

CONSUMERS' ATTITUDE TOWARDS
TRADITIONAL AND ELECTRONIC COMMERCE

BY

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(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) Equal contribution has been made by each group member in completing the FYP.

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DEDICATION

With the completion of this research project of ours, we will like to dedicate this to our family members and our friends who have given full support and motivation in the settlement of this written research project. This research project is also dedicated to our parents who has supported and encouraged us in further striving on our academics in Universiti Tunku Abdul Rahman (UTAR).

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ABSTRACT

Retailing plays a crucial role in the marketplace around the world. The electronic commerce (e-commerce) has been overtaking many industries in the marketplace. However, the traditional commerce is still a critical platform for some industries to vend its products. Previous studies have studied many variables influencing the consumer attitudes towards the popular e-commerce whereby consumer attitudes towards the traditional commerce are neglected.

This paper intended to look into the consumers' attitude towards both traditional commerce and e-commerce in Malaysia by considering perceived marketing mix (PMM), perceived risks (PR), and perceived information transparency (PIT). 613 valid sample are collected to analyze the relationship between the variables by using the structural equation modelling (SEM). The outcomes of the analyses show that PMM has significant relationship with consumers' attitude towards traditional commerce but has **no** significant relationship in the e-commerce aspect. While, PR and PIT both have significant relationship with consumers' attitude towards e-commerce but has **no** significant relationship in the traditional commerce aspect.

Keywords: Comparison study, consumer attitude, traditional commerce, brick-and-mortar, physical store, e-commerce, online store, perceived marketing mix, perceived risks, perceived information transparency

PREFACE

This research project is a compulsory requirement for the academic studies of “Bachelor of International Business (Hons)” in Universiti Tunku Abdul Rahman (UTAR). This research project targets to develop the intellectual interest and critical thinking among the undergraduates apart from their regular responsibilities. Besides, this research project also prohibits the integration of research capability and application of the theoretical elements into group written, oral, and discussion ability.

The topic for this research project is **Consumers' Attitude towards Traditional Commerce and E-Commerce in Malaysia**. The research project is conducted due to the fact in Malaysia, there is very limited studies on comparison of consumers' attitude towards traditional commerce and e-commerce as the researchers focus on the switching behaviours. However, the researchers have ignored the facts that Malaysian still prefer to purchase through physical stores and refrain from purchasing through online stores.

The research project is conducted to investigate the significant relationship of the factors that affect consumers' attitude towards traditional commerce and e-commerce in Malaysia. It explicitly addresses the importance of perceived marketing mix, perceived risks, and perceived information transparency on consumers' attitude towards the different commerce platform in Malaysia. Hence, this research project can assist the entrepreneurs and marketers in assessing the consumers' attitude towards different commerce platform and enter into the Malaysian market with the right commerce platform successfully.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

This research aimed to compare the differences between the consumers' attitude towards both traditional commerce and electronic commerce (e-commerce). The study has taken in the perceived marketing mix, perceived risks, and perceived information transparency as the factors affecting the attitude of the consumers. In order to create a fundamental concept for the research, research background, research objectives, problem statement, hypotheses of the study, significance of the study, definition of terms, chapter layout, and conclusion are described in Chapter 1.

1.1 Research Background

In this digital era, the electronic devices become increasingly important as people from all around the world are interconnected through the internet using smartphone, tablet, et cetera. The online platform has allowed people to make friends, share photo on social media, search for information about products and services, et cetera. The advanced technology has become an important aspect for this modern society and it has been widely used by the business in commercial activities. In the business world, electronic commerce which is also known as e-commerce is growing rapidly because of the market demand. With this potential trend in the market, commercial business started to invest and focus the investment of venture in the online platform to follow the market pace in order to survive in the competing market. Taobao, Alibaba, Lazada, Shopee, and many more e-commerce platform have been established to allow businesses to sell their products through this platform to stay connected with the potential consumers (Fauzi, Thenmoley, Elhoussein, Asirvatham, & Chin, 2018). E-commerce is not just an extra channel for businesses to sell products, but it is also a ground-breaking approach for the marketers to have an in-depth understanding of consumers attitude and behaviour toward the shopping channel. Moreover, the advanced shopping channel has helped millions of merchants and businesses to link their products and services to numerous users around the world (Waheed & Islam, 2018).

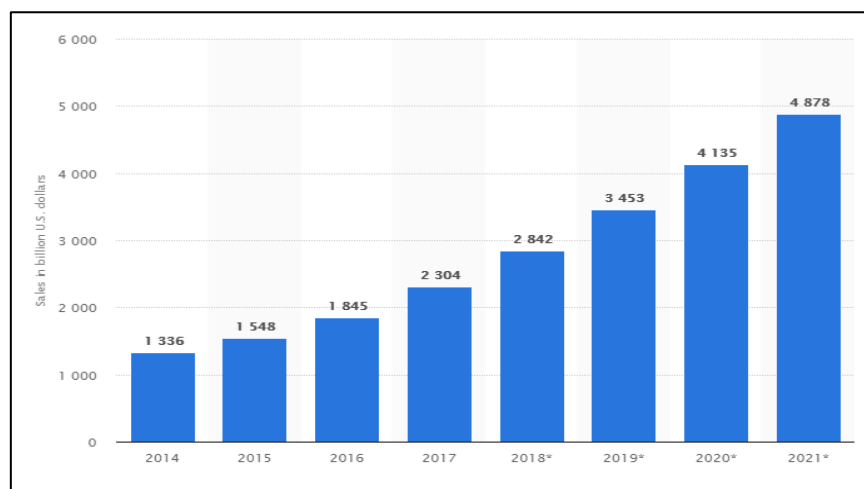


Figure 1.1: Global Retail E-Commerce Market Size 2014-2018, by Statista Inc., 2018

Retrieved from <https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/>

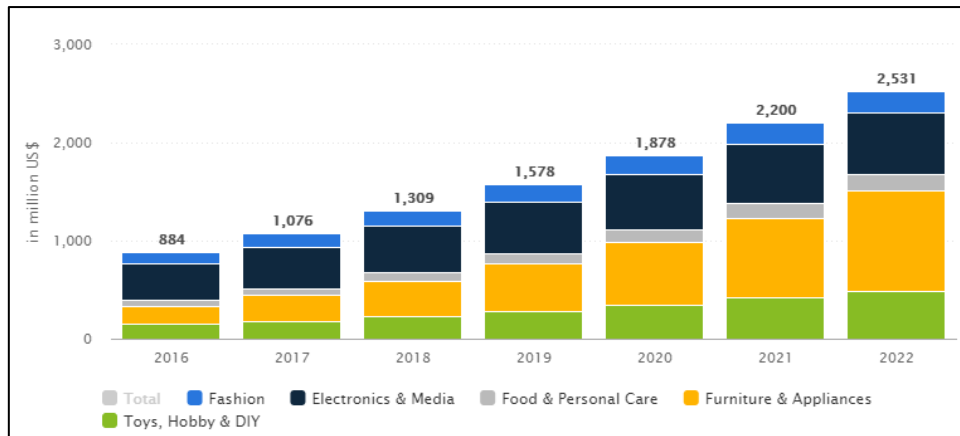


Figure 1.2: Consumer Electronics - Malaysia | Statista Market Forecast, by Statista Inc., 2018
 Retrieved from <https://www.statista.com/outlook/251/122/consumer-electronics/malaysia#>

According to the market survey done by Statista Inc. (2018), figure 1.1 has shown that the e-commerce is a shopping platform that is full of potential in the market and the channel is estimated to have approximately 4.88 trillion U.S. dollars of sales worldwide in 2021. Other than that, figure 1.2 has also revealed that the revenue of e-commerce market in Malaysia was 1,309 million U.S. dollars in 2017 and it is expected to show an annual growth rate of 17.9% in market volume of 2,531 million U.S. dollars in the 2022 (Statista Inc., 2018). Hence, from the statistics discussed, it is appropriate to conclude that most of the Malaysian are willing to purchase through e-commerce as they are linked to the internet.

Besides, e-commerce has allowed consumers to shop through the website conveniently rather than going to the physical store when buying a product (Wing, 2016). Also, the source has mentioned that consumers are more likely to browse at online stores as they are able to enjoy cheap prices, save more time, access more information, et cetera. However, there are still people who prefer to shop through the traditional commerce store which is also known as the physical store. People who shop through the traditional commerce channel have different attitude compared to those who shop through the e-commerce channel.

Based on Skrovan's research survey, the result shown that 62% of the consumers still prefer to perceive sensation when buying a particular product at the brick and mortar stores (also known as physical store) and these consumers insisted that they want to experience the tangibility of the product which is only available from the

traditional commerce channel (Skrovan, 2017). Apple Inc. is one of the top developers in the consumer electronics industry. It started to introduce its in-app mobile ad platform, i.e. iAd into many countries in 2014 (O'Reilly, 2014). In addition, Apple Inc. has evolved its selling channel into e-commerce while maintaining the traditional commerce channel to target different segment of customers. Thus, Apple Inc. as one of the top companies in the world has shown us that both shopping channels including e-commerce and traditional commerce are relatively important in the business industry, and researches in this field should not be neglected and ignored in the market.

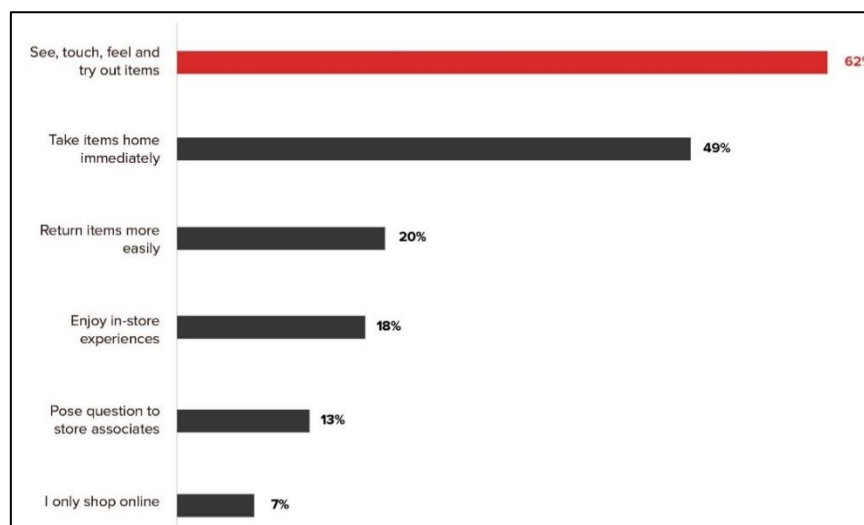


Figure 1.3: Why Most Shopper Still Choose Brick-And-Mortar Stores Over E-Commerce, by Skrovan, 2017, Retrieved from <https://www.retaildive.com/news/why-most-shoppers-still-choose-brick-and-mortar-stores-over-e-commerce/436068/>

In this chapter, we have decided to study the consumers' attitude when considering the channels to purchase a product. The reasons to compare consumers attitude between the two types of commerce has been described in figure 1.3. A previous paper studied by Perner (2018) has found that the attitude of the consumers is very complicated because they have different beliefs, feelings, and intentions on everything they consumed. This statement was explained by various reasons that affect consumers' attitude towards their actions and responses in different situation, environment, emotion, et cetera. Not only that, but the different attitude of consumers will also lead them to behave differently when choosing the purchasing channels.

In the previous paragraphs, it was clearly described the differences between traditional commerce and e-commerce. One of the major differences is that traditional commerce involves a more personal transaction while e-commerce involves an impersonal transaction as the interaction between the vendor and consumers is weak. Other than that, consumers often browse e-commerce websites when they have the intention to buy something whereas consumers in the traditional platform simply browse through the physical stores around them without any direct purchase intention.

Therefore, in order to understand the differences between consumers' attitude towards both traditional commerce and e-commerce, this research is conducted to study and compare the perceived marketing mix, perceived risks, and perceived information transparency towards consumers' attitude between traditional commerce and e-commerce.

1.2 Problem Statement

Consumers' attitude is essential when consumers decide to purchase a product. Consumers' positive attitude towards the shopping channel should be discussed as entrepreneurs should understand how consumers make their purchase decision and decide which platform they should emphasize on. Thus, in order to understand what the consumers' attitude is towards these two-essential shopping platforms, this study intended to investigate the factors affecting the consumers' attitude and compare the differences between the two commerce.

Many researchers and specialists have proven that e-commerce is a potential market and recognized it as a new trade channel (Chua & Yoo, 2018; Andreys, Godin, & Wind, 2013). In the past decades, many organizations and marketers focused only on the traditional selling channels such as brick-and-mortar or door to door (D2D) retail to sell their products. Through this physical platform, consumers are able to visit the shop and obtain the purchased items directly.

E-commerce has become a rising trend in Malaysia in the past few years. Maslan (2018) has found that e-commerce has contributed 74.6 billion to Malaysia's GDP in 2016. This online platform has allowed consumers to perceive a higher service quality in a short period. According to Lu (2018), the sales of e-commerce in Malaysia is projected to rise from 10.8% to 20.8% in 2020. Although e-commerce has slowly changed the world culture in purchasing items, the traditional commerce remains important in Malaysia as many populations still prefer to purchase products at the physical store rather than online (Chin, 2016).

Due to the problems facing by consumers in the different purchasing channels, this study will investigate the consumers' attitude towards both traditional commerce and e-commerce using the same variables. In addition, researchers have been focusing on the switching behaviour of consumers from traditional commerce to e-commerce but rarely compare the differences between these two important platforms.

