CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

Online shopping is currently trending in the society and it will continue to grow as it brings a lot of advantages for businesses and also consumers. Internet is one of the modern integrated marketing communications and has potential for future growth on online shopping; negative aspects associated with online shopping are also becoming critical (Ko, Jung, Kim & Shim, 2004). Consumers perceive higher risk when they make a purchase through the Internet. Online shopping carries significance risk as compared with shop at a brick and mortar store. Customers are required to enter their personal information such as credit or debit card number, home addresses and emailing contact when they purchase from the online retailers. Salisbury and Pavlou (as cited in Almousa, 2011) stated that the perceived risk in online shopping will have a negative influence on consumer intention to shop online. Apparels industries have been selected because according to Pastore (2000), the common items purchased by consumers included apparels (42%).

In this chapter, researchers will explain the background of research to help readers to have a better understanding about the purpose of investigation. Problem statement will be developed by researchers to search for clear solutions. Research objectives and research questions will be established so that researchers will be able to focus on research purposes and achieve research conclusion that met the research objectives. Hypothesis will be defined for future quantitative analysis purposes. At last, the significance of the study will be identified by the researchers to explain the importance of the research goals to current problems.

1.1 Research Background

Online shopping has emerged since 1990 and the growth of online shopping is going on each second for grabbing a better market share since everybody is on the internet nowadays. The development of online shopping is impressive as it brought advantages to millions of purchasers and thousands of businesses. According to Mehrdad (2012), online store offers a better platform for customers to search through the information and make a better decision. Therefore, online shopping is slowly becoming a substitute for the real market place, especially for the university students who spend more time on Internet. According to Pew Research Center's Internet & American Life Project (2010), it stated that the percentage of the undergraduate students in United States who access to the internet has reached 98%.

Connected college students

Percentage of American adults in each group who use the internet, have broadband at home, and connect wirelessly
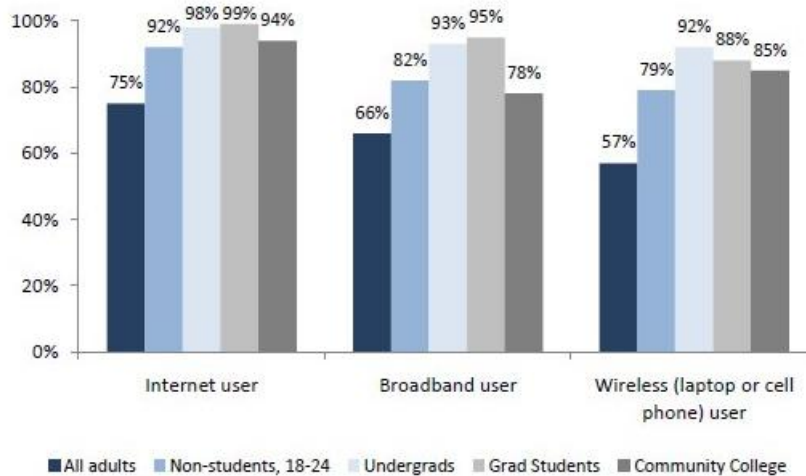
Source: Pew Research Center's Internet & American Life Project 2010 tracking surveys. All include landline and cell phone interviews. N for all adults=9,769; n for 18-24 year old non-students=717; n for four-year undergrads=246, n for grad students=112, n for community college students=164.

With the growth of online shopping, people can buy almost everything at anytime and anywhere as long as there is an Internet connection provided, however consumers will have to deal with the risks they perceived about the product, the environment, or the buying process (Ko et al., 2004). One of the fast-growing business transactions of product is apparels. According to Pastore (2000), the most

common items purchased were CDs (64%), books (58%), apparels (42%) and tickets (32%), the percentage of the apparels is the third high among the category. As for online shopping in apparels category, Zalora and Fashionvalet are two of the more popular websites in Malaysia, whereby customers often choose to purchase apparels products from these two websites.

The research project investigates about the negative relationship of perceived risk on online purchase intention for apparel among universities students in Malaysia. The perceived risk includes product risk, financial risk, security risk, time risk, delivery risk and physical risk. According to Ye (2004), "perceived risk is a fundamental concept which implies that consumers' experience pre-purchase uncertainty as to the type and also the degree of expected loss from the purchase and use of a product."This research is to discover how perceived risk negatively influence university students' online purchasing behavior and Vijayasarath and Jones (as cited in Masoud, 2013) mentioned that they had found out that perceived risk influenced both attitudes and intention to shop online.

Besides, this project also examines the relationship between demographic factors and perceived risk on online shopping intention. According to Madahi and Sukati (2012), it stated that demographic factor such as age, gender and race is one of the most important features that influence customer purchase intention.

The perception of online customers such as university students on the negative relationship of perceived risk on online purchase intention was examined in this research by using multi-item scale. As online consumers perceive benefits for buying online, they also perceive particular barriers such as perceived risk that prevent them from shopping online. By using multi-item scale, we can identify the effect of perceived risk on online shopping.

1.2 Problem Statement

Shopping has been recognized as a risky activity especially in the context of online shopping (Almousa, 2011). This research is focusing on the effect of perceived risk towards online purchase intention on apparels among universities students in Malaysia.

There are only few researchers from other countries has conducted and studied about the negative relationship between perceived risk and online purchase intention on apparels among undergraduate students. According to the study of Caruso and Kvavik (2005), they mentioned that college and undergraduate students in this generation are called "digital natives" or "Net Generation", and it also mentioned that 71.9% of students involve in online shopping. Therefore, this research is conducted to understand in depth about the impact of perceived risk on online shopping particularly among universities students in Malaysia.

In addition, the online business is growing tremendously whereby it will create more business opportunities to the online retailers. So, it is important for the online retailers to identify and understood the perceived risk faced by customers and tailor risk-reducing strategies by reducing and preventing the customer's risk perception and increasing customers' confidence to shop in their website. However, it is vital for company to build their reputation and relationship with customer, to let them have faith toward their company so that they can shop online relieved.

The concern of online shopping is whether the complex network environment is able to ensure the whole network integrity and security of company. Therefore, it is important to determine the perceived risk in purchase intention on online apparel shopping because these perceived risk will influence a company's performance and reputation. However, the perceived risk towards online shopping have not been identified completely as there are a lot of online retailers are still facing risks in online business and this will affect the transaction and performance

of the retailers. Thus, it is necessary to find out which of the risks will bring greatest impact to the online retailer.

Marketer is able to plan for the most appropriate marketing plan that are suitable to different gender based on the mean difference of gender in this study. This is due to female and male have different perspective and demands change according to their own consumer behavior (Samadi & Yaghood-Nejadi, 2009). They have their own personalities, consumption pattern and thinking. Hence, it is very important for the marketer such as online retailer to determine how female and male perceive on the risk that they might faced when they purchase apparels online. Hence, marketer able to take risks reducing strategies and gain more confidence from the female and male customers.

The independent variables adopted from the research of Dai, Forsythe and Kwon (2014) are product risk, financial risk and privacy risk. In this research, three variables has been added which are delivery risk, process and time-loss risk and physical risk (Ye, 2004; Samadi & Yaghoob-Nejadi, 2009) since the study of Dai et al. (2011) did not include these three variables in the study. Researchers believe that delivery risk, time risk and physical risk also has a significant relationship with online apparel shopping. Performance risk change into product risk, process and time-loss risk change to time risk, these two variables are from Ye (2004) and privacy risk will change to security risk from Samadi and Yaghoob-Nejadi (2009). Hence, this research will be conducted among universities students in Malaysia to observe how perceived risk on online buying apparels will affect their purchase intention.

1.3 Research Objectives

The purpose of this research is to find out which of the perceived risk will influence online purchase intention for apparels the most.

1.3.1 General Objective

To investigate which risk variables has the highest impacts towards the purchase intention on apparel products among the university graduates and any significant different mean for demographic factors (gender, age, ethnicity, category of university, internet usage and online purchase experience).

1.3.2 Specific Objectives

1. To investigate the negative relationship between risks variables (product risk, financial risk, security risk, time risk, delivery risk and physical risk) towards online apparel purchase intention.

2. Identify the most influential perceived risk that affect the online purchase intention.

3. To find out the differences on demographic factors toward perceived risk on online apparel purchase intention.

1.4 Research Questions

There are several questions will be answered.

a) Is there any negative relationships between perceived risks and online purchase intention for apparels?

b) Which risks influence the most towards the online purchase intention on apparels?

c) Does the demographic factor perceived differently on online purchase intention?

1.5 Hypotheses of Study

H_0: There is no negative relationship between product risk and online purchase intention.

H_1: There is a negative relationship between product risk and online purchase intention.

H_0: There is no negative relationship between financial risk and online purchase intention.

H_2: There is a negative relationship between financial risk and online purchase intention.

H_0: There is no negative relationship between security risk and online purchase intention.

H_3: There is a negative relationship between security risk and online purchase intention.

H_0: There is no negative relationship between time risk and online purchase intention.

H_4: There is a negative relationship between time risk and online purchase intention.

H_0: There is no negative relationship between delivery risk and online purchase intention.

H_5: There is a negative relationship between delivery risk and online purchase intention.

H_0: There is no negative relationship between physical risk and online purchase intention.

H_6: There is a negative relationship between physical risk and online purchase intention.

H_0: There is no significance difference between gender and perceived risk on online purchase intention.

H_7: There is a significance difference between gender and perceived risk on online purchase intention.

H_0: There is no significance difference between age and perceived risk on online purchase intention.

H_8: There is a significance difference between age and perceived risk on online purchase intention.

H_0: There is no significance difference between ethnicity and perceived risk on online purchase intention.

H_9: There is a significance difference between ethnicity and perceived risk on online purchase intention.

H_0: There is no significance difference between category of university and perceived risk on online purchase intention.

H_{10}: There is a significance difference between category of university and perceived risk on online purchase intention.

H_0: There is no significance difference between internet usage and perceived risk on online purchase intention.

H_{11}: There is a significance difference between internet usage and perceived risk on online purchase intention.

H_0: There is no significance difference between online purchase experience and perceived risk on online purchase intention.

H_{12}: There is a significance difference between online purchase experience and perceived risk on online purchase intention.

1.6 Significance of the Study

The purpose of this research is to find out how perceived risk influence university students' intention towards purchase apparels online in Malaysia. The diverse aspect of perceived risk will influence purchase intention of Malaysia universities students towards buying apparels online. By analyzing this research, it creates an advantage for online retailers and offline businesses (Almousa, 2011) because they will be able to have a better understanding on which type of perceived risk influences universities students in Malaysia the most. Hence, the online apparel retailers may benefit by prioritizing their marketing efforts to focus on reducing perceived risk that are most likely to hinder purchase intentions for apparel online (Bae & Lee, 2011).There are six dimensions of perceived risk which are product risk, financial risk, security risk, time risk, delivery risk, and physical risk.

This is particularly useful for determining shopping orientations and attitudes of universities students towards online apparel shopping in Malaysia based on the comprehensive analyses done by the researchers. Meanwhile, the result of this research can also serves as an useful reference and provides empirical support for future researchers whom engage in the exploration on Malaysia universities students' online purchase intention on apparels.

Moreover, this research provides a vision for marketers and online retailers about the customer's main concern when buying online (Almousa, 2011). Throughout the research, web retailers are able to recognize their internal strengths and weaknesses and overcome those weaknesses in order to survive and attain competitive advantage in the competitive business environment. The study of perceived risk can be used to identify consumers' preferred risk reduction strategies, focus on the right strategies allow the marketers or online retailers to allocate their resources efficiently into all marketing activities such as segmentation, positioning and targeting.

Besides, it will be able to alert online shoppers (Masoud, 2013) such as universities students in Malaysia the risk they may face when they are doing

online purchase. Hence, they will have a clearer and better vision. Moreover, this study will lead online shopper to a wiser decision making. Banks and government play an important role in protecting the online users who use the purchase protect through internet. They can emphasize on the risk that may harm the online user the most and implement the most effective way to prevent them to get harm from the illegal online activities such as hacking. Banks can strengthen the security system mean while government can impose rules and regulations to warn those online users who illegally use the internet.

Gender plays an important role in the marketing perspective for online retailer (Bae & Lee, 2011). This is because males and females have different personality and consumer characteristics. Throughout this research, marketers will be able to know the impact of gender differences on their businesses and develop their online marketing strategy effectively (Selvaraj, Krithika & Panchanatham, 2014) for both gender to generate higher profit and larger market share.

1.7 Definition of Terms

Below are the definitions for all the variables adapted by the researchers in the study.

Table 1.1: Definition of Terms

Dimensions	Definition	Sources
Product risk	The probability that a product purchased failed to function as expected.	Zheng, Favier, Huang & Coat (2012); Ye (2004)
Financial risk	The potential loss of money due to fraud or the product does not work as expectation.	Almousa(2011),Peter &Tarpey (1975)
Security risk	Fear from consumers that their credit card and other financial information will be revealed. purchasing decision by retaining the product, wasting time researching and making the purchase	Chu & Li. (2008)
Time risk	The probability that a purchase results in loss of time when making a bad	Lee (2009);Ye (2004)
Delivery risk	Potential loss of delivery associated with goods lost, goods damaged, not receiving product on time, long delivery time and sent to the wrong place after shopping	Zhang, Tan, Xu & Tan (as cited in Yu, Dong & Liu ,2007), Cases (2001)
Physical risk	Potential of the product may cause safety problem and be harmful to health.	Huang, Schrank& Dubinsky (2004); Ko et al. (2004)

1.8 Limitation and Delimitation of Study

The limitation of research is time constraint. This research study must be completed within a given time frame. Therefore, the group are being restricted to collect more information due to the time constraint. The sample size of the research is 300 respondents; this sample size does not actually represent the whole target group which are the universities students in Malaysia. Moreover, the answer from questionnaire can be unusable because the respondents may not answer it thoroughly and are unwilling to express their real opinion to the group.

In this study, the researchers only target on undergraduate students, where they can only represent a certain age group of online shoppers. Besides, there are six dimensions of perceived risk involved in the study, which are product risk, financial risk, security risk, time risk, delivery risk, and physical risk. These independent variables are not the only factor that affects customer online purchase intention. According to the research of Cemberci, Civelek, and SÖzer, (2013), risk perception is one of the factors in the study, technology acceptance factors and benefit perceptions have also been included as the determinants of intention to shop online.

1.9 Chapter Layout

Chapter 1: Research Overview

This chapter is the introductory chapter which provides an overview of the study context and explains the research problem. This chapter contained research background, problem statement, research objective, research question, hypotheses, and the significance of the study and chapter layout.

Chapter 2: Literature Review

This chapter consists of the documentation of a comprehensive review of the published and unpublished information from secondary sources of data that are available on the topics of interests. It included the review on the relationship between perceived risk and online shopping purchase intention among Malaysia's university students on apparels and the variables consist of product risk, financial risk, security risk, time risk, delivery risk, and physical risk.

Chapter 3: Methodology

This chapter describes how the research is carried out in terms of research design, data collection methods, sampling design, operational definitions of constructs, measurement scales, and methods of data analysis.

Chapter 4: Data Analysis

This chapter presents the patterns of the results and analyses of the results which are relevant to the research questions and hypotheses.

Chapter 5: Discussion, Conclusion and Implications

This chapter provides the conclusion of the data collected and analyses in chapter four, linking the main theme of the study, discuss about the main findings, stating the limitation of the study and future recommendation for future researches.

1.10 Conclusion

In conclusion, this chapter provides an overview of what our research study is about. We will further elaborate a review on the related literature about the relationship between perceived risk and online shopping purchase intention of Malaysia's university students on apparels.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

Chapter 2 discusses the details about literature review of perceived risk which influences the purchasing behaviour on online apparel shopping. These perceived risk include product risk, financial risk, security risk, time risk, delivery risk, and physical risk. The main purpose of conducting this research is to determine the perceived risk that will influence the online purchase intention on apparel. It will continue with the review of relevant theoretical model, a proposed conceptual model framework and hypotheses development. This chapter will be ended with conclusion which summarizes the major session.

