A STUDY OF GENERATION Y ATTITUDE TOWARDS USAGE OF INTERNET FOR E-COMMERCE IN MSC LANDMARK, KUALA LUMPUR & SELANGOR STATE

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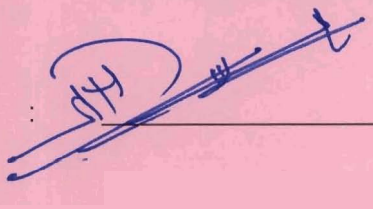

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Abstract

The last two decades have experienced rapid expansion of information and communication technology. This wide application of internet stated its influence on attitude and adoption of internet among various generations. The generation Y which is "the millennial generation", are the major one who has connected with the technology, especially internet usage, widely in every aspect of life. They adopt technology application in shopping product and services, moving away from traditional purchasing behavior of consumer. Though various studies have come out in the area of generation Y and technology adoption, very less studies are observed in the Malaysian context, considering the consumer internet usage attitude and e-commerce activities. Hence this particular study, then observe and analyze generation Y attitude towards internet usage and e-commerce activities with its moderating impact of computer literacy and gender variation.

Abstrak

Dua dekad terakhir ini telah mengalami perkembangan pesat di bidang teknologi maklumat dan komunikasi. Aplikasi internet yang luas dinyatakan pengaruhnya terhadap sikap dan penggunaan internet di kalangan pelbagai generasi. Generasi Y yang merupakan "generasi milenium", adalah salah satu generasi utama yang berkaitan dengan teknologi, terutama penggunaan internet, secara meluas dalam setiap aspek kehidupan. Mereka mengamalkan aplikasi teknologi dalam produk dan perkhidmatan membeli-belah, beralih daripada tingkah laku membeli tradisional pengguna. Walaupun pelbagai kajian telah keluar dalam bidang generasi Y dan penggunaan teknologi, namun sangat kurang kajian yang diperhatikan dalam konteks Malaysia, memandangkan aktiviti pengguna internet sikap penggunaan dan e-commerce. Oleh itu kajian ini akan memerhati dan menganalisis sikap generasi Y terhadap penggunaan internet dan aktiviti e-dagang dengan kesan sederhana yang celik komputer dan perubahan jantina.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The first chapter covers six important sections namely background of the study, problem statement, research questions, research objectives, significance of the study, scope and limitations of the study, and ultimately organization of the study. The aim of this chapter is to portray the context of the research and the structure of the study. This chapter actually also portray the idea or overview of the research that will be carried out. The early evolution of internet until the advance era of information and communication technology and their implication to the business field explained in the first chapter of the research. Furthermore, the first chapter discussed the effect of advance information technology in the business field such as e-commerce activities, and their relations between generation Y users.

1.2 Background of the study

In the last two decades, anincreasing trend of the internet usage both by organizations and by individuals has contributed a major impact to our perspective to the world as a global village, by reducing the spatial separation between regions and enabling information exchange worldwide more freely and rapidly. Most of the world inhabitants now live and work in what we called as network society (Castells, 2000). This globalization has had a great impact to almost every sector of modern society including the business, education, healthcare, entertainment and social interactions. Today the internet universally regarded as one of the important aspect to the growth of business and become an indispensable resource.

In the early 1960s, the United States scientist invented a global system which interconnected several computers together through the Internet Protocol Suite (TCP/IP) (Shelly, Cashman, & Vermaat, 2008).Initially the goal of this innovation was to allow the scientist at different geographical location to share information. The internet was fully functional in the late 60s.

According to survey conducted by Miniwatts Marketing Group in 2012, the total internet users in the world is 2.405.518.376, which is 44.8% centralized in Asia, 21.5% in Europe, and 11.4% in Australia. Compared to the data collected in the 2000 the total population of internet user at that time only 360.985.492, thus the tremendous growth of internet user occurred during 2000-2012 is 566.4%. The highest penetration of internet users happened in the North America, which is 78.6% out of 340.280.154 population.Thegood telecommunication infrastructure has contributed much impact to the higher penetration of internet users in that region.

The huge numbers of internet users in the world and supportive telecommunication infrastructure almost all over the world has attracted the companies and bring their business into a digital era, turning their business from 'brick and mortar' to 'brick and clicks' or even 'fully e-commerce' which has no physical presence, where customer can buy or sell directly. Survey conducted (Nielsen Global, 2010)revealed 15.390 out of 27.000 respondents from North America, South America, Asia Pacific, Europe, and the Middle East tend to buy online rather than going to conventional way. Most of companies nowadays in the digital era started to transform their business from brick and mortar to brick and click to capture a massive number of potential online customers.

In terms of demographics aspect of internet users revealed that the largest proportion of internet users in the United Kingdom as data collected by Office for National Statistic United Kingdom in 2011 belonged to 16-24 years old occupy 98.8 percent. This number represents 7.19 million people, and only 64.000 people in this youngest category had never used the internet. Another survey conducted by (Pew Research Center, 2012)Internet& American Life Project in 2012 revealed that the largest proportion of internet users in the United States was in the age group of 18 - 29, at 94% with the margin of error is approximately 2.3 percent. The pattern of largest internet user is quite similar the several developed countries and some of the developing countries. Thus, we can interpret that the largest proportion of internet user was in the generation Y.

The millennial generation or more commonly we referred as the generation Y, generation Y are probably digital native, defined as individual born between 1980 and 1999 (Prensky, 2001).The characteristic can easily identified by their familiarity with the digital technologies, communications and social media. There are more than 50 million generation Y population in United States stand alone, and more than 250 million in developed countries. Generation Y is the largest generation in past half century. This generation grown up with technologies, has instant access to the information, and early adopters of many technologies such as internet, e-commerce and many others (Holley, 2008 ; Dumeresque, 2012).

Generation Y will push technology to new levels. Never been a generation who has simultaneously embraced and pushed the limits of new technologies to this extent. Instead of asking "why", they push current technology and challenge "why not". This

generation will cause the companies and institution who serve them to fundamentally change how they serve them at work, home or in the community. IT networks will needs to radically change to provide the personalization, instant access, and seamless mobility of information to meet their needs.

Internet connection presently is a prominent things, further is almost ubiquitous all over the world and all of ages. More than 75.7 percent of the population connected to the internet at least once in a month, more surprisingly the internet adoption is even higher among generation Y members. The millennial have the highest internet penetration compared to any other generations (eMarketer, 2013). The study conducted by Cisco in 2011 involved respondent between 18 and 30 years old asked their attitude towards internet revealed that majority of respondent answer that they could not live without internet (Kerner, 2012).

According to Forrester Research in 2012, generation Y spend incredibly high amount of money in the online commerce, more than USD 90.4 billion annually. In addition generation Y spend 38 percent more time more than adults do, 'anytime they have connection, they are online' generation Y is categorized as serious surfers. Generation Y started hit online retail since teens or preteens, even before entering their wage earning, this might be a gold mine for the online merchants (Grasse, 2000).

Generation Y is the generation who grown up with computer.They totally depends on the computer and internet access. Generation Y takes shopping seriously, spend a lot of online time in searching, fantasizing, checking flash sale promotions and checking latest trends (Lachman & Brett, 2013).In addition Urban Land Institute

study on generation Y shopping and entertainment 2013, discovered that half of the respondent spend at least $ 50 weekly online, for the serious shopper they can spend $ 100 - $ 300 a week online. As an online customer generation Y is 'no brainer', they have never worries about security issue of purchasing products or services through the internet, they just overly trusting (Grasse, 2000).

On the other hand the earlier generation could be classified as the generation X those born between 1960until 1980, or even people who were born before the invention of digital technology, they came into the digital era but did not actually have grown up with the technology since their birth we can call them as the 'Digital Immigrant'. Certainly, the majority has adopted many of the new technological developments that have emerged in recent times, and rather ironically, some of them actually created the digital technology used by the succeeding generation. As the term 'immigrant' connotes, like a foreigner who comes to live in a new world (in this case the digital world), they learned about technology whereas digital natives were brought up and learned with technology.

Talking about Malaysian generation Y, according to Labor Force Survey conducted by Department of Statistic Malaysia in 2008, more than 36% of labor forces in Malaysia were aged below 30 years old that was about 3.9 million of generation Y. In addition, latest national survey conducted by Department of Statistic Malaysia in 2010 reveals that 57.275 percent of total population or 16.228.601 out of 28.334.115 was aged between 0 – 29.This group of age can be categorized as generation Y.

In term of shopping behavior, Malaysian generation Y spending quite surprising amount, nearly 1.8 billion ringgit annually on online commerce (The Star, 2010).This number might grow double or triple in the following years. The current trend, generation Y is looking for more convenient way to shop other than traditional way. Further the advance information technology also bringspositive stimuli when they make purchasing decision (Mansoori, Liat, & Shan, 2012; Ayupp, Ling, & Tudin, 2013).

The largest number of generation Y and their familiarity will open a huge opportunity to utilize technology as the media of business in this digital era and captured it.

1.3 Problem Statement

Presently, the world is more likely a global village, where a spatial separation become reduced and information exchange become more intense and rapidly, most of individuals in the world currently are connected to the internet (Castells, 2000). The globalization effects currently bring a great impact to almost every aspect of life. In the modern society, internet has made influence in day-to-day living activities.

The rapid growth of the internet in the world brings a huge impact to business as well. More companies are attracted to bring their business into the digital platform and reaping the fruitful of technology. In term of demographic aspect the majority users of internet are coming from individuals who are in the age group of 16 – 29 (Pew Research Center, 2012; Nielsen Global, 2010).

Following the predecessor baby boomer and generation X parents, generation Y are pretty active in the marketplace. The generation Y members are individuals who born between early 1980s and late 2000s (Hawkins & Mothersbaugh, 2010), in addition this generation represents the largest teen population in the world history (Morton, 2002). Moreover,the generation Y has remarkable spending power, approximately at $ 600 billion per year and the generation Y spending still exerts over parental expenditures (Kennedy, 2001).

Generation Y has been recognized as a new market segment that will bring change in the platform of internet in an enormously connected world. This generation generally has grown up in the strong economic condition, thus this generation has a high purchasing power (Blakewell & Mitchell, 2003). This generation is a unique target for e-commerce marketers as well as a unique target to study their behavior towards e-commerce (Djamasbi, Siegel, & Tullis, 2010).