Gupta, Su, and Walter (2004) have explored the switching intention of consumers through the purchase decision process in 4 products categories, i.e. books, airline tickets, wine, and stereo system. Li and Dalen (2012) have also done a similar study about switching intention of consumers from traditional to electronic shopping channel in different gender role as they realize that different gender perceives differently. These studies have ignored the facts that some consumers are still refraining in using e-commerce as a purchase channel because of the perceived risk, and the information transparency is ambiguous. Other than that, many researchers are only studying consumer behaviour on e-commerce instead of studying the differences between consumer behaviour towards traditional commerce and e-commerce (Shanthi & Kannaiah, 2015; Chen, 2009; Masoud, 2013).

Many entrepreneurs in the business world have failed to satisfy the customers' needs by neglecting the importance of traditional commerce and e-commerce (Roggio, 2014). E-commerce is strengthening against the traditional commerce, but some products are still being demanded in the physical market which includes consumer electronics, electronics products, furniture, automobile, etc. as these products comprise high consumer involvement (Rungvithu, 2018). Therefore, both e-commerce and traditional commerce are relatively important retail channel available in the market which makes it crucial to understand the different perspective toward both purchasing channels independently.

In a nutshell, entrepreneurs should study the consumers' attitude towards both traditional commerce and e-commerce to be successful in their businesses (Rodgers & Harris, 2003; George, 2004; Coutinho & Costa, 2018).

1.3 Research Objective

1.3.1 General Objective

The main objective of this research is to investigate how the determinants of consumers' attitude respond differently towards e-commerce and traditional commerce when shop for a product. This research consists of three independent variables which include perceived marketing mix, perceived risk, and perceived information transparency.

1.3.2 Specific Objectives

Three objectives are constructed in this research to study the differences between consumers' attitude towards traditional commerce and e-commerce.

- To study the differences between the effect of the *perceived marketing mix* on consumers' attitude towards traditional commerce and e-commerce.
- To study the differences between the effect of the *perceived risk* on consumers' attitude towards traditional commerce and e-commerce.
- To study the differences between the effect of the *perceived information transparency* on consumers' attitude towards traditional commerce and e-commerce.

1.4 Research Question

- Is there a difference between the effect of *perceived marketing mix* on consumers' attitude towards traditional commerce and e-commerce?
- Is there a difference between the effect of *perceived risk* on consumers' attitude towards traditional commerce and e-commerce?
- Is there a difference between the effect of *perceived information transparency* on consumers' attitude towards traditional commerce and e-commerce?

1.5 Hypothesis of the Study

H1: *Perceived marketing mix* has a significant positive relationship with consumers' attitude towards *traditional commerce*.

H2: *Perceived risk* has a significant positive relationship with consumers' attitude towards *traditional commerce*.

H3: *Perceived information transparency* has a significant positive relationship with consumers' attitude towards *traditional commerce*.

H4: *Perceived marketing mix* has a significant positive relationship with consumers' attitude towards *e-commerce*.

H5: *Perceived risk* has a significant negative relationship with consumers' attitude towards *e-commerce*.

H6: *Perceived information transparency* has a significant positive relationship with consumers' attitude towards *e-commerce*.

1.6 Significance of Study

The analyses of the study may provide further understanding and insight about the consumers' attitude towards both commerce for future academician, entrepreneurs, marketer, economist, et cetera. in both theoretical and practical perspectives.

This study can assist the entrepreneurs from all around the world who wants to venture in Malaysia to have a better understanding of the consumers' attitude towards the shopping channel platform available in the local market. The differences between attitude towards both commerce will enable these entrepreneurs to determine which commerce platform to be emphasized by determining the target demographic segment to prevent business failure in the Malaysian market. In addition, the nature of the product will also affect the consumers' attitude towards the shopping channel which this research has questioned the respondents regarding the concern and summarized the outcome in Chapter 4. The entrepreneurs should understand the factors affecting the consumers' attitude and how significant are these factors in impacting their attitudes towards the two-different channel before making any decision on the startup platform.

Moreover, marketers can gain more insight about the differences between consumers' attitude towards traditional commerce and e-commerce and promote the products more effectively. In this study, the perceived marketing mix has been modeled as one of the factors affecting the consumers' attitude in the two important shopping platform. The outcomes of the research are expected to aid the marketers in Malaysia to be clear about the degree of influences of its marketing strategy in affecting the consumers' attitude towards both commerce platform. Thus, international marketers in the Malaysian market can make use of the analyses of this research appropriately to amend their strategies accordingly to perform at best in the diversified market.

Besides, the comparison between the consumers' attitude towards traditional commerce and e-commerce would assist various academician in the research field. This study can be used as a reference for future researchers in the related field of

study. The academician can obtain a greater vision about the direct and indirect impact of the perceived marketing mix, perceived risks, and perceived information transparency on the consumers' attitude towards traditional commerce and e-commerce from this study. The analyses from this research will also allow the researchers to recognize the significance of the hypotheses formed in Chapter 2 and recognize the differences between the two commerce platform. This study also signals that the researchers should not only focus on the popular e-commerce in the current market but also to understand the importance of consumers' attitude towards traditional commerce as the physical stores is still being preferred by many.

Furthermore, future researchers can refer to this study when planning to examine a comparison study in any research field other than the traditional commerce and e-commerce. Also, the level of acceptance for model fit and validity test has been adopted in this study which allows future researchers to discuss when the paper wishes to apply the causal factor analysis of structural equation modeling as inferential analysis of the paper.

1.7 Definition of Terms

To provide a consistent meaning of terminologies in this research, the following table has stated all definition of variables applied in this research to provide a better understanding of each variable used.

Table 1.1: Definition of Terms

Terminology	Definition	Adapted from
Consumers Attitude	Consumer attitude is the means by which a consumer feels about an attitude object, the intentions to act about it, and consumers' belief to be true about the attitude object. This is the idea of ABC and CAC attitude model.	Solomon (2013)
Marketing Mix	Marketing mix is a set of controllable, tactical marketing tools which include product, price, place, and promotion – the 4 P's that the firm blends to produce the response it wants in the target market.	Kotler & Armstrong (2016)
Perceived Risk	Perceived risk is the belief that there may be negative consequences if someone uses or don't use a product or service. It includes monetary risk, functional risk, social risk, and psychological risk.	Solomon (2013)
Perceived Information Transparency	Perceived information transparency describes the extent to which the consumer can assess the information easily. It includes three essential dimensions, i.e., product transparency, vendor transparency, and transactions transparency.	Hahn & Kim (2009)

Source: Developed for the Research

1.8 Chapter Layout

1.8.1 Chapter 1: Research Overview

In Chapter 1, the research foundation of the topic is outlined. This chapter basically provides a comprehensive view of the general idea of this research study. The problem statement was described in the chapter to explain the intention of the research. Besides, the research background of the study is clarified where the relevant statistics and information about traditional commerce and e-commerce are discussed to create an overview of the importance of the commerce industry. Other than that, the research objectives, research questions, the significance of the study, and definition of terms are composed in this chapter to enable the readers in having a better understanding of the research topic.

1.8.2 Chapter 2: Literature Review

In Chapter 2, the pertinent primary data are summarized. The appropriate journal articles and relevant researches have been summarized in this particular chapter to provide adequate evidence in supporting the relationships between the variables. Also, the hypotheses of the study are being formed with the backing of valid previous findings.

1.8.3 Chapter 3: Methodology

In Chapter 3, a synopsis of the techniques to analyze this research are described. The research design, data collection methods, sampling design, research instrument, construct measurement, data processing, and methods of data analysis are explained in detail in this particular chapter.

1.8.4 Chapter 4: Data Analysis

In Chapter 4, the collected data are analyzed and interpreted. This chapter consists of descriptive analysis, scale measurement, and inferential analysis of the data. Nevertheless, important analyses such as Structural Equation Model, reliability and validity test, hypotheses testing, and moderating effect have been included in this particular chapter.

1.8.5 Chapter 5: Discussion, Conclusion, and Implication

In Chapter 5, a summary of the overall research study is compiled. The analyses of the data are recapped in this particular chapter, and the major findings are discussed to verify the hypotheses formed in Chapter 2. After all, managerial implications, limitation of the study, and recommendation of the study are reported in the chapter as well.

1.9 Conclusion

In a nutshell, this chapter is meant to illustrate the fundamental concept about the research background, problem statement, research objective, research question, and hypotheses of the study to give a clear insight of this research project. In the next chapter, the literature review will be deliberated to make a stronger statement for the research objective.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

In this chapter, the relationship between consumers' attitude and its determinants will be discussed with the supportive evidence from secondary data such as journal articles. Published journals, articles, and books are being used in the literature review to enhance the integrity of hypotheses development. The conceptual framework of this research has been formed following the definition and discussion of the relationship between the variables. The dependent variable is defined using the ABC and CAC model to reinforce the interpretation of attitude for a better understanding of the consumers' attitude.

2.1 Review of the Literature

2.1.1 Consumers' Attitude

Attitude is often defined as how a consumer reacts to an attitude object, person, or behavior in a favorable or unfavorable way (Toufaily, Souiden, & Ladhari, 2013; Ajzen, Fishbein, & Flanders, 1975). Similarly, Irianto (2015), Baron & Byrne (1991), and Paul, Modi, & Patel (2016) have stated that attitude is the extent to which a consumer has good or bad appraisal towards certain behavior. In another word, attitude can also be referred as the way a consumer assess or judge an entity in term of favor or disfavor, and the intended behavior of a consumer towards an entity (Cheng, 2009; Bonacum, Leonard, & Graham, 2004). Chen (2009) declared that the consumers bring together their cognition and assessment against the attitude object to form their attitude. Alternatively, attitude is one of the components to be studied under consumer behavior other than customers satisfaction, experience, et cetera (Toufaily, Souiden, & Ladhari, 2013).

The general concept of attitude is expressed as the feelings, beliefs, intentions, preferences, emotions, expectations, judgments, appraisals, values, principles, and opinions (Jusoh & Ling, 2012; Barutçu, 2008; Osman, Chan, & Bei, 2010; Jain, 2014; Ajzen, Fishbein, & Flanders, 1975). According to Barutçu (2008), he summarized the definition of attitude as how the consumers response to their environments. The researcher has also explained the attitude with several relevant models in the paper which includes the multiattribute measurement model, ABC model, and CAC model.

Multiattribute Measurement Model (MMM) is a model resulted from Fishbein in the early 60s (Tabassum & Rahman, 2012; Solomon, 2013). Solomon (2013) explained the MMM is used by researchers to simplify the complex understanding of consumers' attitude toward a product. Fishbein believes that consumers belief towards the attributes of the attitude object

can have a large impact on how they assess the attitude it. Thus, Fishbein (1963) has constructed an equation to formulate the consumers' attitude by measuring the three components in the MMM which include consumers beliefs, object-attribute linkages, and evaluation of the attributes. The formula of MMM is illustrated as below:

$$A_{jk} = \sum B_{ijk} I_{ik}$$

Where: i = attribute; j = brand; k = consumer; I = the importance weight given attribute I by consumer k; B = consumer k's belief regarding the extent to which brand j possesses attribute I; A = a particular k's attitude score for brand j

ABC model was mentioned in the book of Solomon in 2013 where this model suggested attitude consists three important components which are affective, behavioral, and cognitive. Affective in the model stands for the way the consumers feel about the attitude object; Behavioral stands for the consumers' intention to act towards the attitude object; Cognitive stands for what the consumers believe about the attitude object (Solomon, 2013). Cognitive Affective Conative (CAC) Model is similar to the ABC model mentioned. The model has the similar classification as the ABC model where it suggests the attitude comprises three components, i.e., cognitive which is the belief of a consumer, affective which is the feelings of a consumer, and conative which is the behavior of a consumer (Barutçu, 2008). Therefore, consumers attitude can be generalized with three components which include affective, behavior or conative, and cognitive that retrieved from the ABC and CAC model (Solomon, 2013; Barutçu, 2008).

Consumers' attitude towards e-commerce is an important aspect to be studied by researchers around the world. According to Jusoh and Ling (2012), there are many pieces of researches regarding the context of consumers' attitude towards e-commerce to investigate the variables

affecting the consumers' attitude to shop online. In term of the webstores, attitude refers to the consumers' feelings, belief, and behavior towards e-commerce. This also indicates that, when consumers have a positive attitude toward e-commerce, they will react nicely, vice versa (Boateng & Okoe, 2015; Bourlakis, Guptar, & Melewar, 2010). Accordingly, it is appropriate to state that consumers' attitude toward online shopping is important in the retailing market.

Rather than studying consumers' attitude towards e-commerce alone, consumers' attitude toward traditional commerce, i.e., the physical store should be considered in the research field as well. Liu, Burns, and Hou (2013) have conducted a study in comparing the consumers' attitude towards e-commerce and traditional commerce from internet shoppers and non-internet shoppers' perspectives. They describe internet shoppers as innovators and impulsive consumers who wish to have more variety of products choices; whereas, non-internet shoppers are more rational in buying behavior. In short, non-internet consumers will have a positive attitude towards traditional commerce and negative attitude towards e-commerce; on the other side, internet consumer will have a negative attitude towards traditional commerce and positive attitude towards e-commerce (Liu, Burns, & Hou, 2013).

In a nutshell, it is crucial to understand the factors determining the consumers' attitude towards both traditional and electronic commerce in the retail market to allow the businesses in the market to sell their products effectively and efficiently in the right shopping channel for consumers.

2.1.2 Perceived Marketing Mix

The marketing mix is one of the essential business tools for an organization to promote its products and services in the competing market. This tool consists of 4 element that is product, price, promotion, and place which are also known as the 4 Ps (McCarthy, 1964). Goi (2009) has declared that the

marketing mix is widely practiced by many marketers as it influences the consumers' feelings, belief, and behaviour.