2.1 Literature Review

2.1.1 Online Purchase Intention

Iqbal, Rahman and Hunjra (2012) defined online purchase intention as the customers' willingness to use Internet services when making an actual purchase of goods and services or comparing prices. Li and Zhang (2002) proposed that consumers' willingness to purchase a product or service in an Internet store is the meaning of online purchase intention. Choi and M.S. (2001) stated that the intention to adopt online purchasing reflects the likelihood of adopting in online purchasing. Meskaran, Ismail and Shanmugam (2013) defined online purchase intention as "customers' willingness with intention to purchase behavior via the Internet". Purchase intention is often used to predict the actual buying behavior of customers. There are several researchers agreed that consumers' perceived risk towards online shopping will have a negative impact on consumers' online

purchase intention. This statement is supported by Meskaran et al. (2013); Samadi and Yaghoob-Nejadi (2009); Li and Zhang (2002); Zhang, et al., (2012); Suresh and Shashikala (2011); Liebermann and Stashevsky (2002); and Almousa (2011). Greater perception of risk will deter consumers purchasing intentions. Consumers will have lesser perceived risk level in the Internet if they have positive online shopping experience. A lower perceived risk level will lead to an increase in purchase intention in future.

2.1.2 Perceived Risk

Dowling and Staelin (as cited in Ko, et al., 2004) defined the concept of perceived risk as the consumer perceived on unpredictable and adverse outcome of buying a product or service. It comprised two elements which are uncertainty and consequences. According to Bauer (as cited in Laroche, McDougall, Begeron & Yang, 2004), uncertainty refers to the probability of unfavorable outcomes, and consequences are defined as the importance of loss. It also defined as a consumer's belief about the unpredictable outcomes derived from the online shopping transaction (Kim, Ferrin & Rao, 2007). Bauer (as cited in Laroche et al., 2004) stated perceived risk is the negative perceptions of the unexpected and unpredictable results from products purchased. Perceived risk plays an important role in determining consumers purchase intention. Dowling (as cited in Ko, et al., 2004) has mentioned that consumers' perception of risk are central to their evaluations and purchasing behaviors. This statement was supported by Tan (as cited in Chu & Li, 2008) whom stated that risk adverse consumers are unlikely to purchase online. Consumer perceives a higher level of risk when purchasing on the Internet as compared with purchasing at physical stores supported by Lee and Tan (as cited in Mathew & Mishra, 2014; Chu & Li, 2008). The internet, just like any type of non-store shopping, consumers are having difficulties in examining the quality of physical goods; consumers only rely on limited information and pictures shown on the computer screen (Jarvenpaa and Tractinsky, 1999). Some studies have

found that perceived risk negatively influenced consumers' intention to use online shopping (Liu & Wei, 2003; van der Heijden, Verhagen & Creemers, 2003).

Cunningham (as cited in Featherman & Pavlou, 2002) proposed that perceived risk consist of performance, financial, time, safety, social and psychological risk. Cox and Rich (1964) focused on performance and psychological risk. In addition, there are another six dimensions of perceived risk which are social, financial, physical, performance, time and psychological risk were proposed by Garner (as cited in Ko et al., 2004). Almousa (2011) and Bhatnagar, Misra and Rao (2000) concentrated on product risk, financial and security risk based on the framework of online shopping more intensively than other dimensions.

2.1.2.1 Product Risk

Product risk refers to the potential of product fail to meet the performance of originally intended (Zheng et al., 2012; YE, 2004; Masoud, 2013; M. Aghekyan-Simonian, Forsythe, Kwon & Chattaraman, 2012). For example, the product's color, shape or outlook may be different from viewing online and the actual product received, customers are unable to examine and check the actual product qualities. Therefore customers perceived there is a product risk based on this situation (Dai et al., 2014; Garbarino & Strahilevitz, 2004). Product risk will reduce online shopper's confidence and intention to purchase product through online. If the product does not match with consumers' expectations, consumer will deem that the product is not worth the amount of money. Meanwhile, the research of Thompson S.H. Teo (2002) stated that about 40% of respondents' major concern about financial loss from online shopping and 25% worry about the quality might not fit their expectation. Besides, according to Dai et al., (2014) the cited

reason of consumer for not shopping online is due to product risk. Therefore product risk is also considered to have significant influence on consumer behavior on online shopping (Zhang, et al., 2012).

2.1.2.2 Financial Risk

Financial risk is defined as the possibility of an online shopper suffering monetary loss from a purchase when the product does not perform well or maintenance or replacement of the product and the product might not worth for the price paid (Featherman et al., 2002; Peter &Tarpey 1975, Sweeney 1999). Financial risk is found to be a strong predictor in determining online shoppers' shopping intention, searching information through online and involve frequent purchase activities (Forsythe & Shi 2003; Bhatnager et al, 2000; DelVecchio & Smith, 2005; Aqueveque, 2006). Dai, et al., (2014) stated that it is difficult for online shoppers to determine whether the price of the item purchased from a particular online retailer is the lowest or most appropriate as compared to others. Besides, financial losses may happen due to credit card fraud and if the item purchased online failed to perform as expected. Consumers' attitude towards purchasing sensory products such as apparel through the internet is not as positive as their attitude towards purchasing other products such as books or computer software (Shim, Eastlick, & Lotz 2000).This is because online shopping is a virtual store whereby it is difficult for consumers to judge and examine apparel products at the point of sale, which is inside the store (Sproles & Burns, 1994; Brown & Rice, 2001).

2.1.2.3 Security Risk

As there are more Internet vendors exist globally, consumers' perceived risk towards online shopping also increases when they feel that Internet security is insufficient (Karnik, 2014). Security risk is defined as "a potential loss due to fraud or hacker comprising the security of an online transaction or online user" (Soltanpanah, Shafe'ei, & Mirani, 2012). While Azizi & Javidani (2010) mentioned that security is related with disclosure of financial information such as credit card number, account number and etc. According to research done by Teo (2002) mentioned that one of the three barriers for online shopping is security fears.

Although online shopping brings ease of purchase and usage to consumers, conversely the absence of security mechanism will adversely affect consumers' purchase intention (Tsai & Yeh, 2010; Karnik, 2014; Meskaran et al., 2013). Consumers are at risk to expose themselves to loss if they provide shipping information, credit card information or complete online purchase transaction (Leeraphong & Mardjo, 2013). According to Dai et al. (2014), when shoppers are purchasing apparel items, they are required to provide more personal information such as delivery address, size they required, and personal preferences for styles and prices.

2.1.2.4 Time Risk

According to the research done by Zhang et al. (2012) and Ye (2004), time risk has significant influence on online consumers' purchasing behavior. Time risk refers to the time that consumers take to make a purchase and wait for the product to be delivered and if the consumer is not familiar with the product, they have to use some time to browse for information about the product (Dai et

al., 2014; Forsythe, Liu, Shannon, & Gardner, 2006; Ko et al., 2004). Time risk also includes products that did not meet customers' expectations and customers have to return the product in exchange for a new one (Ariff, Sylvester, Zakuan, Ismail & Ali, 2014). It is time consuming for consumers to search, browse, purchase and wait for the product to arrive (Leeraphong & Mardjo, 2013; Hsiao, 2009; Hassan, Kunz, Pearson, Mohamed, 2006) and sometimes consumers might left the website without buying anything from that website because they cannot find what they want from that website (Gudigantala, Song & jones, 2011). Moreover, when there is no actual product to be shown to the customer, customer have to search online for the product's image and the time needed for the image to loads can also be considered as time risk (Forsythe et al., 2006).

2.1.2.5 Delivery Risk

There are numerous package carriers services provided in Malaysia. Postal services in Malaysia are considered to be efficient and easily available. The local postal service is known as Pos Malaysia. The study conducted by Huang & Oppewal (2006) stated that one of the reason consumers reluctant to use Internet shopping is delivery charges.

Online shopping brings convenience to customers by making shopping possible from anywhere, at anytime (Huang & Oppewal, 2006). Samadi & Yaghoob-Nejadi (2009) mentioned that consumers who are unwilling to purchase through Internet market is about the delivery options. Important factors related to delivery are speed, tracking and tracing (Li & Zhang, 2002).

There are several factors that discourage the use of online shopping such as credibility of the business, delivery and return terms, delays in delivery, possibility of receiving damaged goods and etc.

According to Teo (2002), credibility of businesses in terms of delivery deters consumers from purchasing products online. Another concern of consumers towards online apparel shopping is the delivery and return of products purchased (Suresh & Shashikala, 2011). By purchasing products through online, consumers afraid that they will receive defective items or an item that does not fulfill their requirement.

Another factor that affects consumers to use online shopping is delay in delivery. According to Sze, Ong, Tiffany, Loong, & Tat (2012), timeliness is whether the orders placed by customers will be delivered on time as promised. Consumers would not use online shopping if they perceived possible issues in delivery such as loss of goods, goods damaged, or goods wrongly delivered to another person (Zhang, Tan, Xu, & Tan, 2012). The possibility of goods damaged when transported is also a major concern of consumers. Consumers are worried that their products may be damaged while being handled or transported (Karnik, 2014). According to research done by Zheng et al. (2012), delivery risk is known as a crucial risk in online apparel shopping.

2.1.2.6 Physical Risk

As cited in Huang et al. (2004), researchers Lutz & Reilly and Rindfleusch & Crockett defined physical risk as the potential of a product or service that might bring physical harm to the users. Some researchers stated that high level of physical risk perceived by user will caused users less likely to purchase product through

online because users think that the product will affect user's health (Ko et al., 2004; Zheng et al., 2012; Chu & Li, 2008; Ye, 2004). Level of anxiety related with the negative result of purchase decision will caused a sense of physical pain, which is known as physical risk. Physically effect includes users spend large amount of time on Internet to search for information of the product, user will be facing the computer screen for long time which will cause fatigue or visually impaired (Pavlou, et al., 2003; Zhang, et al., 2012). Besides that, research done by Zheng et al. (2012) stated that apparel is also related to physical risk. The results of interview study shown that participants declared that physical risk was a major concern for online apparel purchases because of the quality of clothing product.

2.1.3 Demographic Factors

There are several researchers found that females tend to put lesser efforts and time in using Internet and less familiar with many websites such as Bimber, Ono and Zavodny, Slyke, Comunale and Belanger, Wasserman and Richmond-Abbott, Weiser, Yang and Wu(as cited in Bae & Lee, 2011). Hence, females have higher perceived risk because females show a higher level of privacy and security focus and lesser purchase experience on Internet (Benjamin Chan &Bei, 2010; Garbarino & Strahilevitz, 2004). Males have been leading in the technologies savvy and tend to have a positive attitude than females on online purchase intention as males think that they are familiar with internet cultures (Rodgers & Harris, 2003; Lian & Yen, 2014; Lee et al., 2011). Chin and Chang (2010) proposed that gender and perceived risk play an important role which able to moderate the relationship between recommendation sources and online purchase intention.

Madahi and Sukati (2012) mentioned that one of the most important features which influence customers purchase intention is demographic factor. Young customer may behave differently with older age of customer. Besides, the article also stated that different ethnic group will act differently to make purchase intention. Studies show that African-Americans in some cases have different purchase intentions than the whites American.

According to research of Bosnjak, Galesic, and Tuten (2007) mentioned that there is a possibility that people without previous shopping experiences will have other methods to determine their willingness to purchase through online than people who had past experiences. Samadi and Yaghoob-Nejadi (2009) stated that online purchasing experience is a useful predictor of perceived risk level of online shopping. Masoud (2013) said that non-online shoppers will perceive higher level of risk as compared with online shoppers. Dai et al. (2014) stated that perceived risk will be lowered with previous experience. Kim, Kim, and Kumar (2003) have mentioned that one of the variables that will affect customers' intention to use online shopping is internet usage. Brosdahl and Almousa (2012) also stated that internet usage will affect customers' perception towards the adoption of e-commerce.

2.2 Meta-Analysis

Table 2.1 has shown the related studies that have been conducted in other countries.

Author	Title	Variables	Respondents	Country of Origin	Methodology	Results

Almousa, M., (2011)	Perceived Risk in Apparel Online Shopping: A Multi Dimensional Perspective.	DV: Purchase Intention IV: Performance risk, financial risk, psychological risk, social tisk, time risk and privacy risk.	Saudi University students.	Saudi Arabia	-Web based survey -Random sample -Sms & Email -7 point likert scale -Multi item scale -T-test -Multiple Regression	Most Significant : Time risk and performance risk. Followed up: Privacy risk and social risk. No significant influence: psychological risk and financial risk.
Ye, N., (2004)	Dimensions of Consumer's Perceived Risk in Online Shopping	DV: Online Shopping Intention IV: Fraud risk, delivery risk, financial risk, process and time loss risk, product risk,	Chinese university students.	Western China	-7 point likert scale -Questionnaire -Distribute during class time	All variables are significant to shopping intention.

		privacy risk and information risk.				
Samadi, M. And Yaghoob-Nejadi, (2009)	A Survey of the Effect of Consumers' Perceived Risk on Purchase Intention in E-Shopping.	DV: Purchase Intention IV: Physical risk, convenience risk, monetary risk, functional risk, social risk, psychological risk.	Tehrani consumers who have purchase experience of computer related products.	Tehrani (Persian)	-Pearson correlation -Linear regression -Convenience sampling -Email -E-questionnaire -5 point likert scale	Monetary risk, functional risk, convenience risk and physical risk perceived most. Monetary risk was found to be a determinant factor in online shopping.
Aghekyan-Simonian, M., Forsythe, S., Wi, S.K., Chattaraman, V.,	The Role of Product Image and Online Store Image on Perceived Risk and Online Purchase Intentions	DV: Purchase Intention IV: Product image, online store image, financial risk,	Female college students (Southeastern University)	United State	-Web based survey -Randomly assigned -Questionnaire -7 point liker scale -T-test	Supported: Brand image positively influence purchase intention, brand imae negatively influences perceived

(2012)	for Apparel.	product risk, time risk.			-Pilot test	product performance risk, online store image risk on product risk, online store image and financial/ time risk, financial risk, time risk and performance risk signifcantly affect purchase intention,
Dai et al. (2014)	The Impact of Online Shopping Experience on Risk Perceptions and Online Purchase Intentions: Does Product Category	DV: Purchase intention IV: Online shopping experience, product, financial and privacy	College students (Southeastern university)	United State	-Online survey -Self administered questionnaire -7 point likert scale -Convenience sample	Online shopping experience is a strong positive predictor of purchase intention, and negatively related to

	Matter?	risk.			-Pilot test -SEM procedure -Structural equation model	product and financial risk ro purchase intention . Privacy risk is not related to purchase intention.
Hassan, Kunz, Pearson and Mohemed. (2006)	Conceptualization and Measurement of Perceived Risk in Online Shopping.	DV:Shopping Intention IV: Financial, performance, time, social, psychology, physical, source risk	Undergraduate Students (Southeastern University)	United States	-Multi item scale -7 point likert scale -Self administered questionnaire - Coefficient alpha (Reliability & validity) -SPSS	All risk are supported and will affect purchase intention.

Source: Developed for the research.

2.3 Theory Model

2.3.1 Technology Acceptance Model

Figure 2.1: Technology Acceptance Model
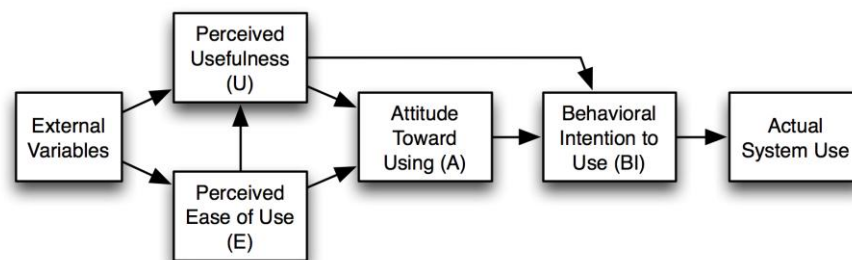
Sources:Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS Quarterly, pp. 319-340.

Technology Acceptance Model (TAM) is often uses to illustrate the variables effective on applying computers use and also the actions of the end users of information technologies. Individuals' adoption of information system is determined by Perceived Usefulness (PU) and Perceived Ease of Use (PEU). A person's attitude toward the ease of use of technology will influence intention. (Davis, 1989)

This model explains how consumers adopt an information system, how they use a technological product and also the purchasing intentions. Online purchasing is conducted over the Internet; consumers should know how to use information technology if they want to complete the purchasing process (Richard Ye, 2014).