Generation Y are spending aggressively on the internet and luxury goods are their most frequently purchased item in the internet (American Express, 2012).The study conducted by American Express indicates that almost 31 percent of e-commerce consumers were belong to generation Y, while generation X accounted for 19 percent and lastly baby boomers were 19 percent. The generation Y members has been categorized as astute at finding products on the internet, moreover generation Y can fully utilize internet for e-commerce such as searching product item, selecting channel, and find information about the product (Brafton Editorial, 2012)

In the recent decades, many businesses urged to transform their business and incorporating e-commerce into their business strategy in order to serve their customer better. The rapid expansions of information technology, supportive infrastructures in the developed countries and in the developing countries are the factors behind rapid growth of e-commerce nowadays (Chan & Al-Hawamdeh, 2002) (Yang, 2005). The business trends presently show a shift from conventional model, 'brick and mortar' to an online based business (Keen, Wetzels, de Ruyter, & Feinberg, 2002). Most of companies starting to transform their business model from the conventional (brick-mortar), which have physical presence into brick and click, this model allowing their customer done their business through internet (Laudon & Traver, 2013). Even though e-commerce bring similar characteristic to customers as well as 'real world shopping, customer have different perspective and different needs when either shopping on e-commerce or traditionally (Burke, 2002)

Talking about internet adoption, a decade ago, only one out of ten adults were using internet, in contrast, according to internet project survey conducted by Pew Research Center (2012), the results reveal that 78 percent of adults were using internet and 95 percent of them were adolescent. In line with Pew Research Center, approximately 75.7 percent of the population was connected to the internet, and the internet adoption even higher among younger generation (eMarketer, 2013). The usage of internet is highly related with age, education and household income, that factors are the best predictors of internet usage among the demographic items (Pew Research Center, 2012). The internet adoption gaps have become narrower as the time goes by.

Previous study has attempted to indicate that user's computer literacy were associated with computer technologies, and those who have capability in operating computer are tend to involve activities related to Internet (Karsten & Roch, 1998); (Delcour & Kinzie, 1993). Computer literacy is associated with the user knowledge and ability to operate computer technology efficiently with a range of skills from beginner to advance. In the millennium era computer literacy became wider, literacy is not only about how to operate computer efficiently and effectively but how to utilize the World Wide Web (WWW) or internet technologies (Hoffman & Blake, 2003). There was significantly difference between user who have basic computer literacy skill and those who does not have higher computer literacy skill. For those who have higher computer literacy was enjoying using internet and the opposite.

Papastergiou (2005) stated that even in this internet base era, not eerybody may have equal ability and chance to access and use the technology itself. This matter arise as a parts of digital divide problem, many aspects contribute to this disparity such as gender. The gender gap in internet adoption of internet may exist because male and female have a different perspective on technology;therefore, it will influence their computer and internet access usage (Ono, 2003; Bimber, 2000). In general, men tend to have more hours spending on the internet than women; men have more intense access than women do. Currently two third of the planet still have no access to the internet, in addition the unconnected people mostly are woman. Surprisingly there are some countries force women to keep offline (The Broadband Comission Working Group on Broadband & Gender, 2013).

Today's business trend and customer tend to accomplish the business in the fingertips, conducting e-commerce business make the business more efficient and reduce spatial barrier, as the generation Y characteristic they seek of fun way, variety and the most important is flexibility (Laudon & Traver, 2013).

It is observed that there is rapid expansion of technology application especially in the field of information technology with the support of fine tune infrastructure. This scenario is not much different in developed as well as developing countries. It is a gentle trend nowadays that those customers are moving from traditional direct shopping practices to online shopping. In this scenario that the generations Y is more comfortable with online purchasing and adoption of e-commerce practices compare to generation X.

Generation Y is generation who grown up with computer, they totally depends on the computer and internet access. Generation Y takes shopping seriously, spend a lot of online time in searching, fantasizing, checking flash sale promotions and checking latest trends (Lachman & Brett, 2013).In addition, Urban Land Institute study on generation Y shopping and entertainment 2013 discovered that half of the respondents spend at least $ 50 weekly online, for the serious shopper they can spend $ 100 - $ 300 a week online.

Previous study conducted by Maddox and Gong (2005), pointed out that online market invasion has rocketed sharply in the Asian continents. The numbers of internet subscribers' growth significantly in the past decade (Malaysian Communication and Multimedia Corporation, 2005). Additionally, Malaysian spent

approximately MYR 1.8 billion on online commerce (The Star, 2010), this number might double in the following year. The trend appears that consumer are looking for more convenient way in their shopping activities, and online commerce might be a good solution for them, the consumer are literally looking for better products and services as well as more convenient way to shop (Wen, Chen, & Hwang, 2001). Thus there is clearly a positive growth in the internet subscription and internet commerce in Malaysia. In view of online commerce in Malaysia still in infancy stage, there is lack of information about consumer attitude towards e-commerce.

However, according to Malaysian Communication and Media Commission (MCMC) in 2010 reported that only 9.3 percent of internet user in Malaysia who actually utilize internet as business media to conduct transaction, therefore it portray that only small portion of Malaysian that interest to utilize this technology and showed negative attitude towards e-commerce. Even though a lot of study previously have emphasized on understanding prominent factors that may lead to intention to use e-commerce but there are no positive result as to what factors contributing to customer intention towards e-commerce. Moreover, there is lack of study or research conducted in Malaysian e-commerce practices. Hence it is necessary to understand the attitude of generation Y consumers on E-commerce.

1.3 Research Question

1. Is there any relationship among generation Y attitude towards internet and e-commerce activities?
2. Is there any relationship between computer literacy and attitude towards internet among generation Y?

3. Does computer literacy moderates the relationship between attitude towards internet and e-commerce activities among generation Y?
4. Is there any relationship between gender and attitude towards internet among generation Y?
5. Does gender moderates the relationship between attitudes towards internet among generation Y?

5.3 Research Objective

This objective of the study is to analyze the attitude and the Internet usage among the generation Y.Specifically the research objective are as follows:

1. To analyze generation Y attitude towards internet in their e-commerce activities
2. To examine the relationship between the role of computer literacy and attitude towards internet among generation Y
3. To examine the moderating effect of the role computer literacy in its relationship with attitude towards internet
4. To ascertain the relationship between gender and attitude towards internet among generation Y
5. To analyze the moderating effect of gender in its relationship with attitude towards internet and e-commerce

1.5 Significance of study

These research has significant contribution to the body of knowledge at academic and practical level by analyzing customer pattern in the e-commerce, especially for millennial or generation Y, which dominate the population of internet user all around the world.

Successful e-commerce depends on the willingness of consumer to fully utilize internet technology and make a transaction through internet itself. Hence, it is important to understand consumer's attitudes toward internet and e-commerce identify their need and demand in Malaysia, ultimately can predict their intention to use internet for e-commerce activities.

Besides, this research is important because this study will find out the influence of generational characteristic and their intention to adopt e-commerce activities. It might help e-commerce marketers to identify their market segment and planning marketing strategy in order to catch online consumer as well as provide some understanding on the factors that might contribute to the e-commerce business. This research focuses on generation Y. It might assist e-commerce marketers developing a proper marketing strategy to catch more customers from generation Y.

Apart from theoretical contribution, the study will bring benefit to e-commerce practitioner. The findings will give some insight for business to design and develop future plans and solution, to broadening implementation and usage of e-commerce.

The findings of this study will reveal the real condition of the customer of e-commerce; it will be beneficial for company to identify their obstacle in the current situation in order to enhance their performance and productivity.

1.6 Scope and Limitation of study

Generation Y in a range of 19-32 years old that lives or works in Kuala Lumpur and Selangor area and specifically in Kuala Lumpur City Center, Technology Park Malaysia and Cyberjaya.is the main target of object in this study. This study concentrated to generation Y in major cities such as Kuala Lumpur andCyberjaya, beside that that data was only collected in one city due to time constraint, so this research is far from complete and cannot represent generation Y globally. Another limitation of this study is there lack of research done by other scholars on the attitudes towards e-commerce and especially generation Y in Malaysia, therefore there is lack of adequate to compare.

1.7 Definition of key terms

Baby Boomer

The baby boomer is a term for those who born in the decade following the end of World War II. Currently this generation is aged 47 to 65, now they are approaching to the retirement age. Baby boomer is considered as the generation who had it all, they rose with the parent, who had great experience in the war age, and grown up in the prosperous post war era.

Generation X / Digital Immigrant

Generation X is those who born between 1960 until 1980 (currently they are aged early 30s to mid-40s), or even people who were born before the invention of digital technology, they came into the digital era but did not actually grow up with the technology since their birth we can call it as the 'Digital Immigrant'. The generation

X is considered more likely wants to keep their heads down rather than to change the world, this generation commonly characterized as generation with high level of skepticism. The terminology of generation X initially pointed out by Robert Capa, Capa used it as the title of photography essay about young men and women growing who growing up immediately in the post-World War II era.

Generation Y / Millennial / Digital Native

The generation Y is digital native, defined as individual born between 1980 and 1999. This generation approximately 30% - 40% greater than preceding generation that is generation X. Generation Y is the most educated generation compared to their ancestors like generation X and baby boomers. This generation always had a computer in their life. Generation Y is technologically savvy, and is the first generation using Internet for email, instant messaging (IM), and cell phones since their childhood. In addition generation Y enjoys, more comfort compare to the previous generation, and completely know how to operate, solve and learning technology in shorten time.Moreover generation Y is well known as generation of multimedia and multi-tasking person.

E-Commerce

E-commerce (electronic commerce or EC) is the buying and selling of goods and services on the internet, especially the World Wide Web. In practice, this term and a newer term, e-business, are often used interchangeably. For online retail selling, the term e-tailing is sometimes used.

E-commerce can be divided into:

- E-tailing or "virtual storefronts" on web sites with online catalogs, sometimes

gathered into a "virtual mall";

- The gathering and use of demographic data through web contacts;
- Electronic Data Interchange (EDI), the business-to-business exchange of data;
- Email and fax their use as media for reaching prospects and established customers (for example, with newsletters);
- Business-to-business buying and selling and
- The security of business transactions.

1.8 Organization of Studies

Chapter 1.Presents the background of the study, specifies the research problem, describes the purpose and significant of the study, states the research questions and notes the limitations of study.