The first P stands for Product where an organization should differentiate its products against its competitors. The second P stands for Price where an organization should have an appropriate pricing strategy for its products. The third P stands for Promotion where an organization should position its products in the consumers' mind. The last P stands for Place where an organization should allocate its products at the right location that is convenient for its consumers to purchase (Ang & Rusli, 2018; Da Silva Wegner, Godoy, Serpa, Martinelli, & Godoy, 2018; Arab, 2018). Marketers should pay attention to the marketing mix as it can improve the consumers' attitude towards traditional commerce and e-commerce (Constantinides, 2004; Wu & Li, 2018).

According to Sam and Chatwin (2012), the marketing mix has positive influences on consumers' decision-making process while shopping on e-commerce. The researchers explained that the marketing mix tool has a great impact on the overall performance of the online business activities which consequently affect the consumers' feelings toward e-commerce. Another study conducted by Jun and Jaafar (2011) has stated that perceived marketing mix plays an important part in e-commerce to attract more customers on the online platform. An attractive promotion, high-quality product, and reasonable price of a product can affect consumers' attitude towards the commerce platform significantly. Similarly, Seock and Norton (2007) have mentioned that perceived product attribute can affect consumers' attitude towards online stores which has fully supported the statement that perceived marketing mix has a positive impact on consumers' attitude towards e-commerce. Therefore, an effective marketing mix is essential for an organization to build a positive attitude of consumers.

Akroush and Al-Debei (2015) indicated that the perceived marketing mix has a strong relationship with consumers' switching behaviour towards e-commerce. Many consumers perceived higher marketing mix on online

stores because of the relative advantages provided compared to physical stores. Comparing with traditional commerce, consumers are able to enjoy more product choice with different price and location to obtain the products with less time and effort spent (Harris & Dennis, 2002; Constantinides, 2006). Hence, this marketing tool is crucial to be emphasized by an organization as it leads the consumers to have better feelings, beliefs, and act in favourable behaviour towards traditional commerce and e-commerce.

The perceived marketing mix such as pricing strategy and product value has a strong effect on traditional commerce and e-commerce (Guptar, 2015; Munusamy & Hoo, 2008). According to Guptar (2015), the perceived marketing mix in term of pricing strategy in e-commerce is better than in traditional commerce. Beside the pricing strategy in the marketing mix tool, the tangibility of the product is another important aspect that stimulate the consumers' attitude as many consumers prefer to feel or experience the attitude product before they purchase a certain product (Coren, Ward, & Enns, 2004; Knez, Thorsson, Eliasson, & Lindberg, 2009). Thus, perceiving different types of marketing mix can have a large impact on consumers' attitude towards the shopping channels.

According to Suki and Suki (2013), consumers are more likely to shop at online stores as it is able to provide efficient services, accurate information, and attractive promotion. Sales promotion and internet advertisement are the major promotion activities that attract consumers to visit the online shopping platform as these activities allow the marketers and consumers to communicate easily (Suki & Suki, 2013; Li, Wang, & Lin, 2018). Therefore, the perceived marketing mix allows businesses to gain higher sales as it provides positive consumers' attitude towards traditional commerce and e-commerce.

Since perceived marketing mix has positive influences on the online and offline consumers, there is a need to test and validate how Malaysian perceived marketing mix will affect their attitude towards traditional commerce and e-commerce.

2.1.3 Perceived Risk

Omar (2005) explained that the consumers' attitude could be affected by their perceived risk on the product or service. Consumers will have the belief that negatives consequences may occur if they use or do not use the product or service when they perceived risk on a particular product or service (Solomon, 2013). This statement also indicates that, when consumers perceived risk on purchasing a product through e-commerce, they are likely to have a negative attitude towards e-commerce and positive attitude towards traditional commerce (Wiedmann, et al., 2010). In the textbook of Solomon (2013), the five types of risks often perceived by the consumers are revealed which include monetary risk, functional risk, physical risk, social risk, and psychological risk.

Monetary risk refers to the risk of losing money or paying for additional fees in maintaining the proper functions of the products (Lingyte, Valsamidis, Mitsinis, & Polychronidou, 2011; Villa, Herrera, & Arias, 2018; Youn, 2005). Functional risk refers to the performance risk of the function promised and whether the products can meet the consumers' needs or not (Dai, Forsythe, & Kwon, 2014; Su, Wang, & Hsu, 2012). Social risk refers to the risk that has the possibility to affect a person's esteem and confidence (Youn, 2005). Psychological risk refers to the risk that will affect a person's self-respect and attractiveness to their friends and family (Youn, 2005). Physical risk refers to the risk that will affect a person's physical health (Hsu & Luan, 2017). However, the physical risk will not be measured in this research as Gupta, Su, and Walter (2004) declared that shopping does not confront much of physical risk, so it is not suitable to consider physical risk when discussing either online or offline shopping.

In Mitchell's research paper about consumers' attitude towards food and beverage products, it was found that consumers' attitude will be affected by the perceived risk when visiting a physical food store (Mitchell, 1998). The perceived risk of consumers will be changed when there is any alteration in

the product or service attributes. It was mentioned that the perceived risks of a food product are working at the product and store level, thus, vendors who are selling through the traditional commerce platform should be thoughtful on the formulation of strategies that can overcome the consumers' perceived risks in the physical store. By removing the perceived risk of consumers, the vendor will be able to enable its consumers to have a positive attitude toward the physical store.

Same goes to the medical center, risk management is relatively important as it will affect the patients' attitude towards the hospital (Brandis, Schleimer, & Rice, 2017). When a hospital is able to provide its consumers confident, the patients will perceive lower risks that allow them to have positive feelings towards the organization. Thus, it is important for a hospital to maintain and manage the consumers' perceived risk as it will affect how consumers think, feels, and act against the organization.

According to Lee (2009), the five types of risks mentioned above will affect consumers' attitude towards online banking which is similar to e-commerce. The journal article mentioned that the five types of risks indicated in Solomon's textbook have different impacts on the consumers' attitude in the online system which should be considered by the researchers. However, the results of the research turned out to be almost the same where the five types of risks can affect consumers' attitude significantly. Paul, Modi, and Patel (2016) defined that the consumers' attitude is connected with their perceived risk towards the attitude object. Also, Lee (2009) has also declared that the perceived risk is a negative factor that can significantly impact the attitudes of consumers towards the online system such as online banking and e-commerce.

A study done by Li and Dalen (2012) has found that the consumers' perceived risk is significantly affecting their attitude towards purchasing through online channels. Consumers' attitude is strongly affected by their awareness of the risks they may be facing in the purchasing channel, and it is a crucial aspect to look into. Similarly, Toufaily, Souiden, and Ladhari

(2013) have proven the perceived risk of consumers on e-commerce has a large impact on the consumers' attitude in buying through an online store. Nevertheless, consumers may react from risk aversion to risk taking when they perceived risks in the online store where most of the consumers will take risk aversion into action when the risk is more likely to happen (Li & Dalen, 2012).

Since a website is intangible that cannot be touched, felt, or smelled, the consumers' perception towards the risk of buying products through an online store will increase (Chu, Wu, Wu, & Chen, 2016). Although Bashir and Madhavaiah (2015) found that there is no relationship between perceived risk and consumers' attitude, many researchers have proved that the perceived risk of consumers can negatively influence their attitude towards the e-commerce websites (Wani & Malik, 2013; Chu, Wu, Wu, & Chen, 2016). Thus, it can be concluded that the higher the risk perceived by consumers, the consumers' negative attitude toward e-commerce will be higher.

The consumers' attitude in purchasing a product can be strongly influenced by the perceived risk (Gupta, Su, & Walter, 2004). The researchers explained the statement with the reason that when consumers feel there is uncertainty in buying the product, they perceive higher risk, and the intended behavior will change significantly. The perceived risk does not only affect consumers buying attitude but also the attitude towards the purchasing channel which is e-commerce and traditional commerce. Gupta et al. (2004) found that perceived risk affect consumers' attitude towards online shopping where the consumer often browse the online stores instead of purchasing; whereas, perceived risk also has a critical contribution towards the consumers' attitude in traditional commerce. Hence, it can be concluded that perceived risk plays an important role in determining the consumers' attitude towards e-commerce and traditional commerce.

Sims and Xu (2012) cited that the consumers perceived higher risk in e-commerce compared to the traditional commerce. It was explained that the

consumers perceived high financial risk when intending to purchase at online stores as they are scared that their money will be scammed by the online vendor; on the other hand, consumers rely on the physical stores as they are able to ensure the products before taking action to purchase the product. In addition, Masoud (2013) claimed that consumers perceived risk has a negative relationship with their willingness to purchase and the perceived risk stimulates the consumers' action in the intention to purchase. Therefore, the perceived risk of consumers impacts their attitude toward e-commerce and traditional commerce differently as both channels' perception of risk is different.

2.1.4 Perceived Information Transparency

Perceived information transparency is an important feature for businesses to promote their goods and services in the market. According to Hahn and Kim (2009), perceived information transparency can be categorized into three essential dimensions which include product transparency, vendor transparency, and transactions transparency. Perceived information transparency is the extent of availability and accessibility of information exposed to the consumers (Hahn & Kim, 2009). This also means that a consumer will perceive higher information transparency when information can be easily obtained and accessed. Information transparency has allowed vendors to be connected with the consumers by providing information and knowledge in the transaction process (Al-Jabri & Roztock, 2015).

Digimarc Corporation (2014) has stated that a product packaging can help businesses in the traditional market to transmit the product information to consumers in order to enhance their knowledge and experience which consequently allow the consumers to have better feel and intent to purchase the product. Also, consumers will be able to save more time searching for related and useful information when the information transparency is high. The perceived information transparency will affect the consumers' loyalty, final purchasing decision, and perceived value by knowing the details of the

products and vendors (Awad & Krishnan, 2006; Nicolau & McKnight, 2006). Hence, perceived information transparency is important to be deliberated by businesses to create a win-win situation for buyers and sellers as consumers can get a better understanding about the vendors, transactions, and products while vendors can gain more sales from emphasizing the perceived information transparency.

A study about consumers' attitude towards grocery stores has been done (Harris, Riley, Riley, & Hand, 2017). It was found that e-commerce is not suitable to be used by a grocery firm as the consumers are not able to receive information accurately in this platform. Consumers can easily perceive high information transparency in a physical grocery store as they are able to receive information about the freshness of the vegetables where the e-commerce platform are incapable to do so. Harris et al have also stated that the perceived information transparency has affected how consumers act toward the traditional commerce and e-commerce in the grocery industry.

According to Biswas, Dutta, and Biswas (2009), consumers tend to perceive higher information transparency in the offline store than an online store. The reason is due to the information from traditional commerce is easier to be obtained than from e-commerce. The vendors' transparency is rather higher in traditional commerce compared to e-commerce as the vendor can be found in a physical location. Also, consumers are able to differentiate easily if a physical store is trustable by observing the other customers' experiences or inquire information from the salespeople in store.

Kim and Park (2005) have investigated that the perceived information transparency of online store has a strong impact on consumers' attitude in the United States. The study found that consumers who perceived higher technology ease of use are more likely to use the internet search engine to look for product information as they think that it is an easier way for them to shop online (Kim & Park, 2005). When consumers can use the internet to search for information easily and obtain more information, the consumers perceived information transparency improved (Grimmelikhuijsen, 2012;

Berkelaar, 2014). This will subsequently affect the consumers' attitude regarding the intention to purchase the products as they can find the information effortlessly.

The perceived information transparency of the consumers can be enhanced if marketers are able to utilize advanced information technology effectively (Jun, Wang, & Wang, 2014). Similarly, Jiang (2014) stated that when the marketers have the ability to provide sufficient information through the e-commerce platform that fulfils the consumers' information needs about particular products or services, the consumers are likely to perceive high information transparency. In addition, consumers' product preferences and previous product knowledge will affect the consumers' engagement in information search and perceived information transparency (Balsevich, Pivovarova, & Podkolzina, 2011; Zhu, 2005). Hence, the process of information exchanges between consumers and marketers plays an important role in enhancing the perceived information transparency which consequently affects the consumers' attitude in purchasing a particular product or service.

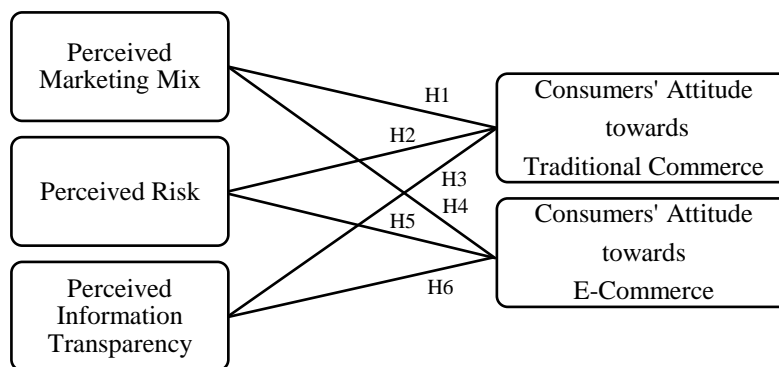
According to Abu-Shanab (2015), perceived information transparency has a strong correlation with Jordanians' attitude in using the e-government services. The communication technology that provides better accessibility for the citizens of Jordan has initiated the intention to use e-government service. This concept is the same goes to the attitude towards e-commerce where when consumers are able to access product information easily, they will form a positive attitude towards e-commerce. Partheymuller and Faas (2015) cited that the availability of information can affect individual knowledge, attitude, and behaviour in German. In the context of politics in German, the online and offline campaign's information have affected the citizens' attitude on the national election as the information help to build up their political knowledge.

The study of Hahn and Kim (2009) have shown that when consumers have the better accessibility of information, the greater the consumers' attitude is

towards traditional commerce and e-commerce. The researchers explained the statement with the likelihood of consumers in information search where consumers are likely to search for more information before they purchase a product or service so that they can perceive lower risks. Therefore, consumers' attitude towards traditional commerce and e-commerce is reflected on the perceived information transparency (Zhu, 2005; Ryssel, Ritter, & Gemunden, 2004; Wehmeier & Raaz, 2012).

