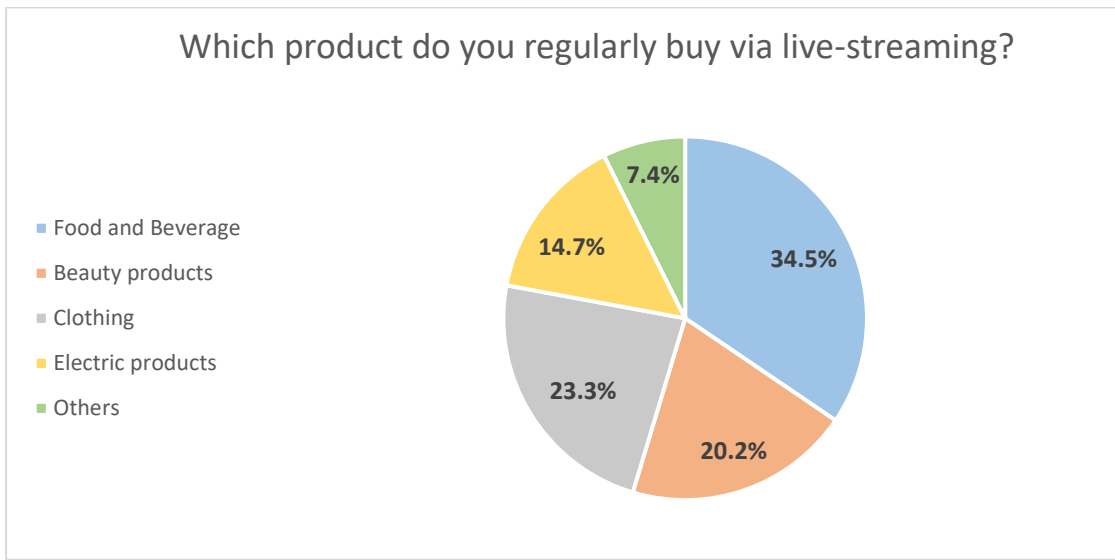
Source: Developed for the research

The Figure 4.4 and Table 4.4 show the respondents' monthly gross income. Majority of the respondents which comprised of 89 respondents (34.5%) are having monthly gross income between RM 3001 to RM5000. Then, there are 73 respondents (28.3%) whose monthly gross income is lower than RM1000 and followed by 57 respondents (22.1%) whose monthly gross

income is between the range of RM1001 to RM3000. There are only 39 respondents (15.1%) having monthly gross income of more than RM5000.

4.1.1.5 Product category that purchase regularly from live-streams

Figure 4.5: Product category that purchase regularly from live streams



Source: Developed for the research

Table 4.5: Product category that purchase regularly from live streams

Statement	Category	Frequency	Percentage (%)
Which product do you regularly buy via live-streaming?	Food and Beverage	89	34.5
	Beauty products	52	20.2
	Clothing	60	23.3
	Electric products	38	14.7
	Others	19	7.4

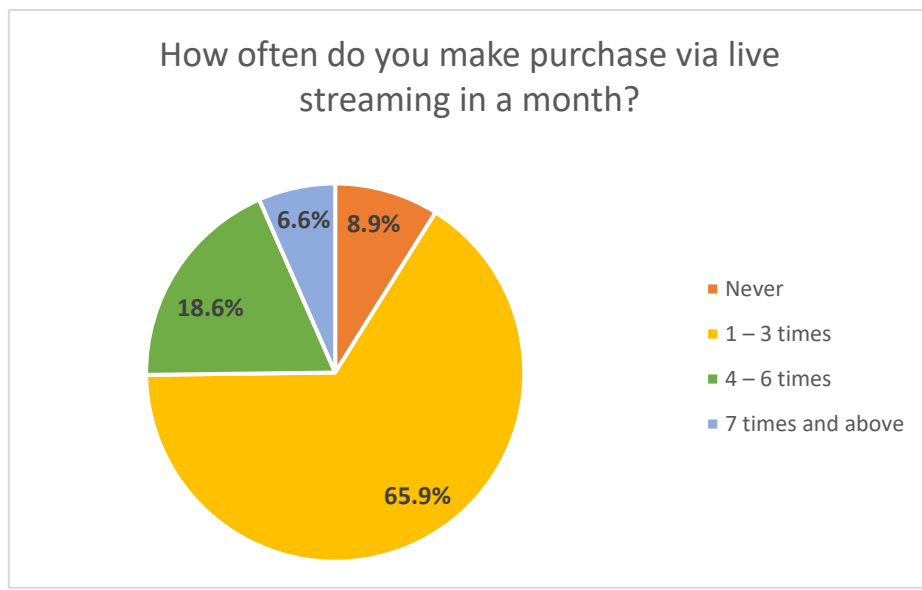
Source: Developed for the research

The Figure 4.5 and Table 4.5 show the different product categories that respondents buy regularly from the live streams. Most of the respondents where 89 out of 258 respondents (34.5%) are buying food and beverage regularly. Next, 60 respondents (23.3%) buy clothing regularly from live

streams, while 52 respondents (20.2%) are buying beauty products regularly. Moreover, 38 respondents (14.7%) are purchasing electric products regularly and only 19 respondents (7.4%) buy other products apart from the four categories mentioned above.