Chapter 2.Introduces an overview of related literature. Specifically, the chapter evaluates areas of generations, attitudes, internet adoption, electronic commerce (e-commerce), socio demographics factors, and relevant theories such as TRA (Theory Reasoned Action), TPB (Theory Planned Behavior) and lastly TAM (Technology Acceptance Model).

Chapter 3.Describes the methodology used for this research. Specifically, it identifies the research design, describes population and sample, discusses the research instrument, explains the data collection methods, and presents the techniques that were used in the analyses of data, and analyzes the findings through frequency distribution, use reliability or validity, descriptive statistics, correlation statistics analysis and regression analysis

Chapter 4. Provide the result from this research have been reveals, summary of the study and discussion of the findings.

Chapter 5. Provide the conclusion and recommendations for future research.

CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

This chapter reviews several literatures based on several theoretical concept regarding generation Y attitudes towards internet usage for e-commerce. This might help in highlighting more on how study could contribute in the research area.

2.2 Generation

There are two quite different meaning to describe generation in the daily culture, which is referring to kinship and the other to membership of age group. The kinship emphasize on private sphere of family relation, and the latter to public sphere of age cohort (Biggs, 2007).

Age has been recognized as one of basic element in the social structure and the life course. The sociological literature divides age into two general perspectives: the socio cultural and the cohort historical (Elder, 1975). The term of generation has been widely used in daily term to differentiate and grouping based on the age (Pilcher, 1994). Traditionally generation has been defined as the average interval time between the birth of parents and their children, this makes a generation usually (approximately) last in 20 years to 30 years. However this rule of thumbs can be obsolete, because presently technology, education, social values are changing rapidly and it will be affecting to their characteristic, Moreover the interval time between the birth of parents and the children has stretched from two decades to three decades. (Strauss & Howe, 1991).

Presently, the commonalities of today's generation wipe out the racial or ethnic, and socio economic boundaries due to globalization and better education (Strauss & Howe, 2007).Currently the world is populated by three large generations; the first is Baby Boomer for those who were born in the post-world war era, the highest age band in the history numbering almost 77 million persons (AC Nielsen, 2006). The second generation is generation X. Lastly the generation Y.

2.3 Baby Boomer

Baby boomer is officially for those who were born in the year 1943 until 1961 or right after the end of World War 2 (Sprague, 2008). The exact date or time definition for baby boomer still vary significantly and far away from consensus, different individuals, scholars, groups or organizations may have acknowledgeddifferently. But they identified this group based on both technically and culturally (Ethics Resource Center, 2010). Describing characteristic of a broad generation is quite difficult and some of them believe that it is impossible. Nonetheless, several scholars or researchers have attempted to identify the broad characteristic of the baby boomer generation.

The terminology of baby boomer originally come from the phrase baby boom, which has been widely used in the late twentieth century, this phrase refer to the noticeable phenomena of increasing of birth rate. According to (Green, 2006) this generation can be divided into two cohorts: The leading edge boomer is person born between 1943 until 1955 those who came during Vietnam War era, and the other half are people born between 1956 until early 60s, this called late boomer.

The baby boomer grew up in the dramatic period of social change, as the world just ended the World War era (Broder, 2007), that social change marked the generation with a strong cultural cleavage, between the proponents of social change and the more conservative. Baby boomer were raised in the prosperous economic time, they are optimist and expecting the world progress as the war just ended. This generation did not grow up with technology; as a result, they view technology as 'artifact' of organizational culture (Simons, 2010). Baby Boomer enjoys their autonomy life and focus on their own hobbies such as playing golf, gardening, volunteering, etc. Baby boomer prefers having flexible working hours and working remotely (Hewlett, Sherbin, & Sumberg, 2009).

The baby boomers have widely defined itself through work and such has difficulties to accept something new e.g. innovation that might be aligns them (Ethics Resource Center, 2010). Moreover, the baby boomer is emphasizing basic literacy fundamental, while the generation Y is lacking of basic literacy, in other hand the baby boomer is having lack of digital connectivity. In terms of consumerism, the baby boomer has lower level of consumerism with fewer choices of products or services (Sprague, 2008).Baby Boomer exhibits the least behaviorally differentiated purchasing patterns of any generation. This apparent behavioral flatness is due to the fact that there is often more behavioral variation between different groups of Boomers than between Boomers overall and the pre- and post-Boom populations which bracket them (AC Nielsen, 2006).

2.4 Generation X

The generation X refers to adult who was born between early 60s until early 80s, or presently 30 to 50 years old. The terminology of generation X initially pointed out by Robert Capa.Capa used it as the title of photography essay about young men and women growing whom growing up immediately in the post-World War II era. The term of generation X was used for describing various subculture or counter culture after World War in the early 1950s (Ulrich & Harris, 2003).

Generation X born after western post World War II baby boom, this generation is the first generation ever to grow up in the beginning of technology era or perhaps it is the most extensively wiredgeneration (Miller, 2011). In the workforce, generation X has the characteristic hard working individual and many of them continue to study higher education.

Generation X members were largely latch-key children, probably they grown up in the single parent family where direct supervision and family attachment were intense. As a result of their family situation, generation X members are thought to be cynical and pessimistic. They are private and may fear intimacy, and are likely to take care of their own needs. Generation X members culturally described as independent and skeptical individual but in addition, they are resourceful and pretty comfortable with technology and willing to use that technology (Borges, Manuel, Elam, & Jones, 2006).

There are many studies about generation X attitudes, preferences and characteristic for example generation X is more cynical, less optimistic, less idealistic,

and less bound to traditional value system. Additionally generation X is pretty skeptic towards life (Mhatre & Conger, 2011). Generation X has a risk averse characteristic, they have a tendency to avoid risk or prefer safer way. Regarding technology generation X is technologically adapt and tend to use the technology (Reisenwitz & Iyer, 2009).

This generation spends more than more than 40 hours per week working and commuting. Generation Xwas more likely to be employed and were working and commuting significantly. Young men were more likely to be in the workforce and work more hours compared to young women. Generation X adult with the highest levels of education were more likely to be employed and reported the longest workweeks (Miller, 2011).

In terms of technology, this generation grew up in the beginning of technology era, personal computer and internet were in the expansion time and most of household used them at that time (Meier, Austin, & Crocker, 2010). The generation X has grown up with the internet era. Most of them have their own computer during school years or at their home. The entire young adult generation X who enter the college experienced a good computer literacy. In their 20s, the internet became popular and it was a prominent part of life, and they have experienced the massive growth of internet and wireless communication during couple of decades (Pendergast, 2000). In the 2009 it was reported that almost 97% generation X using internet services regularly. Mostly they used the services to obtain maps and directions. Another eighty percent used the internet to gather information about health and medical. Which 75% percent of them said that they have used Internet to pay bills and manage their bank account through

electronic banking. Another small portion, about 40% of generation X, said using internet to buy books, clothing, and electronic online. It is obvious that they are pretty comfortable in the technological era and make extensive use of this technology (Miller, 2011).

Reisenwitz & Iyer (2009) pointed out that generation X is technological savvy and will use technology to personalize and humanize everything. The generation X is the first generation moving the internet into mainstream. Professionals from generation X are highly comfortable with World Wide Web (WWW) and email as business media.

Recent survey conducted by Longitudinal Study of American Youth has revealed that generation X indicated they make extensive use and embraced in several of social networking sites (Miller, 2013). Mostly members of generation X have their own account in social media such as Facebook, Twitter and YouTube.

2.5 Generation Y

In every generation, they have unique characteristic, various similarities or differences in them that can be used as an overview on how they behave. Obviously, it is very important for marketer or even researcher who should know about this potential consumer. One of the biggest generations is the generation Y. This generation known for the diversity therein is generation Y or commonly known as the Millennial. To limit this generation, one can divide this generation for one whom born between 1980 until 2000 (Hawkins & Mothersbaugh, 2010; Schewe & Noble, 2000).

Most of the "Echo Boomers" have entered the world of college or the working world. They are also aware of the technology and using e-mail, mobile telephone, and SMS to communicate. More than over 90% of the age group 18 to 29 years do online, which is a higher percentage than the previous generation. In addition, the age group 18 to 24 years led to the use of mobile telephone services, such as SMS and internet. This generation also enjoys media and TV programs that are designed for them, such as MTV, Maxim, American Idol, Big Brother 4, and also CSI (Hawkins & Mothersbaugh, 2010). The generation Y is the generation who received education better than preceding generation (Kaifi, et al, 2012), this generation grown up with the technology; technology is the second nature for them (D'Netto, 2011). Generation Y can't live without gadget, it's part of their life (PriceWaterhouseCoopers, 2009).More interestingly the generation Y is the generation in which internet consumption is exceeding television, more than 90% member of this generation have access to the internet, they have greater satisfaction with the internet than members of generation X (Reisenwitz & Iyer, 2009).It is possible because they have a positive view about the technology, they believe the technology makes life more easier, and they also believe technology won't make them isolated but make them closer to each other (Pew Research Center, 2010).

This generation is an attractive market because of two things. First, preferences and tastes are formed during the juvenile period can influence the purchase over time. Second, the current youth are able to spend more than $ 150 million per year for personal consumption (Hawkins & Mothersbaugh, 2010). Many analysts and researchers have forecasted that this generation plays an important role in the twenty first century (Keating, 2000). Most of the money they earn will be spent

on the "feel-good" products or products that can provide comfort for them, such as cosmetics, posters, and ready meals (Solomon, 2009). In addition, the market dynamics generated is also able to provide challenges and opportunities for marketers. The existence of coverage transformation needs of adolescents to adult was nice enough to give rise to these dynamics. Therefore, the generation Y market is also a growing market that is suitable for automotive sector and clothing (Hawkins & Mothersbaugh, 2010)

The generation Y psychographic characteristics are as follows:

1. Socially driven. This group has the highest disposable income, they are more concerned about the brand, and most spend their money for personal needs and clothing that can give them status.
2. Diversely motivated. They are among the most enterprising, adventurous, and cultured. In addition, they are able to comfortably move either individually or in groups.
3. Socioeconomically introverted. They love the activities of individuals and spend their money on products and services used in the pleasure.
4. Sports-Oriented. They reflect the biggest market for sports and home video equipment (Loudon & Bitta, 1993).

According to Meier, Austin and crooker (2010), characterized generation Y is a confident generation, independent and goal oriented. Even though the technology advances was invented prior to generation Y born, generation Y was born into technology, and surprisingly the member of generation Y well known as technology savvy. Most of the times they know better than their parents or even their teacher.