2.2 Proposed Theoretical Framework

Figure 2.1: Proposed Theoretical Framework of Consumer Attitude towards E-Commerce and Traditional Commerce



Source: Developed for the Research

As discussed in the relevant theoretical framework, this research does not consider the purchase intention of consumers towards the e-commerce and traditional commerce as the attitude models used in this research brought in the ABC and CAC models which defined attitude as affective (i.e., feelings), behavior (i.e., intention to act), and cognitive (i.e., beliefs).

Figure 2.2 provides a clear picture of this research in studying the relationship between the three independent variables (i.e. perceived marketing mix, perceived risk, and perceived information transparency) and the two dependent variables (i.e. consumer attitude towards e-commerce and traditional commerce).

Accordingly, six new hypotheses are formed to allow us to understand the relationship between the independent variables and dependent variables. A comparison between the two dependent variables will be conducted in Chapter 4 after obtaining the results of the relationships.

2.3 Hypothesis Development

2.3.1 The Relationship Between Perceived Marketing Mix and Consumers' Attitude

According to Kacena, Hess, and Chiang (2013), perceived marketing mix has significant effects on consumers' attitude toward traditional commerce and e-commerce. Elements in marketing mix such as product, price, place, and promotion strategies can affect the consumers' feelings, beliefs, and behaviours towards traditional commerce and e-commerce differently (Guptar, 2015). Many consumers enjoy shopping at physical stores as they can perceive sensation experience, ease of return policy, better quality services, and receiving the purchased product in a short period (Skrovan, 2017). On the other side, there are numbers of consumers enjoy shopping at online stores due to the convenience to shop, time-saving, more price promotion, and more choices compared to the physical stores (Li, Wang, & Lin, 2018; Denis, Tommy, & Lukas, 2008). These researchers have supported the statement of the relationship between perceived marketing mix and consumers' attitude towards both traditional and e-commerce.

Hence, perceived marketing mix can certainly influence the consumers' attitude towards traditional commerce and e-commerce.

H1: Perceived marketing mix has a significant positive relationship with consumers' attitude towards *traditional commerce*.

H4: Perceived marketing mix has a significant positive relationship with consumers' attitude towards *e-commerce*.

2.3.2 The Relationship Between Perceived Risk and Consumers' Attitude

According to Hsu and Luan (2017), the relationship between perceived risk and consumers' attitude toward online shopping are significant. Consumers have a higher perception of risk in e-commerce shopping as they are uncertain about the purchasing of the product through this ambiguous shopping platform (Frederiks, Stenner, & Hobman, 2015). Also, consumers are more likely to perceived higher risk if they did not shop through e-commerce before while perceiving a lower risk in the traditional commerce as they are being used to shop through this channel (Masoud, 2013). In order to find out the most relevant risk perceived by the consumers towards the e-commerce shopping, Dai, Forsythe, and Kwon (2014) used the significant types of risk perceived by consumers in the traditional commerce to test the usability of each type of perceived risk in e-commerce. The results of the research shown a significant relationship of all types of risk mentioned in Solomon (2013) textbook, where perceived risk of consumers in e-commerce and traditional shopping are the same, but the strengths of the relationships for each channel were not tested.

So, perceived risk can certainly influence the consumers' attitude towards traditional commerce and e-commerce.

H2: Perceived risk has a significant negative relationship with consumers' attitude towards *traditional commerce*.

H5: Perceived risk has a significant negative relationship with consumers' attitude towards *e-commerce*.

2.3.3 The Relationship Between Perceived Information Transparency and Consumers' Attitude

According to Ahn, Ryu, and Han (2004), information availability will affect consumers' attitude towards traditional commerce and e-commerce. The statement was explained with consumers' desire to seek detailed information about a product, transaction process, and vendors credibility before they evaluate the alternatives in their evoke list. The information search allows the consumers to gain accurate and up-to-date information about a product before they make the actual purchase. Wilson and Daniel (2007) have supported the relationship with their findings where consumers are likely to search for information through different shopping channel and perceive different information transparency from the two commerce platform. Lalwani (2017) stated that the easier the consumers can attain the desired information, the higher the perceived information transparency, which lead to better consumers' attitude towards a shopping channel. Not only that, consumers' perceived information transparency can be indicated when they are able to access more information about a product's price within less time (Karakaya & Chartlon, 2001). These two shopping platforms have allowed consumers to attain information in different ways which lead consumers to perceive different information transparency in the two channels (Trenz, 2015). From these researches, it can be concluded that consumers can perceive different information transparency from traditional commerce and e-commerce which consequently have different effects on consumers' attitude towards the two commerce platform.

Therefore, perceived information transparency can certainly influence the consumers' attitude towards traditional commerce and e-commerce.

H3: Perceived information transparency has a significant positive relationship with consumers' attitude towards *traditional commerce*.

H6: Perceived information transparency has a significant positive relationship with consumers' attitude towards *e-commerce*.

2.4 Conclusion

Overall, the relationships between the variables are being found in numbers of secondary data as mentioned in this chapter. The conceptual framework is formed accordingly to pursue the objectives of this research, that is, to compare the consumers' attitude between both traditional commerce and e-commerce. The hypotheses of the research have also been created for the analyses in Chapter 4. In the next chapter, the methodology used for this research will be discussed.

CHAPTER 3: METHODOLOGY

3.0 Introduction

In chapter 3, the research methodology of this research study is elaborated. Research methodology represents the process of collecting data, statistics, facts, and information for the purpose of conducting research (Kothari, 2004). The research design, data collection methods, sampling design, research instrument, construct measurement, data processing, and data analysis were explained in this chapter with supportive secondary data.

3.1 Research Design

Research design refers to a systematic plan used in research to collect, measure, and analyze data to resolve the questions proposed in research (Creswell, 2009). The two types of research that researchers can study are basic research and applied research (Cooper, Schindler, & Sun, 2006). This research has been using the concept of basic research to compare the causal factors of consumers' attitude towards traditional commerce and e-commerce. According to Hopkins (2008), there are three categories of research studies, which include qualitative approach, quantitative approach, and mixed method approach. In this research study, quantitative research is applied to provide numerical data in supporting the hypotheses formed in the previous chapter.

3.2 Data Collection Methods

Data collection is essential for every researcher to conduct a research study. This phase enables the researchers to access primary and secondary data. These data help the researchers to have a better concept regards the problems defined in the study. Also, researchers are able to make further interpretation with the gathered data for their research purpose. According to Creswell (2007), data collection allows the researchers to predict the probabilities of its hypotheses through various analyses.

3.2.1 Primary Data

Primary data refers to the raw data collected for a research purpose (Smith, 2015). In this research, the survey questionnaire is used to collect the primary data in order to analyze the latest consumers' attitude towards traditional commerce and e-commerce. According to Saunders, Lewis, and Thornhill (2009), primary data has the ability to provide the latest reliable information about the topic a researcher is studying. Thus, primary data is crucial in a research as it helps the researchers to study the current trends of a target group that a researcher wants to investigate on.

In this study, a set of survey questionnaire is created and distributed to a various group of Malaysians. As different target consumers have different attitude towards traditional commerce and e-commerce, the survey questionnaire was distributed to different gender, age, and race group to compare the differences.

3.2.2 Secondary Data

Secondary data refers to the use of information collected from the other researchers' primary and secondary data (Smith, 2015). In this study, information from journal articles, newspaper, books, et cetera. is used as the secondary data to support the statements developed for the study. These data help to provide a clear understanding of the research topic to the readers as concerns to consumers' attitude towards traditional commerce and e-commerce.

3.3 Sampling Design

Sampling refers to the blueprints of choosing the target population who shares similar criteria to act on behalf of the population (Cooper, Schindler, & Sun, 2006; Creswell, 2009). According to Zikmund, Babin, Carr, and Griffin (2013), the sampling process helps the researchers to seek for accurate information about the research topic with the most compatible samples as it is impossible to collect a full set of data from the entire population in Malaysia. In this research study, sampling design is an important element to construct a comprehensive understanding of the research topic by generalizing the consumers' attitude of an appropriate sample.

3.3.1 Target Population

Target population refers to a group of the population who can provide concrete and constructive information to represent the entire population (Smith, 2015). In this research study, Malaysian who are having experiences

on purchasing through both traditional commerce and e-commerce are targeted to fulfill the doubt of consumers' attitude in Malaysia.

3.3.2 Sampling Elements

Sampling elements refer to the criteria set by the researchers where the respondents of the survey questionnaire should meet them (Devers & Frankel, 2000). In this research study, Malaysian who have purchasing experiences through both traditional commerce and e-commerce are eligible to respond to the questionnaire created in this study. The demographic characteristics of the respondents are not limited on condition that they must be involved in buying and selling activities in the traditional commerce and e-commerce in the past, present, and intended to involve in the future.

3.3.3 Sampling Technique

Sampling technique refers to the strategy used in research to collect sample data from the targeted population (Creswell, 2009). There are two techniques available for researchers to choose from, which are, probability sampling method and non-probability sampling method (Trochim, 2006). In this research study, the non-probability sampling technique is applied. It is defined as a sampling technique that the samples are gathered in a process that does not give all the individuals in the population equal chances of being selected (Mizner, 2018). According to Babbie (2015), four types of non-probability techniques are elucidated, that is, haphazard sampling, purposive sampling, consecutive sampling, and snowball sampling. Snowball sampling technique is used for the distribution of the survey questionnaire in this research to collect data.

3.3.4 Sampling Size

According to Singh and Masuku (2014), the sample size for every research is different based on the research budget and the satisfactory numbers the

data processing system required. As this research is using Structural Equation Modelling to analyze the data, at least 500 sets of data are required to avoid any insignificant analyses (Arbuckle, 2010). In this research study, 650 respondents are targeted as the sample size to make the results more reliable and significant. An approximate 75% of response rate is expected.

3.4 Research Instrument

Survey questionnaire is used in this research as the mechanism to collect the primary data for analyses. According to Bradburn, Sudman, and Blair (1979), the survey questionnaire is the most used mechanism in researches as it is able to reach a large number of population with low cost. In this research study, the questions set are adapted from professional researchers.

As surveyed by the Malaysian Communications and Multimedia Commission (MCMC) (2017), 97.3% of Malaysian internet users own a Facebook account, whereas 56.1% own an Instagram account, and 43.7% own a Wechat account. For this reason, the survey questionnaire in this research is distributed through the three main platforms mentioned in order to collect sufficient data.

The survey questionnaire is divided into three main section which are section A, B, and C. In section A, a set of general questions about traditional commerce and e-commerce are asked. Such questions include types of product purchased through traditional commerce and e-commerce and the frequency of purchases through the two commerce. In section B, a set of questions related to the independent and dependent variables of the research are asked. The data collected from this section will be used to test the hypotheses formed in this research through analyses. A 5 Point Likert Scale is used as the scale of measurement for the study in section B. Lastly, in section C, a set of questions about the demographic information of the respondents are asked. Such questions include gender, race, age, and employment status.

In order to ensure the survey questionnaire is reliable, a pre-test and pilot test are conducted. Researchers have been testing these two tests to make their questions more supportive that allow infallible information to be collected (Huh, Kim, & Law, 2009; Chu, Wu, Wu, & Chen, 2016; Hamzah, Lee, & Moghavvemi, 2017). A pre-test allows the researchers to check the understandability of the questions set by the researcher (Hunt, SparkmanJr, & Wilcox, 1982). In this research study, 15 respondents are selected to involve in the pre-test to test the comprehensibility of the survey questionnaire. Based on the feedback from these 15 respondents, a minor change is made to shape a more constructive survey questionnaire. In addition, Hamzah, Lee, and Moghayyemi (2017) have mentioned that 30 set of samples are necessary to run a pilot test. Thus, a pilot test of 30 respondents is conducted to check the reliability of the constructs of the survey questionnaire.

3.5 Constructs Measurement

The questions set are all adapted from professional researches from well-established journals. The constructs, measurements, and sources of this research are illustrated in the tables below.

Notes: All the tables below are generally developed for the research purpose.

3.5.1 Dependent Variables

Table 3.1: Construct of Consumers' Attitude towards Traditional Commerce

Measurements	Sources
1. I would have positive feelings towards buying a product from physical store.	Hassanein & Head (2007); Daliri, Rezari, & Ismail (2014); Khare & Rakesh (2011); Celik (2011)
2. I like to shop at physical store.	
3. I have the thought of buying a product from physical store.	
4. I often consider buying at physical store.	
5. I believe buying products from physical store is a good idea.	
6. It is much better for me to shop at physical store.	

Table 3.2: Construct of Consumers' Attitude towards Electronic Commerce

Measurements	Sources
1. I would have positive feelings towards buying a product from online store.	Hassanein & Head (2007); Daliri, Rezari, & Ismail (2014); Khare & Rakesh (2011); Celik (2011)
2. I like to shop at online store.	
3. I have the thought of buying a product from online store.	
4. I often consider buying at online store.	
5. I believe buying products from online stores is a good idea.	
6. It is much better for me to shop at online store.	

3.5.2 Independent Variables

Table 3.3: Construct of Perceived Marketing Mix

Measurements	Sources
1. The product attributes.	Kim (2004); Khemchotigoon (2014)
2. The familiarity of the product to me.	
3. The price of the product.	
4. The price of substitute products.	
5. The promotion of the product.	
6. The possibility to get a better promotional service.	
7. The types of distribution channel to get the product.	

Table 3.4: Construct of Perceived Risks

Measurements	Sources
1. The product purchased is more expensive than I thought.	Gupta, Su, & Walter (2004); Suplet, Suarez, & Martin (2009); Zhang, Tan, Xu, & Tan (2012); Ashoer & Said (2016)
2. Additional charges such as service charges, SST, shipping fees, etc may be incurred.	
3. The price of the product is not compatible with its quality.	
4. The benefits promised may not delivered such as quality, originality, etc.	
5. The warranty or maintenance service process is slow or long-winded.	