2.3.2 Theory of Planned Behavior

Figure 2.2: Theory of Planned Behavior
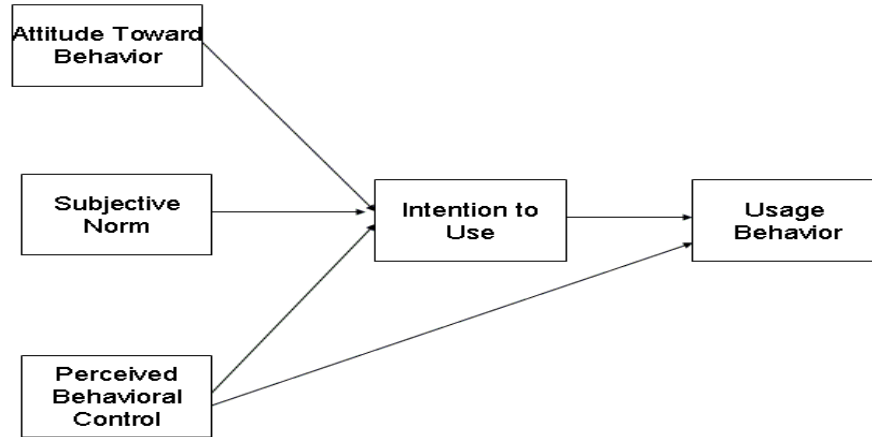
Sources: Armitage, C. J. & Conner, M. (2001). Efficacy of the Theory of Planned Behavior: A meta-analytic review. British Journal of Social Psychology, 471-472.

The Theory of Planned Behavior (TPB) extended the Theory of Reasoned Action (TRA) to explain conditions where individuals do not have complete control over their behavior. Assumption of TPB is that behavioral intention and perceived behavioral control evaluates consumers' actual usage. The TPB postulates that actual usage is determined by behavioral intention and perceived behavioral control (Lin, 2007). There are three factors that determine behavioral intention which are attitude, subjective norms and perceived behavioral control. The best predictor of behavior is intention. Intention is the cognitive representation of a person's readiness by three things: their attitude toward the specific behavior, their subjective norms and their perceived behavioral control.

If people perceived that online shopping is risky, they will not go for online shopping. If people perceived that online shopping does not have any risks or lower risks, they will choose to shop online. This is because when people perceived that online shopping brings difficulty and is risky

to them, the perceived behavioral control occurs unintentionally, which leads to people having different perceptions of behavioral control.

2.4 Theoretical Framework

Figure 2.3: Theoretical Model of The Impact of Online Shopping Experience on Risk Perceptions and Online Purchase Intentions: Does Product Category Matters.
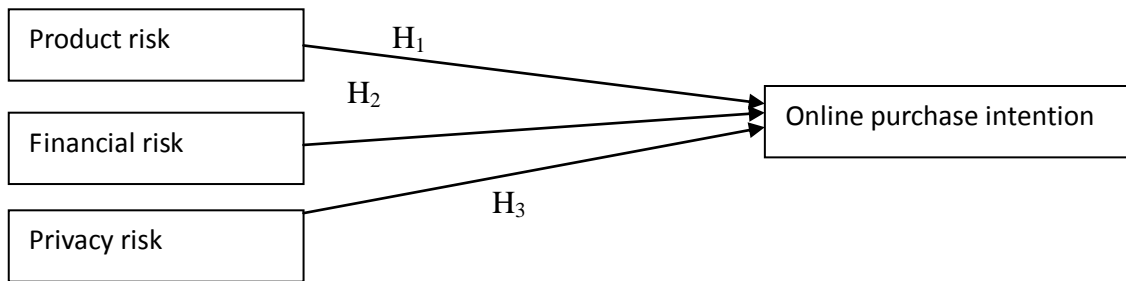
Source: Dai, B., Forsythe, S., & Kwon, W. S. (2014). The Impact of Online Shopping Experience on Risk Perceptions and Online Purchase Intentions: Does Product Category Matters. *Journal of Electronic Commerce Research*, *15*(1). Retrieved from: www.csulb.edu

The model in Dai, Forsythe and Kwon (2014) studies the impact of online shopping experience on risk perceptions and online purchase intentions. In the study, the researchers included three variables which are product risk, financial risk and privacy risk because according to previous researches (and meta-analysis figure 2.2) these risks are the determinant for online purchase intention. Meanwhile, in Ye (2004) research, it included process and time-loss risk and delivery risk as two of the risk that has influence on online shopping in China's e-commerce market environment. Besides, researchers Jacoby and Kaplan (1972) cited in the paper by Samadi and Yaghoob-Nejadi (2009) that physical risk are also one of the factor that has negative influence on purchase intention in E-shopping.

2.5 Proposed Conceptual Framework

Figure 2.4: Proposed Model of Perceived Risk on Online Purchase Intention on Apparels.
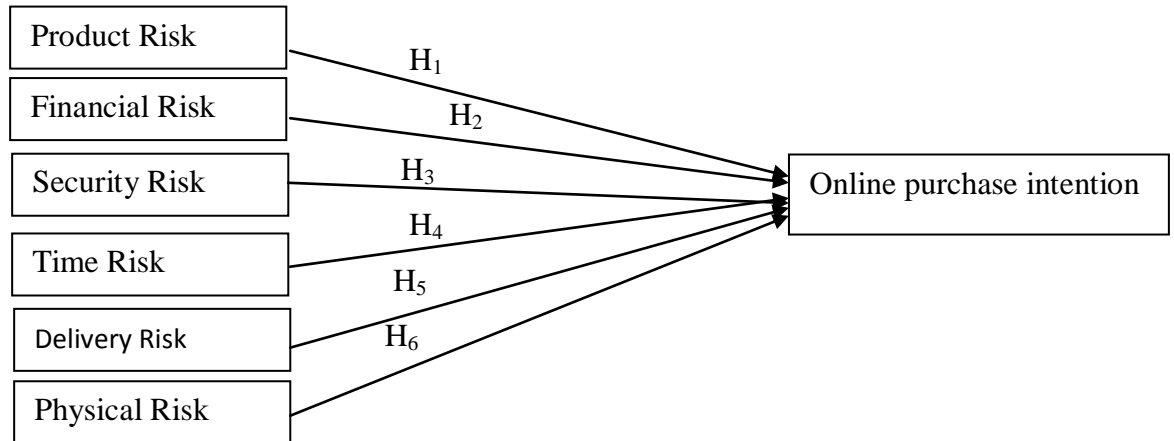
Source: Developed for the research

This proposed conceptual framework for the perceived risk on purchase intention on online apparel shopping was shown in Figure 2.4. It would serve as the basis of the whole research. There are one dependent variable and six independent variables towards purchase intention on online apparel shopping.

2.6 Hypotheses Development

2.6.1 Product Risk

Product risk is negatively associated with online purchase intention and it has been reported as the major reason for customer to not purchase online Customer perceived higher product risk when they are unable to physically examine and test the product online (Dai et al., 2014; Almousa, 2011; Bhatnagar et al, 2000). Customer also perceived product risk when information about the product is limited; the price of product is high or

when the customer cannot evaluate the product with limited information (Forsythe & Shi, 2003). The different types of products will have different level of risk associate with the online purchase intention. Customers face higher level of product risk when it comes to apparel because it requires more experiential value in terms of fitness, colour, fabric and quality of the apparel (Bhatnager et al, 2000; Forsythe et al, 2006; Fram & Grady, 1997 (as cited in Peszynski &Thanasankit, 2002).

H_1: There is a negative relationship between product risk and online purchase intention.

2.6.2 Financial Risk

According to Almousa, (2011) and Dai et al. (2014), financial risk is one of perceived risk that will negatively influences online purchase intention. Financial risk also found to be a strong predictor of customers' online purchase intention (Bhatnagar et al., 2000). When consumers perceived higher level of financial risk, they are less likely to purchase from online and the purchase frequency, amount spent online or frequency of searching with intent to buy will also be affected (Forsythe &Shi, 2003). When financial risk is experienced by customers, customers face the potential problems such as monetary losses or having imbalance between actual product and expectation. This hypothesis is also supported by other researchers saying that lack of trust towards online sellers such as customer may not receive the product after financial transaction are made or the personal information about the credit card being stolen (Bhatnagar et al, 2000). Moreover, Guda, Kerkhof, Fennis, (2008) suggested that the online store image will also influences the financial risk. If the online store is ensuring high protection on online transactions, it might help to build trust between customers and the retailers. Therefore, a negative online store image will increase the level of financial risk (Liljander, Polsa, Van Riel, 2009).

H$_2$: There is a negative relationship between financial risk and online purchase intention.

2.6.3 Security Risk

Weber and Reohl (as cited in Chu & Li, 2008) stated that security risk is the most influential in consumers' perceptions of present and future online purchase intention. Hsu and Bayarsaikham (2012) indicate that security risk has a negative impact on online purchase intention. When customers are unconfident to the website, they will avoid giving their personal data and tend to provide false or incomplete information (Kayworth& Whitten, 2010). Some researchers stated that website security and privacy should include confidentiality of information, information integrity, communication of non-repudiation, authentication security, IT effectiveness and protection of personal privacy, this can reduce the security risk perceived by customer when shopping through online (Rapp, Hill, Gaines, Wilson, 2009). Besides that, Chen, Hsu and Lin (as cited in Adnan, 2014) suggested that privacy policies are needed to reduce security risk perceived by customers and thus enhance online purchase intention.

H$_3$: There is a negative relationship between security risk and online purchase intention.

2.6.4 Time Risk

Researchers stated that time risk has negative influence on the online purchase intention as customers need to invest time for a product (Almousa, 2011). Time risk refers to the effort used on a product may be wasted when the product purchased required a repair or fail to perform well. It also can be a waste of time when customers spent their time on researching, purchasing or maybe replacing a product later when they

think that the product is not worth the time (Forsythe et al., 2006; Ko et al., 2004). Besides that, the time that customers spent to search for information about unfamiliar product online and need to wait for the downloading time for high-pixel images and the time waiting for the website to browse can also wane the intention of customer to shop online. Time risk will also deters the intention when it requires a lot of time to find a suitable apparel or website for customer (Forsythe & Shi, 2003; Forsythe et al, 2006).

H_4: There is a negative relationship between time risk and online purchase intention.

2.6.5 Delivery Risk

According to the study of Zhang et al. (2012), it is reported that the delivery risk has negative impact on online purchase intention and has significant impact on online purchase intention for apparels (Mohammad, Hossein, Mojtaba, Amir & Ahmad, 2012). Delivery risk refers to the delivery of product will be delayed or the product might be damaged during the handling process or the product has been sent to the wrong address by Dan, Taihai, &Ruiming (as cited in Masoud, 2013); Claudia, I., 2012). Customer will less likely to purchase through online if they perceived higher delivery risk because they need more to wait for a longer time for the delayed product or they may get frustrated when the product received is damaged.

H_5: There is a negative relationship between delivery risk and online purchase intention.

2.6.6 Physical Risk

Physical risk reported to have negative impact on online purchase intention (Samadi & Yaghoob-Nejadi, 2009; Zhang et al., 2012). Researchers explained that customers who will possibly experience future regrets on their purchase might experience mental pressure. When customers are dissatisfied with the product and think that the product does not match their style, it will also cause mental stress and harm customers' physical condition. Besides, the quality and material of the product will also affects customers' intention to shop online because customers are unable to examine the product before purchasing and are uncertain about the quality of the product. For example, there is a possibility that the product might cause allergy to customers or it might physically harm the customers. Thus, when customers are concern about physical risk, they tend not to purchase product through online (Almousa, 2011).

H_6: There is a negative relationship between physical risk and online purchase intention.

2.6.7 Demographic Factors

Meyers-Levy (1988) stated that there is a significant gender differences on online purchase intention because male and female have different gender-based consumer behaviour. Male and females still indicate a significant difference in internet usage pattern and number of times at a fine scale (Bimber, 2000; Hargittai & Sahfer, 2006; Ono & Zavodny, 2003; Wasserman& Richmond-Abbott, 2005; Weiser, 2000; Yang & Wu, 2006 cited by Bae and Lee (2011). Females perceive higher risk than male for online shopping because they put less effort and not familiar in using internet application (Bae and Lee, 2011). Besides, age group and ethnic group was found to have mean difference towards perceived risk on online purchase intention (Madahi & Sukati, 2012). Different age group of

customers behave differently when purchase product. Online purchase experience is a predictor of perceived risk level of online shopping and non-online shopper perceived higher level of risk (Samadi & Yaghoob-Nejadi, 2009; Masoud, 2013). Kim et al. (2003) and Brosdahl and Almousa (2012) suggested that internet usage will affect customers' intention and perception toward online purchase.

H_7: There is a significance difference between gender differences and perceived risk on online purchase intention.

H_8: There is a significance difference between age and perceived risk on online purchase intention.

H_9: There is a significance difference between ethnicity and perceived risk on online purchase intention.

H_{10}: There is a significance difference between category of university and perceived risk on online purchase intention.

H_{11}: There is a significance difference between internet usage and perceived risk on online purchase intention.

H_{12}: There is a significance difference between online purchase experience and perceived risk on online purchase intention.

2.7 Conclusion

Chapter two explained the details on how each variable is formed using relevant research materials. This chapter includes the literature review of perceived risk and online purchase intention and also the review of Technology Acceptance Model and Theory of Planned Behaviour. Besides that, theoretical framework, proposed conceptual framework and hypotheses of this research is being carried out.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter is focusing on the methodology used in the research to collect data to test the reliability of hypotheses in the previous chapter. Research design, data collection method, sampling design, research instrument, data processing and methods of data analysis are all included in this chapter.

3.1 Research Design

3.1.1 Deductive Approach

The researchers have conducted a deductive approach where a conceptual model framework has been formed. Deductive approach is the identification of an unknown particular, drawn from its resemblance to a set of known facts (Rothchild, 2006). Decoo (as cited in Williams, 1999) stated that deduction is a process which goes from general to specific. After that, the researchers have reviewed the literature from journals and will start to collect data from respondents through the survey in questionnaires to test it against the literature we have developed previously.

3.1.2 Quantitative Research

This research will be conducted by using quantitative research. Quantitative research involves the collection of data so that information

can be quantified and subjected to statistical treatment in order to support or refute "alternate knowledge claims" by Creswell (as cited in Williams, 2007). According to Williams (2007), Quantitative research begins with a problem statement and involves the formation of a hypothesis, a literature review, and a quantitative data analysis. Cooper & Schindler (as cited in Khalid, Hilman & Kumar, 2012) explained Quantitative research calls for typical research designs where the focus of research is to describe, explain and predict phenomena, uses probability sampling and relies on larger sample sizes as compared to qualitative research designs. Hence, the researchers will choose 300 respondents for this research. Quantitative research requires two variables, for example, the aim of researcher is to study the relationship between an independent (predictor) variable and a dependent (criterion) variable in a population (Hopkins, 2000). The researchers will use casual research to examine how the dependent variables are affected by the independent variables and involves cause and effect relationships between the variables (Williams, 2007).

3.1.3 Descriptive Research

A descriptive research involves the collection of data process to describe characteristics of a particular population within a contextual framework and answer the questions of who, what, when or how, and explains why the characteristics occur and how variables interact by Cooper and Schindler (as cited in Khalid et al., 2012). Hence, this group of researchers have chosen a survey method by using this research design to study the effect of perceived risk on online apparel shopping intention.

3.2 Data Collection Method

3.2.1 Primary Data

Throughout the research, the researchers will collect primary data. In primary data analysis, individuals collect and analyse the data, combine the statistical result from the original raw data and make a conclusion by Glass (as cited in Aguilar, 2009). The data collection method for primary data is giving out questionnaires to respondents. The researchers choose this method because it is simple and reliable. Furthermore, it is relatively simple to analyse and interpret the data. The actual questionnaire will be distributing in September 2014. Researchers will start to distribute and collect back the data on the first and second week, key in and start doing analyse in the third and fourth week of September.

In this research, researchers are pooling primary data to analyze and interpret the effect of perceived risk on online shopping. By gathering primary data resources in a research with powerful analytic tools, such research consists wider regional syntheses that are more comprehensive and more analytically stringent than those currently feasible (Kansa 2005; Kintigh 2006). Primary data for this study is the collection of questionnaires.