Advanced technological knowledge has brought generation Y into information era where information rapidly transmitted to anyone. Generation Y also have a wildly optimistic character. Additionally generation Yhas different values and belief towards ideal life, their predecessor believes that works is a prominent thing in their life, on other hand, generation Y desire more flexibility in their work.

Like the predecessor, generation X, generation Y is technologically savvy, and is the first generation using internet for email, instant messaging (IM), and cell phones since their childhood (Reisenwitz & Iyer, 2009). In addition generation Y have more comfort compared to the previous generation, and completely know how to operate, solve and learning technology in shorten time, moreover generation Y is well known as generation of multimedia and multi-tasking person (Auby, 2008). Generation Y noted as the first generation ever which high internet consumption, and exceeding television consumption (Barnikel, 2005).

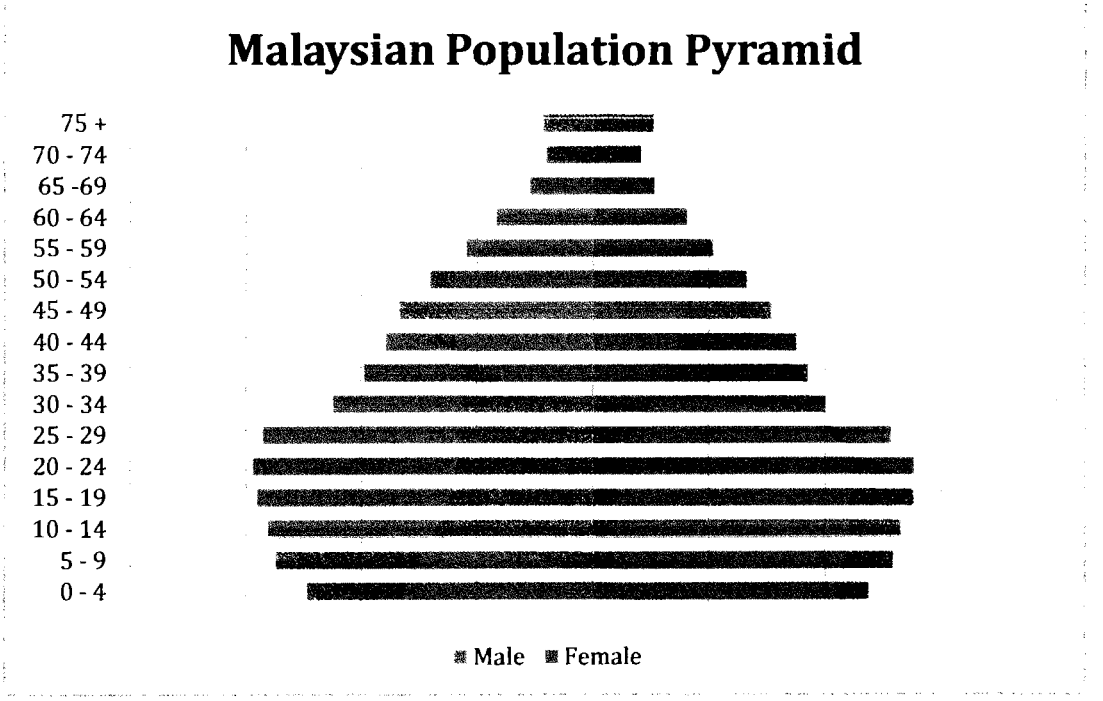
Generation Y members are tend to be selfish, impatient narcissistic, hedonistic have a casual work ethic, and are willing to work hard and offer extra effort to achieve immediate reward and praise(NaDesh, 2008; Alexander & Sysko, 2012). In the work field generation Y considered as not loyal employee, they are willing to jump in and out to the company rapidly, because their high level of self-esteem and narcissism (Twenge & Campbell, 2008). Generation Y also have positive characteristic such as generation Y well known as confident, technology savvy, family oriented as well as team and achievement oriented (NaDesh, 2008). Overall generation Y members have high-level narcissism, anxiety and need reward or praise. (Twenge & Campbell, 2008).

Millennial or generation Y have been described as optimistic, generous and practical, they are likely to be team oriented, Millennial are likely to be hardworking individual and aiming for success. In terms of technology millennial always have access to computers, pagers, and cell phones; they are likely to appreciate how technology enables them to do many things at the same time and have high expectation of technology's usefulness and availability in all settings (Borges, et al, 2006).

Study conducted by Pricewaterhoouse Cooper (PWC) in Malaysia (2009) described at least ten characteristic about generation Y. Generation Y are mobile individual, it means they desire mobility in their working life, they are prefer to work overseas, in addition the generation Y will loyal to their employer as long as they feel fulfilled. Generation Y also concern about environmental issue such as climate change, and it will affect to their working life. In term of technology, like previous study has pointed out generation Y is the generation who has grown up with the technology and technology itself is their second nature to generation Y. Working all day long is become obsolete to generation Y. A balance and more flexible working hours are desirable to generation Y. In addition, they also maintain clear separation between working and personal life. In the working life generation Y willing to learn more and on the job development are welcomed. As their personal characteristic, they deserve immediate praise and reward, for generation Y cash is king, they prefer cash bonuses rather than job training or development. Ultimately generation believe that 'we are all made the same', they believe in gender equality (Pricewaterhouse Cooper, 2009).

In Malaysia, people categorized as generation Y or the age 15 to 29 years has increased significantly from 5.6 million in 1999 to 6.9 million in 2009, this number equivalent to 26.9% of Malaysia's population (US Census Bureau, 2009). In PricewaterhouseCoopers (2010) report, this group makes up approximately 62% of the Malaysia workforce in 2009. By understanding Malaysian Generation Y habit, we can see a rough pictures of theirs saving, spending as they will have more income joining the workforce.

Figure 1:
Malaysian Population By Age Group and Sex



Source: Department of Statistics Malaysia 2010

Table 1:
Total Malaysian Population 2010

Total Malaysian Population 2010

Age Group	Total	Malaysian Citizen							Non-Malaysian Citizen
		Total	Bumiputera			Chinese	Indians	Others	
			Total Bumiputera	Malay	Other Bumiputera				
TOTAL	28,334,135	26,013,156	17,523,508	14,191,720	3,331,788	6,392,636	1,907,827	189,385	2,320,779
0 – 4	2,426,957	2,290,776	1,724,451	1,365,755	358,696	406,171	137,669	22,485	136,181
5 – 9	2,667,523	2,521,399	1,850,527	1,475,598	374,929	485,291	164,323	21,458	146,124
10 – 14	2,733,427	2,603,088	1,881,133	1,509,009	372,124	522,818	177,153	21,984	130,339
15 – 19	2,835,694	2,640,744	1,887,148	1,512,297	374,851	549,895	180,980	22,721	194,950
20 – 24	2,853,980	2,474,304	1,734,641	1,405,146	329,495	535,785	184,801	19,077	379,676
25 – 29	2,711,020	2,285,654	1,558,369	1,262,290	296,079	531,873	178,109	17,903	425,366
30 – 34	2,124,881	1,842,843	1,198,048	975,195	222,853	483,557	149,444	11,794	282,038
35 - 39	1,917,465	1,703,366	1,090,106	882,341	207,765	468,359	134,438	10,463	214,099
40 - 44	1,777,628	1,623,421	1,021,361	829,368	191,993	462,960	129,731	9,369	149,207
45 - 49	1,606,971	1,510,289	935,028	766,024	169,004	440,191	126,767	8,303	96,682
50 - 54	1,367,631	1,305,699	791,496	656,876	134,620	396,424	110,741	7,038	61,932
55 – 59	1,064,742	1,028,969	608,335	514,438	93,897	331,690	83,532	5,412	35,773
60 – 64	823,876	799,439	454,824	385,546	69,278	278,558	52,077	3,980	24,437
65 -69	538,201	523,152	297,269	243,933	53,336	189,920	33,106	2,857	15,049
70 – 74	409,677	399,499	224,745	189,072	35,673	147,413	25,210	2,131	10,178
75 +	479,462	460,714	266,027	218,832	47,195	161,731	29,946	3,010	18,748

Source: Department of Statistics Malaysia 2010

Table 2:
The Dynamics of Multigenerational Characteristic

	Learning Characteristics	**Instructional Strategies**
Baby Boomers	• High Idealism • Loyal to organization • Expect to receive royalty • Love-Hate relationship with technology • Career oriented • Workaholics • Answers easily to authority • Prefers documentation	• Communication is key • Provide personal investment statements • Like a step by step road map to knowledge • Learning by doing • Like graphic and bulleted lists
Generation X	• Cynical • Skeptical • Independent • Problem solvers • Defy authority • Reality Driven • Distaste 'touchy feely' • Technology competent • Resist hierarchy • Multitasked	• Communication is key • Clear instruction • Make assignments 'real world' • Tell them why the topic is relevant • Like individual work or project • Incorporate technology when possible

		• Case studies
Generation Y	• Optimists • Confident • Team oriented / collective action • More accepting authority • Pressured about grades • Expect technology • High achieving • Mosaic learner (Internet surfers)	• Communication is key • Clear objectives / standards • Clear evaluation criteria • Want self-assessment items • Like group activities or projects • Prefer coaching over counseling • Incorporate technology • Simulation, case studies • Provide fast feed back

2.6 Generation Y Consumption Behavior

Generation Y proven spend approximately USD2.45 trillion as an annual spending according to previous study in USA as is suspected to be happen in 2015 (Visa USA Inc,.2007). Studied by DerHovanesian in 1999 consumer good and personal service is the most acquire by this generation, and the tendency of using cash in this consumers is very likely.

As it is commented by Daniels in his study in 2007, generation Y is not loyal to brands they use moreover they are non-traditional unlike generations before, sophisticated, and more conscious with brands and fashions. The current globalization that enhanced with wide-reaching social network highly affects their buying decisions. Those unbound markets and networks change these generation attitudes towards their shopping habit. Word-of-mouth is an immaculate medium to exchange their info's which no longer happen at family gathering, but more on online networks.

Williams & Page in 2011 citing Kovach's research stated that their source of income for their expenses is from their parentsmoney, which about $200 billion per year that affect around $300 - $400 billions in US expenditures or 21% of country annual spending

In 2004, Martin & Turley reported that college student of Y generation earn up to $6,000 a year and at $105 billion as their purchasing power. As in United States, 15 million of older generation goes to colleges, and more then half of them classified as a full-time student. Moreover, spending for foods, personal care, and music purchases as it classified under personal or optional items, can hit until $300 per month.