6. The product purchased may not be accepted by my friends or family.	
7. The product may embarrass me.	
8. The product may not be recognized by relatives or friends.	
9. I will make mistakes when buying a product.	
10. I will regret purchasing the product.	

Table 3.5: Construct of Perceived Information Transparency

Measurements	Sources
1. I should know about the details of product very well when buying it.	Daliri, Rezaei, & Ismail (2014); Zhou, Wang, Xu, Liu, & Gu (2018)
2. I should be clear about the profile of the seller when buying a product.	
3. I should know about the transaction process to be carried out.	
4. I should ensure the verification of the transaction	
5. It is important that the information available to me is accurate and relevant.	
6. It is important that the information available to me is convenient to obtain.	
7. It is important that the information available to me is up-to-date.	

3.6 Data Processing

Data processing is an essential phase for researchers to verify the data accumulated are systemized and competent to be analyzed. Data processing phase include data, data editing, data coding, and data transcribing (Babin, Carr, Griffin, & Zikmund, 2012).

3.6.1 Data Editing

Data editing refers to the process of assuring the survey questionnaire are completely answered by the respondents to ensure the quality and reliability of the information collected. Data that are not completed correctly are

removed from the collected database. In this research study, 635 set of survey questionnaire are collected, and 22 set are removed due to the incomplete response.

3.6.2 Data Coding

Data coding refers to the process of converting the alphabetical data into numerical data. This process allows the researchers to analyze the data through statistics software easily.

In section B of this research, consumers' attitude towards traditional commerce, consumers' attitude towards e-commerce, perceived marketing mix, and perceived information transparency are coded as: "strongly disagree = 1; disagree = 2; neutral = 3; agree = 4; strongly agree = 5". Whereas, due to the reverse relationship of perceived risks with the dependent variables in this research, it is coded reversely where: "strongly agree = 1; agree = 2; neutral = 3; disagree = 4; strongly disagree = 5".

In section C of this research, data coding is as below:

Demographic Profile	Description	Coding
Gender	Male	1
	Female	2
Race	Malay	1
	Chinese	2
	Indian	3
Age Group	Below 18	1
	18 – 34	2
	35 and above	3
Employment Status	Fulltime	1
	Part-time	2
	Self-employed	3
	Student	4
	Retired	5
	Homeworker	6
	Other	7

Source: Developed for the research

3.6.3 Data Transcribing

After data editing and data coding, data transcribing is taken in place. Data transcribing refers to the phase where the data obtained are keyed in into the computer system. In this research study, the data are transcribed into Statistical Package for Social Science (SPSS) Version 25 and Amos Version 22 to analyze it into useful information.

3.7 Data Analysis

SPSS Version 25 is used in this research to generate the collected data into useful information. This statistics software is able to process the data into descriptive analysis and reliability analysis for the research. Amos Version 22 is used in this research to carry out the inferential analysis.

3.7.1 Descriptive Analysis

Descriptive analysis is a set of statistic about the overview of the data collected in quantitative research (Trochim, 2006). In this research study, descriptive analysis is used to summarize the data collected from section C of the survey questionnaire through the SPSS system. The descriptive analysis includes information namely frequency, percentage, and cumulative percentage for each demographic profile questioned.

3.7.2 Reliability Test

Reliability test allows the researchers to ensure the consistency and dependability of the data collected. Cronbach's alpha is used to determine the internal consistency among the findings of each measurement in the survey questionnaire (Cortina, 1993). According to Tovakol and Dennick (2011), the acceptable value of alpha is any value greater than 0.70. Alpha that is lower than 0.70 indicates a poor association between the measurements and the constructed variable. Thus, a Cronbach's alpha that

is higher than 0.70 indicates a strong association and high internal consistency between the measurements and its construct variable. In this research study, the reliability test is run by version 25 of SPSS. Table 3.6 has summarized the rules of thumb on Cronbach's alpha.

Table 3.6: Rules of Thumb on Cronbach's Alpha

Alpha Coefficient Range	Strength of Association
< 0.5	Unacceptable
0.5 – < 0.6	Poor
0.6 – < 0.7	Moderate
0.7 – < 0.8	Good
0.8 – < 0.9	Very Good
> 0.9	Excellent

Adapted from: Tavakol & Dennick (2011)

3.7.3 Inferential Analysis – Structural Equation Modelling (SEM)

Structural Equation Modelling (SEM) is used to evaluate the structural relationship between the independent and dependent variables through a set of models (Hair, Babin, Anderson, & Black, 2013; Moghavvemi, Lee, & Lee, 2018). The SEM consists of various numbers of approach to make the model constructed fit to the data obtained by the researchers. According to Kline (2015), SEM allows the researchers to study the relationship among variables accurately as the model is able to observe the items in each variable through labeling each item with a latent variable that is unobservable. This model is often used in researches as it is able to draw conclusions between the latent variables from the observable items (Hancock, 2003). Previously, it was mentioned that at least 500 set of samples are required to generate a significant analysis from SEM. Thus, 650 set of samples is targeted as the sample size in this research.

There are four types of analysis consist in the SEM which include Confirmatory Factor Analysis (CFA), Path Analysis (PA), Partial Least

Square Path Modelling (PLS), and Latent Growth Modelling (LGM). In this research study, SEM – CFA is used to analyze the data to check the model fitness, convergent and discriminant validity, and significance of the hypotheses. CFA is a unique form of factor analysis that allows the researchers to study the causal effects as it is able to assess the consistency between the constructed framework and the researchers' belief on the factors determined (Kline, 2015). There are a number of researchers have been using Amos system to analyze their data for the SEM – CFA (Moghavvemi, Lee, & Lee, 2018; Hamzah, Lee, & Moghavvemi, 2017; Makanyeza & Chikazhe, 2017; Chu, Wu, Wu, & Chen, 2016; Bosnjak, Obermeier, & Tuten, 2006).

Therefore, the SEM – CFA is the most appropriate analysis to be generated for valuable information in this research study as this research applies pre-validated measurement to the previous research (Moghavvemi, Lee, & Lee, 2018). Also, this research aims to study the factors affecting consumers' attitude which is also causal research where CFA is the most appropriate form of factor analysis among SEM. Furthermore, in order to compare the differences between two dependent variables, Hair, Babin, Anderson, and Black (2013) suggested that SEM – CFA is well-suit in understanding the common independent variables of two dependent variables.

As mentioned, SEM – CFA consists of analyses of model fitness, convergent and discriminant validity, and significance of hypotheses. Each of these analyses has its requirement to be fulfilled in order to be valid, and it is all stated in the following sub-sections.

3.7.3.1 Convergent and Discriminant Validity

Convergent and discriminant validity falls under the subtypes of construct validity. Construct validity is used to test the goodness of a researcher in transforming a research inspiration into an actual measurement. Convergent validity refers to the analysis that can prove the strength between two

measures of constructs that are supposed to be associated against each other with the support of prior studies, are actually associated. Conversely, discriminant validity refers to the analysis that can prove the strength between two measures of constructs that are not supposed to be associated with each other, are actually not associated (Trochim, 2006).

As mentioned, every analysis has its requirement, the requirements to assess the convergent and discriminant validity are illustrated in the table below:

Table 3.7: Validity Indexes of Convergent and Discriminant Validity

Name of Validity	Measurement	Level of Acceptance
Construct Validity	Composite Reliability	≥ 0.7
Convergent Validity	Average Variance Extracted (AVE)	≥ 0.5
Discriminant Validity	Average Variance Extracted (AVE)	\sqrt{AVE}

Adapted from: Ahmad, Zulkunain, & Khairushalimi (2016)

3.7.3.2 Model Fit

The requirements of Fitness Indexes in SEM are used to define how well the model fits the data in research (Ahmad, Zulkurnain, & Khairushalimi, 2016; Chu, Wu, Wu, & Chen, 2016; Homburg & Giering, 2001). When the model is said to be a good fit, it does not mean the model is perfect, but it is acceptable (Schermelleh, Moosbrugger, & Muller, 2003).

The requirements are illustrated in the table below:

Table 3.8: Fitness Indexes of Model Fit

Name of Category	Index Abbreviation	Index Name	Level of Acceptance
Parsimonious Fit	χ^2/df	Chi Square / Degree of Freedom	< 3.00
Absolute Fit	Chisq	Discrepancy Chi Sqaure	$p < 0.05$
	RMSEA	Root Mean Square of Error Approximation	< 0.08

Incremental Fit	CFI	Comparative Fit Index	> 0.90
	TLI	Tucker-Lewis Index	> 0.90
	IFI	Incremental Fit Index	> 0.90
	GFI	Goodness of Fit Index	> 0.90

Adapted from: Ahmad, Zulkunain, & Khairushalimi (2016); Chu, Wu, Wu, & Chen (2016); Shiau & Chau (2012)

3.7.3.3 Hypotheses Testing

Hypotheses testing is an essential analysis in most of the research as it indicates the outcome of research. As illustrated in Table 3.9 below, the determinants of hypotheses testing are defined.

Table 3.9: Hypotheses Testing

$H_0: \beta = 0$ $H_1: \beta \neq 0$
$t = \frac{b - 0}{se}$

Source: Kline (2015)

If H0 is accepted, H1 is rejected. This result indicates that there is a significant relationship between X and Y; On the other side, if H0 is rejected, H1 is accepted. This result indicates that there is no significant relationship between X and Y.

According to Byrne (2010), the critical ratio (C.R.) is derived from the standard error divide parameter estimate. Critical ratio allows the researchers to identify whether the relationship between variables is positive or negative. The rejection rules of the hypotheses are mainly depending on the p-value. As the probability level is commonly 0.05 in researches, H0 should be rejected when the test statistic is $> \pm 1.96$. In short, if the p-value is more than 0.05, H0 is rejected; Whereas, if the p-value is less than 0.05, H0 is accepted. The hypothesis

3.8 Conclusion

In summary, chapter 3 layouts a brief methodology to be applied in this research study. The discussion of the sample has explained the 650 set of samples to be obtained through the social media platform. The data processing procedure has also been deliberated in this chapter. The version 25 of SPSS and version 22 of AMOS are being used to generate the descriptive and inferential analyses. With the aim to compare the shared factors affecting the two dependent variables, SEM – CFA is used in this research as the principal statistical analysis. In the next chapter, the data analysis generated through the methodology described in this chapter will be presented.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

In chapter 4, data analysis generated through the methodologies described in the previous chapter are presented. 635 survey questionnaires were collected, 22 samples are removed after the data editing process. The remaining 613 set of data was transcribed into the SPSS Version 25 and Amos Version 22 to analyze the data collected into meaningful information. The descriptive analysis, reliability test, and inferential analysis (SEM – CFA) were presented in this chapter.

4.1 Descriptive Analysis

4.1.1 Respondents' Demographic Profile

Table 4.1: Respondents' Demographic Profile

Profile	Description	Frequency	Percentage (%)	Cumulative Percentage (%)
Gender	Male	336	54.81	54.81
	Female	277	45.19	100
Race	Malay	111	18.11	18.11
	Chinese	383	62.48	80.59
	Indians	119	19.41	100
Age	Below 18	173	28.22	28.22
	18 – 34	325	53.02	81.24
	35 and Above	115	18.76	100
Employment Status	Fulltime	91	14.85	14.85
	Part-Time	11	1.79	16.64
	Self-Employed	9	1.47	18.11
	Student	493	80.42	98.53
	Retired	4	0.65	99.18
	Homeworker	2	0.33	99.51
	Other	3	0.49	100

Source: Developed for the research

Table 4.1 demonstrates a summary of the 613 respondents' demographic profile which includes the gender, race, age, and employment status. Out of 613 respondents, 54.81 percent were male ($n = 336$) and 45.19 percent were female ($n = 277$). In term of races, a majority of the respondents were Chinese where 62.48 percent ($n = 383$) of samples are collected, following by Indians with 19.41 percent ($n = 119$), and Malays with 18.11 percent ($n = 111$). The age of the respondents is mostly between 18 to 34 years old who carries 53.02 percent ($n = 325$) of the respondents, while the other 28.22 percent ($n = 173$) and 18.76 percent ($n = 115$) of the respondents are below 18 years old and above 35 years old respectively. Finally, 493 of the respondents (80.42 percent) are students who are also the largest group of

respondents from the collected samples. While, 91 of the respondents (14.85 percent) were full-timer; 11 of the respondents (1.79%) were part-timer; the rest of the 18 respondents were either self-employed, retired, homemaker, or having other employment status.

4.1.2 Preferred Types of Product in the Two Commerce Platform

Table 4.2: Preferred Types of Product in Traditional Commerce

Types of Product	N	Frequency	Percentage (%)	Rank
Consumer Electronics	613	529	86.30	<i>II</i>
Automobile	613	424	69.17	<i>III</i>
Clothing/Fashion	613	420	68.52	<i>IV</i>
Food and Beverage	613	540	88.09	<i>I</i>
Furniture	613	346	56.44	<i>V</i>
Books, Music, Videos	613	226	36.87	<i>VI</i>

Source: Developed for the research

Tables 4.2 has summarized the preferred types of product by the respondents in the physical stores. 88.09 percent (n = 540) of the respondents prefer to purchase food and beverage products through traditional commerce. This data indicates that the respondents are urging for physical contact when mentioning food and beverage as it is consumed goods which can have an impact on their health. Following by consumer electronic products with 86.30 percent (n = 529) of respondents preferred; automobile products with 69.17 percent (n = 424) of respondents preferred; clothing and fashion products with 68.52 percent (n = 420) of respondents preferred; furniture products with 56.44% of respondents preferred; and finally, books, music, and videos related products with 36.87% (n = 226) of respondents preferred.