3.2.2 Secondary data

Russell (2001) defined secondary data analysis as the individual or group that analyzes the data which does not involved in the planning of the experiment or the collection of the data. Researchers can have a better understanding on perceived risk on online apparel shopping faster and this method helps to reduce cost of obtaining the information as the

information is readily available. Researchers collected data via electronic articles and journals from the Internet. UTAR has subscribed various databases where researchers can found academic journals from online databases easily, such as ProQuest and OPAC. Besides, researchers have a frequent accessed on www.google.com to obtain more information for this study.

3.3 Sampling Design

3.3.1 Target Respondents

The aim of this research is to identify the negative relationship of perceived risk towards online apparel shopping among universities students in Malaysia.

3.3.2 Sampling Frame and Sampling Location

In this study, the respondents are the universities students in Malaysia. Hence, sampling location will not be selected and no specific places will be chosen to conduct survey for this study. Questionnaires will be distributed to private and public universities students in Malaysia. The public universities are Universiti Putra Malaysia (UPM), Universiti Kebangsaan Malaya (UKM), Universiti of Malaya (UM), Universiti Technology Malaysia (UTM), Universiti Sains Malaysia (USM), Universiti Malaysia Sabah (UMS), Universiti Malaysia Sarawak (UNIMAS), Universiti Malaysia Perlis (UniMAP), Universiti Malaysia Kelantan (UMK), University Tun Hussein Onn Malaysia (UTHM), Universiti Teknikal Malaysia Melaka (UTeM), Universiti Malaysia Terrenganu (UMT). The private universities are University Tunku Abdul

Rahman (UTAR), Nilai University (NU), Segi University, Quest International University, INTI International University, University of Nottingham, Open University Malaysia (OUM), Multimedia University (MU), Victory University, Monash University Malaysia and Sunway University. Researchers will distribute the questionnaires to the universities students around them. Therefore, questionnaires were then randomly distributed to 300 universities students from various locations in Malaysia. Researchers will distribute 50 printed questionnaires through randomly and 250 via internet.

3.3.3 Sampling Technique

Self-administered questionnaire is used in this research. Respondents will be able to fill up the questionnaire by themselves, as the researchers have attached the explanation and instruction on the cover page of the questionnaire. Laza & Preece (as cited in Darcy & Joe, 2004) stated that the survey is conducted in an online basis as the electronic survey is increasingly common. This provides strong advantages of speedy distribution and response cycles (Yun & Trumbo, 2000; Swboda, 1997) and also lies in its low cost (Duffy, 2005).

3.3.4 Sampling Size

A total of 300 questionnaires were distributed among the universities students in Malaysia. According to Uma Sekaran (2003) in Research Method for Business, Roscoe (1975) proposed the rules of thumb for determining sample size. Sample size that larger than 30 and lesser than 500 are appropriate for most research. According to Cho & LaRose (1999) (as cited by Adams & Berzonsky, 2003). The flexibility of the Internet and the possibility of false identities are created in the Internet exacerbate trust and confidentiality issues and can make survey results unreliable.

Respondents were instructed to answer the questions based on their purchase intention on online apparel shopping. Besides, a total of 30 pilot test samples will be conducted before the actual survey.

3.3.5 Sampling Elements

The respondents that will involve in this research study are referred to those universities students in Malaysia who have a purchase intention on purchase apparel online. Questionnaires will only distributed to universities students because they play an important role bringing a significant growth in online shopping. Universities students have their own analysis capabilities as they received a higher education. They will have the ability to understand and respond accurately to the questionnaire.

3.4 Research Instrument

3.4.1 Purpose of Using Questionnaire

There are several reasons of using questionnaire throughout the survey. Questionnaire is a process of collecting information in a standardized manner which, by gathering information from a group of sample from a large population, allows the reasoning of results to the wider population. Besides, by using questionnaire, the process of data collection can be completed quickly, save cost and easy to analyze as according to Bowling (as cited in Andrews, Nonnecke & Preece (2003).

3.4.2 Questionnaire Design

Fixed-alternative questions are being used in the survey questionnaires (Appendix 3.1). Respondents are given specific; limited-alternative responses which are multiple choices answers and are required to choose the one of the closet answer of their own viewpoint. It requires less interviewer skill, takes lesser time to answer and easier for the target respondents to answer. Besides, fixed-alternative questions also provide comparability of answers for the respondents to choose.

The reason of using questionnaire in this research for data collection is because it is simple, reliable and cost effective. By distributing questionnaires through the Internet also can minimize interviewer bias. It is because respondents tend to avoid answering sensitive topics if interviewers asked them directly for their opinions. Another reason for collecting data through questionnaires is that respondents are not required to respond immediately.

The questionnaire is conducted in international language which is in English. English is the best language to communicate as Malaysia has more than 3 different ethnic groups with different language. The questionnaires are divided into three sections which are section A (demographic information), section B (independent variables), and section C (dependent variable).

In section A, respondents are required to provide their personal information such as age, gender, ethnic group, university and online purchase experience. The questions are designed to find out the demographic profile of respondents in order to get more accurate results. The researchers will ask verbally during the conversation whether they are undergraduate student or not before they distribute the questionnaire. In section B, it has included all the independent variables of this research which are product risk, financial risk, security risk, time risk, delivery risk,

and physical risk. Five point likert scales has been implemented in this section. Respondent is required to rank the extent of risk they are perceive with from strongly disagree, disagree, neutral, agree and strongly agree. The questions are designed to indicate the respondents' general opinion on perceived risk towards online apparel shopping.

In section C, the questions were designed to identify the intention to shop online for apparels of respondents. Respondents are required to answer a set of multiple choices questions in the questionnaire provided.

3.4.3 Pilot Test

A total of 30 pilot tests will be conducted in order to complete the reliability analysis (Appendix 3.2). A pilot study can be used as a "small scale version or trial run in preparation for a major study" by Hinds & Gattuso (as cited in Smith, Harrison, 2009). Sampson (2004) also noted that "a pilot study is often used to pre-test or try out a research instrument. Pilot test plays an important role in clarifying the validity and reliability of the questionnaire before the actual distribution of questionnaire to respondents. From here, the questionnaires samples will be distributed to respondents and it takes about five to ten minutes for each respondent to complete it. This helps to determine whether are there any ambiguous or biased questions in questionnaire, difficulty for respondent to understand questionnaire and does the questionnaire meets the research objectives. Pilot test will be conducted on August. Researchers will start to distribute the questionnaire on the first week, collect the data in second week and start analyze on third week of August 2014. Based on the Rules of Thumb of Cronbach's Alpha Coefficient Size, only alpha coefficient value in between 0.6 (poor strength of association) and 0.9 (excellent strength of association) will be accepted (Hair, Celsi, Money, Samouel & Page, 2003).

3.5 Construct of Measurement

3.5.1 Origins of Construct for Questionnaire

Table 3.1: Origins of Construct

Measured variables	Questionnaire Items	Question item	Source
Product risk	- I might not get what I ordered through online shopping. - It is hard to judge the quality of product over internet. - I cannot touch and examine the actual product. - Size may be a problem with apparels. - I cannot try apparel online.	5	Emad Y. Masoud (2013)
Financial risk	- Shopping online can involve a waste of money. - I feel that my credit card number may not be secure. - I might get overcharged if I shop online. - I may not get the product I want. - I cannot trust the online company.	5	Emad Y. Masoud (2013)
Security risk	- This website will protect my private information. - I have security on this website. - This site makes me feel comfortable. - This website provides me with complete information. - I trust this website for purchasing products.	6	Emad Y. Masoud (2013)

Time risk	• Buying a product online can involve a waste of time. • Difficult to find appropriate websites. • Finding right product online is difficult. • If I shop online I cannot wait till the product arrives. • Too complicated to place order • Communicating with the seller may require a lot of time.	6	YE Naiyi (2004)
Delivery risk	• The delivered product could be lost. • Delivered the product to a wrong place. • The product is damaged during the delivering.	3	Emad Y. Masoud (2013)
Physical risk	• Prolonged use of computers may cause adverse affects for health. • Prolonged online shopping may lead to fatigue or visually impaired. • The loss of online shopping happens will be pressure on my heart. • Buying counterfeit products can damage my health. • It would make me irritable to the process to return or repair products.	5	Zhang, Tan, Xu, & Tan, (2012).
Online purchase intention	• I plan to use online shopping again • I intend to shop online within the next 30 days. • I will strongly recommend online shopping to others.	3	Lin, H. F. (2007)

Source: Developed from the Research.

3.6 Measurement Scale

Measurement scale is used to categorize or quantify variables (Forsythe et al., 2006). In accordance with the research model, the questionnaire consists of three sections which are demographic information, perceived risk, and online purchase intention.

For section A, the questionnaire is using ordinal and nominal scale measurement. Nominal scale refers to the measure of ethnicity, gender, type of university and purchase experience. Ordinal scale refers to age range, internet usage and income level of respondents.

Section B and C, these parts consist of the general opinions from the respondents. It comprised of the six independent variables which are financial risk, product risk, time risk, delivery risk, security risk and physical risk as well as one dependent variable which is online purchase intention on apparel. Likert scale has been selected as the scaling techniques used in the questionnaire. The scale range is (1) "Strongly Disagree", (2) "Disagree", (3) "Neutral", (4) "Agree" and (5) "Strongly Agree".

3.6.1 Nominal Scale

Nominal scale is defined as simply placing some data into categories without any order or structure. It assigns a value to an object for identification or classification purposes. This is the lowest and elementary level of measurement. For example, demographic variables are used in this research to measure perceived risk and online shopping such as gender, either male or female. Based on Zikmund (2010), nominal scale refers to

which letters or numbers assigned to objects, people or places only help us in their identification or categorization purpose only. For example, gender is categorized into male and female, ethnic group is categorized into Malay, Chinese, Indian and others. This group of researchers has also included the type of universities which are public and private universities that the respondents are studying in. Besides, the questionnaire also included the online purchase experience of the respondents.

3.6.2 Ordinal Scale

Ordinal scale is a scale that arranges objects based on magnitude in an ordered relationship since there is no different measurement. Ordinal scale is a ranking scale (Zikmund, 2010). Demographic variables, such as age and internet usage were measured using ordinal scales in this research. Since any 'order-preserving' transformation will leave the scale form invariant, this scale has the structure of what may be called the isotonic or order-preserving group. An ordinal scale is one that arranges objects, people or places according to their magnitude in a particular order (Zikmund, 2010). The ordinal scales used in this questionnaire are age group and internet usage. Ordinal Scale for age can be divided into age group of less than 20, 20-21, 22-23 and more than 24. Besides, the ranges for Internet usage are from every day, from 3 to 6 days per week, at least once a week, and less frequently.

3.6.3 Interval Scale

Interval scale is a scale of data measurement that helps to adjust the objects and measure values differences that can be quantified in equal. Interval scale also capture information about differences in quantities of a concept, which have both nominal and ordinal properties. In this section, Likert scale method shows how the respondents respond towards perceived risk on online shopping. There are five options provided in the

questionnaire for the respondents to select either strongly agree, agree, neutral, disagree or strongly disagree. The last section includes items to measure online shopping: product risk, financial risk, security risk, time risk, delivery risk, and physical risk. Responses for previous sections were obtained in a five-point Likert scale, the typical format is "Strongly Disagree" (1), "Disagree" (2), "Neutral" (3), "Agree" (4) and "Strongly agree" (5). Zikmund (2010) defined likert scale as "a measure of attitudes designed to allow respondents to rate how strongly they agree or disagree with carefully constructed statements, ranging from very positive to very negative attitudes toward some object.

3.7 Data Processing

Data process takes place after collecting all questionnaires from the respondents before data analyzing. This is to ensure that the questionnaires distributed have been filled up completely and have less error and omission. Data processing involves checking, editing, coding, transcribing and cleaning to provide an accurate result to this research.

3.7.1 Questionnaire Checking

Data checking was the first step of data processing. Researchers are required to discover problems and take corrective actions before distributing questionnaires. Such problems are spelling errors, misunderstanding and difficulty of answer. By doing so can ensure that researchers are able to obtain accurate data and results. This group of researchers has found out that most respondent has the problem to

understand the question in the questionnaire. For example, the extent of the security information will be protected.

3.7.2 Data Editing

Second step was editing the data which raw data are checked the mistakes done by researchers or respondents from the data collection process (Hair, Bush & Ortinau, 2006). Questionnaires have been screened and edited carefully. Ambiguous data and errors will be eliminated. Hence, the questionnaires are consistent and complete to provide accurate result for the research. This group of researchers has made an amendment before the actual questionnaire being distributed. For example, from "This website will protect my security information" to "Online store website will protect my private information" in security risk and from "If I shop online I cannot wait till the product arrives" to "Impatient to wait for the product arrived" in delivery risk.

3.7.3 Data Coding

Third step is data coding. Coding refers to a number will be assigned into questionnaires and data can be key in to computer for analysis (Lewis-Beck, Bryman, & Liao, 2004). Besides, this group of researchers has used the reserve coding method in the questionnaire. Reverse coding is a method of recoding all the items forming a composite scale are scored in the same direction (Zikmund, 2010). Items in security risk are positively framed (such as "I have a sense of security on the online store website"), hence, the numerical scores in security risk need to be reversed. For example, old value in security risk is Strongly Disagree" (1), "Disagree" (2), "Neutral" (3), "Agree" (4) and "Strongly agree" (5) and recode to Strongly Disagree" (5), "Disagree" (4), "Neutral" (3), "Agree" (2) and "Strongly agree" (1). The next step is transcribing.

3.7.4 Transcribing

Forth step is transcribing, transferring of data from questionnaire is taking place in this stage so that it is accessible for further processing. Data are to be transferred and key into disks or directly to computers (Malhorta, 2006). Researchers have to key in the data collected from the respondents into the SPSS program and analyze it.

3.7.5 Data Cleaning

Lastly, data cleaning takes place as verified and examined the data accuracy from questionnaire using SPSS program. Higher degree of accuracy and consistency will be acquired by using computer (Malhotra & Peterson, 2006). Missing responses might be discovered throughout the data cleaning process, hence, SPSS program was used to identify the errors and omission data.

3.8 Method of Data Analysis

3.8.1 Statistical Package for the Social Sciences (SPSS)

Statistical Package for the Social Science 20 (IBM SPSS 20) is the tool the researchers use for data analysis and summarize all the data collected from

the questionnaire to interpret the results. SPSS is among the most widely used programs for statistical analysis in social science. SPSS software was used to analysis the data collected. On top of that, SPSS is a Windows based program that can be used to perform data entry and analysis, as well as to create tables and graphs.

3.8.2 Scale Measurement

The two basic elements required in evaluate a measurement instrument are reliability and validity. Validity is referred to the range of which an method to measure what it is intended to measure whereas the extent of which the ability of an instrument to measure consistently referred to reliability (Tavakol & Dennick, 2011). Cronbach alpha was used to provide a measure of the internal consistency of a test or scale, it was expressed in numerical form between 0 and 1 (Tavakol & Dennick, 2011). Reliability measurement is an inarguable importance in applied and theoretical research because reliability composes an essential first step to ensure validity (Aiken, 2002; Anastasi, 1988; Cronbach, 1951). From table 3.2, the higher the coefficient value, the higher the reliable of the data.

Table 3.2: Rules of Thumb of Cronbach's Alpha Coefficient Size

Alpha Coefficient Range	Strength of Associations
<0.6	Poor
0.6 to <0.7	Moderate
0.7 to <0.8	Good
0.8 to <0.9	Very Good
0.9	Excellent

Sources: Hair, Jr., Celsi, M.W., Money, R.H., Samouel, P., Page, M.J. (2003) Essential of Business Research Method. United State of America: John Wiley & Sons.p.172

3.8.3 Inferential analysis

3.8.3.1 Multiple Regressions Analysis

Multiple regressions are a statistical technique that allows us to predict someone's score on one variable on the basis of their scores on several other variables. Variables such as product risk, financial risk, security risk, time risk, delivery risk, and physical risk might all contribute towards online purchasing intention. According to Mark, Philip and Adrian (2009), multiple regressions can be used for prediction or determining variable importance, the relationship between each of the independent variable and dependent variable in a model. The collected data on all of these variables, by surveying a number of respondents, the researchers are able to see how many and which of these variables gave rise the most accurate prediction of online purchase intention. Data analysis and interpretation is based on the rule of thumb which is:

1. If $p < 0.05$ – Reject H_0 and accept H_A.
 2. If $p > 0.05$ – Do not reject H_0 and reject H_A

Multiple regression equation:

$$Y = a + bX1 + bX2 + bX3 + \cdots$$

Y= dependent variable

X(s) = independent variable(s)

a, b = constants to be estimated

3.8.3.2 Independent Sample T-Test

This research also intended to discover the significance difference between demographic factors (gender, category of university and online purchase experience) and perceived risk on online purchase intention. T-test is used to analyze mean differences of independent samples. It is suggested that if the significance of t-test is less than 0.05, there is a difference in means, which mean that there is a significance mean difference between demographic factors and perceived risk on online purchase intention. However if the significance of t-test is more than 0.05, this means that there is no significance mean difference between demographic factors and perceived risk on online purchase intention.