4.1.1.6 Frequency of purchasing via live streams per month

Figure 4.6: Frequency of purchasing via live streams per month



Source: Developed for the research

Table 4.6: Frequency of purchasing via live streams per month

Statement	Category	Frequency	Percentage (%)
How often do you make purchase via live streaming in a month?	Never	23	8.9
	1 – 3 times	170	65.9
	4 – 6 times	48	18.6
	7 times and above	17	6.6

Source: Developed for the research

The Figure 4.6 and Table 4.6 show the frequency that respondents make purchases via live streams in a month. From the figure and table above, most

of the respondents which consists of 170 respondents (65.9%) are making purchase at least 1 to 3 times via live streaming in a month, followed by 48 respondents (18.6%) who often make purchase 4 to 6 times per month. Additionally, only 17 respondents (6.6%) are often purchase via live streams 7 times and above in a month. However, there are also 23 respondents (8.9%) never make any purchase via live streaming.

4.2 Reliability Analysis

Table 4.7: Cronbach's Alpha

Construct	Variable	No. of Items	Cronbach's Alpha
Independent Variables	Information Quality	5	0.892
	Perceived Product Quality	4	0.887
	Service Quality	5	0.850
Dependent Variable	Customer Satisfaction	4	0.892

Source: Developed for the research

In this study, Cronbach's Alpha is used in reliability test in order to test whether the items of each variable are reliable or highly related. The reliability test result is shown in Table 4.7. From the table, both of the dependent variable (customer satisfaction) and the independent variable, information quality have the highest Cronbach's Alpha value with 0.892 which indicate a very good reliabiliaty value. Next, it is followed by the perceived product quality variable with four items showing the alpha value of 0.887 which also present a very good internal consistency. Lastly, the variable that has the lowest alpha value is the service quality with 0.850 but it is still within the range of good reliability value. Hence, all the alpha coefficient values are more than 0.8 which indicate all the items of each variables are having good internal consistency and reliable to be used in this research.

4.3 Inferential Analysis

4.3.1 Pearson Correlation Analysis

Table 4.8: Correlations

		Information Quality	Perceived Product Quality	Service Quality	Customer Satisfaction
Customer Satisfaction	Pearson Correlation	.818**	.819**	.835**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	258	258	258	258

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

According to the Table 4.8, all of the independent variables (information quality, perceived product quality, service quality) are having the p-value of 0.000 on the dependent variable (customer satisfaction). The correlation is significant at 0.01 level (2-tailed) and the p-value of 0.000 is less than 0.01, therefore, all the independent variables are having significant relationship with the customer satisfaction. Furthermore, these three independent variables have very strong correlation with the dependent variable with the value that over 0.8. The strongest correlation is service quality with 0.835, followed by perceived product quality with 0.819 and lastly is the information quality with 0.818. This also indicates that the independent variables are positively correlated with the dependent variables.

4.3.2 Multiple Linear Regression Analysis

Table 4.9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.883 ^a	.779	.776	.39125

a. Predictors: (Constant), Information Quality, Perceived Product Quality, Service Quality

Source: Generated from SPSS software

According to the Table 4.9 which shows the model summary of multiple regression analysis, the correlation coefficient value (R value) is 0.883, this indicates that there is a high level of correlation between the dependent variable and the independent variables. Moreover, the R square value in the model summary is 0.779 which shows that there is 77.9% variation in dependent variable (customer satisfaction) can be explained by the three independent variables which are information quality, perceived product quality and service quality. However, there is still 22.1% of the variation in customer satisfaction is explained by other factors which are not taken in this study.

Table 4.10: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	136.930	3	45.643	298.171	.000 ^b
	Residual	38.882	254	.153		
	Total	175.812	257			

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), Information Quality, Perceived Product Quality, Service Quality

Source: Generated from SPSS software

The Table 4.10 shows that the F-value is 298.171 and the p-value is 0.000 which is less the significance level of 0.05. Thus, this indicates that the independent variables (information quality, perceived product quality, service quality) are having significant effect on the dependent variable (customer satisfaction). Furthermore, these three independent variables are considerable to explain the variation in customer satisfaction.

Table 4.11: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.084	.137		.613	.540
Information Quality	.266	.062	.251	4.295	.000
Perceived Product Quality	.322	.054	.323	6.003	.000
Service Quality	.400	.062	.370	6.473	.000

a. *Dependent Variable: Customer Satisfaction*

Source: Generated from SPSS software

Based on the Table 4.11, the multiple regression equation can be developed as below:

Customer satisfaction = 0.084 + 0.266 IQ + 0.322 PPQ + 0.400 SQ, where

IQ = Information Quality

PPQ = Perceived Product Quality

SQ = Service Quality

All the independent variables are having a positive relationship with customer satisfaction, which also indicates that when there is a unit increase in each of the independent variables (information quality, perceived product quality, service quality), then the dependent variable (customer satisfaction) will increase by 0.266, 0.322, 0.400 respectively. Other than that, by looking into the result of standardized coefficients from Table 4.11, service quality has the strongest influence towards the customer satisfaction with the beta of 0.370 which is the highest beta value among other variables, followed by perceived product quality with beta of 0.323. Moreover, the information quality variable has the least influence towards customer satisfaction in this study with the lowest beta of 0.251. all the independent variables are having a positive relationship with customer satisfaction.

4.3.2.1 Test of Significant

Hypothesis 1

Ho: Information quality has no significant and positive relationship with the customer satisfaction towards live stream shopping.

H₁: Information quality has a significant and positive relationship with the customer satisfaction towards live stream shopping.

