

**WHY CONSUMERS ARE RELUCTANT TO BUY
HOME APPLIANCE ONLINE? THE EFFECT OF
PERCEIVED RISK AND MODERATING ROLE
OF ONLINE CONSUMER REVIEW**

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**RESEARCH PROJECT SUBMITTED IN
FULFILLMENT FOR MASTER DEGREE**

**SCHOOL OF BUSINESS AND ECONOMICS
UNIVERSITI MALAYSIA SABAH
2012**



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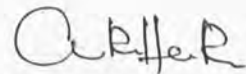
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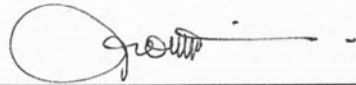
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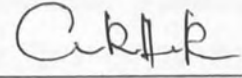
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ACKNOWLEDGEMENT

First and foremost, praise is due to almighty ALLAH with His compassion and mercifulness to allow me finalizing this master project. Next, I would like to express my gratitude and deep appreciation to my supervisor, Dr. Hj. Amran bin Hj. Harun for his patience, advice and guidance for me to complete this study. I also wish to say thank you to Research Methodology and Business Research Project Lecturers Prof. Dr. Roselina Ahmad Saufi and Mr. Rosle @ Awg. Mohidin for their thought on the research course. This appreciation also goes to all my lecturers in Universiti Malaysia Sabah (UMS), Kota Kinabalu for their valuable thought, knowledge and experience shared during this few years.

Special thanks also go to Associate Professor Norazah Mohd Suki on her expertise in term of statistical analysis in AMOS for Structural Equation Model for her hips and guidance to make this work in good shape. I do also acknowledge the advise from Professor T. Ramayah for his advice on the data analysis part.

Of course I would also like to thank my beloved, supportive and understanding husband, Anwar Abdul Hamid, my inspirational precious children, Irfan, Fariheen, Hameezan, Dzafran and Mysarah for all their love, patience, support and encouragement for me to finalize my Master study. They were always been there to lift up my spirits and bolster me on to triumph over the many challenges and obstacles in this few years. I am truly blessed and thankful for such a caring and thoughtful family. Thanks also go to my parents, siblings, parents in-law, family members and family in-law for their love, support and prayer. To all my friends especially Norali Awg Damit, Lisa Islani, Khalizatul Asrin, Corinna Chong, Chang Siew Lin, Tatilya, Jalilatul, thank you for being so helpful for me to finish this project. Thanks also to Hamiati Abd Hamid and Hellena Ibrahim for helping me out in the data collection process. This project would be hardly possible without their encouragement and support.

Finally, I wish to say that I treasure very much the friendship and help of my many friends who have been very supportive in providing all the necessary help and advice during the long journey of completing this study.



ABSTRACT

WHY CONSUMERS ARE RELUCTANT TO BUY HOME APPLIANCE ONLINE? THE EFFECT OF PERCEIVED RISK AND MODERATING ROLE OF ONLINE CONSUMER REVIEW

This study aims to determine whether perceived risk has an effect on consumer's likelihood not to buy home appliance through the internet. The perceived risk dimensions used are perceived financial risk, perceived performance risk, perceived time-loss risk, perceived psychological risk and perceived source risk. With a sample of 192 respondents gathered by non-probability sampling, data were analyzed using Statistical Package for Social Sciences (SPSS) version 20 and Structural Equation Modeling (SEM) using Analysis of Moment Structure (AMOS). This study shows that there is an effect of perceived performance risk on consumer's likelihood not to buy home appliances online. Positive significant relationship was found between perceived performance risk and consumer's unwillingness to buy though online. Moreover, online consumer review has been found to moderate the relationship. Future research can be conducted on similar study of perceived risk and purchase intention on other products or different moderator such as family status, cultural background and level of education.