Table 4.3: Preferred Types of Product in E-Commerce

Types of Product	N	Frequency	Percentage (%)	Rank
Consumer Electronics	613	172	28.06	IV
Automobile	613	14	2.28	VI
Clothing/Fashion	613	495	80.75	I
Food and Beverage	613	201	32.79	III
Furniture	613	108	17.62	V
Books, Music, Videos	613	387	63.13	II

Source: Developed for the research

Tables 4.3 has summarized the preferred types of product by the respondents in the online stores. 80.75 percent (n = 495) of the respondents prefer to purchase clothing and fashion products through e-commerce. This data indicates that the varieties of fashion products available in the online platform are not limit the physical platform. Consumers with low confidence may feel embarrassed to shop at a physical store when deciding to purchase clothing and fashion products. Consequently, it has affected these consumers' attitude towards traditional commerce to be negative. Following by books, music, and videos related products with 63.13 percent (n = 387) of respondents preferred; food and beverage products with 32.79 percent (n = 201) of respondents preferred; consumer electronics with 28.06 percent (n = 172) of respondents preferred; furniture with 17.62 percent (n = 108) of respondents preferred; and finally, automobile products with only 2.28 percent (n = 14) of respondents preferred to purchase through the e-commerce platform.

From Table 4.2 and Table 4.3, it is clearly shown that different types of product are preferred differently on the two popular commerce platform. This can be due to different factors affecting individual preferences or a single factor affecting their attitudes towards both commerce. In this research study, the common factor that can affect both traditional commerce and e-commerce are being studied. The significance of the relationship between the independent variables and dependent variables will be discussing in the inferential analysis later in this chapter.

4.1.3 Consumers' Visit Frequency at the Two Commerce Platform

Table 4.4: Consumers' Visit Frequency at Physical Stores

Visit Frequency	N	Frequency	Percentage (%)	Cumulative Percentage (%)
1-3 times per month	613	125	20.40	20.40
4-7 times per month	613	253	41.27	61.67
8-11 times per month	613	146	23.82	85.49
12-15 times per month	613	43	7.01	92.50
> 15 times per month	613	46	7.50	100

Source: Developed for the research

Table 4.4 shows how often consumers visit at the physical stores every month. In summary, 41.27% of the respondents (n = 253) visit at least 4 to 7 times per month at the physical stores. The other 23.82 percent of the respondents (n = 146) visit 8 to 11 times per month; 20.40 percent of the respondents (n = 125) visit only 1 to 3 times per month; 7.50 percent of the respondents (n = 46) visit more than 15 times per month; And, 7.01 percent of the respondents (n = 43) visit 12 to 15 times per month at the physical stores.

Table 4.5: Consumers' Visit Frequency at Online Stores

Visit Frequency	N	Frequency	Percentage (%)	Cumulative Percentage (%)
1-3 times per month	613	203	33.12	33.12
4-7 times per month	613	249	40.62	73.74
8-11 times per month	613	98	15.99	89.73
12-15 times per month	613	17	2.77	92.50
> 15 times per month	613	46	7.50	100

Source: Developed for the research

Table 4.5 shows how often consumers visit at the online stores every month. In summary, 40.62% of the respondents (n = 249) visit at least 4 to 7 times per month at the online stores. The other 33.12 percent of the respondents (n = 203) visit only 1 to 3 times per month; 15.99 percent of the respondents (n = 98) visit 8 to 11 times per month; Same goes to physical stores, 7.50 percent of the respondents (n = 46) visit more than 15 times per month; And, 2.77 percent of the respondents (n = 17) visit 12 to 15 times per month at the online stores.

From Table 4.4 and Table 4.5, it is clearly shown that both traditional commerce and e-commerce activities are crucial in business as the Malaysian society has started to integrate the two trending shopping platform into their daily life. Therefore, neither do traditional commerce nor e-commerce should be neglected by the businesses today.

4.2 Reliability Test

Table 4.6: Mean Scores, Cronbach's Alpha, and Factor Loading

Measurements		Mean	Standard Deviation	Cronbach's Alpha (α)	Factor Loading
Traditional Commerce	I would have positive feelings towards buying a product from physical store.	3.84	0.972	0.816	.705
	I like to shop at physical store.	3.74	1.084		.725
	I have the thought of buying a product from physical store.	3.85	1.031		.705
	I often consider buying at physical store.	4.08	0.850		.698
	I believe buying products from physical stores is a good idea.	3.71	1.099		.797
	It is much better for me to shop at physical store.	3.94	0.971		.694

Electronic Commerce	I would have positive feelings towards buying a product from online store.	3.74	0.868	0.914	.802
	I like to shop at online store.	3.78	0.830		.758
	I have the thought of buying a product from online store.	3.79	0.885		.831
	I often consider buying at online store.	3.89	0.866		.803
	I believe buying products from online stores is a good idea.	3.85	0.856		.795
	It is much better for me to shop at online store.	3.81	0.924		.781
Perceived Marketing Mix	The product attributes.	3.88	0.992	0.708	.727
	The familiarity of the product to me.	4.19	0.789		.672
	The price of the product.	3.97	0.962		.784
	The price of substitute products.	4.12	0.908		.659
	The promotion of the product.	3.91	0.862		.646
	The possibility to get a better promotional service.	3.91	0.946		.683
	The types of distribution channel to get the product.	4.02	0.914		.798
Perceived Risk	The product purchased is more expensive than I thought.	2.20	0.890	0.887	.690
	Additional charges such as service charges, SST, shipping fees, etc may be incurred.	2.07	0.946		.618
	The price of the product is not compatible with its quality.	1.96	0.912		.609

	The benefits promised may not delivered such as quality, originality, etc.	2.03	0.939		.713
	The warranty or maintenance service process is slow or long-winded.	2.88	1.025		.764
	The product purchased may not be accepted by my friends or family.	2.87	1.013		.756
	The product may embarrass me.	2.34	0.955		.817
	The product may not be recognized by relatives or friends.	2.44	0.932		.843
	I will make mistakes when buying a product.	2.40	0.979		.654
	I will regret purchasing the product.	2.70	1.060		.625
Perceived Information Transparency	I should know about the details of product very well when buying it.	4.19	0.764	0.954	.810
	I should be clear about the profile of the seller when buying a product.	4.22	0.795		.822
	I should know about the transaction process to be carried out.	4.17	0.775		.792
	I should ensure the verification of the transaction	4.24	0.745		.812
	It is important that the information available to me is accurate and relevant.	4.18	0.760		.811
	It is important that the information available to me is convenient to obtain.	4.16	0.894		.805
	It is important that the information available to me is up-to-date.	4.22	0.813		.851

Source: Developed for the research

Table 4.6 has shown the mean scores, standard deviation, and factor loading of each measurement in the survey questionnaire. As the 5-point Likert scale was used in the research construct, a mean score between 1 to 5 is derived for each measurement. The mean scores of each independent variable are ranging from 3.88 to 4.19 in perceived marketing mix ($\alpha = 0.708$), 1.96 to 2.88 in perceived risks ($\alpha = 0.887$), and 4.16 to 4.24 in perceived information transparency ($\alpha = 0.954$). On the other side, the mean scores of the consumers' attitude towards traditional commerce were ranging from 3.71 to 4.08 with Cronbach's alpha of 0.816; while consumers' attitude towards e-commerce was ranging from 3.71 to 3.89 with Cronbach's alpha of 0.914. The result indicates that the measurements in each construct are highly reliable with high internal consistency as the Cronbach's alpha is greater than 0.70 (Tavakol & Dennick, 2011).

In addition, the factor loading of each measurement is outlined in Table 4.6. According to Hair, Babin, Anderson, and Black (2013), factor loading should be exceeding 0.50 to clarify the heavy loading of the measurements of the associated variable. As shown in the table above, the factor loading of the entire construct for this research study range from 0.618 to 0.851 which have fulfilled the criteria to be associative reliable.

In conclusion, the measurements used in this research construct are reliable with the numerical support of Cronbach's alpha and factor loadings.

4.3 Inferential Analyses – Structural Equation Modeling (SEM)

4.3.1 Convergent and Discriminant Validity

Table 4.7: Result of Convergent and Discriminant Validity

	CR (>0.70)	AVE (>0.50)	PR	TC	EC	PMM	PIT
PR	0.911	0.509	0.713				
TC	0.867	0.521	-0.070	0.722			
EC	0.912	0.633	-0.475	0.019	0.796		
PMM	0.893	0.507	-0.071	0.027	0.028	0.712	
PIT	0.933	0.664	-0.728	0.069	0.568	0.068	0.813

Notes: CR, composite reliability; AVE, average variance extracted; PIT, perceived information transparency; PR, perceived risks; PMM, perceived marketing mix; EC, consumers' attitude towards e-commerce; TC, consumers' attitude towards traditional commerce.

Source: Developed for the research

Table 4.8 has presented the CR, AVE, and correlation of the variables in this research study. According to Hair et al. (2013) and Byrne (2010), the level of acceptance of CR and AVE that helps to clarify the convergent and discriminant validity of the strength between the measurements is any value that is greater than 0.70 and 0.50 respectively. As shown, the value of CR of the variables ranged from 0.867 to 0.933 which have exceeded the level of acceptance; whereas, the value of AVE of the variables ranged from 0.507 to 0.664 which have also exceeded the level of acceptance recommended. As seen in Table 4.8, the discriminant validity of each variable is derived from the square root of the AVE. Each variables' square root of AVE is seen to have a higher value than the correlation between the constructs. Thus, it can be concluded that the expected association between measurements are real.

4.3.2 Model Fit

Table 4.8: Goodness of Fit of the Structural Model

Quality of Fit	Level of Acceptance	Structural Model
χ^2/df	< 3.00	2.378
CFI	> 0.90	0.951
TLI	> 0.90	0.938
IFI	> 0.90	0.951
GFI	> 0.90	0.908
RMSEA	< 0.08	0.047

Notes: χ^2 , chi-square; df, degree of freedom; CFI, comparative fit index; TLI, Tucker-Lewis index; IFI, incremental fit index, GFI, goodness of fit index; RMSEA, root mean square error of approximation.

Source: Developed for the research

The structural model was assessed to test whether the data collected from the survey questionnaires fits the model developed for this research study. As shown in Table 4.7, the χ^2 of 1184.373 with 498 degrees of freedom ($\chi^2/df = 2.378$), CFI value of 0.951, TLI value of 0.938, IFI value of 0.951, GFI value of 0.908, and RMSEA value of 0.047 have met the level of acceptance for each quality-of-fit measure suggested by the previous researchers. It can be concluded that the data collected were absolute fit to the model of this research study. Hence, the hypotheses testing can be conducted pertinently.

4.3.3 Hypotheses Testing

Table 4.9: Hypothesis Testing – Consumers' Attitude towards Traditional Commerce

Hypothesis	Relationship	β	S.E.	C.R.	p	Supported
H1	PMM → TC	1.000	0.372	6.955	***	Yes
H2	PR → TC	0.004	0.043	0.098	0.922	No
H3	PIT → TC	0.020	0.037	0.534	0.593	No

Notes: β , standardized regression weight; S.E., standard error; C.R., critical ratio; PMM, perceived marketing mix; PR, perceived risks; PIT, perceived information transparency; TC, consumers' attitude towards traditional commerce. *** $p < 0.001$

Source: Developed for the research

Table 4.9 has shown the result of hypothesis testing of consumers' attitude towards traditional commerce where H1, H2, and H3 are tested. According to Ferreira and Patino (2015), when the p-value is lower than 0.05, accept the null hypothesis (H0). In accordance, H1 with a p-value that is lower than 0.001 is accepted, while H2 and H3 are rejected by having a p-value that is higher than 0.001.

Table 4.10: Hypothesis Testing – Consumers' Attitude towards E-Commerce

Hypothesis	Relationship	β	S.E.	C.R.	p	Supported
H4	PMM → EC	-0.042	0.097	-0.683	0.494	No
H5	PR → EC	-0.209	0.059	-2.459	0.014	Yes
H6	PIT → EC	0.845	0.057	9.115	***	Yes

Notes: β , standardized regression weight; S.E., standard error; C.R., critical ratio; PMM, perceived marketing mix; PR, perceived risks; PIT, perceived information transparency; EC, consumers' attitude towards e-commerce. *** $p < 0.001$

Source: Developed for the research

Table 4.10 has shown the result of hypothesis testing of consumers' attitude towards e-commerce where H4, H5, and H6 are tested. It was clearly stated that H4 is rejected with a p-value of 0.494, while H5 and H6 are accepted with the p-value of 0.014 and *** respectively. The C.R. of H5 has indicated the significant relationship between PR and EC is negative.

4.3.4 Moderating Effects

In this research study, gender and race are taken into consideration as the moderators between the relationship of independent variables and dependent variables. This analysis allows the comparison between the consumers' attitude towards traditional commerce and e-commerce to be formed. Researchers have been investigating the moderating effects with the demographic profile of the targeted population (Moghavvemi, Lee, & Lee, 2018; Hamzah, Lee, & Moghavvemi, 2017; Homburg & Giering, 2001).

For gender as a moderator, it has been categorized into two groups which are male (n = 336) and female (n = 277); In term of race, it has been categorized into three groups which are Malay (n = 111), Chinese (n = 383), and Indian (n = 119).

Gender and race have been selected as the moderators because of the adequate sample size with non-biased data. The following subsections have illustrated the results of hypotheses when moderators are addressed.