As a breakdown, Y generation founded spends most of their optional income in these three categories of product (Alch, 2000):

1. Apparel 34%;
2. Entertainment 22%; and
3. Food 16%.

Several consumption characteristics for this generation have been identified before in the previous study (Alch, 2000):

1. Internet-connected in order to seek information about products;
2. Savvy about media and advertisements;
3. Willing to incur debt to make purchases;
4. Brand conscious; and
5. Materialistic.

However, Milner said that these study has been further studied by another study as such importance of Internet and credit card usage but still lack depth and detail. Taking Malaysian as an object, there is still limited research in topic on Generation Y of Malaysia consumer behavior. Hence, Malaysian market still has a lot of lucrative and profitable target that have a sufficient financial ability for fitting their willing and desires.

2.7 Attitude

According to (Schiffman, Kanuk, & Hansen, 2008), an attitude is a learned predisposition to behave in a consistently favorable and unfavorable way with respect to a given object. The object in this definition can refer to any person, product, service, brand or marketing concept such as advertising. Attitudes are learned and can be the result of past experience and or information acquired from other people or the mass media. Attitude as learned predisposition processes a motivational quality for example a person can be encouraged or discouraged to act in certain manner. Since attitude is a learned predisposition, consumer can be educated to behave in the desired manner provided that they are given the motivation to do so. Therefore, marketers

must, from the outset, understand the attitude of consumer before any promotional program launched.

In discussion of the development of attitude, there are two major schools thought of it. The first believe that attitudes form through some hidden process that only can happen in the minds of individuals before the behavior takes action. Secondly consider that attitudes are developed at difference stage of the behavior process, since they can be measured, to a certain extent, they are viewed as actually being behaviors (Calder & Ross, 1973). The traditional hierarchy model is most widely accepted in attitude theory. This model hypothesizes that attitudes are formed with three major components: cognition (belief), affect (feeling) and cognitive (behavior).

2.8 Attitude towards technology

The modernization today, has brought influenced and changed the world and the way peoples' do in life significantly. The advance technology is changing rapidly and currently people are becoming more dependent to technology. However, the attitudes toward technology are not same among people. There are many reason caused this disparity, one of the important factors is age (Kubiatko, 2013).

According to American Express Business Insight (2012), the research reported that boomers are less ease with technology, but this generation trying to catch up with latest technology. In addition, baby boomers believe that their experience is more important to success rather than being technological savvy. According to Rogers

(2009) the member of baby boomers are thoughtful adopter and open to new technologies that added value to their life.

Generation X is the digital immigrant. Some members of this generation invented the technology, and they were the first generation who tasted the fruitful of technology, indeed they are the embryo of today's advance technology (Musings, 2007). Technology is woven into generation X lives, they are also willing to learn and adapt the latest technology, for instance they are comfortable using tablet PC, laptops, and blackberry in order to support their daily activities (Kane, 2014).

The millennial, they are young, smart and brash. Unlike the predecessor, millennial or generation Y is walk in the rapid pace, they are both high performance and high maintenance since they are born with the technology (Armour, 2005). This generation consider themselves as technological savvy compared to previous generation. For them technology is vital to their success (American Express, 2012). Millennial have the highest penetration in term of technology such as internet technology, email usage, and social media. Finally, this generation has a significant positive view about technology in their life(eMarketer, 2013).

2.9 Attitude towards Internet

Todays, almost nearly everything humans do involve with computers technology. There is no such of technology has had greater impact like computer technology and internet. The information and communication technology such cell phone, email, and instant messaging lead us to information age. We are currently living in a world that thrives on digital and information technology.

Even though we are living in the information age, it does not mean that everyone in the world has equal access to the technology. There is a term 'digital divide', means a gap between people with access to the information technology effectively and the people with very limited access or not even engaged to information technology. This disparity is caused by multiple factors such as poverty, class, gender, socio economic, cultural difference, and age group as well (Schiller, 1996).

According to Norman in his book Cybersphology, he pointed out that we are living in the world where the rich seem to get richer and poor getting poorer, and numerous of baby boomers are living in wealthiest, powerful and educated, but most of this boomers generation are not able to keep up with the rapid speed of digital and information technology. The people from baby boomers generation are individual have the most disposable income to spend in IT but they still remain in the edge of digital divide (Norman, 2008). Baby boomers individual is well known for their capability to adapt change. For instance current United States, Barrack Obama, without a doubt he utilized digital and information technology during campaign (Jackson, 2011).

The next generation right after baby boomers is generation X, this generation also called the digital pioneer, because they held multiple roles as inventor, first adopter, and the visionary leader of information technology (Musings, 2007). In the rapid development of computer back in 70's, generation X were the first generation who experienced widespread computers at their homes, schools and definitely in their workplace, they were also the first generation who were using cellular phones.

Between 70's and 80's some members of generation X created ARPANET (Advanced Research Policy Agent Network) which is embryo of today internet and highly developed at that time. In the end, the ARPANET became commercialized and current known as modern day Internet. The internet bring a meaningful information to everyone, for generation X internet technology has become valuable tool, and they are trying to adapt with the rapid change of information communication technology presently (Bernstein, Alexander, & Alexander, 2006)

Generation Y or Millennial, this generation is unique and distinct compared to previous generation. Generation Y or millennial grew up with the technology, one of the notable distinction is the need to always connected. To keeping in touch the members of generation Y are fully utilizing advance internet tools such as, instant messaging, e-mail, and social media such as facebook, twitter and instagram. Because of this advanced skills in technology they feel that they are independent and often see themselves experts on life (Skiba & Barton, 2006). Further this generation also called as digital natives because they have never known the world without computers and information technology (Prensky, 2001). Unlike their predecessor baby boomers and generation X, this generation considers computer and internet technology as their second nature in their life. In contrast to other generation, the generation Y perception about internet technology not only as useful tools, but instead as a way of life. (Prensky, 2001)

2.10 Electronic Commerce (E-Commerce)

Presently, the primary uses of the internet have been for communication, information exchange, and entertainment. However, electronic commerce (E-

Commerce) (Dependent Variable) is become an increasingly component of internet use and growth (Campbell, 2001; Schneider, 2008)defined electronic commerce or known as e-commerce as business activities conducted using electronic data transmission technology. It includes any form of business transaction in which the parties interact electronically rather than by physical exchanges or direct physical contact. In similar way, (Kalakota & Whinston, 1997)defined e-commerce as the buying and selling information, products and services via computer networks.

These types business transaction are usually separated into several categories such as business to business (B2B), business to consumer (B2C), and consumer to consumer (C2C). The business to consumer model usually relates to electronic retailing, which has expanded significantly with the introduction of the internet. There are over 70 millions sites offering all sort services and products, ranging from books, music and household appliances. With the changing global marketplace, businesses rely more and more on challenging technology. The companies' services and industries that fuel economic growth are also evolving (Gabbin, 2002).

Talking about e-commerce consumer, they are very diverse. The consumer of e-commerce not only comes from younger generation, surprisingly nine out of ten members of baby boomer also participate in purchasing online, the study revealed by internet security firm McAfee in 2013. The baby boomers generation couldn't resist that they are no longer in the younger age, at the same time talking about computer literacy, in their golden age they are experiencing below average and slow adoption of digital technology (eMarketer, 2013). Additionally the noticeable difference between baby boomers and younger generation in term of e-commerce is, baby boomers more

comfortable using desktop or personal computer rather than using mobile devices (PacNet, 2013).

According survey conducted by Forrester Research in 2012 State of Consumer and Technology: Benchmark 2012, more than 43,124 out of 57,499 respondents surveyed who had purchased products and services through e-commerce were categorized as generation X (33-46 years old). In average generation X spend about $ 561 during 3 months prior the study. This generation presently spends nearly quarter of their money online, following behind are generation Y and baby boomer. This generation may lack of computer literacy compare to younger generation but this generation have greater amount of disposable income (National Australia Bank, 2013).

According to Intenational Data Corporation, e-commerce consumer spending will grow from USD 118 billion worldwide in 2001 to USD 707 billion in 2005. E-commerce offers many opportunities to business and corresponding benefits to consumer. Some of the opportunities include worldwide access and greater choice, enhanced competitiveness and quality of service, mass customization and personalized products and services, elimination of intermediaries and product availability, greater efficiency and lower costs which also brings new business opportunities and new products and services (Alboukrek, 2003)

Lastly, Generation Y are spending aggressively on the internet and luxury goods are their most frequently purchased item in the internet (American Express, 2012).The study conducted by American Express told us that almost 31 percent of e-

commerce consumers were belong to generation Y, while generation X accounted for 19 percent and lastly baby boomers were 19 percent. The generation Y members have been categorized as astute at finding products on the internet.Moreover, generation Y can fully utilize internet for e-commerce such as searching product item, selecting channel, and find information about the product (Brafton Editorial, 2012)

Generation Y spend incredible amount of money in the online commerce, more than USD 90.4 billion annually. In addition generation Y spend 38 percent more time more than adults do, 'anytime they have connection, they are online' generation Y is categorized as serious surfers. Generation Y started hit online retail since teens or preteens, even before entering their wage earning age, this might be a gold mine for the online merchant (Grasse, 2000)

According Malaysia National ICT Plan 2004 there are two human related aspects that are vital for the successful implementation of e-commerce.The first aspect is the technology know-how human capital, which is the driving force behind technology innovation, Secondly is the entrepreneurial skill among e-commerce player which is also important in turning innovation into world beating products and to capture global market (Jehangir, Dominic, Naseebullah, & Khan, 2011).

According to (Paynter & Lim, 2001), the development of e-commerce technology is depending on government technology, support from the government promoting the information technology and provide favorable environment is the key factor for the nation's acceleration in e-commerce. This includes providing basic information communication technology infrastructures as well as lying down some

regulatory, physical, technical and institutional preconditions to facilitate smoother electronic communications and transactions. However they still argued, in the most developing countries which has enough ICT infrastructure they still mainly regard Internet as means of communication and entertainment and not yet as a medium for business interactions.