Based on the Table 4.11, the p-value of information quality is 0.000 which is lower than the significance level of 0.05, this shows that there is a significant and positive relationship between the information quality and customer satisfaction towards live stream shopping. Thus, H₁ is accepted and null hypothesis is rejected.

Hypothesis 2

Ho: Perceived product quality has no significant and positive relationship with the customer satisfaction towards live stream shopping.

H₁: Perceived product quality has a significant and positive relationship with the customer satisfaction towards live stream shopping.

Based on the Table 4.11, the p-value of perceived product quality is 0.000 which is lower than the significance level of 0.05, this indicates that there is a significant and positive relationship between the perceived product quality and customer satisfaction towards live stream shopping. Thus, H₁ is accepted and null hypothesis is rejected.

Hypothesis 3

Ho: Service quality has no significant and positive relationship with the customer satisfaction towards live stream shopping.

H₁: Service quality has a significant and positive relationship with the customer satisfaction towards live stream shopping.

Based on the Table 4.11, the p-value of service quality is 0.000 which is less than the significance level of 0.05, this shows that there is a significant and positive relationship between the service quality and customer satisfaction towards live stream shopping. Thus, H_1 is accepted and null hypothesis is rejected.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

This chapter discuss the main findings from previous chapter with the summary of statistical analysis of this study. After that, the implications and limitations of the study will be discussed as well. The following part of this chapter will propose some recommendations that can be used for future studies. Lastly, conclusion will be made for this study.

5.1 Summary of Statistical Analysis

5.1.1 Descriptive Analysis

A total of 258 respondents have participated in this study by completing the questionnaire that has been distributed to them. Table 5.1 has shown the summary of the respondents' demographic profile and general information. Among the 258 respondents, 72.5% of them are female respondents and 27.5% of the respondents are male. Moreover, most of the respondents are from the age group of 18 to 27 years old which contributed about 44.7% to the data. Additionally, more than half of the respondents are Chinese which represent 58.1% of the respondents, followed by 22.1 % of Malays respondents, 17.4% of Indians respondents and lastly only 2.3% of the respondents are from other races. Other than that, 34.5% of the respondents are having monthly gross income within the range of RM3001 to RM5000 and only 15.1% of the respondents are having monthly gross income of more than RM5000. Besides that, 34.5% of the respondents purchase food and beverage regularly from live streams, followed by clothing with 23.3%, beauty products with 20.2% and electric products with 14.7%. Lastly, majority of the respondents (65.9%) make purchase at least one to three

times via live streams in a month while 8.9% of the respondents never make any purchase in live streams.

Table 5.1: Summary of Descriptive Analysis

Variables	Statement	Frequency	Percentage (%)
Gender	Male	71	27.5
	Female	187	72.5
Age	18-27 years old	115	44.6
	28-37 years old	71	27.5
	38-47 years old	55	17.1
	48-57 years old	28	10.9
Race	Chinese	150	58.1
	Malay	57	22.1
	Indian	45	17.4
	Other	6	2.3
Monthly income (gross)	<RM1000	73	28.3
	RM1001-RM3000	57	22.1
	RM3001-RM5000	89	34.5
	>RM5000	39	15.1
Which product do you regularly buy via live streaming?	Food and Beverage	89	34.5
	Beauty Products	52	20.2
	Clothing	60	23.3
	Electric products	38	14.7
	Others	19	7.4
How often do you make purchase via live streaming in a month?	Never	23	8.9
	1-3 times	170	65.9
	4-6 times	48	18.6
	7 times and above	17	6.6

Source: Developed for the research

5.1.2 Reliability Test

According to the reliability test that have been conducted, both of the customer satisfaction variable and information quality variable have the highest Cronbach's Alpha coefficient value which is 0.892, followed by perceived product quality with 0.887 and service quality with 0.850. All of the reliability result are over 0.8 which indicate that all items in each variables are acceptable and having good reliability.

5.1.3 Inferential Analysis

5.1.3.1 Pearson Correlation Analysis

The result of Pearson correlation coefficient has showed that the customer satisfaction is strongly correlated with all the three independent variables, where the strongest correlation is service quality with 0.835, followed by perceived product quality with 0.819 and lastly is the information quality with 0.818. Not only that, there is also significant relationship between these three independent variables and customer satisfaction since their p-value are lower than 0.05.

5.1.3.2 Multiple Regression Analysis

Based on the result of multiple regression, the R square value of 0.779 shows that the three independent variables which are information quality, perceived product quality and service quality can explain 77.9% of variation in dependent variable (customer satisfaction). However, it is leaving 22.1% of the variation in customer satisfaction were not explained in this study. In addition, the multiple regression equation is formed as below:

Customer satisfaction = 0.084 + 0.266 IQ + 0.322 PPQ + 0.400 SQ,
where

IQ = Information Quality
 PPQ = Perceived Product Quality
 SQ = Service Quality

5.2 Discussions of Major Findings

Table 5.2: Summary of Hypotheses Testing

Hypothesis	Significant	Result
H1: Information quality has a significant and positive relationship with the customer satisfaction towards live stream shopping.	$\beta = 0.251$ p-value = 0.000 < 0.05	Supported
H2: Perceived product quality has a significant and positive relationship with the customer satisfaction towards live stream shopping.	$\beta = 0.323$ p-value = 0.000 < 0.05	Supported
H3: Service quality has a significant and positive relationship with the customer satisfaction towards live stream shopping.	$\beta = 0.370$ p-value = 0.000 < 0.05	Supported

Source: Developed for the research

5.2.1 Information Quality

H1: Information quality has a significant and positive relationship with the customer satisfaction towards live stream shopping.