4.3.4.1 Moderating Effect of Gender

Table 4.11: Moderating Effect of Gender
 – Consumers' Attitude towards Traditional Commerce

Gender	H	Relationship	β	S.E.	C.R.	p	Supported
Male	1	PMM → TC	0.998	0.387	5.512	***	Yes
Female		PMM → TC	1.000	0.689	4.573	***	Yes
Male	2	PR → TC	0.061	0.052	1.156	0.248	No
Female		PR → TC	-0.044	0.062	-0.915	0.360	No
Male	3	PIT → TC	0.051	0.045	1.013	0.311	No
Female		PIT → TC	-0.006	0.053	-0.132	0.895	No

Notes: β , standardized regression weight; S.E., standard error; C.R., critical ratio; PMM, perceived marketing mix; PR, perceived risks; PIT, perceived information transparency; TC, consumers' attitude towards traditional commerce. *** $p < 0.001$

Source: Developed for the research

Table 4.11 has illustrated the relationship between the independent variables (PMM, PR, and PIT) and consumers' attitude towards traditional commerce with the moderating effect of gender. As shown, the results are the same as without gender as moderator, where H1 is accepted with the p-value that is lower than 0.001 in both gender group. Meanwhile, H2 and H3 are still being rejected with the high p-value even after gender is used to evaluate the moderating effects.

Table 4.12: Moderating Effect of Gender
– Consumers' Attitude towards E-Commerce

Gender	H	Relationship	β	S.E.	C.R.	p	Supported
Male	4	PMM → EC	-0.120	0.119	-1.674	0.094	No
Female		PMM → EC	0.138	0.141	1.168	0.243	No
Male	5	PR → EC	-0.268	0.073	-2.843	0.004	Yes
Female		PR → EC	-0.136	0.073	-0.918	0.358	No
Male	6	PIT → EC	0.787	0.070	7.650	***	Yes
Female		PIT → EC	0.901	0.081	5.102	***	Yes

Notes: β , standardized regression weight; S.E., standard error; C.R., critical ratio; PMM, perceived marketing mix; PR, perceived risks; PIT, perceived information transparency; EC, consumers' attitude towards e-commerce. *** p < 0.001

Source: Developed for the research

Table 4.12 has illustrated the relationship between the independent variables (PMM, PR, and PIT) and consumers' attitude towards e-commerce with the moderating effect of gender. The results have shown that H4 is still being rejected while H6 is still being accepted with the moderating factor of gender. However, the gender moderator has affected the significance of the relationship between PR and EC. With gender as a moderator, the negative relationship between PR and EC is significant in the male group but not significant to the female group.

4.3.4.2 Moderating Effect of Race

Table 4.13: Moderating Effect of Race
– Consumers' Attitude towards Traditional Commerce

Race	H	Relationship	β	S.E.	C.R.	p	Supported
Malay	1	PMM → TC	0.996	0.980	3.139	0.002	Yes
Chinese		PMM → TC	1.001	0.452	5.516	***	Yes
Indian		PMM → TC	0.999	0.971	2.801	0.005	Yes
Malay	2	PR → TC	0.089	0.088	1.484	0.138	No
Chinese		PR → TC	-0.041	0.043	-0.923	0.356	No
Indian		PR → TC	0.080	0.140	0.894	0.371	No
Malay	3	PIT → TC	0.017	0.073	0.290	0.772	No
Chinese		PIT → TC	-0.006	0.039	-0.131	0.896	No
Indian		PIT → TC	0.076	0.107	0.945	0.345	No

Notes: β , standardized regression weight; S.E., standard error; C.R., critical ratio; PMM, perceived marketing mix; PR, perceived risks; PIT, perceived information transparency; TC, consumers' attitude towards traditional commerce. *** $p < 0.001$

Source: Developed for the research

Table 4.13 has presented the moderating effect of race on the consumers' attitude towards traditional commerce. The results show no differences without moderator nor with gender moderator. Based on the results analyzed in Table 4.13, H1 is accepted when considering race as a moderator because of the p-value that is lower than 0.05. On the other side, H2 and H3 are rejected with the p-value that is higher than 0.05 that indicate the non-significance relationship between the tested variables.

Table 4.14: Moderating Effect of Race
 – Consumers' Attitude towards E-Commerce

Race	H	Relationship	β	S.E.	C.R.	p	Supported
Malay	4	PMM → EC	0.114	0.176	0.802	0.423	No
Chinese		PMM → EC	-0.031	0.120	-0.484	0.629	No
Indian		PMM → EC	-0.147	0.206	-0.880	0.379	No
Malay	5	PR → EC	-0.359	0.093	-2.270	0.023	Yes
Chinese		PR → EC	-0.098	0.059	-1.191	0.234	No
Indian		PR → EC	-0.557	0.188	-2.088	0.037	Yes
Malay	6	PIT → EC	0.761	0.094	4.016	***	Yes
Chinese		PIT → EC	0.930	0.064	9.530	***	Yes
Indian		PIT → EC	0.522	0.142	2.186	0.029	Yes

Notes: β , standardized regression weight; S.E., standard error; C.R., critical ratio; PMM, perceived marketing mix; PR, perceived risks; PIT, perceived information transparency; EC, consumers' attitude towards e-commerce. *** $p < 0.001$

Source: Developed for the research

Table 4.14 has presented the moderating effect of race on the consumers' attitude towards e-commerce. The results have revealed that H4 is still not being supported while H6 is still being supported when the model is moderated by the race group. However, H5 shows a difference compared to the result without a moderator. It was described that PR has a significant negative relationship with EC in the Malay and Indian race group, but it is not significant in the Chinese race group.

4.4 Conclusion

In short, the data analyses generated from SPSS Version 25 and Amos Version 22 have been presented in this chapter. A total 613 set of data have been used in this research study to generate meaningful information from the descriptive analysis, reliability test, and inferential analysis. In the descriptive analysis, respondents' demographic profile is included; In the inferential analysis, the model fit, convergent and discriminant validity, and hypothesis testing are described.

The p-value is an essential figure in this chapter as it provides answers to the research questions of this research study. It was mentioned that a hypothesis should be accepted when the p-value is lower than 0.05. As a result, H1, H5, and H6 are supported while H2, H3, and H4 are not supported.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATIONS

5.0 Introduction

In chapter 5, the data analyses generated from the previous chapter are discussed along with the conclusion. The implications of the study are deliberated to make this research a useful study for the future academicians or industrial players. Moreover, the limitations of the study and recommendations for future study are outlined in this chapter as well.

5.1 Summary of Statistical Analysis

In chapter 1, the general objective of this research study was declared. In order to understand how the determinants react differently to consumers' attitude towards traditional commerce and e-commerce, a series of research is conducted to achieve the objectives stated. Based on the analysis from the previous chapter, a summary of statistical analysis is formed to provide a clear idea of the result.

Table 5.1: Summary of Hypothesis Testing Results

Hypothesis	Without Moderator		With Moderator					
	P-Value Scored	Supports	Gender			Race		
				P-Value Scored	Supports		P-Value Scored	Supports
H1: PMM has a significant positive relationship with TC.	***	Yes	M	***	Yes	ML	0.002	Yes
			F	***	Yes	CH	***	Yes
						ID	0.005	Yes
H2: PR has a significant positive relationship with TC.	0.922	No	M	0.248	No	ML	0.138	No
			F	0.360	No	CH	0.356	No
						ID	0.371	No
H3: PIT has a significant positive relationship with TC.	0.593	No	M	0.311	No	ML	0.772	No
			F	0.895	No	CH	0.896	No
						ID	0.345	No
H4: PMM has a significant positive relationship with EC.	0.494	No	M	0.094	No	ML	0.423	No
			F	0.243	No	CH	0.629	No
						ID	0.379	No
H5: PR has a significant negative relationship with EC.	0.014	Yes	M	0.004	Yes	ML	0.023	Yes
			F	0.358	No	CH	0.234	No
						ID	0.037	Yes
H6: PIT has a significant positive relationship with EC.	***	Yes	M	***	Yes	ML	***	Yes
			F	***	Yes	CH	***	Yes
						ID	0.029	Yes

Notes: PMM, perceived marketing mix; PR, perceived risks; PIT, perceived information transparency; TC, consumers' attitude towards traditional commerce; EC, consumers' attitude towards e-commerce; M, male; F, female; ML, Malay; CH, Chinese; ID, Indian.

*** $p < 0.001$

Source: Developed for the research

5.2 Discussions of Major Findings

5.2.1 Perceived Marketing Mix

H1: *Perceived marketing mix* has a significant positive relationship with consumers' attitude towards *traditional commerce*.

Based on Table 5.1, H1 is supported by the p-value that is lower than 0.001. This also indicates that perceived marketing mix can impact the consumers' attitude towards traditional commerce or physical stores. The result is consistent with previous researches (Li, Wang, & Lin, 2018; Denis, Tommy, & Lukas, 2008). From the questions asked from the survey, it can be concluded that consumers tend to form a positive attitude to shop through traditional commerce platform because of the sensation experience, ease of return policy, better service quality services, and ability to receive the purchased product immediately. In conclusion, perceived marketing mix elements have allowed consumers to form a positive attitude towards traditional commerce.

H4: *Perceived marketing mix* has a significant positive relationship with consumers' attitude towards *e-commerce*.

Based on Table 5.1, H4 is not supported as its p-value is 0.494 which does not fall under the acceptance range. This explained that the perceived marketing mix does not have a direct impact on the consumers' attitude towards e-commerce or online stores. The result is not consistent with the previous researches as elaborated in Chapter 2. According to Constantinides (2006), the 4 Ps marketing mix is no longer an effective tool in the marketplace, especially in e-commerce. Constantinides explained that more dimensions such as more Ps (*political power, public opinion formulation, etc.*), Cs (*customers, competitive variables, capabilities, etc.*), and Vs (*value, viability, variety, virtue, etc.*) should be taken into consideration as e-commerce is a new platform where consumers may have different belief

towards the platform. This explanation well explained the current market condition in Malaysian as the e-commerce shopping platform is still an innovative move in the past few years. In conclusion, the 4 Ps concept of perceived marketing mix has no significant positive relationship with consumers' attitude towards e-commerce.

5.2.2 Perceived Risks

H2: *Perceived risks* has a significant positive relationship with consumers' attitude towards *traditional commerce*.

Table 5.1 has shown the summary where it was clearly defined the relationship between perceived risks with the consumers' attitude towards traditional commerce is not significant. The p-value of H2 was 0.922 which is way too far to meet the level of acceptance of 0.05. This also means that consumers' attitude towards traditional commerce is not affected by the perceived risks. The result of H2 is inconsistent with the previous studies. According to Kiomiak and Benbasat (2004), consumers' trust has a large impact on the perceived risks. Traditional commerce provides tangible and intangible trust that allow the consumers to be guaranteed when purchasing a product. The perceived risks are extremely low in traditional commerce where consumers have already overlooked the consideration of the risks when forming an attitude towards traditional commerce. Thus, the perceived risks have an insignificant impact on the consumers' attitude towards traditional commerce as perceived risks in traditional commerce are almost absent.

H5: *Perceived risks* has a significant negative relationship with consumers' attitude towards *e-commerce*.

Table 5.1 has clearly defined the relationship between perceived risks and consumers' attitude towards e-commerce is significant. The p-value of H5 was 0.014 which has met the criteria of hypothesis support. This also means

that consumers' attitude towards e-commerce is affected by the perceived risks. The result of H5 is consistent with the previous studies where Hsu and Luan (2017) and Frederiks, Stenner, and Hobman (2015) have supported this hypothesis. The consumers' attitude towards e-commerce is the best when consumers are not worried about the monetary risk, functional risk, social risk, and psychological risk when purchasing a product. When there is no risk, consumers will not be worried and have better confidence in purchasing through an unfamiliar shopping platform. Thus, the perceived risks have a significant impact on the consumers' attitude towards e-commerce.

However, the perceived risks seem to be insignificant with consumers' attitude in the Chinese race group when considering race as a moderator. As the Table 5.1 above shown, the Malay and Indian race group passed the hypothesis testing of H5 with *** p-value while the Chinese race group failed the hypothesis testing of H5 with 0.234 p-value that is higher than 0.005. A reasonable factor of this could be that the Chinese race group in Malaysia are willing to take risk compared to risk aversion characteristics of the Malay and Indian race group in Malaysia. The characteristics of risk-taking and risk aversion of an individual may depend on the culture, environment, and family.

5.2.3 Perceived Information Transparency

H3: *Perceived information transparency* has a significant positive relationship with consumers' attitude towards *traditional commerce*.

The result summarized in Table 5.1 has indicated that perceived information transparency has no significant positive relationship with consumers' attitude towards traditional commerce. The reason for the rejection is that a p-value of 0.593 was obtained through SEM – CFA analysis generated in the previous chapter. H3 was rejected unexpectedly as it does not match with the relationship stated in the past researches. Galanxhi Janaqu and Nah

(2004) have used the perceived trust with perceived risks as the mediator to explain the possible reason for the result of this hypothesis. As consumers perceived lower trust, they will form a high perceived risk. Followed by the high perceived risk, consumers seek higher information transparency when they want to purchase something. However, as mentioned in H2, consumers' perceived risks in traditional commerce are almost inconsequential. This can be explained by the consumers' act towards traditional commerce. Consumers who purchase through traditional commerce tend to gather information from the e-commerce platform before they go to the physical store to make the actual purchase. Therefore, perceived information does not have a significant relationship with consumers' attitude towards traditional commerce.

H6: *Perceived information transparency* has a significant positive relationship with consumers' attitude towards *e-commerce*.

The result summarized in Table 5.1 has indicated that perceived information transparency has a significant positive relationship with consumers' attitude towards e-commerce. The reason for the acceptance is that a lower than 0.005 p-value was obtained through SEM – CFA analysis generated in the previous chapter. H6 was supported predictably as it does match with the previous researches (Trenz, 2015; Lalwani, 2017). Consumers' attitude towards e-commerce is better when they are able to obtain the accurate, relevant, and up-to-date information they want to know about. Therefore, perceived information has a significant relationship with consumers' attitude towards e-commerce.