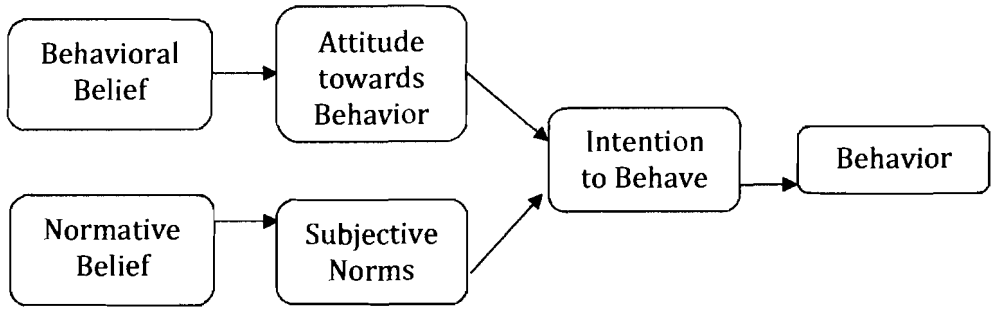
In the study done by (Hashim & Arfah, 1999), the study found that users were not convinced with the method and security of payment through the internet. Moreover, this led people to their skepticism of e-commerce. In addition, another study conducted by Swinyardand Smith in 2003 also found e-commerce to be a very convenient way to do business however, many users are still doubtful about the security of online transactions. Security has proven to be one of the major concerns in using e-commerce for users.

Van Slyke, Belanger, & Hightow (2005)used a diffusion of innovation framework to compare consumer perception and attitudes toward electronic commerce in developed and developing countries. The study refer on the fact that developing countries face numerous obstacles that may impact their view on e-commerce, such as less reliable telecommunication infrastructures, less access to online payment mechanism and lack of regulation to protect consumer in the online environment. The findings indicated that consumer perceived differently the relative advantage, ease of use, and compatibility result demonstrability of e-commerce. Thus they suggested that it is important to consider the influence local condition on the adoption and assimilation of new technologies.

2.11 Theory Reasoned Action

Theory reasoned action pointed by Ajzen in the 1980, this theory was developed using assumption that human consciously behave and considering all the information available surrounding them (Jogiyanto, 2007). In the theory reasoned action (TRA), Ajzen stated that individual can do or do not something depend on the individual intention. Moreover, Ajzen pointed out that individual intention to do something or not is influenced by two factors. The first factor related to attitude towards behavior and the second related to subjective norms. In order to reveal the influence of attitudes and subjective norms, Ajzen put in beliefs in the theory reasoned action (TRA). Further Ajzen pointed out that attitudes derived from behavioral beliefs, while subjective norms derived normative beliefs.

Figure 2
Theory Reasoned Action (Fishbein & Ajzen, 1975)



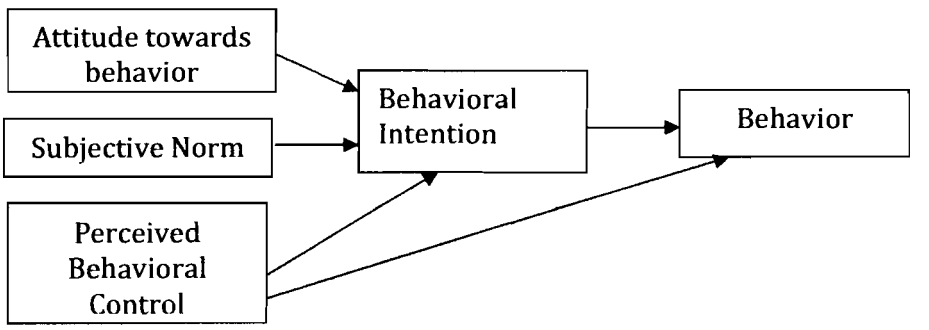
The theory itself has been applied to predict broad range of behavior. The aim of the theory is to predicting and understanding individual's behavior. Initially the theory assumed that a person intention to perform or not perform a given behavior is predictive of likelihood of that person performing or not performing the behavior defined by the behavior criterion. In fact before the study, research has reported that a significant correlation between the intention and behavior.

2.12 Theory Planned Behavior (TPB)

Theory planned behavior is an improved version of theory of reasoned action which was introduced by Fishbein and Ajzen in the 1975. In the theory, planned behavior Ajzen (1980) added perceived behavioral control. This construct was added in attempt to understand the individual constraint in order to perform the behavior. In other words, individual will do or will not do something depends on not only attitude and subjective norms, but also their perceived on behavioral control. The perceived of behavioral control can be derived from individual control beliefs.

Ajzen (1995) explained that attitude towards behavior has the definition of individual positive's or negative feeling about performing behavior. The subjective norm is described as individuals; belief whether they should do certain behavior as a results of the general social pressures from the people important to individual. Ajzen added that behavioral control is individual's perception of difficulty to perform a behavior and whether it is under individual's control (Ajzen, 1991). The term 'control' refer to whether the behavior is easily executed or whether required some resources, special skill and opportunities (Conner & Abraham, 2001).

Figure 3:
The Theory of Planned Behavior (Ajzen, 1991)



The theory of planned behavior has been used in many researches, and it has been used as a base to predict e-commerce behavior. For instance,Limayem, Khalifa and Frini (2000) have done a study;and they used subjective norm and behavioral control in their research construct. Limayem, Khalifah and Frini used and modified theory planned behavior in attempt to determine the factors lead to consumer online shopping. Media and family influences as well as the behavioral control have brought significant effects on customers' intention and ultimately influenced their online shopping behavior (Limayem, Khalifa, & Frini, 2000).

2.13 Technology Adaption Model (TAM)

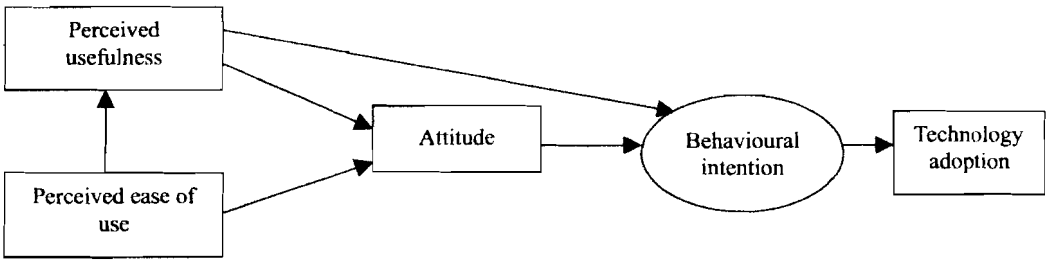
Technology acceptance model is often employed as a theoretical framework to examine the external variables that determine computer acceptance. It is reflection theory of reasoned action (TRA) by Fishbein and Ajzen (1975) that stated behavior is determined by intentions, which in part influenced by attitude. The technology adaption model (TAM) is capable in examining user behavior across a broad range of end user computing technologies and user populations. It is claimed that actual behavior is influenced by attitudes, which are affected by external variables and perceptions concerning usefulness and ease of use of technology. Thus, it is argued that a user's attitude toward using information technology is a major determinant of whether the person actually uses the technology (Stylianou, 2003).

Finding of several researches suggest that TAM is a suitable theoretical framework to examine external variables related to e-commerce. For instance, Thong, Hong, and Tam (2002)employed the TAM theory examining individual differences and system characteristic on user acceptance of digital libraries, they found that the

result strongly supported the use of TAM to predict user intention in adopting digital library. In addition Venkatesh and Davis(2000) examined user acceptance of technology through the social influence and cognitive instrumental processes like job relevancy and perceived ease of use. The researchers concluded TAM proved to be a prudent model for predicting user intention and acceptance technology. Further Klloppiing and McKiinneyy(2004) also supported the use of TAM to predict online shopping activity

Technology acceptance model has extended and modified to incorporate the construct that reflect beliefs and attitudes, social or normative influence and end user characteristics on acceptance and adoption. It includes organizational, individual as well as system characteristics, and many of them have received empirical support as moderators of IT acceptance (Agarwal & Prasad, 1999). Based on literature, there are varieties of external factors that significantly influence the extent of information technology diffusion of innovation (DOI). Agarwal and Prasad (1997) merged TAM and theory of Innovation Decision Process to describe tendency in utilizing information technology. They concluded that compatibility, visibility and trialabilityinfluenced current level of usage, and while perceived usefulness and result the demonstrability influenced continued use decisions.

Figure 4:
Technology Adaption Model Concept (TAM)



Technology adaption model (TAM) posits that the adoption behavior of a particular system is determined by the intention to use that particular system. Further TAM suggest that there are two main variables which are perceived usefulness and perceived ease of use that plays a role in the determining user's intention to use that particular system. Perceived usefulness is defined as extent to which a person believes that using system will enhance his performance. Perceived ease of use is defined as the extent to which a person believes using the system will be free of effort. Besides that, perceived ease of use is hypothesized to be a predictor of perceived usefulness and both of them are influenced by external variables. Several studies have found variables similar to these are linked to attitudes and usage. In addition, factor analyses suggest that perceived usefulness and perceived of use are statistically distinct dimension (Hauser & Shugan, 1980; Larcker & Lessig, 1980; Swanson, 1974).

Perceived usefulness and perceived ease of use can be affected by various external variables. Previous research on technology adaption model has identified that individual differences are an important external variables that can affect perceived usefulness and perceived ease of use. Individual differences like ages, gender, level of education and self-computer literacy may have influence the intension to use.

CHAPTER 3

METHODOLOGY

3.1 Introduction

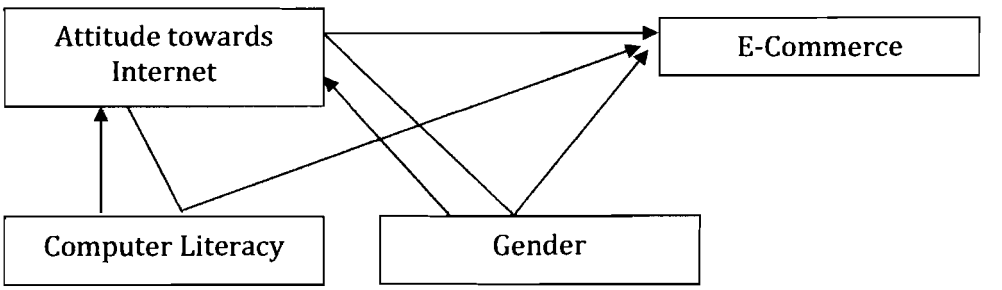
Thethird chapter explains and discusses the type of study and the instrumentation in detail that used in this particular study. This chapter also consists of data collection technique and data analysis techniques in order to explain how the research is carried out. Further this chapter also describe in detail the techniques or steps that need to be followed in order to collect and gather data as well as the subsequent research process. Finally, this chapter explains about the analysis techniques of the data whichmade use of Statistical Packages for the Social Science(SPSS) version 21 for data analysis.