ABSTRAK

Kajian ini dilakukan bertujuan untuk mengenalpasti sama ada andaian risiko mempunyai kesan terhadap keengganan pengguna untuk membeli barangan keperluan pengguna melalui internet dan sama ada ulasan pengguna internet mempengaruhi hubungan berkenaan. Faktor-faktor andaian risiko yang terlibat adalah andaian risiko kewangan, andaian risiko prestasi produk, andaian risiko kehilangan masa, andaian risiko psikologi dan andaian risiko pembekal. Berdasarkan 192 responden yang diperolehi melalui teknik persampelan bukan kebarangkalian, data dianalisis menggunakan Statistical Package for Social Sciences (SPSS) versi 20 dan Structural Equation Modeling (SEM) menggunakan Analysis of Moment Structure (AMOS). Kajian ini menunjukkan terdapat kesan andaian risiko prestasi produk terhadap keengganan pengguna untuk membeli barangan keperluan pengguna melalui internet. Terdapat hubungan positif yang ketara antara risiko prestasi produk dan keengganan pengguna untuk membeli barangan keperluan pengguna melalui internet. Tambahan pula, ulasan pengguna internet didapati mempengaruhi hubungan tersebut. Kajian pada masa hadapan boleh dibuat untuk mengenalpasti hubungan antara andaian risiko dan gelagat pembelian pengguna terhadap produk yang lain ataupun mengkaji sama ada faktor status keluarga, budaya dan tahap pendidikan boleh mempengaruhi hubungan antara andaian risiko dan gelagat pembelian pengguna.



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CHAPTER 1

INTRODUCTION

1.1 Overview

Internet is a virtual place to connect people anywhere at any time. Apart from connecting people, internet has also been used as a new marketing platform and opportunity for business growth. The internet is considered as the world's largest cyber shopping mall which allows customer to shop not only locally but also internationally with low cost. Thus, a cyber shopping mall can be an outstanding way for customers to make wise purchasing decisions. Consumers nowadays are able to purchase products or services virtually at any time and anywhere through online shopping or online purchasing. Online purchasing or online shopping is a form of electronic commerce directly buying goods or services from a seller over the internet in real-time without an intermediary service (wikipedia). It is a new paradigm of purchasing medium in this era of globalization. Consumers are able to search for products or services and place their order through the internet. Customers will have more opportunity to choose and compare products or services in terms of price, design and many other criteria according to their preferences.

According to the survey by A.C Nielson (2008), 627 million people in the world have made online shopping in 2006. The numbers had increased about 40 percent in two years later which represent the 875 million people who have shopped online in 2008. Generally, books, clothing, accessories, shoes, videos, DVDs, games, airline tickets, and electronic equipment are the most purchased items through the internet. Meanwhile, it is reported that consumer electronics, cars, softwares, telecommunication services, cosmetics and medications are among the top products which are not intended to be purchased without consulting any review (Nielson Company, 2010).

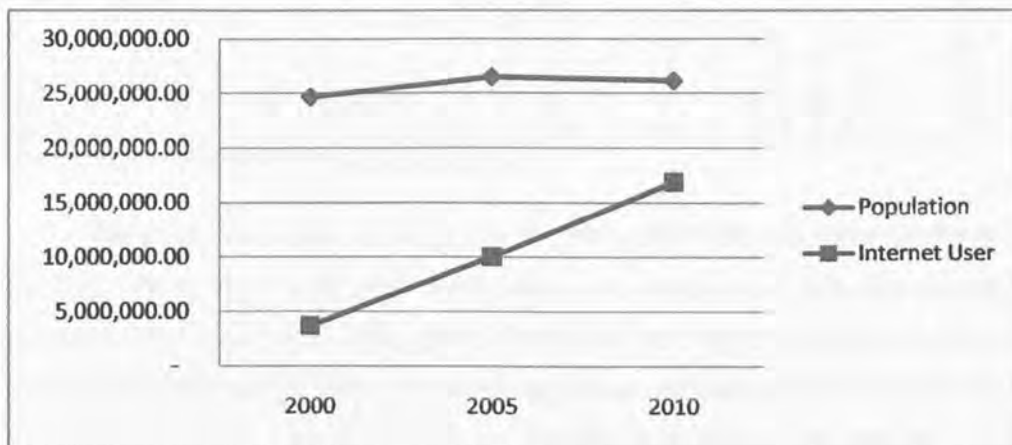


1.2 Online Purchasing in Malaysia

The use of internet is becoming popular in Malaysia. Internet usage in Malaysia was considered to begin since 1995 when the amount of internet hosts in Malaysia started to increase. Internet World Statistic (Dec, 2011) reported that Malaysian internet users as of December 2011 are 17,723,000 (61.7%) from the total population of 28,728,607. It was also reported that internet users have increased 456.8 percent from 2000 to 2010 as shown in Figure 1.1. The figure shows tremendous increasing rate of internet users in Malaysia.