3.8.3.3 ANOVA

One way analysis of variance (ANOVA) used in this research to test the differences between demographic factors (age, ethnicity and internet usage) and perceived risk on online purchase intention. One way ANOVA test is to determine mean differences among more than two groups on an interval or ratio-scaled dependent variable. If the significance value is less than 0.05, that means there is a mean difference between demographic factors and perceived risk, and vice versa, if the significance value is more than 0.05, then there is no mean difference between demographic factors and perceived risk on online purchase intention.

3.9 Conclusion

Chapter Three has discussed about the methodology used throughout the research. This research project has targeted on university students in Malaysia. The questionnaire has been distributed by online and distribute randomly by printed. The next chapter will be examined on the data analysis and result will be gained by using Statistical Package for the Social Science (SPSS) software.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

This chapter will describe and analyse the results of the questionnaires surveyed respondents' data. Statistical Package for Society Science (SPSS) Version 20 program was used to analyse the data collected from 300 respondents. The elements that will be covered in this chapter are descriptive analysis, scale measurement and inferential analysis which included Multiple Regressions Analysis, Independent Sample T-test and Analysis of Variance (ANOVA).

4.1 Descriptive Analysis

4.1.1 Respondents Demographic Profile

In this study, 6 questions were asked under respondents' demographic section (Section A) which is gender, age, and ethnicity, category of university, internet usage and online purchase experience.

4.1.1.1 Gender

Table 4.1 Gender

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	105	35.0	35.0	35.0
	female	195	65.0	65.0	100.0
	Total	300	100.0	100.0	

Source: Developed for the research

Figure 4.1 Gender
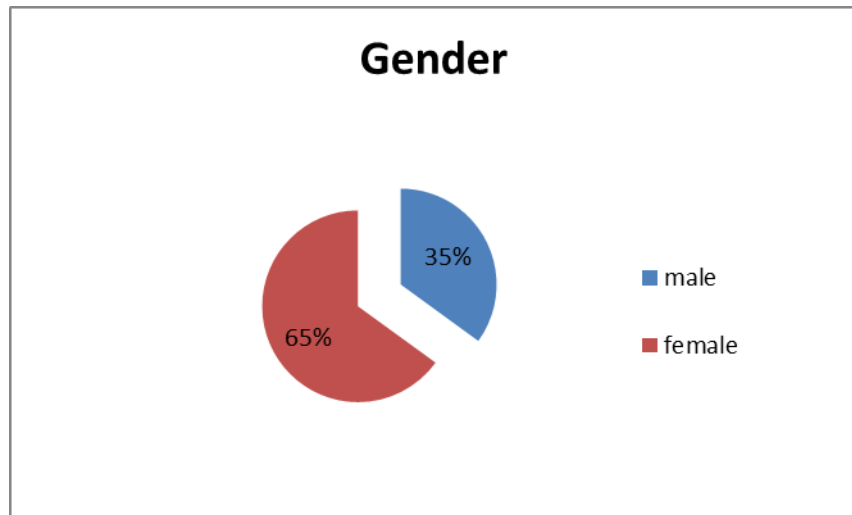
Source: Developed for the research

The gender distributions of respondents are shown in Table 4.1 and Figure 4.1. The female respondents consist of 65% or 195 respondents, while the male respondents consist of 35% or 105 respondents.

4.1.1.2 Age Group

Table 4.2 Age Group

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<20	17	5.7	5.7	5.7
	20-21	172	57.3	57.3	63.0
	22-23	94	31.3	31.3	94.3
	>24	17	5.7	5.7	100.0
	Total	300	100.0	100.0	

Source: Developed for the research

Figure 4.2 Age Group
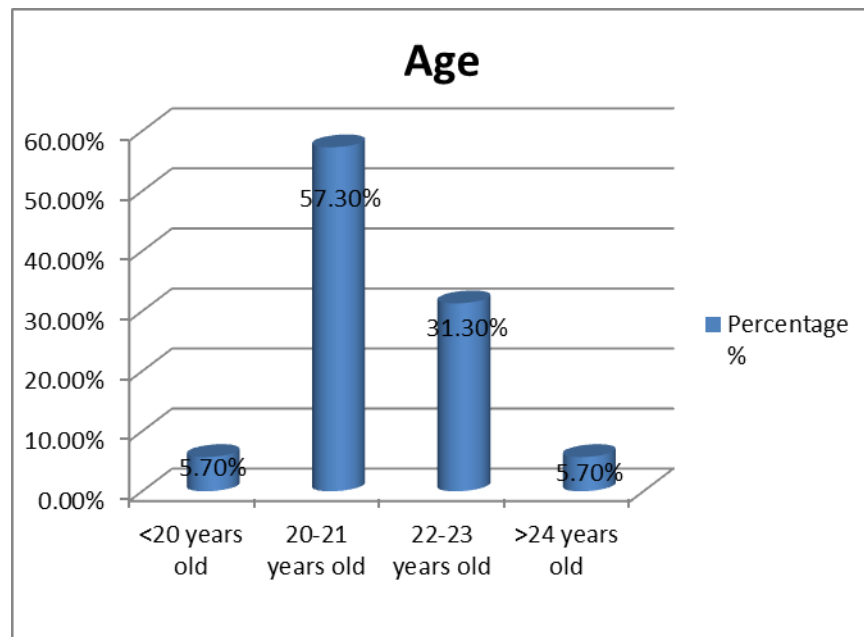
Source: Developed for the Research

There are four age categories provided in the questionnaire which is shown in Table 4.2 and Figure 4.2. The age categories of 20-21 years old occupied the highest proportion among 300 respondents, consist of approximately 57.3% or 172 respondents. This is followed by respondents who aged under categories of 22-23 years

old which consisted about 31.3% or 94 respondents. Respondents who aged lessthan 20 years old or more than 24 years old occupied 5.7% or 17 respondents for each category among 300 respondents respectively.

4.1.1.3 Ethnicity

Table 4.3 Ethnicity

ethnic

		Frequency	Percent	Valid Percent	Cumulative Percent
	Malay	83	27.7	27.7	27.7
	chinese	174	58.0	58.0	85.7
Valid	indian	41	13.7	13.7	99.3
	others	2	.7	.7	100.0
	Total	300	100.0	100.0	

Source: Developed for the research

Figure 4.3 Ethnicity
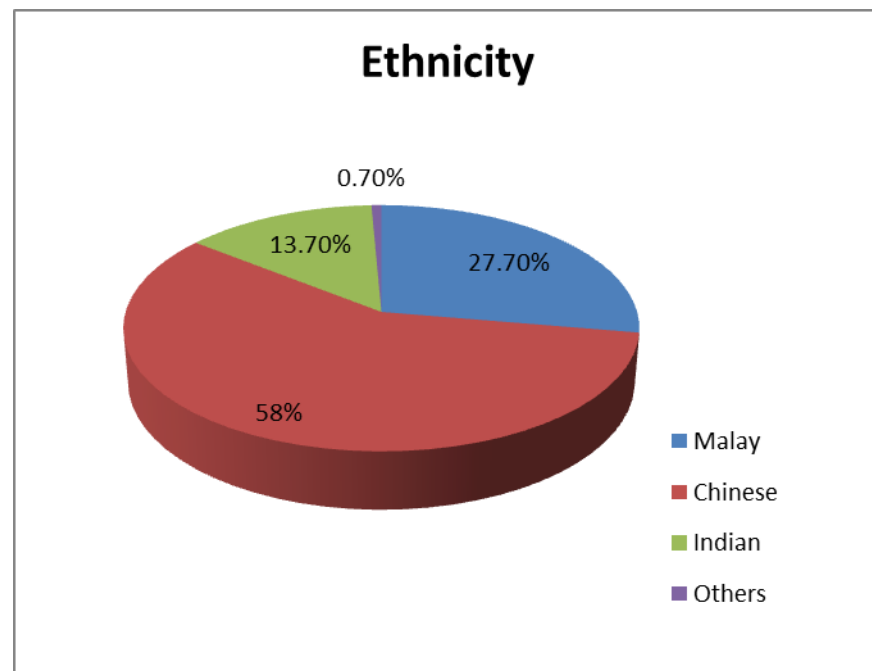
Source: Developed for the research

Based on Table 4.3 and Figure 4.3 above, Chinese respondents occupied the highest percentage among 300 respondents which consisted about 58% or 174 respondents. This is followed by Malay respondents which consisted about 27.7% or 83 respondents among 300 respondents and Indian respondents occupied 13.7% of the total respondents or 41 respondents. Respondents that categorized under others consisted about 0.7% or 2 respondents.

4.1.1.4 Category of University

Table 4.4 Category of University

private/public

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	private	155	51.7	51.7	51.7
	public	145	48.3	48.3	100.0
	Total	300	100.0	100.0	

Source: Developed for the Research

Figure 4.4: Category of University
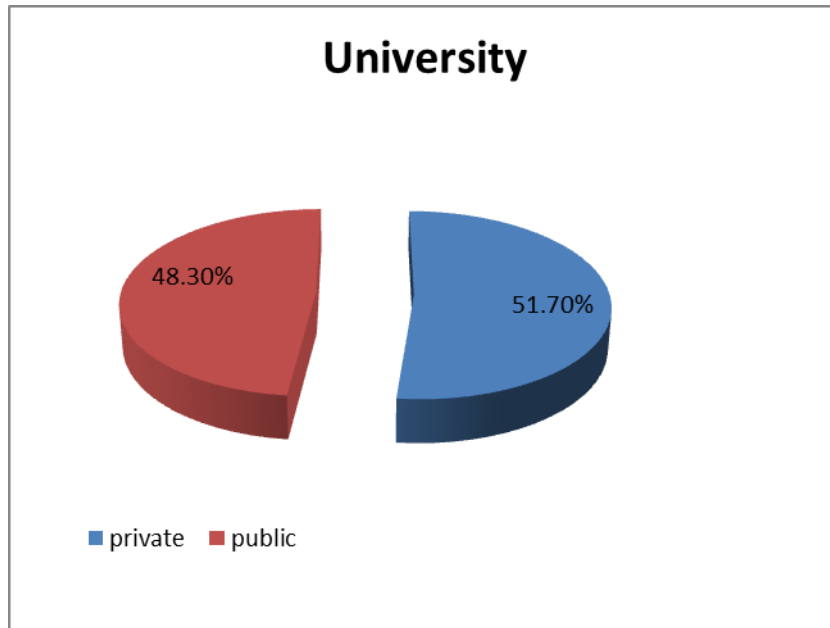
Source: Developed for the research

The pie chart and table 4.4 show categories respondents according to private university and public university. There are 51.7% of respondents or 155 respondents are study in private university such as University Tunku Abdul Rahman (UTAR), Nilai University (NU), Segi University, Quest International University, INTI International University, University of Nottingham, Open University Malaysia, Multimedia University, Victory University, Monash University Malaysia and Sunway University, while 48.3% of the respondents or 145 respondents are from public university such as University Putra Malaysia (UPM), University Kebangsaan Malaya (UKM), University of Malaya (UM), University Technology Malaysia (UTM), University Science Malaysia (USM), University Malaysia Sabah (UMS), University Malaysia Sarawak (UNIMAS), University Malaysia Perlis (UniMAP), University Malaysia Kelantan (UMK), University Tun Hussein Onn Malaysia (UTHM), University Teknikal Malaysia Melaka (UTeM), University Malaysia Terrenganu (UMT).

4.1.1.5 Internet Usage

Table 4.5 Internet Usage

internet usage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	everyday	277	92.3	92.3	92.3
	3-6	18	6.0	6.0	98.3
	at least once a week	3	1.0	1.0	99.3
	less frequently	2	.7	.7	100.0
	Total	300	100.0	100.0	

Source: Developed for the research

Figure 4.5 Internet Usage
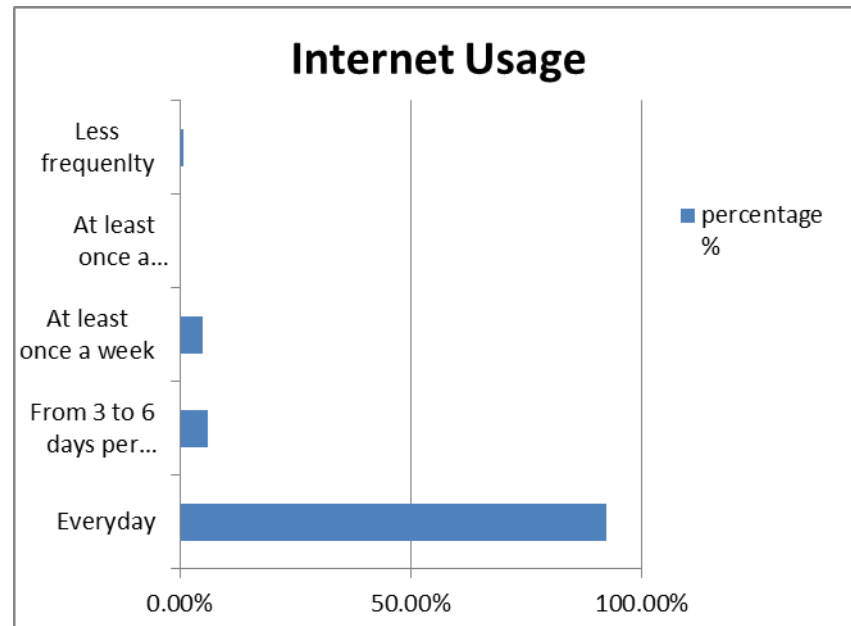
Source: Developed for the research

Internet usage divided into five categories, there are 277 respondents or 92.3% among 300 respondents access to internet everyday while there are 18 respondents or 6% access to internet from 3 to 6 days per week. This followed by 3 respondents or 1%

who access to internet at least once a week and 2 respondents or 0.7% who are less frequently access to internet.

4.1.1.6 Purchase Experience

Table 4.6 Online Purchase Experience

experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	215	71.7	71.7	71.7
	no	85	28.3	28.3	100.0
	Total	300	100.0	100.0	

Source: Developed for the research

Figure 4.6 Online Purchase Experience
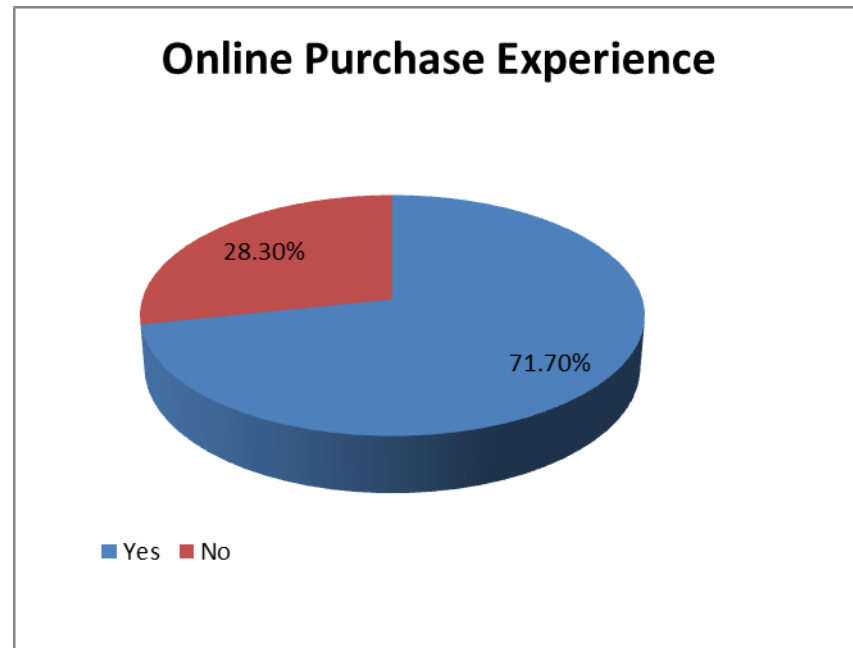
Source: Developed for the Research

Based on the Table 4.6 and Figure 4.6 shows above, it reveal that there are 71.7% of total respondents or 215 respondents have the

experience of shopping online while the rest of 28.3% or 85 respondents do not have the experience to purchase from online.