5.2.4 Differences Between Consumers' Attitude Towards Traditional Commerce and E-Commerce

As discussed in subsection 5.2.1, 5.2.2, and 5.2.3, the differences between the determinants of consumers' attitude towards traditional commerce and e-commerce can be seen certainly. The perceived marketing mix was

significant in traditional commerce but not in e-commerce where H1 was accepted, and H4 was rejected with reliable analysis. In term of perceived risks, H2 is rejected while H5 is accepted. The perceived risks determinant shows no significant relationship with traditional commerce while having a great impact on e-commerce. Lastly, the H3 was not supported which explain the insignificant relationship of perceived information transparency on consumers' attitude; whereas, H6 was supported where consumers' attitude can be affected significantly by the perceived information transparency.

5.3 Managerial Implications

The objective of this research study has been achieved where the differences between the determinants of consumers' attitude towards traditional commerce and e-commerce have been defined. The achievement of the result generated could be useful for future managers and leaders in the Malaysian marketplace as this research have considered gender and race as the moderators. The information developed from this research study is useful because managers should understand what will and will not affect consumers' attitude towards both traditional commerce and e-commerce.

From the perceived marketing mix perspective, managers should start to study more about the latest marketing mix trends available in the market to keep track of the consumers' mind. In order to attract consumers, a manager should understand how marketing activities can affect consumers' feelings, behavior, and belief. As mentioned, the 4Ps elements of the marketing mix have shown a great impact on the traditional commerce platform, but it was not effective in e-commerce. Those managers who are involving in the e-commerce market should understand that the 4Ps is no longer a useful tool in the web-based platform and try to learn more about the new marketing elements. With a clear concept of the marketing mix, managers will be able to organize the right activities for the right products to perform at it best considering the commerce platform the business is emphasizing.

From the perceived risks perspective, managers could use the analysis in this research study to lower their cost in advertising in traditional commerce. This is because consumers in 2018 have slowly forgotten the risks that may be incurred in traditional commerce as proven by H2. Managers whose businesses focus on traditional commerce can reduce the advertising campaign that improves the credibility of a firm as consumers do not care about this anymore. This allows a firm to gain a higher profit with cost reduction in the advertising campaign. On the other side, managers should start to invest in activities that can provide consumers' confidence in the reliability and credibility on their e-commerce shopping channel. The reason has been defined in the discussion of H5 where perceived risks in e-

commerce can have a large impact on consumers' attitude. In order to diminish the perceived risks in e-commerce, managers should spot the threat of e-commerce. However, a manager whose products mainly deal with Chinese consumers can disregard the perceived risk on consumers' attitude towards e-commerce because of the insignificant relationship between the two.

From the perceived information transparency perspective, managers are able to use the analysis to decide how much information to disclose to the consumers. Managers can put little effort on the transparency of information in the physical stores as consumers' attitude will not be affected by the perceived information transparency. Away from the traditional commerce aspect, managers should focus more on information disclosure in e-commerce because of the supported hypothesis of H6. There is some information that a company may think is confidential, but consumers think they should know about in the e-commerce. Thus, managers in the e-commerce industry should focus on the disclosure of information that is accurate, obtainable, and up-to-date to consumers to convince the consumers in having a positive attitude towards the product sold on e-commerce.

5.4 Limitations and Recommendations

As the time given to complete this research study is limited, the demographic profile of the respondents is slightly being biased in employment status. Furthermore, most of the respondents are from city area around Kuala Lumpur which may have made the data collected to be inaccurate as the living style in the urban and rural area are different. Also, people from the city may have higher acceptance on e-commerce compared to the traditional commerce because of their lifetime exposure. Thus, future academicians are suggested to consider both city and urban area residents or focusing on urban area residents in the future.

Other than that, the future researchers are recommended to take each of the components in marketing mix to consideration when studying variables about the marketing mix. As mentioned, more mechanisms of marketing have been developed over years and the 4 Ps marketing mix is not suitable to be used in the e-commerce industry as more Ps, Cs, and Vs are established. Additionally, 4 Ps should be studied independently as each P are focusing on the different perspective of the market and may have a different impact on the consumers' attitude. So, the future researchers are advised to study each mechanism in the marketing mix to obtain a more significant and accurate finding.

Furthermore, the result of this study has indicated the differences between independent variables on different dependent variables, and future academicians should study different factors based explicitly on the dependent variables. For example, researchers could study the impact of consumers' trust, technology acceptance, et cetera on the consumers' attitude towards e-commerce; while study the impact of service quality, environment, et cetera on the consumers' attitude towards traditional commerce. Academicians could study the independent variables that are relevant to the different dependent variables unlike the hypotheses formed in this research study. This is because the result of this study has shown the different independent variables have a very contrast effect on the two dependent variables where when H1 is accepted H4 is rejected, vice versa.

5.5 Conclusion

To make a long story short, this research study objective is to compare the differences between perceived marketing mix, perceived risks, and perceived information transparency on consumers' attitude towards traditional commerce and e-commerce. H1, H5, and H6 are supported while H2, H3, and H4 are not supported. The relevant supportive secondary data are used to briefly explain the possible reason for the rejection of H2, H3, and H4 in this chapter.

In term of traditional commerce, only perceived marketing mix is significantly affecting consumers' attitude. On the other side, perceived risk and perceived information transparency were found to not have any significant relationship on the attitude of consumers when purchasing through the offline stores.

In term of e-commerce, the results of the hypotheses are contradictory compared to hypotheses developed for the traditional commerce. The analyses have proven that the perceived marketing mix does not has a significant relationship with consumers' attitude. Meanwhile, perceived risk and perceived information transparency were demonstrated with the significant relationship on consumers' attitude in e-commerce.

In addition, the moderator effect of gender and race in perceived risks has shown a significant difference where female's and Chinese's attitude are not being affected by perceived risk when purchasing through e-commerce; Whereas, male, Indian, and Malay's attitude are being affected by perceived risk when purchasing through e-commerce.

Other than that, the managerial implications are being described to add value to this research study where the conclusion of the analyses is useful. Moreover, the limitations and recommendations for conducting this research study are being deliberated in this chapter as well. This section will allow future academicians to obtain some useful advice to avoid the same mistakes made in this research study.

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APPENDICES

Survey Questionnaire



**UNIVERSITI TUNKU ABDUL RAHMAN (UTAR)
FACULTY OF ACCOUNTANCY AND MANAGEMENT
BACHELOR OF INTERNATIONAL BUSINESS (HONS)
UKMZ3016 RESEARCH PROJECT**

Dear Respondents,

We are Bachelor of International Business students from University Tunku Abdul Rahman. Currently, we are conducting a research to investigate the differences between consumer attitude towards traditional commerce and electronic commerce. This survey questionnaire is a major contribution that helps us understand your attitude towards physical and online stores. Your participation is completely voluntarily, and all the information given will be used for academic purposes only. The return of the questionnaire is taken as the consent of participation.

Students' Detail:

- | | | |
|-----------------|---------|---------------------|
| 1. Hey Yin Fong | 1500365 | yinfonghey@lutar.my |
| 2. Tan Rou Qian | 1500578 | rouqian.94@lutar.my |

Section A: Demographic Data

Please fill in your information with a tick (✓) in the bracket provided.

1. Gender:

Male []
Female []

2. Race:

Malay []
Chinese []
Indian []
Other: _____ []

3. Age:

Below 18 (Gen Z) []
18 – 34 (Gen Y) []
35 – 50 (Gen X) []
51 – 70 (Baby Boomer) []
70 and above []

4. Education level:

Primary School []
Secondary School []
College []
University []

5. Employment Status:

Full-time []
Part-time []
Self-employed []
Students []
Retired []
Homeworker []
Other: _____ []

6. How often do you shop at *physical stores*?

1-3 times per month []
4-7 times per month []
8-11 times per month []
12-15 times per month []
More than 15 times per month []

7. How often do you browse *online stores*?

1-3 times per month []
4-7 times per month []
8-11 times per month []
12-15 times per month []
More than 15 times per month []

This is a multiple-choice section, you may tick (✓) more than once in the brackets provided.

8 a). What type of products do you prefer to buy from *physical* stores?

- Consumer Electronics (*Phone, Laptop, Speaker, etc.*) []
- Automobile (*Car, Motorbike, Scooter, etc.*) []
- Clothing/Fashion (*Sunglasses, Hat, Trousers, etc.*) []
- Food and Beverage []
- Furniture []
- Books, Music, Videos []
- Other: _____

8 b). What type of products do you prefer to buy from *online* stores?

- Consumer Electronics (*Phone, Laptop, Speaker, etc.*) []
- Automobile (*Car, Motorbike, Scooter, etc.*) []
- Clothing/Fashion (*Sunglasses, Hat, Trousers, etc.*) []
- Food and Beverage []
- Furniture []
- Books, Music, Videos []
- Other: _____

9 a). What type of *physical* stores do you usually shop at?

- Department store (*Isetan, Muji, Parkson, etc.*) []
- Convenience store (*7-11, Family Mart, etc.*) []
- Supermarket (*Jaya Grocer, Cold Storage, Tesco, etc.*) []
- Hypermarket (*Aeon, Giant, etc.*) []
- Specialty store (*Watson, Zalora, Machine, etc.*) []
- Discount store (*Daiso, Mr DIY, etc.*) []
- Other: _____

9 b). What type of *online* stores do you usually shop at?

- Specialty store (*Apple, Zalora, Hermo, etc.*) []
- International sites (*TaoBao, Amazon, Walmart, etc.*) []
- Online grocery (*Tesco, Aeon, etc.*) []
- Online food delivery (*MCD, Domino, Foodpanda, etc.*) []
- Ticketing/ Travel (*AirAsia, Agoda, GSC, etc.*) []
- Social Media (*Facebook, Instagram, WeChat, etc.*) []
- Other: _____

10 a). What are the main reasons for you to shop at *physical* stores?

- Can collect loyalty points, special offers, and discount []
- Can return or exchange the product bought easily []
- Can receive the product immediately []
- Recommended by friends and family []
- Can obtain product advice and relevant information from salesmen []
- Other: _____

10 b). What are the main reasons for you to shop at *online* stores?

- Easy to find and compare products []
- Easy to follow instructions on the online store []
- Easy to check the availability of products online []
- Easy to check the delivery options and the costs []
- Able to read reviews, recommendations, and ask for more information []
- Other: _____

Section B: Consumer Attitudes

Below are the statements regarding your attitudes to shop at **physical stores**. Please answer the following questions by indicating to what extent you agree or disagree with each statement.

	STATEMENTS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I would have positive feelings towards buying a product from physical store.	1	2	3	4	5
2	I like to shop at physical store.	1	2	3	4	5
3	I have the thought of buying a product from physical store.	1	2	3	4	5
4	I often consider buying at physical store.	1	2	3	4	5
5	I believe buying products from physical store is a good idea.	1	2	3	4	5
6	It is much better for me to shop at physical store.	1	2	3	4	5

Below are the statements regarding your attitudes to shop at **online stores**. Please answer the following questions by indicating to what extent you agree or disagree with each statement.

	STATEMENTS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I would have positive feelings towards buying a product from online store.	1	2	3	4	5
2	I like to shop at online store.	1	2	3	4	5
3	I have the thought of buying a product from online store.	1	2	3	4	5
4	I often consider buying at online store.	1	2	3	4	5
5	I believe buying products from online stores is a good idea.	1	2	3	4	5
6	It is much better for me to shop at online store.	1	2	3	4	5

Section C: Perceived Marketing Mix

Below are the statements regarding your **perceived marketing mix** when selecting a channel to shop for a product. Please answer the following questions by indicating to what extent do you agree or disagree with each statement

	It is important for me to consider... .. when selecting a channel to shop for a product.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The product attributes.	1	2	3	4	5
2	The familiarity of the product to me.	1	2	3	4	5
3	The price of the product.	1	2	3	4	5
4	The price of substitute products.	1	2	3	4	5
5	The promotion of the product.	1	2	3	4	5
6	The possibility to get a better promotional service.	1	2	3	4	5
7	The types of distribution channel to get the product.	1	2	3	4	5

Section D: Perceived Risk

*Below are the statements regarding your **perceived risks** when selecting a channel to shop for a product. Please answer the following questions by indicating to what extent do you agree or disagree with each statement.*

	I am worried that... ..	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The product purchased is more expensive than I thought.	1	2	3	4	5
2	Additional charges such as service charges, SST, shipping fees, etc may be incurred.	1	2	3	4	5
3	The price of the product is not compatible with its quality.	1	2	3	4	5
4	The benefits promised may not delivered such as quality, originality, etc.	1	2	3	4	5
5	The warranty or maintenance service process is slow or long-winded.	1	2	3	4	5
6	The product purchased may not be accepted by my friends or family.	1	2	3	4	5
7	The product may embarrass me.	1	2	3	4	5
8	The product may not be recognized by relatives or friends.	1	2	3	4	5
9	I will make mistakes when buying a product.	1	2	3	4	5
10	I will regret purchasing the product.	1	2	3	4	5

Section E: Perceived Information Transparency

*Below are the statements regarding your **perceived information transparency** when selecting a channel to shop for a product. Please answer the following questions by indicating to what extent do you agree or disagree with each statement.*

	STATEMENTS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I should know about the details of product very well when buying it.	1	2	3	4	5
2	I should be clear about the profile of the seller when buying a product.	1	2	3	4	5
3	I should know about the transaction process to be carried out.	1	2	3	4	5
4	I should ensure the verification of the transaction	1	2	3	4	5
5	It is important that the information available to me is accurate and relevant.	1	2	3	4	5
6	It is important that the information available to me is convenient to obtain.	1	2	3	4	5
7	It is important that the information available to me is up-to-date.	1	2	3	4	5

Structural Model