In line with the tremendous increment of internet users, the internet buyers are also increasing rapidly. According to Joines, Scherer & Scheufele (2003), an increasing in internet users also reflects the increment in online purchasing. It was reported that Malaysians spent RM1.8 billion shopping via internet in 2010. The figure is also expected to increase almost triple in three years time (Nielson Company, 2010). Based on the statistics mentioned earlier, it is clearly known that Malaysian have been adapting internet as a new way of life and use the internet for different reasons such as gathering information as well as purchasing products online.

Figure 1.1 : Internet Usage and Population Growth in Malaysia



Source : <http://www.internetworldstats.com/asia/my.htm>

Euromonitor International (2012), reported that internet retailing in Malaysia posted a 13 percent value growth to reach a total of RM842 million sales in 2011. This reflected a growing trend of online purchasing in Malaysia. Internet retailing is defined as sales of consumer goods to the public through the internet. It includes sales through pure e-commerce web sites and through sites operated by store-based retailers (Euromonitor International, 2012). There are several internet commerce web sites in Malaysia such as <http://www.ebay.com.my>, <http://www.lelong.com.my>, <http://moresales.com.my>, <http://www.sony.com.my>, <http://www.myestore.com.my> and others. Table 1.1 shows internet retailing by category in Malaysia for the year 2006-2011.

Table 1.1 : Internet Retailing by Category for the year 2006-2011

RM million	2006	2007	2008	2009	2010	2011
Beauty and Personal Care	3.9	4.7	5.3	5.6	5.5	8.0
Apparel	67.4	82.8	109.8	131.6	161.4	191.4
Consumer Electronics and Video Games Hardware	97.1	114.9	166.7	189.7	222.0	256.4
Consumer Healthcare	1.7	1.9	2.7	3.1	3.5	3.9
DIY and Gardening	-	-	-	-	-	-
Consumer appliances	-	-	-	-	-	-
Home Care	-	-	-	-	0.3	0.5
Housewares and Home Furnishings	-	-	-	-	-	-
Media Products	114.9	141.2	164.8	181.4	200.1	222.1
Food and Drink	46.6	51.4	57.0	60.1	64.1	67.3
Toys and Games	0.9	1.6	2.5	3.2	3.3	3.5
Others	31.9	46.8	62.4	76.3	87.7	88.4

Source : Euromonitor International (2012)

Based on the report in Table 1.1, it shows that there are some products or services which were most purchased online and which were not. For instance, consumer electronics and video games hardware were among the top purchased but not consumer appliances. Consumer appliances include the following products such as refrigeration appliances, home laundry appliances, dishwashers, large cooking appliances, microwaves, food preparation appliances, small cooking appliances, small kitchen appliances (non-cooking), vacuum cleaners, irons, personal care appliances, air treatment products and heating appliances

(Euromonitor International, 2012). Moreover, it is forecasted that consumer appliances are not to be purchased via the internet for the year 2012 to 2016 as shown in Table 1.2.

Table 1.2: Internet Retailing Forecast for the year 2012-2016

RM million	2012	2013	2014	2015	2016
Beauty and Personal Care	8.2	8.8	9.8	10.3	10.8
Apparel	217.1	258.0	291.7	334.0	382.5
Consumer Electronics and Video Games Hardware	301.1	355.4	441.2	546.1	676.1
Consumer Healthcare	4.0	4.2	4.5	4.7	4.9
DIY and Gardening	-	-	-	-	-
Consumer Appliances	-	-	-	-	-
Home Care	0.6	0.8	1.0	1.2	1.4
Housewares and Home Furnishings	-	-	-	-	-
Media Products	246.7	275.8	303.7	336.7	368.0
Food and Drink	71.3	78.2	82.1	89.5	93.4
Toys and Games	3.4	3.5	3.6	3.7	3.8
Others	110.0	116.1	126.6	139.1	151.2

Source : Euromonitor International (2012)

1.3 Problem Identification

Consumers' behavior towards online shopping differ between products due to some factors. So far, most studies in the field of online shopping behavior in Malaysia focus on the influencing factors that affect consumer behavior such as intention to purchase online, willingness to purchase online and actual online purchasing behavior. Lin (2007) when predicting consumers' intentions to shop online found that attitude is an important factor explaining the consumers' intention. Moreover, Yulhasri *et al.* (2011) found that there are three attitude determinants of Malaysian consumers which consist of usefulness, ease of use and compatibility which found to have the positive significant relationship with consumer's online buying intention. A study carried out by Rohaizan and Fatimah (2011) signified that online shopping among Malaysian consumers was influenced by usefulness factor, ease of use and enjoyment. Furthermore, Malaysian consumers are also concerned on the perceived benefits such as convenience,

cheaper price, wider selection and consumer service from online shopping (Delafruz *et al.*, 2011). Conversely, Delafruz *et al.* (2011) found that perceived behavioral control such as self-efficacy, prior experience, cost, accessibility, trust and security are also a concern by the Malaysian consumer in their online shopping. The perceived behavioral control is identified to influence purchase intention negatively. Moreover, privacy and security are also found to have negative significant relationship with consumer's online buying intention (Yuliharsi *et al.*, 2011).