According to the Table 5.2, the β value of H1 is 0.251 which shows that the information quality has positive relationship with the customer satisfaction while the p-value is 0.000 which less than alpha value 0.05, it means that the information quality is significantly affected the customer satisfaction. Hence, H1 is supported.

Based on the findings above, information quality is an antecedent that affecting the satisfaction level of live stream shoppers. The result is aligned with one of the past studies that conducted by Dharmesti & Nugroho (2013) which claimed that the higher level of information quality will give a significant effect on customer satisfaction. According to Liu et al. (2008), they mentioned that detailed and understandable information should be provided to the online customers since they cannot see and touch the real product, and better information quality will improve customer satisfaction. If customers did not get enough quality information, it will affect their shopping experience and purchase intention towards a product or service (Ghasemaghaei & Hassanein, 2016). Thus, the customer satisfaction will increase when information quality increase where the result is consistent with the studies that reported the information quality is positively correlated with the satisfactory level of the customer (Chen & Chang, 2018; Ludin & Cheng, 2014; Ma, 2021).

5.2.2 Perceived Product Quality

H2: Perceived product quality has a significant and positive relationship with the customer satisfaction towards live stream shopping.

According to the Table 5.2, the β value of H2 is 0.323 which indicates that the perceived product quality has a positive relationship with the customer satisfaction while the p-value is 0.000 which less than alpha value 0.05, it means that the perceived product quality is significantly affected the customer satisfaction. Hence, H2 is supported.

As a result of this study, perceived product quality is found to be one the factors that can determine the level of satisfaction among live stream customers. The result is consistent with the previous studies done by Guo et al. (2012) and Tzeng et al. (2021) which proved that the perceived product quality is having significant and positive influence on the customer satisfaction. Product quality is undoubtable a main concern for customers when they buying things online. According to Ahn et al. (2004), customers

will expect that the products sold online should have the same quality as those sold in the physical stores. Therefore, if the quality of the products that live stream shoppers received did not meet the standards like what they expected, then their satisfactory level will decline, which in turn could affect their repurchase intention.

5.2.3 Service Quality

H3: Service quality has a significant and positive relationship with the customer satisfaction towards live stream shopping.

According to the Table 5.2, the β value of H3 is 0.370 which represents that the service quality has a positive relationship with the customer satisfaction while the p-value is 0.000 which less than alpha value 0.05, it means that the service quality is significantly affected the customer satisfaction. Hence, H3 is supported.

The findings of this study found that the service quality is the most powerful variable that can influence the customer satisfaction towards live stream shopping. The result is aligned with the past studies which also suggested that the customer satisfaction is significantly and positively influenced by the service quality (Ludin & Cheng, 2014; Sabiote et al., 2012; Ma, 2021). When the customers enjoy the good service provided by the sellers, their shopping experience will be enhanced, so their satisfaction level will increase and this can help the sellers to turn them into loyal customers (Sarwar et al., 2016).

5.3 Implications of the Study

This study focuses on the factors that affecting the customer satisfaction towards live stream shopping in Malaysia. By looking through the analysis and findings in this study, it is clear that all the independent variables have a significant and positive impact on the satisfaction level of live stream shoppers in Malaysia. There are some implications should be noted in this study.

First and foremost, the information quality is indicated as one of the determinants for customer satisfaction towards live stream shopping. Before the live stream shoppers make any purchase, they will tend to know all the information regarding the prices, features and functions of the product from the streamers. It is important for streamers to provide clear and comprehensive information to the customers, thus they no need to search extra information and this can save their search cost and times which in turn give them a better shopping experience. When customers can easily obtain all the information they needed and their questions are being answered by the streamers, it can reduce their uncertainties and perceive lower risks to make purchase decision which will improve their satisfaction level. Thus, live streamers or influencers should know their expertise and what kind of products they have confidence to promote with sufficient product knowledge. The companies can provide training to enhance their presenting and demonstration skills so they can engage with customers better by answering their enquiries in a professional manner which can affect customers' perceptions of information quality. Furthermore, if brands want to promote their products in live streams, they should also find the influencer with high expertise. For example, beauty bloggers to promote cosmetics products. This is because they have the expertise to provide more reliable and accurate information to the customers. Customers will feel more satisfied when they obtained higher quality of information.

In addition, perceived product quality is proved to have significant effect on customer satisfaction towards live stream shopping. The primary concern of the customers when they buying things online is the product quality. Although they buying online, but they will have the perception that the product they received should has the same quality as those being sold offline. If the actual product quality they received fails to meet their expectations, their satisfaction level will drop. Hence, the live stream sellers should be aware of the products they are offering and conduct a strict product selection process with enhanced quality control reviews. They also need to stand firm against the counterfeit goods to create a fraud-free live stream shopping environment. Moreover, the live streamers can show the certificate of their product in live streams such as ISO 9001 which can prove their product is safe and reliable to use. By doing so, the live stream shoppers will be assured of

their product quality. Not only that, the government authorities also need to monitor the live stream commerce environment by imposing penalty to the live stream sellers that offering substandard, fake or pirated products in order to protect consumers from receiving such poor quality products which can lower down their satisfaction level towards live stream shopping.