3.2 Research Framework

Conceptual framework is needed in this study to show possible course of action or presenting preferred approach to an idea thought. In this study deals with the views of technology, general online activities, attitude towards internet, and user computer literacy, ultimately all of this factor will lead to their attitude towards e-commerce.

The framework of this idea is illustrated as figure below.

Figure 5:
Research Framework



3.3 Hypothesis Development

3.3.1 Attitude towards Internet and E-commerce

Attitude is about learned predisposition to behave a consistently favorable or unfavorable way with respect to a given object (Schiffman, Kanuk, & Hansen, 2008). And also defined that attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor.

Researchers have tried out to studies in order to examine consumer's attitudes and their perceptions to make a transaction through e-commerce. Most of contemporary theories about attitude have their origins in two major schools of thought that shaped theory and research in the field of social psychology. Whereas the various learning theories are based on stimulus – response – approach of behavior theory, most of theories of cognitive consistency are influenced by the cognitive approach of field theory. A distinction is therefore usually made between behavior theories of attitude and cognitive consistency theories (e.g., Kiesler, Collins and Miller, 1969; Fishbein, 1967; Greenwrad, Brock and Ostorom, 1968). This classification into behavior versus consistency theories, however, blurs the distinction between a theory's theoretical origin and the phenomena it deals with (Fishbein & Ajzen, 1975). The attitude structure itself consists of three model views as having three components:

a. Affective : The feelings about the attitude object
b. Behavioral : Predisposition to act toward the attitude object in a certain way
c. Cognitive : Beliefs about the attitude object

Any given attitude will may be based in lesser or greater amounts on any of these components

The attitude towards internet is associated to the user's positive or negative feeling related to the internet activity experience. (Chiu, 2005). This study is assessing user perception of the internet and the effect to e-commerce activities. According to (Kottler, 2004) purchasing decision are influenced by perception, motivation, learning, attitude and belief. The perception is represented by how the users select, organize, and interpret information into form of knowledge. The motivation is represented by users' desire to meet their own need. Learning is reflected by users' behavior arising. Belief is represented by users thought about products or services. Ultimately, Attitudes are represented by users' steadily favorable or unfavorable assessments, feelings and inclinations towards subject or ideas.

Previous study has been done by (Chiu, 2005) found that attitude toward using online application is notably influenced by perceive ease of use. Hence, it can be concluded that if the user perception about the application is user friendly then it will lead to positive attitude. Moreover (Crisp, Jarvenpaa, & Todd, 2007) reveal that positive experience with similar consumer behavior and web technology is the predictive of behavioral intention to purchase products or services through electronic environment (e-commerce).

A study conducted by (Jusoh & Ling, 2012) has revealed that attitude towards internet has significant effect to their e-commerce activities but the numbers users' spend on the internet does not effect to their purchasing or selling activities through e-commerce. Ultimately, the customer or user perception about e-commerce as well as

their experience in the e-commerce bring significant impact to their e-commerce activities.

3.3.2 Gender and Internet

In the massive dependency and expansion of internet, it was found that is not everyone has equal opportunities to access and usage it. (Papastergiou & Solomonidou, 2005). This matter arise as a parts of digital divide problem, many factor contribute to this disparity such as income, educational level, class, race, gender, and geographical location. As cited in (Ono, 2003) the gender gap in the adoption of internet may exist because male and female are different in the socio economic status on average, thus it will influences computer and internet access use (Bimber, 2000).

Latest research in September 2013 conducted by United National Development Program which focusing broadband and gender indicates that generally, men tend to have more hours spending time in the internet than women. The research reported that men have more intense access than women do. It is almost twenty years after the birth of Internet, two third of the planet still have no access to the internet, in addition the unconnected people mostly are women. Surprisingly some countries force women to keep offline through their legal system and politics. The gender inequalities still happening in the information ages like nowadays, and it can be potential harmful to leave women behind in term of information technology. (The Broadband Comission Working Group on Broadband & Gender, 2013)

The gender gap in technology and their attitude towards Internet have been reported. For instance early study in the 1996 reported that women experienced

greater disorientation level and disenchantment in relation to the internet compared to males (Ford & Miller, 1996). According to (Morahan-Martin & Janet, 1998) informed that women respondent went online less intense, spent less time to surf digitally and utilized internet for narrower purposes than males.

It has been pointed out by previous researcher or scholars, that there is a gender disparity in the online use and access of computer. The study like women, girls and computer by Lockeheed in 1985, Computer and girls: rethinking the issue sex roles by Jan Hawkins 1985 and Gendered technology and gendered practice by Lana F. Rakow in 1988. Most of the studies identified that that internet usage and access mostly dominated by men. An earlier study done by Nachmias, et al in (2001), found that males are spend more time in the internet compared to females that they prefer using internet for resource downloading, website creation and discussion group. Study done by Nachmias, suggested that gender differences in technology does exist with higher score attitude towards internet for males respondent and more extensive usage of internet compared to females.

Study conducted in the Taiwanese high school student also reveal that males showed more positive attitude towards internet than female student and student withmore internet experience tend to have better attitude towards internet. The term digital divide still exist in Taiwanese high school student (Tsai & Lin, 2007).

Another study supported the issue about gender and attitudes towards internet had been pointed out by Madell and Muncer in (2004), from their research discovered that males prefer to use internet, and mostly they are having own their own email

addresses, web site, and they have spent longer hours contrast to the opposite gender.In line with Madell and Muncer(2004), a study conducted in Malaysia reported that male respondent spent more hours in the internet (Luan, Fung, & Atan, 2008). Another study done in China and United Kingdom also reported that in general respondent agreed that internet is useful to gain information, however men respondents indicated positive attitude towards internet (Li & Kirkup, 2007). Furthermore, males are more utilizing technology such as internet for correspondence, more intense and have more positive attitude than females (Muncer, 2004; Sherman, et al., 2004).

In contrast according to (Ono, 2003)the trend of gender gap in the internet field started to diminishing gradually. In the mid-1990s women were significantly using internet lesser than man but the gender gap in the internet diminished in the 2000s, the difference tend to diminish but not necessarily disappear altogether. A latest research conducted in the early 2013 at Panjab University, India reveals that there is no difference between male and female attitude towards internet. This phenomenon happened due to the respondent have, high level of computer literacy, high rate access to internet and able to operate the latest tools (Suri & Sharma, 2013). This result in line with (Paris, 2004) showed that there is no significant difference between male and female in attitude towards internet.

3.3.3 Gender and E-commerce

Previous studies from several researchers has reported that in general gender gap does exist and affecting their attitude towards internet, therefore gender might be moderate the attitude towards internet and e-commerce.

Several scholars alleged that male and female differ in their processing information (Holbrook, 1986). Principally men and women receive stimuli in consumption such as graphic or text. While women more respond on imagery or graphic stimuli, men more intend to description of the products. This observable fact may lead to the moderating role for attitude towards internet and e-commerce, because promoting product through e-commerce bring different stimuli compared to the brick and mortar or conventional shop, which is more emphasizing on verbal stimuli.

According to (Korgaonkar & Wolin, 1999) demographic variable such as age, income, and education were the variable that significantly with the attitude towards internet and significantly correlated to the e-commerce activities. As cited byJoines, et al., (2003) age, income, and education still be important predictors of e-commerce activities. In line with Joines, et al,. (2003) study conducted by Cyber Atlas(2000) reported that gender and education are notably related to their activities in the e-commerce field.

The influence of gender upon decision making on the e-commerce has been a subject of special interest in the field of online marketing, it has also been analyzed with regard the process of acceptance of new information technologies, concluding the information technology characteristics and use are evaluated differently, depending on the gender of individual (Venkatesh & Morris, 2000). According to (Sun & Zhang, 2006) state three traits determine these differences:

1. Men are more pragmatic;
2. Women are having more anxiousness when faced with new activities; and;
3. Women are more strongly influence by immediate environment.

The greater the attitude towards internet, the greater the number of exchanges completed, and the more positive is the attitude towards online shopping (Hernandez, Jimenez, & Martı´n, 2009). While trying to assess moderating effect of age, gender and income to e-commerce, it was reported that gender moderating user attitude toward internet and their attitude towards e-commerce (Hernandez, Jimenez, & Martı´n, 2009).

3.3.4 Computer Literacy and Internet

Computer literacy is associated with the user knowledge and ability to operate computer and other technology related efficiently, with a range of skills covering level from beginner to advance (US Congress of Technology Assessment, 1984), furthermore the computer literacy also related to someone comfort level's using computer application or program. Back in the 70s, the invention time of computer machine, computer literacy involving deep knowledge about computer itself such as, hardware, software, and implication to the society and individual. In the early 80s computer literacy began resemble today's definition (Johnshon, Anderson, & Hansen, 1980). According (National Research Council, 1990) there are three knowledge's required for fluency in the computer literacy:

1. Contemporary skill (ability to operate computer application;
2. Foundational concept (basic principle of computer); and

3. Intellectual capabilities (ability to operate computer in the business field).

By 2000, in the emerging era of internet the computer literacy experienced paradigm shift, computer literacy became wider, literacy include how the computer works, using word processing program, spreadsheet database, utilize the world wide web (WWW). This is the first step emerging computer literacy and information technology. In general, user gains the computer literacy in two ways: formally through school or program in the workplace and informally whether at home, from friends or by themselves (Hoffman & Blake, 2003)

A research done in Turkey, (2005) previously pointed out that significantly high and positive correlation between attitude towards computer and computer literacy among the respondent. However in contrast, there was no correlation indicated between attitude towards internet and their computer literacy skill, the lack of Internet access might be a reason for this relationship being weak compare to other component in the research (Yalcinalp, 2005).

Another study in Australia 2008 indicated a strong relationship existed between the frequencies of using internet and how they perceive their skill-using computer. The better they perceived the better they are using it. This relation was important to online application. The current generation spends most of their computer time online rather than doing traditional computing. The result proves that consider that the higher intensity-usinginternet will make them more computer literate (Gibbs, 2008).