4.1.2 Central Tendencies Measurement Constructs

Under this section, measure of central tendencies is to disclose means score for 7 interval scaled, which includes product risk, financial risk, security risk, time risk, delivery risk, physical risk and online purchase intention. 5 point likert scales are used to measure the constructs.

4.1.2.1 Product Risk

Table 4.7: Statement of Product Risk

		SD	D	N	A	SA	Mean	rank
1	I might not get my order through online shopping.	2.3	19.7	34.0	39.0	5.0	3.2467	5
2	It is hard to judge the quality of product over internet.	1.3	1.7	10.3	50.7	36.0	4.1833	2
3	I cannot touch and examine the actual product.	1.3	0.7	7.3	50.7	40.0	4.2733	1

		SD	D	N	A	SA		
4	Size may be a problem with apparels.	2.3	0.7	15.3	48.7	33.0	4.0933	3
5	I cannot try apparel online.	1.7	2.7	15.3	48.0	32.3	4.0667	4

Source: Development for the research

SD   = Strongly Disagree

D   = Disagree

N   = Neutral

A   = Agree

SA   = Strongly Agree

Based on the table 4.7, it illustrated the product risk. There are 5 statement involved. The highest mean is on the statement "I cannot touch and examine the actual product" which acquired 4.2733. Followed by the statement "It is hard to judge the quality of product over internet" with the mean of 4.1833. The third is the statement "Size may be a problem with apparels" with the mean of 4.0933. Next, it is then followed by the statement "I cannot try apparel online" with the mean of 4.0667. The lowest score of mean is 3.2467 for the statement "I might not get my order through online shopping".

4.1.2.2 Financial Risk

Table 4.8: Statement of Financial Risk

		SD	D	N	A	SA	Mean	Rank
1	Shopping online can involve a waste of money.	3.0	21.0	39.3	29.0	7.7	3.1733	5
2	I feel that my card number may not be secure. (ex: credit card)	1.0	12.7	20.0	52.7	13.7	3.6533	1
3	I might get overcharged if I shop online.	3.0	19.3	25.3	42.7	9.7	3.3667	3
4	I may not get the product I want.	3.7	12.0	20.3	51.3	12.7	3.5733	2
5	I do not trust the online company.	2.3	16.7	46.7	27.0	7.3	3.2033	4

Source: Development for the research

SD   = Strongly Disagree

D   = Disagree

N   = Neutral

A   = Agree

SA   = Strongly Agree

Table 4.8 above shows the mean result of financial risk. The highest mean is 3.6533, for the statement of "I feel that my card number may not be secure. (ex: credit card)". It is then followed by statement "I may not get the product I want" with the mean of 3.5733. The third highest mean is 3.3667, for the statement "I might get overcharged if I shop online". The next statement "I do not trust the online company" with the mean of 3.2033. The lowest score for mean is "Shopping online can involve a waste of money" with 3.1733.

4.1.2.3 Security Risk

Table 4.9: Statement of Security Risk

		SD	D	N	A	SA	Mean	Rank
1	Online store website will protect my private information.	1.3	13.3	49.7	31.0	4.7	3.2433	1
2	I have sense of security on the online store website.	2.0	21.0	44.3	28.7	4.0	3.1167	5
3	Shopping online makes me feel comfortable.	0.7	19.3	48.0	28.0	4.0	3.1533	4
4	Online store website provides me with complete information.	1.3	16.3	48.7	30.3	3.3	3.1800	3
5	I trust online store website for purchasing products.	0.7	11.3	58.3	25.7	4.0	3.2100	2

Source: Development for the research

SD   = Strongly Disagree

D   = Disagree

N   = Neutral

A   = Agree

SA   = Strongly Agree

Based on Table 4.9, the highest mean under security risk is 3.2433 for the statement "Online store website will protect my private information". It is then followed by statement "I trust online store website for purchasing products" with the mean of 3.2100. Next is the statement "Online store website provides me with complete information" with the mean 3.1800. the statement "Shopping online makes me feel comfortable" acquired the mean of 3.1533. The lowest score of mean 3.1167 is statement "I have sense of security on the online store website".

4.1.2.4 Time Risk

Table 4.10: Statement of Time Risk

		SD	D	N	A	SA	Mean	Rank
1	Buying a product online can involve a waste of time.	4.7	31.0	31.3	24.7	8.3	3.0100	6
2	Difficult to find appropriate websites.	3.3	18.0	34.0	35.3	9.3	3.2933	3
3	Finding the right product through online is difficult.	5.0	17.7	29.7	38.3	9.3	3.2933	4
4	Impatient to wait for the product arrived.	1.3	12.0	36.0	38.3	12.3	3.4833	1
5	Too complicated to place order.	5.0	24.3	31.3	33.0	6.3	3.1133	5
6	Communicating with the seller may require a lot of time.	2.3	14.0	32.0	40.7	11.0	3.4400	2

Source: Development for the research

SD   = Strongly Disagree

D   = Disagree

N   = Neutral

A   = Agree

SA   = Strongly Agree

Table 4.10 above shows the mean and ranking for time risk. The highest score of mean is 3.4833 for the statement "Impatient to wait for the product arrived". Next it followed by mean of 3.4400 for the statement "Communicating with the seller may require a lot of time". The statement "Difficult to find appropriate websites" and "Finding the right product through online is difficult" both get the mean of 3.2933. The second lowest score of mean is 3.1133 for the statement "Too complicated to place order". The lowest score of mean is 3.0100 for statement "Buying a product online can involve a waste of time".

4.1.2.5 Delivery Risk

Table 4.11: Statement of Delivery Risk

		SD	D	N	A	SA	Mean	Rank
1	The delivered product could be lost.	1.7	12.7	26.7	49.7	9.3	3.5233	2
2	Delivered the product to a wrong place.	2.3	14.0	29.7	44.7	9.3	3.4467	3
3	The product is damaged during the delivering.	1.7	8.0	29.7	47.0	13.7	3.6300	1

Source: Development for the research

SD = Strongly Disagree

D   = Disagree

N   = Neutral

A   = Agree

SA = Strongly Agree

For delivery risk, the highest mean is 3.6300 for the statement "the product is damaged during the delivering". The second highest mean is 3.5233 for the statement "The delivered product could be lost". The lowest score of mean is 3.4467 for the statement "Delivered the product to wrong place".

4.1.2.6 Physical Risk

Table 4.12: Statement of Physical Risk

		SD	D	N	A	SA	Mean	Rank
1	Prolonged use of computers may cause adverse affects for health.	1.7	7.3	33.0	49.7	8.3	3.5567	2
2	Prolonged online shopping may lead to fatigue or visually impaired.	2.0	11.3	36.7	42.0	8.0	3.4267	3
3	The loss of online shopping happens will be pressure on my heart.	4.3	21.0	36.3	30.3	8.0	3.1667	5
4	Buying counterfeit products can damage my health.	3.0	15.7	42.0	31.7	7.7	3.2533	4
5	It would make me	1.0	6.3	28.0	42.3	22.3	3.7867	1

irritable to the process to return or repair products.							

Source: Development for the research

SD   = Strongly Disagree

D   = Disagree

N   = Neutral

A   = Agree

SA   = Strongly Agree

Based on the Table 4.12, the highest mean for physical risk is 3.7867 for the statement "It would make me irritable to the process to return or repair products". It is followed by the statement "Prolonged use of computers may cause adverse affects for health" with the mean of 3.7867. Next, it is followed by statement "Prolonged online shopping may lead to fatigue or visually impaired" with the mean of 3.4267. The fourth highest score of mean is 3.2533 for the statement "Buying counterfeit products can damage my health". The lowest score of mean is 3.1667 for the statement "The loss of online shopping happens will be pressure on my heart".

4.1.2.7 Online Purchase Intention

Table4.13: Statement of Online purchase intention

		SD	D	N	A	SA	Mean	Rank
1	I plan to use online shopping again.	2.0	9.3	43.7	39.7	5.3	3.3700	1
2	I intend to shop online within the next 30 days.	3.0	28.7	49.0	18.0	1.3	2.8600	3
3	I will strongly recommend online shopping to others.	4.0	16.7	54.3	21.3	3.7	3.0400	2

Source: Development for the research

SD = Strongly Disagree

D   = Disagree

N   = Neutral

A   = Agree

SA = Strongly Agree

Based on the Table 4.13, the result shows that the highest mean is 3.3700 for the statement "I plan to use online shopping again". Next, it is followed by the statement "I will strongly recommend online shopping to others" with the mean of 3.0400. The lowest score of mean for online purchase intention is 2.8600 for the statement "I intend to shop online within the next 30 days".

4.2 Scale Measurement

4.2.1 Reliability Test for Actual Research

Table 4.14 Reliability Test

Variables	Number of Items	Cronbach's Alpha
Product Risk	5	0.829
Financial Risk	5	0.731
Security Risk	5	0.815
Time Risk	6	0.799
Delivery Risk	3	0.826
Physical Risk	5	0.797
Online purchase intention	3	0.790
Overall	32	0.864

Source: Developed for the Research

Table 4.14 shows the results of reliability test for each variable and overall (Appendix 4.1). Product risk has the highest alpha coefficient of 0.829where was measured by 5 items. Next, delivery risk measured by 3 items has alpha coefficient of 0.826 and for security risk measured by 5 items has alpha coefficient of 0.815. This followed by time risk that has alpha coefficient of 0.799 that measured by 6 items and physical risk obtain alpha coefficient of 0.797 where it measured by 5 items. The variables that have less alpha coefficient are online purchase intention that measured by 3 items has alpha coefficient of 0.790 while financial risk has the lowest alpha coefficient of 0.731 that measured by 5 items. For the overall reliability test, the total number of item is 32 and the alpha coefficient is 0.864. The table above shows that the alpha coefficient for each variable is more than 0.6 which are reliable.

4.3 Inferential Analysis

4.3.1 Multiple Regressions Analysis

Table 4.15 Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.358[a]	.128	.110	.63953

Source: Developed for research.

a. Predictors: (Constant), time risk, security risk, product risk, delivery risk, financial risk

Table 4.16 Anova

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.623	6	2.937	7.181	.000[b]
	Residual	119.836	293	.409		
	Total	137.459	299			

Source: Developed for research

a. Dependent Variable: online purchase intention

b. Predictors: (Constant), time risk, security risk, product risk, delivery risk,

financial risk.

Table 4.17 Coefficients

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.694	.320		14.655	.000
	Product risk	.030	.074	.028	.400	.689
	Financial risk	-.263	.077	-.254	-3.417	.001
	Security risk	-.198	.063	-.175	-3.162	.002
	Time risk	-.084	.065	-.086	-1.276	.203
	Delivery risk	-.021	.060	-.024	-.354	.724
	Physical risk	.044	.065	.043	.678	.498

a. Dependent Variable: online purchase intention

Source: Developed for research

Table 4.15, Model summary has shown that R Square is 0.128 for regression of online purchase intention of 0.358. The 12.8% of variation indicates that the online purchase intention is explained by the six independents variables. The rest of 87.2% is not explained by the independent variables in this study.   The ANOVA table shows overall model is significant with F ration= 80.416 and P=0.000 as shown in table 4.16.

Hence, the following equation is created.

Online purchase intention = 4.694 -0.263 financial risk – 0.198 security risk.

Based on the linear equation above, there is a significance negative relationship between financial risk and security risk with online purchase intention. Financial risk was the most powerful antecedent in influencing

the overall online purchase intention because the value of regression coefficient is – 0.263. Followed by security risk, - 0.198.

The standardized Coefficients (Beta) used to indicate which variable is the most and least influential to the online purchase intention when the five variables computed together. From table 4.17, financial risk has the highest Beta value which is 0.263 and also is the most influential variable that influences the online purchase intention. This means that one unit decrease in financial risk will increase purchase intention by 0.263 units.

4.3.1.1 Test of Significant

Hypothesis 1

H_0: There is no relationship between product risk and online purchase intention.

H_1: There is a relationship between product risk and online purchase intention.

Reject H_0, if $p < 0.05$

Based on the Multiple Regression Analysis, the significant value of product risk is 0.689, which is more than p-value of 0.05. Hence, do not accept H_1, do not reject H_0, therefore there is no relationship between product risk and online purchase intention.

Hypothesis 2

H_0: There is no significance relationship between financial risk and online purchase intention.

H_2: There is a relationship between financial risk and online purchase intention.

Reject H_0, if $p < 0.05$

Based on Table 4.17, the significant value of financial risk is 0.001, which is below p-value of 0.05. Hence, H_0 is rejected, which revealed that there is a relationship between financial risk and online purchase intention.

Hypothesis 3

H_0: There is no relationship between security risk and online purchase intention.

H_3: There is a relationship between security risk and online purchase intention.

Reject H_0, if $p < 0.05$

The significant value of security risk is 0.002, which is below p-value of 0.05. Therefore, H_0 is rejected, which means that there is a relationship between security risk and online purchase intention.

Hypothesis 4

H_0: There is no relationship between time risk and online purchase intention.

H_4: There is a relationship between time risk and online purchase intention.

Reject H_0, if $p < 0.05$

The significant value of time risk is 0.203, which is above p-value of 0.05. Therefore, reject H_0, which indicate that there is no relationship between time risk and online purchase intention.

Hypothesis 5

H_0: There is no relationship between delivery risk and online purchase intention.

H_5: There is a relationship between delivery risk and online purchase intention.

Reject H_0, if $p < 0.05$

Based on Table 4.17, the significant value of delivery risk is 0.724, which is more than p-value of 0.05. Therefore, do not accept H_5, do not reject H_0, which means that there is no relationship between delivery risk and online purchase intention.

Hypothesis 6

H_0: There is no relationship between physical risk and online purchase intention.

H_6: There is a relationship between physical risk and online purchase intention.

Reject H_0, if $p < 0.05$

Based on Table 4.17, the significant value of delivery risk is 0.498, which is more than p-value of 0.05. Therefore, do not accept H_5, do not reject H_0, which means that there is no relationship between physical risk and online purchase intention.

4.3.2 Independent Sample T-Test

4.3.2.1 Gender

Table 4.18 Result of Independent Sample T-Test for Gender

Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
Perceived Risk	male	105	3.3815	.47105	.04597
	female	195	3.5102	.43356	.03105

Source: Developed for the research

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Perceived risk	Equal variances assumed	1.220	.270	-2.377	298	.018	-.12864	.05411	-.23512	-.02216	
	Equal variances not assumed			-2.319	198.389	.021	-.12864	.05547	-.23803	-.0.1924	

In Table 4.18, the significance (p value) of Levene's test is 0.270 which is more than 0.05, it shows that the variability of the mean perceived risk on online purchase intention between male and female is not significantly different. Thus, the result will obtained from the first row on "Equal Variances Assumed". The t-value for equal variances assumed is -2.377 at the p value (sig 2-tailed) of

0.018 (p<0.05). Hence, there is significance different between male and female to perceived risk on online purchase intention.

4.3.2.2 Category of University

Table 4.19: Result of Independent Sample T-Test for Category of University

Group Statistics

	private/public	N	Mean	Std. Deviation	Std. Error Mean
Percei ved risk	private	155	3.4618	.44455	.03571
	public	145	3.4688	.45822	.03805

Source: Developed for the research

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Perceived risk	Equal variances assumed	.025	.873	-.135	298	.893	-.00702	.05213	-.10961	.09557	
	Equal variances not assumed			-.134	295.213	.893	-.00702	.05218	-.10971	.09568	

Source: Developed for the research

In Table 4.19, the significance (p value) of Levene's test is 0.873 which is more than 0.05, it shows that the variability of the mean perceived risk on online purchase intention between private university and public university is not significantly different. Thus, the result will obtained from the first row on "Equal Variances Assumed". The t-value for equal variances assumed is -0.135 at the p value (sig 2-tailed) of 0.893 (p>0.05). Hence, there is no significance different between private university and public university to perceived risk on online purchase intention.