However, far too little attention has been focused on the reason why Malaysian consumers are generally reluctant to buy through online. There has been little discussions about the barriers that prevent consumers to buy or to purchase online. A study has been carried out by Huang and Oppewal (2006), to examine the reason why consumers hesitate to shop online specifically on grocery shopping. They found four situational factors that affect consumers' decision to shop online groceries such as delivery charges, travel time to physical store, time available for shopping and purpose of the trip. The four relevant situational factors were mediated by perceived cost, perceived risk, perceived convenience and perceived enjoyment. In addition, Gerrard *et al.*, (2006) when studying why consumers are not using internet banking also found that perception about the risk associated in internet banking is one of the identified factors.

Looking back at the statistics reported by Euromonitor (2012), consumer appliance products was among the less purchased in the year 2006 to 2011. This indicates a need to understand why consumers are reluctant to buy consumer appliances online compared to other products. Consumer appliances are electrical/mechanical machines which accomplish some household functions which can be classified into three which are major appliances, small appliances and consumer electronics (Wikipedia, 2012). Major appliances include major household appliances such as air conditioner, dishwasher, freezer, refrigerator and washing machine. Meanwhile, small household electrical entertainment appliances such as TV set, HiFi, telephone and home cinema are categorized as small appliances. Meanwhile, consumer electronics are electronic equipment such as personal

computers, MP3 players, DVDs and camcorders. Consumer appliances in this study will only refer to the major appliances and small appliances. Thus, consumer appliances will refer to home appliances in the following section.

Therefore, in order to understand why consumers are reluctant to buy home appliances online, it is important to understand the consumers' behavior. Upon a review by Mitchell (1993), consumer buying behavior can be categorized into four types which are complex buying behavior, dissonance-reducing buying behavior, habitual buying behavior and variety seeking behavior as shown in Table 1.3. It was identified that different types of buying behavior which characterized by different involvement will carry a different risk perception.

Table 1.3: Types of Consumer Buying Behavior

Type	Characteristics
Complex buying behavior	<ul style="list-style-type: none"> - High involvement - High brand difference - Expensive and infrequently bought - E.g. Television, microwaves
Dissonance-reducing buying behavior	<ul style="list-style-type: none"> - High involvement - Low brand difference - Gather information after the purchase
Habitual buying behavior	<ul style="list-style-type: none"> - Low consumer involvement - Low brand difference - E.g. Salt
Variety seeking behavior	<ul style="list-style-type: none"> - Low consumer involvement - High brand differences - E.g. Biscuits

Based on Table 1.3, purchasing consumer appliances can be categorized in the complex buying behavior which has high brand difference and need high consumer involvement. In this type of buying behavior, the consumer will tend to be very careful in purchasing the product. Usually consumer will gather relevant information about the product before making a purchase decision. The finding was also supported by Sridhar (2007) and Levin *et al.* (2005). It was found that high involvement products such as television was perceived as high uncertainty or high risk compared to low involvement products such as toilet soap (Sridhar, 2007). Consumer preferences for online shopping differs across products (Levin *et al.*,2005).

Moreover, consumers' view of product characteristics in terms of cost and tangibility is also important to determine their online purchasing behavior. Product's tangibility is an important criterion to influence the consumer's intentions towards shopping on the internet (Vijayasathy, 2002; Cao and Mokhtarian, 2005). Traditionally, home appliances are considered as high cost, tangible product (Vijayasathy, 2002). However, in the online context, tangible products such as home appliance products are perceived as physically intangible products. Physical intangibility refers to the degree to which a product cannot be seen, experienced or touched or is inaccessible to the senses (Verhagen *et al.*, 2010). Products which are physically intangible are seemed to have a higher risk and uncertainty since the products are unable to be physically examined (Cao and Mokhtarian, 2005). To be specific, product's tangibility had a significant influence on consumers' intentions towards online shopping or in other words, consumers' intentions to shop online for intangible products were higher than tangible products (Vijayasathy, 2002). Usually, consumers will need to do a physical inspection before making a purchase decision. Overall, consumer's purchase decision in online shopping differs by product type and characteristics (Cao and Mokhtarian, 2005).