Lastly, the findings above have indicated that service quality is the most influential factor that significantly affect the customer satisfaction towards live stream shopping in Malaysia. Customers nowadays are also sensitive towards the services they obtained from the live stream sellers. They will be happy and become more satisfied when the live streams sellers serve them well and fulfill their needs. The efficiency of the delivery and customer service are some vital indicators for service quality. Therefore, live stream sellers should package the products well and monitor the delivery process to ensure the products are being delivered on time and in good condition to the customers' doorstep as promised. There are possibilities that any undesirable issues could happen such as delayed delivery or customers received defective products, thus companies should have few communication channels for customers to contact in order to handle their complaints and also provide support to the customers either making returns or refunds. According to Liu et al. (2008), rapid respond time and good customer service are positively affected the customer satisfaction. Hence, companies can enhance their response rate by imposing KPI to motivate the customer service officers to answer and solve customers' inquiries in a timely manner. The better service quality will give live stream shoppers a better shopping experience which could strengthen their satisfaction level.

5.4 Limitations of the Study

There are some limitations have been found that can be further improved during the progress of this study. Firstly, this study has limited by time and geographical constraints. There is a short period of time given to complete this research, hence the researcher does not have enough time to conduct survey with wider coverage and collect more data to obtain a larger sample size. If more time given to collect data from a larger sample size, it may increase the reliability and validity of the

result. The financial constraint has also become a limitation because only online survey via google form is used to collect data as it is the cheapest way. This caused lower response rate where the researcher has sent the questionnaires several times through emails and social medias, but not all respondents have completed the survey and some might think that it is annoying when receiving repeated invitation to fill in the survey.

Next, another limitation is that the current study may be context specific. The data collected for current study is in Malaysia, so the findings of this study is constrained to the Malaysian context only and not applicable in worldwide context. Meanwhile, the data collected are mainly from Chinese respondents, where 150 out of 258 total respondents are Chinese. Thus, the result of the study may be not accurate and representative enough in Malaysian context.

Furthermore, respondents' understanding about the survey questions is also a limitation for this study since there is only one language used in the questionnaire which is English. The respondents who are not familiar with English may face difficulties to completely understand the questions given in the questionnaire, so they just simply choose the answers which could affect the reliability of the data.

The last limitation of this study is that there are only three independent variables used to investigate the customer satisfaction towards live stream shopping. The finding in previous chapter has showed that there is still 22.1% of the variation in customer satisfaction can be explained by other determinants that were not discovered in this study. Furthermore, the demographic factors like gender, age groups, race and monthly income are neglected in this study, so that is there any relationship between these demographic factors and customer satisfaction towards live stream shopping is still remain unknown. Respondents from different gender, age groups, race and monthly income could have different perceptions on customer satisfaction towards live stream shopping.

5.5 Recommendations of the Study

There are several recommendations suggested to overcome the limitations that mentioned above and for improvement of further studies. Firstly, future researchers are recommended to have longer time frame to conduct the study and distribute the questionnaire earlier to obtain a larger sample size. Moreover, future researchers can use different survey methods to conduct their study such as face to face interviews which could let the respondents more engaged and obtain more in-depth insights from them for the study.

Apart from that, future researchers can increase the sample size to obtain more data. By doing so, the larger sample size can provide a more valid and reliable result for their studies. It is also essential for the future researchers to evaluate this framework in international context because the current study only focused in Malaysia and different cultures in other countries could have different perceptions towards customer satisfaction.

In addition, future researchers are suggested to prepare the questionnaire in other languages including Malay, Mandarin and Tamil in order to eliminate the language barrier of multiracial respondents in Malaysia. This will help the respondents to understand all the questions thoroughly and provide a more reliable result.

Lastly, it is also recommended that future research can include other determinants that were not explained in this study such as price, security, trust and perceived value to investigate the effect on customer satisfaction towards live stream shopping. This will provide a better insight on the factors that have impact on customer satisfaction. Additionally, future research can also investigate the demographic factors like gender and age groups which could bring distinctive perceptions toward customer satisfaction and strengthen validity of the findings.

5.6 Conclusion

In short, the research objective in this study has been achieved which is to identify and determine the factors that affecting the customer satisfaction towards live-stream shopping in Malaysia. The findings and discussions on this study have

shown that all the hypotheses are supported, so that all the three variables (information quality, perceived product quality and service quality) are positively and significantly influenced the customer satisfaction towards live stream shopping in Malaysia. In simple words, higher information quality, perceived product quality and service quality will lead to a higher level of customer satisfaction. Moreover, service quality has the most significant impact on the live stream shoppers' satisfaction. Besides, the limitations of this study have been determined and several recommendations also have been proposed for future research to overcome those limitations. Lastly, future researchers can refer to this study as a guideline and evaluate their framework to examine the antecedents that have impact on the customer satisfaction towards live stream shopping.