4.3.2.3 Online Purchase Experience

4.20: Result of Independent T-Test for Online Purchase Experience

Group Statistics

	experience	N	Mean	Std. Deviation	Std. Error Mean
Perceived risk	yes	215	3.4209	.46167	.03149
	no	85	3.5771	.40199	.04360

Source: Developed for the research

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Perceived risk	Equal variances assumed	1.582	.209	-2.736	298	.007	-.15625	.05710	-.26861	-.04388	
	Equal variances not assumed			-2.905	175.689	.004	-.15625	.05378	-.26239	-.05010	

Source: Developed for the research

In Table 4.20, the significance (p value) of Levene's test is 0.209 which is more than 0.05, it shows that the variability of the mean perceived risk on online purchase intention between having experience to purchase from online and do not have the experience to purchase from online is not significantly different. Thus, the

result will obtained from the first row on "Equal Variances Assumed". The t-value for equal variances assumed is 2.736 at the p value (sig 2-tailed) of 0.007 (p<0.05). Hence, there is significance different between having experience to purchase from online and do not have the experience to purchase from online on perceived risk on online purchase intention.

4.3.2.4 Test of Significant

Hypothesis 7

H_0: There is no significance difference between gender and perceived risk on online purchase intention.

H_7: There is a significance difference between gender and perceived risk on online purchase intention.

Based on Table 4.18, it shows that the significance value of independent sample t-test is 0.018. Therefore, there is a difference between gender and perceived risk on online purchase intention.

Hypothesis 10

H_0: There is no significance difference between category of university and perceived risk on online purchase intention.

H_{10}: There is a significance difference between category of university and perceived risk on online purchase intention.

The significance value of independent sample t-test is 0.893 therefore there is no difference between category of university and perceived risk on online purchase intention.

Hypothesis 12

H_0: There is no significance difference between online purchase experience and perceived risk on online purchase intention.

H_{12}: There is a significance difference between online purchase experience and perceived risk on online purchase intention.

The significance value of independent sample t-test is 0.007 therefore there is a difference between online purchase experience and perceived risk on online purchase intention.

4.3.3 Analysis of Variance (ANOVA)

4.3.3.1 Age Group

Table 4.21: ANOVA for Age Group

ANOVA

Perceived Risk

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.149	3	.050	.243	.866
Within Groups	60.524	296	.204		
Total	60.673	299			

Source: Developed for the research

Based on the table above, p= 0.866 (p>0.05), so there is no significant difference between age group and perceived risk on online purchase intention.

Multiple Comparisons

Dependent Variable: Perceived Risk

Tukey HSD

(I) age	(J) age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
<20	20-21	-.05114	.11496	.971	-.3482	.2459
	22-23	-.07381	.11918	.926	-.3817	.2341
	>24	.00654	.15510	1.000	-.3942	.4073

	<20	.05114	.11496	.971	-.2459	.3482
20-21	22-23	-.02267	.05800	.980	-.1725	.1272
	>24	.05768	.11496	.959	-.2394	.3547
	<20	.07381	.11918	.926	-.2341	.3817
22-23	20-21	.02267	.05800	.980	-.1272	.1725
	>24	.08034	.11918	.907	-.2276	.3883
	<20	-.00654	.15510	1.000	-.4073	.3942
>24	20-21	-.05768	.11496	.959	-.3547	.2394
	22-23	-.08034	.11918	.907	-.3883	.2276

Source: Developed for the research

The Turkey HSD shows that there is no significant differences between every pair of means, where all p>0.05.

4.3.3.2 Ethnicity

Table 4.22: ANOVA for Ethnicity

ANOVA

AVPR

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.815	3	.272	1.344	.260
Within Groups	59.857	296	.202		
Total	60.673	299			

Source: Developed for the research

From the table above shows that p= 0.260 (p>0.05), so there is no significant difference between ethnicity and perceived risk on online purchase intention.

Multiple Comparisons

Dependent Variable: AVPR

Tukey HSD

(I) ethnic	(J) ethnic	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Malay	Chinese	.00703	.05999	.999	-.1480	.1620
	Indian	-.08995	.08584	.721	-.3117	.1318
	others	-.50756	.32179	.393	-1.3390	.3238
Chinese	Malay	-.00703	.05999	.999	-.1620	.1480
	Indian	-.09698	.07807	.600	-.2987	.1047
	others	-.51459	.31980	.375	-1.3409	.3117
Indian	Malay	.08995	.08584	.721	-.1318	.3117
	Chinese	.09698	.07807	.600	-.1047	.2987
	others	-.41762	.32564	.575	-1.2590	.4237
others	Malay	.50756	.32179	.393	-.3238	1.3390
	Chinese	.51459	.31980	.375	-.3117	1.3409
	Indian	.41762	.32564	.575	-.4237	1.2590

Source: Developed for the research

The Turkey HSD shows that there is no significant differences between every pair of means, where all p>0.05.

4.3.3.3 Internet Usage

Table 4.23: ANOVA for Internet Usage

ANOVA

AVPR

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.050	3	.683	3.451	.017
Within Groups	58.622	296	.198		
Total	60.673	299			

<u>Source:</u> Developed for the research

From the table above shows that p= 0.017 (p<0.05), so there is a significant difference between ethnicity and perceived risk on online purchase intention.

Multiple Comparisons

Dependent Variable: AVPR

Tukey HSD

(I) internet usage	(J) internet usage	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
everyday	3-6	.02315	.10825	.997	-.2565	.3028
	at least once a week	-.18240	.25832	.895	-.8498	.4850
	less frequently	.98797*	.31582	.010	.1720	1.8039
3-6	everyday	-.02315	.10825	.997	-.3028	.2565
	at least once a week	-.20556	.27752	.881	-.9226	.5115
	less frequently	.96481*	.33170	.020	.1078	1.8218

	everyday	.18240	.25832	.895	-.4850	.8498
at least once a week	3-6	.20556	.27752	.881	-.5115	.9226
	less frequently	1.17037*	.40625	.022	.1207	2.2200
	everyday	-.98797*	.31582	.010	-1.8039	-.1720
less frequently	3-6	-.96481*	.33170	.020	-1.8218	-.1078
	at least once a week	-1.17037*	.40625	.022	-2.2200	-.1207

*. The mean difference is significant at the 0.05 level.

Source: Developed for the research

The Turkey HSD shows that there is a significant differences between every pair of means, where all p<0.05. This means that the internet usage and perceived risk is related and dependable with each other.

4.3.3.4 Test of significant

Hypothesis 8

H_0: There is no significance difference between age and perceived risk on online purchase intention.

H_8: There is a significance difference between age and perceived risk on online purchase intention.

The significance value of One Way ANOVA test is 0.866, therefore there is no difference between age and perceived risk on online purchase intention.

Hypothesis 9

H_0: There is no significance difference between ethnicity and perceived risk on online purchase intention.

H_9: There is a significance difference between ethnicity and perceived risk on online purchase intention.

The significance value of ethnicity is 0.260, therefore there is no difference between ethnicity and perceived risk on online purchase intention.

Hypothesis 10

H_0: There is no significance difference between category of university and perceived risk on online purchase intention.

H_7: There is a significance difference between category of university and perceived risk on online purchase intention.

The significance value of independent sample t-test is 0.893 therefore there is no difference between category of university and perceived risk on online purchase intention.

Hypothesis 11

H_0: There is no significance difference between internet usage and perceived risk on online purchase intention.

H_7: There is a significance difference between internet usage and perceived risk on online purchase intention.

The significance value of One Way ANOVA test is 0.017 therefore there is a difference between internet usage and perceived risk on online purchase intention.

Hypothesis 12

H_0: There is no significance difference between online purchase experience and perceived risk on online purchase intention.

H_7: There is a significance difference between online purchase experience and perceived risk on online purchase intention.

The significance value of independent sample t-test is 0.007 therefore there is a difference between online purchase experience and perceived risk on online purchase intention.

4.4 Conclusion

Data collection is done by distributing questionnaires to universities students in Malaysia. Survey is done by gathering information from both male and female respondents from different ethnicity.

Based on the analysis done by researchers, it is shown that financial risk and security risk have the highest influence in students' online apparel purchase intention. Financial risk and security risk greatly deter students' intention to purchase apparel through online shopping.

However, perceived risk such as product risk, time risk, delivery risk, and physical risk have no influence or less influence on online apparel purchase intention among Malaysia universities students. These perceived risk do not necessarily prevent students from purchasing apparel through online shopping.

There is a difference between male and female on perceived risks towards online apparel purchase intention. It is shown that male and female have different perception of risk when they purchase apparel through online shopping.

This research also studied on the demographic factors that will affect universities' students perceived level of risk towards online purchasing intention. Based on the results, it is shown that there is a difference between male and female on perceived risks towards online apparel purchase intention. Besides, internet usage and online shopping experience among Malaysia's universities students are also different in relation to their perceived risk towards online apparel purchase intention.

CHAPTER 5: DISCUSSIONS, CONCLUSION AND IMPLICATIONS

5.0 Introduction

This chapter will further discuss on the variables being tested on chapter four and continues with the limitation of study. Finally, suggestions for future research will be provided.

5.1 Summary of Statistical Analysis

In this section, a summary description of the descriptive and inferential analysis discussed in chapter four will be provided.

5.1.1 Descriptive Analysis

From the respondents demographic profile, majority of the respondents are female (65%, 195 persons), majority of the total respondents are from the age group of 20-21 years old (57.3 %, 172 persons). Chinese respondents occupied the highest percentage which accounted for 58% or 174 persons. Majority of the respondents are studying in private university (51.7%, 155 persons). The highest internet usage was in the category of everyday which accounted for 92.3% or 277 persons. Based on the purchase intention, there are 71.7% or 215 persons having the experience of shopping online.

5.1.2 Scale Measurement

The scale measurement is based on the reliability test for each variable. Cronbach's alpha is used to test the reliability and validity among the seven constructs consists of 32 items by SPSS 20. Based on the results, product risk have the highest alpha coefficient at 0.829 followed by delivery risk (0.826), security risk (0.815), physical risk (0.797), online purchase intention (0.790), financial risk (0.731) and time risk (0.677). The overall alpha coefficients for 32 items are 0.846. All the variable appeared to be reliable and valid with the alpha coefficients more than 0.6.

5.1.3 Inferential Analysis

5.1.3.1 Multiple Regressions Analysis

This group of researchers have develop a regression equation to determine the relationship between product risk, financial risk, security risk, time risk, product risk and delivery risk and purchase intention. One estimated regression has been established as follow:

Online purchase intention = 4.694 -0.263 financial risk – 0.198 security risk.

Based on the results, there is a significance negative relationship between financial risk and security risk with online purchase intention. Financial risk was the most powerful antecedent in influencing the overall online purchase intention because the value of regression coefficient is – 0.263. Six hypotheses have been tested and only two variables were supported with significant level less than 0.05. In sum, only H_2 and H_3 were supported.

5.1.3.2 Independent Sample T-Test

T-test is used to analyze demographic factors differences Based on the result for gender, of t-value obtained from the equal variances assumed is -2.377 at the p-value (sig 2 tailed) of 0.018 which is less than 0.0.05. Hence, this indicates that there is significance different between male and female to perceived risk on online purchase intention.

For the t-test result for category of university, the t-value obtained from table is -0.135 at the p value (sig 2 tailed) of 0.893 is more than 0.05. Hence, there is no difference between private university students and public university students to perceived risk on online purchase intention.

The t-test result for online purchase experience, the t-value of equal variances is 2.736 at the p value (sig 2-tailed) of 0.007 (p<0.05). Hence, there is significance different between having experience to purchase from online and do not have the experience to purchase from online on perceived risk on online purchase intention.

5.1.3.3 ANOVA

ANOVA is used to test the difference between two or more group variable with dependent variable. The result for age group, is there is no mean differences as the significance value is 0.866 (p>0.05). Therefore, there is no difference between age group and perceived risk on online purchase intention. The significance value for ethnicity is 0.260, which is also more than p-value 0.05. Hence, there is no difference between ethnicity and perceived risk on online purchase intention. On the other hand, the significance value of internet usage is 0.017, which is less than p-value 0.05, therefore,

there is a differences between internet usage and perceived risk on online purchase intention.

5.2 Discussion of the Major Findings

5.2.1 Hypotheses Testing of Perceived Risk

Table 5.1: Summary of the Results of Hypotheses Testing

Hypotheses	Sig. level	Reject / Not to reject
H_1: There is a negative relationship between product risk and online purchase intention.	0.689	Reject
H_2: There is a negative relationship between financial risk and online purchase intention.	0.001	Not to reject
H_3: There is a negative relationship between security risk and online purchase intention.	0.002	Not to reject
H_4: There is a negative relationship between time risk	0.724	Reject

Perceived Risk on Online Purchase Intention on Apparels

and online purchase intention.		
H_5: There is a negative relationship between delivery risk and online purchase intention.	0.203	Reject
H_6: There is a negative relationship between physical risk and online purchase intention.	0.498	Reject

5.2.2 Hypotheses Testing of Demographic Factors

H_7: There is a significance difference between gender and perceived risk on online purchase intention.	0.018	Not to reject
H_8: There is a significance difference between age and perceived risk on online purchase intention.	.866	Reject
H_9: There is a significance difference between ethnicity and perceived risk on online purchase intention.	0.260	Reject
H_{10}: There is a significance difference between category of university and perceived risk	0.893	Reject

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on online purchase intention		
H$_{11}$: There is a significance difference between internet usage and perceived risk on online purchase intention.	0.017	Not to reject
H$_{12}$: There is a significance difference between online purchase experience and perceived risk on online purchase intention.	0.007	Not to reject

5.3 Hypotheses

5.3.1 Product Risk

Based on the research outcomes, it is shown that there is no relationship between product risk and online purchase intention. The significance value for product risk is 0.689 which is more than the p value of 0.05. This indicates that product risk is not one of the factors that affect online purchase intention among universities students in Malaysia. According to Javadi, Dolatabadi, Nourbakhsh, Poursaeedi and Asadollahi, (2012) and Liu, Brock, Shi, Chu, and Tseng (2013).study, it mentioned that functional risk which related to product risk has no relationship with purchase intention in E-shopping.

5.3.2 Financial Risk

Based on the research outcomes, it is shown that there is a relationship between financial risk and online purchase intention. The significance value for financial risk is 0.001 which is lesser than the p value of 0.05. This indicates that financial risk is one of the factors that affectonline purchase intention among universities students in Malaysia.

The result obtained is align with the research of Cemberci, Civelek, &Sozer (2013) which also stated that financial risk is a factor that deters consumers' intention to shop online and it is critical for developing online purchase intention. Research of also Pires, Stanton &Eckford (2004) shown that financial risk has the greatest impact for goods purchased through online. The results support the first hypothesis of this study. Research of Zhou, Dai, & Zhang (2007) has stated that financial risk is one of the critical factors that affect consumers in online goods purchasing.

Based on this positive coefficient of the perceived risk, this study concludes that there is a significant relationship between financial risk and online apparel shopping intention among universities students in Malaysia.

5.3.3 Security Risk

Based on the research outcomes, it is shown that there is a relationship between security risk and online purchase intention. The significance value for security risk is 0.002 which is lesser than the p value of 0.05. This indicates that security risk is one of the factors that affectonline purchase intention among universities students in Malaysia.

Past research by Tsai &Yeh (2010) and Mansori, Cheng, & Lee (2012) has mentioned that consumers perceived more time risk in apparel Internet

shopping. This has shown that the results from this research arealigning with results from previous studies.

Based on this positive coefficient of the perceived risk, this study concludes that there is a significant relationship between security risk and online apparel shopping intention among universities students in Malaysia.

5.3.4 Time Risk

Based on the research outcomes, it is shown that there is no relationship between time risk and online purchase intention. The significance value for time risk is 0.203 which is more than the p value of 0.05. This indicates that time risk is not one of the factor that affects online purchase intention among universities students in Malaysia.

Past research by Masoud (2013) has mentioned that time risk has no relationship withonline purchase intention. This has shown that the results from this research are aligning with results from previous studies.