Besides product's characteristics, consumer behavior or unwilling to buy through online are also affected by other factors. Consumers' readiness for transactional purposes and security issues are also main concerns. Malaysian customers are still mentally afraid of doing transactions online due to security reasons. They believe that online transactions are not secure enough to protect their personal information such as their credit card (Ahasanul *et al.*, 2009). Consumers are also concerned with the delivery or return and anxious whether they will successfully receive their parcel from the delivery company. Logistic and delivery elements such as delivery time and delivery charges also determine the the relative barriers for consumer to shop online for goods which require physical delivery (International Post Corporation, 2009).



Consumers' perception in regard to the risk that they would engage is an important determinant for their behavior towards online purchasing. Huang and Oppewal (2006) found that perceived risk affects online shopping preferences. In online contexts, an increase in the risk perceived by consumers could reduce their intention or willingness to buy through the internet (Huang and Oppewal, 2006; Tian and Ren, 2009). Online consumer perceived risk as a major obstacle for online purchasing (Tian and Ren, 2009). Thus, overall perceived risk is significantly correlated negatively with online purchasing behavior (Atcharyachanvanich and Okada, 2007).

Numerous scholars have examined the perceived risk effects on the consumers' intention or willingness to purchase online. Most researchers supported that perceived risk has a negative effect on consumers intention (Akram, 2008; Hassan *et al.*, 2006; Tian and Ren, 2009; Forsythe and Shi, 2003; Teo and Yeong, 2003; Doolin and Dillon, 2002).

However, to minimize the risk perception, risk reduction methods has been introduced in the early years when the concept of risk to consumer behaviors have been identified. Roselius (1971) was the among the earlier authors whom had introduced eleven methods of reducing consumers risk. Word of Mouth (WOM) has been listed as one of the risk relievers listed by Roselius (1971). In the traditional shopping context, WOM is referring to the situation when the consumers ask an advice from their friends and family before making a purchase decision. However, in the context of online shopping WOM is known as electronic Word-of-Mouth (eWOM). eWOM is refers to the online consumer reviews which includes positive and negative statements made by consumers concerning a product for sale in internet shopping malls.

Nielson (2010) when studying online shopping trends around the world reported that online reviews are very important for consumers in helping them to make an online purchase decision. It was found that 57 percent out of 27,000 internet user respondents will seek online reviews before purchasing a product via the internet. The study examined that online reviews are important when the

consumer wants to buy certain products such as consumer electronics, car, and software. Most of the respondents indicated that they will not make an online purchase before consulting online reviews. Hansen *et al.*, (2004) in their study suggested that perceived risk can be reduced whenever the consumers communicate with other consumers to get some opinion before buying through the internet. The finding was supported by Zhu and Zhang (2010) when they indicated that the online consumer review is an important element in determining online consumers' purchasing behavior. It was found that consumers will seek online consumer review for less popular online products in order to get more information about the products before making the purchasing decision. Based on the findings, in the context of this study, consumers may need online consumer reviews to reduce their perceived risk prior to their purchasing decision to buy consumer appliance online.

Therefore it is crucial to identify and investigate the factors that could hinder consumers' intention to make an online purchase among the Malaysian consumers especially for home appliance products and study the role of online consumer reviews as a moderator to moderate the relationship.

1.4 Problem Statement

Since internet retailing is becoming more significant a promising future nowadays, it is important to really understand the consumer online purchasing behavior. While the influencing factors are seen to be important to understand consumer behavior, hindering factors are also vital to be understood. Thus, the importance of identifying and analyzing factors that could hinder consumers' willingness to purchase on the internet is also vital. Therefore in order to further understand the gap in research that exist regarding why consumers are reluctant to buy online, this study aims to find out how perceived risk will prevent consumers from buying consumer appliance online. It is expected that financial risk, time-loss risk, performance risk, psychological risk and source risk might hinder consumers' willingness to purchase home appliance online. In addition, the study would also like to investigate whether online consumer reviews have an effect on the relationship between perceived risk and consumers' unwillingness to buy home

appliance online. Thus, the problem statement for this study is the internet buyers in Malaysia are not interested to buy home appliance online. However, the reason why Malaysian internet buyers are reluctant to buy home appliance online is still unclear.