REFERENCES

- Ahn, T., Ryu, S. and Han, I. (2004). The impact of the online and offline features on the user acceptance of Internet shopping malls. *Electronic Commerce Research and Applications*, 3 (4), 405-420.
- Ali, Z., & Bhaskar, S. B. (2016). Basic statistical tools in research and data analysis. *Indian Journal of Anaesthesia*, 60(9), 662-669.
- Boey, E. (2020, August 17). *E-Commerce - Fuelling the e-commerce boom*. Retrieved March 9, 2022, from The Edge Markets: <https://www.theedgemarkets.com/article/ecommerce-fuelling-ecommerce-boom>
- Chen, L. Y., & Lauffer, W. (2012). The Impact of Mobile Shopping Quality on Customer Satisfaction and Purchase Intentions: The IS Success Based Model .
- Chen, Y., Lu, F., & Zheng, S. (2020). A Study on the Influence of E-Commerce Live Streaming on Consumer Repurchase Intentions. *International Journal of Marketing Studies*; 12 (4), 48-62.
- Chevalier, S. (2021, November 22). *Change in livestream purchases from before to during the COVID-19 pandemic in selected regions worldwide in 2021*. Retrieved March 9, 2022, from Statista: <https://www.statista.com/statistics/1276981/change-livestream-commerce-usage-worldwide-region/>
- Churchill, G. A., & Surprenant, C. (1982). An investigation into the determinants of consumer satisfaction. *Journal of Marketing Research*, 19, 491-504.
- Dalati, S. (2018). Measurement and Measurement Scales. In S. Dalati, *Modernizing the Academic Teaching and Research Environment*, pp. 79-96.
- DeLone, W., & McLean, E. (2004). Measuring e-Commerce Success: Applying the DeLone & McLean Information Systems Success Model. *International Journal of Electronic Commerce*, 31-47.
- Dharmesti, M. D., & Nugroho, S. S. (2013). The antecedents of online customer satisfaction and customer loyalty. *Journal of Business and Retail Management Research*, 7(2).
- Duarte, P., Silva, S. C., & Ferreira, M. B. (2018). How convenient is it? Delivering online shopping convenience to enhance. *Journal of Retailing and Consumer Services*, 44, 9-30.
- Eldred, G. (1987). *Real estate: Analysis and strategy*. New York: Harper & Row.
- Elkhani, N., & Bakri, A. (2012). Review on “Expectancy Disconfirmation Theory” (EDT) Model in B2C E-Commerce. *Journal of Information Systems Research and Innovation*, 95-102.

- Ghasemaghaei, M., & Hassanein, K. (2016). A macro model of online information quality perceptions: A review and synthesis of the literature. *Computers in Human Behavior*, 55, 972-99.
- Goertzen, M. J. (2017). Introduction to quantitative research and data. *Library Technology Reports*, 53(4), 12-18.
- Guo, X., Ling, K., & Liu, M. (2012). Evaluating factors influencing consumer satisfaction towards online shopping in China. *Asian Social Science*, 8 (13), 40-50.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis (Vol. 6)*. Upper Saddle River, NJ: Pearson Prentice Hall.
- Hassan, Z. A., Schattner, P., & Mazza, D. (2006). Doing A Pilot Study: Why Is It Essential? *Malays Fam Physician*, 70-73.
- Hirschmann, R. (2021, February 23). *Population numbers in Malaysia as of the first quarter of 2020, by state*. Retrieved February 14, 2022, from Statista: <https://www.statista.com/statistics/1040670/malaysia-population-distribution-by-state/>
- Hsiao, L., & Chen, Y. (2011). Returns policy and quality risk in e-business. *Production and Operations Management*, 21(3), 489-503.
- Ibrahim, M. (2015). The Art of Data Analysis. *Journal of Allied Health Sciences Pakistan*, 1(1), 98-104.
- Ismagilova, E., Slade, E., Rana, N. P., & Dwivedi, Y. K. (2020). The effect of characteristics of source credibility on consumer behaviour: A meta-analysis. *Journal of Retailing and Consumer Services*, 53, 1-10.
- Kabir, S. M. (2016). *Basic Guidelines for Research: An Introductory Approach for All Disciplines*. Chittagong: Book Zone Publication.
- Kaur, K., & Pang, N. C. (2013). An empirical study of online shopping customer satisfaction in Malaysia: a holistic perspective. *International Conference on Information Technology Infrastructure*.
- Khristianto, W., Kertahadi, I., & Suyadi, I. (2012). The influence of information system and service on customer satisfaction and loyalty in online shopping. *International Journal of Academic Research*, 4(2), 28-32.
- Kim, B. (2010). An empirical investigation of mobile data service continuance: Incorporating the theory of planned behavior into the expectation-confirmation model. *Expert Systems with Applications*, 37(10), 7033-7039.
- Kim, J. H., & Kim, C. (2010). E-service quality perceptions: a cross-cultural comparison of American and Korean consumers. *Journal of Research in Interactive Marketing*, 4(3), 257-275.
- Kotler, P. (1997). *Marketing Management: Analysis, Planning, Implementation, and Control*. Prentice-Hall, 9th Edition, Engelwood Cliffs, N.J.