5.3.5 Delivery Risk

Based on the research outcomes, it is shown that there is no relationship between delivery risk and online purchase intention. The significance value for delivery risk is 0.724 which is more than the p value of 0.05. This indicates that delivery risk is not one of the factors that affect online purchase intention among universities students in Malaysia. Uzun and Poturak (2014) study also support that delivery risk has no significant impact on customer online buying intention.

5.3.6 Physical Risk

Based on the research outcomes, it is shown that there is no relationship between physical risk and online purchase intention. The significance value for physical risk is 0.498 which is larger than the p value of 0.05. This indicates that physical risk does not affect online purchase intention among universities students in Malaysia.

According to research of Samadi&Yaghoob-Nejadi(2009), it is mentioned that although physical risk is related to online shopping but it is not a critical determinant factor in online shopping overall.

5.3.7Demographic Factors

Based on the research outcomes, it is shown that there is a significant difference between gender and online purchase intention. The significance mean difference between genders is 0.018 which is lesser than the p value of 0.05. This indicates that there is a difference between genders' perception of risk and online purchase intention among universities students in Malaysia.

A research done by Samadi&Yaghoob-Nejadi(2009), it is mentioned that there is a difference on gender as males are more interested in technology related items as compared with females. Delanfrooz, Paim and Khatibi (2011) also stated that there is a difference between males and females perception of risk towards online purchase intention.The significance value of age group is 0.866 and ethnicity is 0.260, both do not have difference with perceived risk on online purchase intention. This statement supported by Li and Zhang (2002) saying that demographic do not seem be to be the key factor that influence purchase decision once people are online. Different age group and different ethnicity of people will have intention to

purchase different type of product from the Internet. Therefore it is not a factor to influence the customer purchase behavior.

Based on the research outcomes, it is shown that there is a significant difference between internet usage and online purchase intention. The significance mean difference of internet usage is 0.017 which is lesser than the p value of 0.05. This indicates that there is a difference between internet usage and online purchase intention among universities students in Malaysia.

Research of Porter and Donthu (2007) mentioned that internet usage will affect customers' intention to use online shopping. Miyazaki and Fernandez (as cited in Youn, 2005) stated that levels of perceived risk will be lower when users' have higher levels of internet experience, such as the frequency of internet use.

Based on the research outcomes, it is shown that there is a significant difference between online purchase experience and online purchase intention. The significance mean difference of online purchase experiences is 0.007 which is lesser than the p value of 0.05. This indicates that there is a difference between online purchase experience and online purchase intention among universities students in Malaysia.

According to Suresh and Shashikala (2011); Masoud (2013); Dai, Forsythe, and Kwon (2014), it is mentioned that customers who have past shopping experience will have perceived lower level of risk than people who never purchase online. Delanfrooz, Paim, and Khatibi (2011) has mentioned that users' past experience was one of the important factors in determining customers' online shopping intention.

5.4 Managerial Implications

This study provides managerial insight for retailers who are selling apparels online. This study is conducted to examine the relationship of all variables. This study also examines the difference between males and females perception of risk towards online purchase intention. This study may be useful for online apparels' retailers, bank and government as they can improve their performance and reduce the risk perceived by consumers. When consumers have lower perceived risk, the tendency to purchase from a particular online retailer will be higher. Also, if consumers such as frequent online shoppers, university students repeatedly purchase from the same particular online retailer, they will be able to retain their customers and generate profit from them. Furthermore, when consumers repeatedly purchase from the same retailers, they will spread positive word of mouth among their friends and families.

Financial risk has the strongest impact on customers online purchase intention. To overcome this, Masoud (2013) proposed that online retailers should adopt a mechanism that will help to improve web page safety and privacy so that people are motivated to buy online. Javadi, Dolatabadi, Nourbakhsh, Poursaeedi and Asadollahi (2012) suggested that online retailers may use SSL protocol for payment pages as it will secure web page from disclosure of credit card information. Besides, bank can increase the security level such as stricter password and user name so that consumer can shop safer through online. Government can impose rules and regulations to the online users so they will not easily misuse the internet such as hacking other users account.

Secondly, to overcome customers' fear of not receiving what they pay for, online retailers can use other payment method that does not require customers to reveal their credit card information such as payment on delivery (Liu, Brock, Shi, Chu, and Tseng, 2013; Karnik, 2014; Masoud, 2013). Besides that, because consumers are concern of the disclosure of credit card information, online retailers could offer cheque payment, money back guarantees or offer customers another option such as monthly installments (Teo, 2002).

Security risk is the second factor that deters customers' purchase intention. Hence, online retailers may provide detail information such as telephone and fax numbers or email address and the information should be made obvious (Liu et al., 2013; Teo, 2002). Online retailers should also upgrade the security system of website. It is recommended for online retailers to ensure that personal information of customers will not be used for other purposes. To further increase customers' confidence, online retailers should give detail information on how customers' security is being protected and place necessary security seals in their websites (Huseynov&Yildirim, 2014).

Delivery risk and time risk is another factors that will have impact on online purchase intention. Customer will tend to seek for a online store that can provide a good delivery service which reach on time and without any damaged(Ibrahim, Suki& Harun, 2014). Hence, online retailer should have cooperated with the best shipping service providers to reduce time risk avoiding delivery risk such as delay or non-delay of the products (Almousa, 2011). With the reduction of delivery risk and time risk perceives on customers, they will increase the purchase intention in that online store and will generate greater confidence toward the online store.

Product risk is the fifth most impact on the customer purchase intention. Customer will purchase lesser or will never visit again if the performance and function of the product under the expectation of customers. Hence, they perceive higher product risk by buying apparel through online stores. Online retailer should reduce the product risk by maintain and increase the quality of their product and promote to the customers. Physical risk is the least impact on consumers' online purchase intention. The methods suggested to reduce above risks are not enough to reduce physical risk as long as consumer cannot access to the product. However, online retailers can provide more thorough information about the product by maximizing the effects of Internet resources. For example, provide visual aids like 3D images to illustrate product features, video and more interactive consumer services for customer better understanding about the product to minimize the physical risk (Ko et al., 2004).

5.5 Limitations of the Study

This study should be evaluated with several limitations. Firstly, researchers are facing problems such as time constraint (Karnik, 2014). Researchers only have limited time (May 2014 to November 2014) to gather and collect data, and need to analyze data collected in a given time frame.

Secondly, this study only focuses on universities students in Malaysia. Questionnaires were distributed to several public and private universities; however the results of studies cannot be generalized to the entire population. They tend to be more cosmopolitan than the population at large.

This research study was also limited by one product category, where the results of this research are limited to just apparels products only (Watchravesringkan & Shim, 2003). It is not enough evidence to examine the influence of perceived risk on apparel purchase intention among universities students in Malaysia.

Besides, this research only includes several dimensions of perceived risk such as product risk, financial risk, security risk, time risk, delivery risk, and physical risk. The other dimensions of perceived risk were not studied in this research (Masoud, 2013). Also, this study does not include other variables that might be related to online apparel shopping and perceived risk. Some of the variables that might influence consumers' perceived risk towards online apparel shopping intention are such as purchasing frequency, store information, reputation of a particular website, quality of goods, trust on a particular online retailer, service provided by the online retailers and etc. Since these variables also influence consumers' online purchase intention, they should be included in further studies as well.

5.6 Recommendation for Future Research

The sample size for this research is limiting research outcomes as there were only 300 respondents chosen to represent the overall universities students in Malaysia.

The result cannot represent the perceived risk towards online apparel shopping intention among universities students in Malaysia. Future research (Lian & Yen, 2014) should be conducted to collect more information from larger sample size based on the individual characteristic such as gender and age on the composition of perceived risk to get a better result. The increase of sample size could help achieve greater accuracy in the data research.

Respondent is major limitations in this research. The university students from certain university in Malaysiawere chosen randomly among the population and cannot be generalized to represent all the population toward online purchase intention (Lian & Yen, 2014). Hence, future research can expand the sample include all university students in Malaysia as they are one of the major user of internet.

Chinese respondents have highest participation in this research. Hence, it is recommended to collect more data and information from respondents in different ethnicity. By doing so can help to achieve higher accuracy in data analyzing. Furthermore, by ensuring equality in different ethnicity will be more persuasive in the research project.

Not all perceived risk was included in this research. The six independent variables include product risk, financial risk, security risk, time risk, delivery risk, and physical risk. However, there are many other types of perceived risk such as social risk, psychological risk, privacy risk and source risk. Therefore, more variables should be included for future research as it would better examine the risk factor that deters consumers' online apparel shopping intention (Masoud, 2013).

5.7 Conclusion

Based on the results gathered in this research, there are only five independent variables that have a significant relationship with online purchase intention. Besides, this research may help online apparels' retailers to better understand which dimension of the perceived risk has greatest influence on consumers' online purchase intention. By identifying the dimension of perceived risk, retailers may take risk reduction actions to overcome consumers' risk.

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Appendix 3.1: Questionnaire

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ACCOUNTANCY AND MANAGEMENT

BACHELOR OF INTERNATIONAL BUSINESS (HONS)

A Survey of the Perceived Risk on Online Shopping Purchase Intention on Apparels

Dear respondents,

We are the students of Bachelor of International Business (Hons) from University Tunku Abdul Rahman (UTAR). Currently, we are conducting a research for our final year project with a title "Perceived Risk on Online Shopping Purchase Intention on Apparels among Universities Students in Malaysia". The purpose of this research is to examine the effect of perceived risk which included financial risk, product risk, time risk, delivery risk, security risk and physical risk on online shopping intention.

This questionnaire has been easily designed for you to complete it in about five minutes and you are selected as a representative of a sample, your cooperation is highly appreciated. You will be asked to answer all the questions on this survey sheet. The questionnaire that you have completed and personal information will be kept for "**private and confidential**". Please answer each question honestly.

Please sign as you are agree to participate in this survey.

Thank you for participating in this survey study.

I agree

_____

Signature

Research Group Members:

Name	Student ID
LIEW CHIAN VOON	11UKB01175
TEO SHU YEE	12UKB01981
YAP JIE LIN	11UKB02160

Section A: Demographic Information

Please tick (√) your answer in the box provided or fill in the blank for each of the following items.

1. Gender: ☐ Male ☐ Female

2. Age: ☐ <20 ☐ 20-21 ☐ 22-23 ☐ >24

3. Ethnicity: ☐ Malay ☐ Chinese ☐ Indian

☐ Others, please specify: _____

4. Are you from private university or public university? Please state down the university name. _____

☐ Private ☐ Public

5. Internet usage:

☐ Everyday

☐ From 3 to 6 days per week

☐ At least once a week

☐ At least once a month

☐ Less frequently

6. Do you have the experience of shopping online?

☐ Yes ☐ No

Section B: Constructs Measurement

Please read each of the statements listed below and circle at the appropriate column.

1. Strongly disagree (SD) 2.Disagree (D) 3.Neutral (N) 4. Agree (A) 5.Strongly agree (SA)

Part A: Perceived Risks

Financial Risk	SD	D	N	A	SA
1. Shopping online can involve a waste of money.	1	2	3	4	5
	1	2	3	4	5
2. I feel that my card number may not be secure. (ex: credit card)	1	2	3	4	5
3. I might get overcharged if I shop online.	1	2	3	4	5
	1	2	3	4	5
4. I may not get the product I want.					
5. I do not trust the online company.					
Product Risk	SD	D	N	A	SA
1. I might not get my order through online shopping.	1	2	3	4	5
	1	2	3	4	5
2. It is hard to judge the quality of product over internet.	1	2	3	4	5
3. I cannot touch and examine the actual product.	1	2	3	4	5
	1	2	3	4	5
4. Size may be a problem with apparels.					

5. I cannot try apparel online.					
Time Risk	SD	D	N	A	SA
1. Buying a product online can involve a waste of time.	1	2	3	4	5
2. Difficult to find appropriate websites.	1	2	3	4	5
	1	2	3	4	5
3. Finding the right product through online is difficult.	1	2	3	4	5
	1	2	3	4	5
4. Impatient to wait for the product arrived.	1	2	3	4	5
5. Too complicated to place order.					
6. Communicating with the seller may require a lot of time.					
Delivery Risk	SD	D	N	A	SA
1. The delivered product could be lost.	1	2	3	4	5
2. Delivered the product to a wrong place.	1	2	3	4	5
3. The product is damaged during the delivering.	1	2	3	4	5
Security Risk	SD	D	N	A	SA
1. Online store website will protect my private information.	1	2	3	4	5
	1	2	3	4	5
2. I have sense of security on the online store	1	2	3	4	5

	SD	D	N	A	SA
website.	1	2	3	4	5
3. Shopping online makes me feel comfortable.	1	2	3	4	5
4. Online store website provides me with complete information.					
5. I trust online store website for purchasing products.					
Physical Risk	SD	D	N	A	SA
1. Prolonged use of computers may cause adverse affects for health.	1	2	3	4	5
2. Prolonged online shopping may lead to fatigue or visually impaired.	1	2	3	4	5
3. The loss of online shopping happens will be pressure on my heart.	1	2	3	4	5
4. Buying counterfeit products can damage my health.	1	2	3	4	5
5. It would make me irritable to the process to return or repair products.	1	2	3	4	5

Please read each of the statements listed below and circle at the appropriate column.

1. Strongly disagree (SD) 2.Disagree (D) 3.Neutral (N) 4. Agree (A) 5.Strongly agree (SA)

Part B: Online Shopping Intention

Online Shopping Intention	SD	D	N	A	SA
1. I plan to use online shopping again.	1	2	3	4	5

	1	2	3	4	5
2. I intend to shop online within the next 30 days.	1	2	3	4	5
3. I will strongly recommend online shopping to others.	1	2	3	4	5

Thank you very much for your participation in this survey.

Your time and opinions are greatly appreciated.

Appendix 3.2 SPSS Output: Pilot Test

PRODUCT RISK

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. List wise deletion based on all variables
in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.679	5

FINANCIAL RISK

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
	Valid	30	100.0
Cases	Excluded[a]	0	.0
	Total	30	100.0

a. List wise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.660	5

SECURITY RISK

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. List wise deletion based on all variables

in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.876	5

SECURITY RISK

TIME RISK

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
	Valid	30	100.0
Cases	Excluded[a]	0	.0
	Total	30	100.0

a. List wise deletion based on all variables
in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.686	6

DELIVERY RISK

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
	Valid	30	100.0
Cases	Excluded[a]	0	.0
	Total	30	100.0

a. List wise deletion based on all variables
in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.902	3

PHYSICAL RISK

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. List wise deletion based on all variables
in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.675	5

ONLINE PURCHASE INTENITON

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
	Valid	30	100.0
Cases	Excluded[a]	0	.0
	Total	30	100.0

a. List wise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.843	3

OVERALL

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
	Valid	30	100.0
Cases	Excluded[a]	0	.0
	Total	30	100.0

a. List wise deletion based on all variables

in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.821	32

OVERALL

Appendix 4.1 SPSS Output: Reliability Test for Actual Research

PRODUCT RISK

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	300	100.0
	Excluded[a]	0	.0
	Total	300	100.0

a. List wise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.829	5

Appendix 4.1 SPSS Output: Reliability Test for Actual Research

FINANCIAL RISK

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	300	100.0
	Excluded[a]	0	.0
	Total	300	100.0

a. List wise deletion based on all variables
in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.731	5

FINANCIAL RISK

SECURITY RISK

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	300	100.0
	Excluded[a]	0	.0
	Total	300	100.0

a. List wise deletion based on all variables

in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.815	5

TIME RISK

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	300	100.0
	Excluded[a]	0	.0
	Total	300	100.0

a. List wise deletion based on all variables
in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.799	6

DELIVERY RISK

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	300	100.0
	Excluded[a]	0	.0
	Total	300	100.0

a. List wise deletion based on all variables

in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.826	3

PHYSICAL RISK

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	300	100.0
	Excluded[a]	0	.0
	Total	300	100.0

a. List wise deletion based on all variables
in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.797	5

ONLINE PURCHASE INTENTION

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
	Valid	300	100.0
Cases	Excluded[a]	0	.0
	Total	300	100.0

a. List wise deletion based on all variables
in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.790	3

OVERALL

RELIABILITY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
	Valid	300	100.0
Cases	Excluded[a]	0	.0
	Total	300	100.0

a. List wise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.864	32