1.5 Research Question

Based on the problem statement, the research questions of this study are as follows:

- a. What is the effect of consumers' perceived risk (financial risk, performance risk, time-loss risk, psychological risk and source risk) towards their unwillingness to buy home appliance online?
- b. What is the effect of online consumer reviews towards the relationship between perceived risk and consumers' unwillingness to buy home appliance online?

1.6 Objective of the study

The objectives of this study are specifically to:

- i. To determine whether perceived financial risk, performance risk, time-loss risk, psychological risk and source risk have an effect on consumers' *unwillingness to buy home appliance online*.
- ii. To determine whether online consumer reviews moderate the relationship between perceived risk and consumers' *unwillingness to buy home appliance online*.

1.7 Scope of the study

This study is carried out to examine the extent to which perceived risk factor can have an impact on the consumers' intention to hinder online shopping especially in home appliance products. This is due to the reason that almost none of the consumers in Malaysia are buying or willing to buy home appliance through online (Euromonitor International, 2012). Therefore, a quantitative survey data is conducted and the sample is derived from the internet users based on two ways of sampling which are through offline and online. The sample is chosen among the internet users since online consumer behavior is examined in this study. The

internet users are among the consumers whom have the highest possibility to shop online due to the exposure of the internet marketing. Thus, to further examine the objective of this study, respondents were asked a screening question as only consumers who will not purchase home appliance online will be selected. This is important because consumers whom does not have intention to purchase home appliances online is the suitable respondent to answer the rest of the questions. Apart from that, home appliances in this study comprises of major appliances and small appliances. Major appliances comprises of major household appliances such as air conditioner, dishwasher, freezer, refrigerator and washing machine. Small appliances are typically small household electrical entertainment appliances such as Television set, HiFi, microwave, telephone and home cinema.

1.8 Rationale and Significance of the Study

Malaysian consumers nowadays have become more adapt towards the internet facility specifically in online retailing and online purchasing. Since online retailing and online purchasing are a new important medium for the internet retailer and internet shopper, it is important to identify what factors that may influence or hinder consumers to shop online. Thus, this study has broadened the researcher's knowledge of consumer behavior in online purchasing. Specifically, this study enhances the understanding of consumer behavior towards online purchasing from the perceived risk perspective. The online consumer reviews effects on consumers' behavior were also clearly identified. In addition, the findings of the study could be useful to the internet retailers to develop and improve their reliability and believability to gain consumer confidence to shop online. Furthermore, the findings of this study could also be useful for the government as a measurement to provide a better regulation in protecting consumers' rights in order to gain consumers positive perception towards electronic commerce in Malaysia. The current trend of protection in electronic commerce in Malaysia is still in the early stage towards gaining consumers' trust (Velmurugan, 2012). Therefore, since the future of electronic commerce in Malaysia is very promising, the government should not only provide the infrastructure but also protecting consumers right especially in the context of electronic commerce.

1.9 Definition of Terms Used

This section briefly explains the terms used in this study.

1.9.1 Unwillingness To Purchase

Willingness to buy is defined as the likelihood that the buyer intends to purchase the product (Dodds, Monroe, and Grewal, 1991). In turn, if the unwillingness to buy can be accepted as the reverse to the willingness to buy, therefore unwillingness to buy may refer to the likelihood that the buyer is reluctant to purchase the product. Reluctance-to-buy is defined as perceived guiltiness and tendency to avoid buying products (Suh and Kwon, 2002).

1.9.2 Perceived Risk

Perceived risk is defined as the degree to which individuals believe that if they purchase products or services through the internet, they will suffer losses (Lim, 2003; Teo and Yeong, 2003).

1.10 Organization of Thesis

In Chapter 2, previous literature review was presented. This chapter presents the consumer behavior theory which is related to this study. Moreover to further understand the consumers' behavior in online purchasing, reviews of the existing literature on consumer behavior and online purchasing will also be presented in this chapter. In relation with the presented literatures, conceptual definition and relationship among the variables in this study will be defined in this chapter.

Next, Chapter 3 illustrates the research methodology and theoretical framework used in this study. The theoretical framework together with the hypotheses of this study were being further explained followed by the methodology used to test the framework. In addition to the above, the research design is also being explained in this chapter.

In Chapter 4, the results of the study and data analysis methods used was presented. This chapter is presented in two parts. The first part is the preliminary data analysis using Statistical Package for Social Sciences (SPSS) version 20.0 to

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