- Kotler, P., & Amstrong, G. (2012). *Principle of Marketing.14th Edition. New Jersey. . Prentice Hall.*
- Lee, C.-H., & Chen, C.-W. (2021). Impulse Buying Behaviors in Live Streaming Commerce Based on the Stimulus-Organism-Response Framework. *Information 2021*, 1-17.
- Liao, C., Lin, H. N., Luo, M. M., & Chea, S. (2017). Factors influencing online shoppers' repurchase intentions: The roles of satisfaction and regret. *Information & Management, 54(5)*, 651-668.
- Lin, C. C., Wu, H. Y., & Chang, Y. F. (2011). The critical factors impact on online customer satisfaction. *Procedia Computer Science, 3*, 276-281.
- Ling, K. C., Chai, L. T., & Piew, T. H. (2010). The effect of Shopping Orientations, Online Trust and Prior Online Purchase Experience toward Customers' Online Purchase Intention. *International Business Research, 3(3)*, 63-76.
- Liu, G., Sun, M., & Lee, N. (2021). How can live streamers enhance viewer engagement in eCommerce streaming? *Proceedings of the 54th Hawaii International Conference on System Sciences*, 3079-3089.
- Liu, X., He, M., Gao, F., & Xie, P. (2008). An empirical study of online shopping customer satisfaction in China: a holistic perspective. *International Journal of Retail & Distribution Management, 36 (11)*, 919-940.
- Ludin, I. H., & Cheng, B. L. (2014). Factors Influencing Customer Satisfaction and E-Loyalty: Online Shopping Environment among the Young Adults. *Management Dynamics in the Knowledge Economy, 2(3)*, 462-471.
- Ma, Y. (2021). Elucidating determinants of customer satisfaction with live-stream shopping: An extension of the information systems success model. *Telematics and Informatics*, 1-17.
- Ming, J., Jianqiu, Z., Bilal, M., Akram, U., & Fan, M. (2021). How social presence influences impulse buying behavior in live streaming commerce? The role of S-O-R theory. *International Journal of Web Information Systems, 17(4)*, 300-320.
- Nathan, L. (2021, February 23). *Complaints on online transactions rise 112.5%*. Retrieved March 12, 2022, from <https://themalaysianreserve.com/2021/02/23/complaints-on-online-transactions-rise-112-5/>
- Nguyen, L., Nguyen, T. H., & T. K. (2021). An Empirical Study of Customers' Satisfaction and Repurchase Intention . *Journal of Asian Finance, Economics and Business, 8 (1)* , 971-983.
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research, 17(4)*, 460-469.
- Oppotus. (2021, August 31). *Livestream Shopping: The Future of E-commerce?* Retrieved March 26, 2022, from <https://www.oppotus.com/livestream-shopping-the-future-of-e-commerce/>

- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.
- Parasuraman, A., Zeithaml, V., & Berry, L. (1995). Reassessment of Expectations as a Comparison Standard in Measuring Service Quality: Implications for Further Research. *Journal of Marketing*, 58(1), 111-124.
- Peterson, R., Sridhar, B., & Bart, J. (1997). Exploring the implications of the internet for consumer marketing. *Journal of the Academy of Marketing Science*, 25 (4), 329-346.
- Pham, T. S., & Ahammad, M. F. (2017). Antecedents and consequences of online customer satisfaction: A holistic perspective. *Technological Forecasting and Social Change*, 124, 332-342.
- Raj S., V., & Gohain, M. (2021). Impact of COVID-19 on Malaysian E-commerce. *International Journal on Recent Trends in Business and Tourism*, 5(4), 8-10.
- Razak, I., Nirwanto, N., & Triatmanto, B. (2016). The Impact of Product Quality and Price on Customer Satisfaction with the Mediator of Customer Value. *Journal of Marketing and Consumer Research*, 30, 59-68.
- Roscoe, J. (1975). *Fundamental Research Statistics for the Behavioural Sciences*, 2nd edition. New York: Holt Rinehart & Winston.
- Sabiote, C. M., Fri'as, D. M., & Castañeda, J. A. (2012). E-service quality as antecedent to e-satisfaction: The moderating effect of culture. *Online Information Review*, 36 (2), 157-174.
- Saleem, A., Ghafar, A., Ibrahim, M., Yousuf, M., & Ahmed, N. (2015). Product Perceived Quality and Purchase Intention with Consumer Satisfaction. *Global Journal of Management and Business Research*, 15(1), 21-28.
- Salkind, N. J. (2010). *Encyclopedia of Research Design*. Thousand Oaks: SAGE Publications, Inc.
- Sarwar, A., Thambiah, S., & Haque, A. (2016). Factors Influencing Customer Satisfaction towards E-shopping in Malaysia . *Proceedings of The 27th International Business Information Management Association Conference*, 527-536.
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business students (6th ed.)*. United Kingdom, England: Pearson Education Limited.
- Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation Coefficients: Appropriate Use and Interpretation. *Anesthesia & Analgesia*, 126(5), 1763-1768.
- Schiffman, L. G., Long, M. M., & Sherman, E. (2015). High tech versus human touch: an exploration of . *In Global Perspectives in Marketing for the 21st Century*, 229-230.

- Shariff, N. S., & Hamid, N. H. (2021). Consumers' Buying Behavior Towards Online Shopping During The Covid-19 Pandemic: An Empirical Study In Malaysia. *Malaysian Journal of Science, Health & Technology*, 7 (2), 1-7.
- Shim, M., & Jo, H. S. (2020). What quality factors matter in enhancing the perceived benefits of online health information sites? Application of the updated DeLone and McLean Information Systems Success Model. *International Journal of Medical Informatics*. 137.
- Sitanggang, J. M., Sinulingga, S., & Fachruddin, K. A. (2019). Analysis Of The Effect Of Product Quality On Customer Satisfaction And Customer Loyalty Of Indihome ATPT Telkom Regional 1 Sumatera, Medan, North Sumatra, Indonesia. *American International Journal of Business Management* , 2(3), 26-37.
- Söderlund, M., & Sagfossen, S. (2017). The consumer experience: The impact of supplier effort and consumer effort on customer satisfaction. *Journal of Retailing and Consumer Services*, 39, 219-229.
- Sun, Y., Shao, X., Li, X., Guo, Y., & Nie, K. (2019). How live streaming influences purchase intentions in social commerce: An IT affordance perspective. *Electronic Commerce Research and Applications*, 37.
- Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management*, 5(2), 18-27.
- Taherdoost, H. (2016). Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research. *International Journal of Academic Research in Management*, 5(3), 28-36.
- The Star. (2021, June 8). *Survey: More Malaysians shopping online* . Retrieved March 24, 2022, from <https://www.thestar.com.my/business/business-news/2021/06/08/survey-more-malaysians-shopping-online>
- Tran, T. Q. (2021). FACTORS INFLUENCE ON CUSTOMER PURCHASE INTENTION VIA LIVETREAM: CASE OF VIETNAM. *International Journal of Management & Entrepreneurship Research* , 3(7), 253-265.
- Tzeng, S.-Y., Ertz, M., Jo, M.-S., & Sarigollu, E. (2021). Factors affecting customer satisfaction on online shopping holiday. *Marketing Intelligence & Planning*, 39(4), 516-532.
- Uyanık, G. K., & Güler, N. (2013). A study on multiple linear regression analysis. *Procedia-Social and Behavioral Sciences*, 106, 234-240.
- Wagenaar, T. C. (2005). Survey Design. *Encyclopedia of Social Measurement*, 715-721.
- Wang, C., & Teo, T. S. (2020). Online service quality and perceived value in mobile government success: An empirical study of mobile police in China. *International Journal of Information Management*, 52.
- Whitley, B. E. (2002). *Principals of Research and Behavioural Science*. Boston, McGrawHill.

- Wongkitrungrueng, A., & Assarut, N. (2020). The role of live streaming in building consumer trust and engagement with social commerce sellers. *Journal of Business Research*, 117, 543-556.
- Zahari, N. H., Azmi, N. N., Kamar-BODIAN, W. N., & Othman, M. S. (2021). Impact of Live Streaming on Social Media on Impulse Buying. *Asian Journal of Behavioural Sciences*, 13-23.
- Zak, S., & Hasprova, M. (2020). The role of influencers in the consumer decision-making process. *SHS Web of Conferences*, 74, 1-7.
- Zhang, M., Sun, L., Qin, F., & Wang, G. A. (2020). E-service quality on live streaming platforms: swift guanxi perspective. *Journal of Services Marketing*, 35(3), 312-324.
- Zhou, T. (2011). Examining the critical success factors of mobile website adoption. *Online Information Review*, 35(4), 636-652.
- Zikmund, W.G., Babin, B.J., Carr, J.C. & Griffin, M. (2009). *Business research methods*(8th ed). South-Western College Pub.

APPENDIX

Appendix 1.1 Questionnaire



Title: Factors Affecting Customer Satisfaction towards Live-stream Shopping in Malaysia

Dear respondents,

I am Phoon Rou Yu, a final year undergraduate student from the Faculty of Accountancy and Management (FAM) pursuing Bachelor of International Business (HONOURS) in Universiti Tunku Abdul Rahman (UTAR). I'm currently conducting my final year project and collecting data to examine the factors that influence customer satisfaction towards live-stream shopping in Malaysia.

This questionnaire consists of three sections and it may take you about 10 minutes to complete. Your participation in this survey is important for me to complete this study. Your responses will be kept confidential and all the data received will be only used for this research only.

If you have any enquiries or need further clarification, please feel free to contact me at rouyuphoon00@utar.my. I truly appreciate your participation and thank you for your time.

Section A: Demographic Profile & General Questions

Please read carefully and choose ONE answer for each question.

1. Gender:

- Male
- Female

2. Age:

- 18 – 27 years old
- 28 – 37 years old
- 38 – 47 years old
- 48 – 57 years old

3. Race:

- Malay
- Chinese
- Indian
- Others

4. Monthly income (gross)

- Less than RM1000
- RM 1001 – RM3000
- RM3001 – RM5000
- >RM5000

5. Which product do you regularly buy via live-streaming??

- Food & Beverage
- Beauty products
- Clothing
- Electric products
- Others

6. How often do you make purchase via live streaming in a month?

- Never
- 1-3 times
- 4-6 times
- 7 times and above

Section B: Construct Measurement

This section is asking your opinions of the factors that affect customer satisfaction towards live-stream shopping in Malaysia (i.e. information quality, perceived product quality, service quality). Please read all questions carefully and answer all questions based on 5 point Likert-scale to show how strongly you agree or disagree with the statements.

Strongly Disagree (SD) = 1, Disagree (D) = 2, Neutral (N) = 3, Agree (A) = 4,

Strongly Agree (SA) = 5

Information Quality

Statements	1	2	3	4	5
1. The live streamer always provide up-to-date product information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The product information provided by live streamer is sufficient.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. There are consistencies in the product information shared by the live streamer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Most of the time, the information provided by the live streamer is clear to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The information provided by the live streamer is easily understandable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Perceived Product Quality

Statements	1	2	3	4	5
1. The product I bought from the live streamer has good quality.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I am easily satisfied with the quality of products I bought from the live streamer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The quality of products purchased on the live streamer's channel are the same as my expectations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The product that I got is of equal quality as those in physical stores.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Service Quality

Statements	1	2	3	4	5
1. I received my products purchased from live streamer on time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The live streamer provides customer service and after-sale support.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. It is not difficult for me to place orders with the live streamer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Paying for an item purchased from the live streamer is easy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Most of the time, live streamer allows for returns and refunds.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Customer Satisfaction

Statements	1	2	3	4	5
1. Overall, I am satisfied with my experience in shopping from the live streamer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Overall, I think my experience in shopping from the live streamer is good.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I believe that shopping from the live streamer is a wise decision.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. If I had to do it over again, I'd make my most recent online purchase in live streams.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section C: Suggestion

What is your suggestion for live stream sellers to enhance customer satisfaction? (if any)