Many previous study has tried to indicate that computer literacy was associated with computer technologies, and those who have sufficient computer literacy are tend to involve activities related to internet (Karsten & Roch, 1998; Delcour & Kinzie, 1993; Zubrow, 1987). Latest research revealed that there is significantly different between respondent who has basic computer literacy skill and those whodoes nothave higher computer literacy skill in their attitude towards internet. Those who have higher computer literacy were enjoying using internet. The study found that there were positive relation between computer literacy and their attitude towards internet (Yanik, 2010).

3.3.5 Computer Literacy and E-commerce

As currently, we are living in the information age, information technology become more prominent to our daily life, thus it become more important to understand the differences between groups of user (Morris & Venkatesh, 2005). Currently the electronic commerce (e-commerce) experiencing an ever expanding consumer industry, thus to succeed it, it must understand consumer mindset, skill, and attitude towards internet (Oreku & Mtenzi, 2013). Computer literacy is the amount of computer skill a person acquires over time and has been shown to be both related to attitudes towards computer or internet and their use. (Smith, Caputi, Crittenden, Jayasuriya, & Rawstorne, 1999)

In the late 2001, Paynter and Lim pointed out the driver and impediments to e-commerce in Malaysia.According to their research Paynter and Lim suggest gaining e-commerce activities, information technology and internet access had to be widespread across the nation, at that time Malaysia was in the infancy stage of

internet particularly on e-commerce and their computer literacy was quite weak compare to developed countries. With the growth of technology in Malaysia peoples' computer skill gradually moving forward. Peoples' perception began to change and fears in e-commerce faded away as they gain understanding of information technology and how to utilize it (Paynter & Lim, 2001).

In the previous year, a study has been done in Singapore to examine the role of computer literacy and their tendency to shop through internet, the result suggests that respondent in Singapore are educated in computers and information technology. Since in Singapore computer literacy is emphasized in their educational system at all levels, the more computer literate individual they would be willing to shop online, even though at that time Singapore was in the infancy level of internet. Computer literate person has a positive view about the internet, and they would tend to be more attracted by attracted by the opportunities of e-marketplace (Liao & Cheung, 2000). In line with Liao & Cheung, a research conducted by (Diillllon & Reif, 2004) revealed that the more experienced user in computer or computer literate exhibited more positive attitude towards internet and online purchasing.

Monsuwe, Dellaert, & Ruyter (2004) emphasizing user personal characteristic such as expertise. Expertise described as individual's level of knowledge or skill. Conducting activites such as e-commerce required a sufficient amount of sufficient amount of computer knowledge or skill. Those who have experienced at e-commerce are most likely to be most skilled user (Ratchford, Talukdar, & Lee, 2001). A good computer literacy will forming a positive attitude toward shopping on the internet. Consumer with less knowledge of computer or computer literacy will experience

uncertainity and less comfortable shopping on the internet.Hence in order to gain positive attitude towards Internet reuquires little computer knowledge. (Monsuwe, Dellaert, & Ruyter, 2004).

3.4 Hypothesis

Once we have identified the important variables in a situation and established the relationships among them through logical reasoning in the theoretical framework, we are in a position to test whether the relationships that have been theorized do in fact hold true. According to Sekaran (2003), hypotheses development done through testing the variable relationship in scientific manner. Researcherwill be able to obtain dependable information in which kinds of relationship that exist among the variables operating in the problem situation.

1. Generation Y will have affirmative attitude toward internet on their e-commerce activities.
2. There will be significant relationship between computer literacy and attitude towards internet among generation Y.
3. Computer literacy moderating the relationship between attitude toward internet and e-commerce.
4. There will be significant relationship between gender and attitude towards internet among generation Y.
5. Gender moderate the relationship between attitude toward internet and e-commerce among generation Y.

3.5 Research Design

Right after identifying the variable in the problem statement and developing the theoretical framework, the following step is designing the research in such a way that the essential data can be gathered and analyzed to arrive at solution (Sekaran, 2003). There are various type of research design, for instance like exploratory study, descriptive study, experimental study. This research is applying descriptive study design in order to ascertain and able to describe the characteristic of the variables in the particular situation.

This particular research attempt to investigate the generation Y attitudes towards usage of internet for e-commerce, with one independent variable the attitude toward internet and two moderating variables which are computer literacy and gender. The entire variable were not manipulated or controlled, thus no artificial setting was created. The questionnaire-based survey was used to collect detailed information that reveals the characteristic of generation Y towards the usage of internet for e-commerce.

3.6 Type of study

This research follows quantitative study, because the goal of this study is determining the relationship between independent variable (attitude towards internet) and dependent variable (attitude towards e-commerce), and the moderating relationship between independent variable and dependent variable. Ultimately, the sources of data are gained from primary and secondary data.

In order to obtain quantitative data, the survey method generally being used and the data are collected from a sample of individuals from questionnaire distribution (Parahoo, 1997). There are at least 3 benefits choosing this method. Firstly, this method cost cheaper as survey sent by mail. Second, this method covers a greater population. Thirdly, this method allows respondents to take their time to complete the survey and will gain number of returned questionnaire.

3.7 Source of Data

In this study, both primary data and secondary data were used. The primary data is such that raw facts are gathered for research from the site of occurrence of events (Sekaran, 2003). In this research, a set of questionnaire has been distributed to working professionals in Kuala Lumpur Federal Territory and Selangor State who work for service companies to gain some information regarding their attitude towards usage internet for e-commerce.

The existing data such as journal, statistical bulletin, government publication, data available from previous research also gathered by the researcher in order to strengthen and support primary data. In addition, the secondary data as mentioned above, gives a better understanding about the issue from different perspective. However, the researcher using statistical bulletin from Department of Statistic Malaysia, strategic report from Malaysian Communication and Multimedia Commission (MCMC), articles, journals, and publication related to e-commerce, and ultimately various research conducted by practitioner in order to gain deep understanding about the issues.

3.8 Unit of Analysis

According to Sekaran(2003), unit of analysis refers to the level of aggregation of the data collected during the subsequent data analysis stage. This research, considered working professionals in Kuala Lumpur and Selangor are the unit of analysis; hence, the unit of analysis in this study is individual. All of them are staffs who are living or work in service companies around Kuala Lumpur and Selangor state.

3.9 Operational Definition

Generation

Generation, in the daily culture there are two kinds of different meaning of generation, which is referring to kinship and other referring to membership of age group. Meanwhile, in the sociological literature divide, generation into two perspectives, which is the socio cultural, based and cohort historical based. Ultimately, the key term of generation is used in daily term to differentiate and grouping based on age.

Attitude

Attitude is a learned predisposition to behave in a consistently favorable and unfavorable way with respect to a given object. The object in this definition can refer to any person, product, service, brand or marketing concept such as advertising. Attitudes are learned and can be the result of past experience and or information acquired from other people or the mass media (Schiffman, Kanuk, & Hansen, 2008).

E-commerce

E-commerce (electronic commerce or EC) is the buying and selling of goods and services on the Internet, especially the World Wide Web. In practice, this term

and a newer term, e-business, are often used interchangeably. For online retail selling, the term e-tailing is sometimes used.

3.10 Research Population

The population of research refers to the entire group of people, event, or things of interest that researcher willing to investigate (Sekaran, 2003). In this particular research, the sample for this research focused on working professional who live around Kuala Lumpur Federal Territory and Selangor State, more precisely the author has selected MSC (Multimedia Super Corridor) landmark such as Cyberjaya, Selangor, TPM (Technology Park Malaysia) and Kuala Lumpur City Centre, since there are lots of office spaces and many local and multinational (MNC) companies were established in Multimedia Super Corridor (MSC) landmark. Multimedia Super Corridor landmark are special territory in Malaysia established in order to accelerate Malaysian economic and transform Malaysia as stated in the vision 2020 as a modern country, with fully adoption of knowledge based. In addition the companies employ definitely knowledge workers round the clock. Further the companies mostly employ worker who is considered as a member of generation Y, their age are around 18 to 33 (in the year 2014). According to Lohse, Belman, and Johnson (2000) and Keating (2000) found that the internet users are more likely younger, well educated, and prosperous. Hence Cyberjaya, Technology Park Malaysia (TPM) and Kuala Lumpur City Centre are suitable place to conduct this research

3.11 Sample Size

Sekaran (2003) define a sample as a small subset of population. A sufficient sample is importantly needed to generalize to the population (Hair, Money, Samouel,

& Page, 2007). Roscoe (1975) proposed that a sample size larger than 30 and less than 500 are required for appropriate research. Barlett, Kotrlik and Higgins (2001) in their research Organizational Survey: Determining Appropriate Sample Size in Survey Research proposed that 200 – 300 sample size is sufficient. In total, ten(confidential) companies in three different areas have selected in order to gain respondent for this particular research and 450 questionnaires has been distributed. The following table shows the distributed questionnaires in the three different areas.

Table 3:
Questionnaires Distribution

Location	**Company**	**Junior Management**		**Middle Management**		**TOTAL**	
		Total	Selected	Total	Selected	Total	Selected
KUALA LUMPUR	A	250	25	150	15	400	40
	B	290	29	150	15	440	44
	C	410	41	20	20	430	61
	D	350	35	20	20	370	55
SELANGOR	E	280	28	150	15	430	43
	F	250	25	150	15	400	40
	G	290	29	150	15	440	44
	H	350	35	20	20	370	55
	I	240	24	10	10	250	34
	J	240	24	10	10	250	34
GRAND TOTAL		2950	295	830	155	3780	450

3.12 Sampling Design

Sekaran (2003) define sampling as the process of selecting the right individuals, objects, or events as representatives for the entire population. There are two major types of sampling design: probability and non-probability sampling. In the probability sampling, the elements in the population have some known, non-zero chance or probability of being selected as a sample subjects. While in non-probability, the elements do not have known or predetermined chance of being selected as subject.

The probability sampling design is used when the representativeness of the sample is prominent and wider generalizability (Sekaran, 2003).

3.13 The Sampling Method

Determining sampling method is prominent to select the sample in this study. The sampling method can be done in to two different categories: probability and non-probability sampling methods. The probability sampling can be either unrestricted (simple random sampling) or restricted (complex probability sampling) (Sekaran, 2003).

This survey applies stratified random sampling method. Stratified random sampling involves a process of stratification or segregation, followed by random selection of subject from each stratum (Sekaran, 2003). Proportionate random sampling is used because the sub population within population is vary, the respondent may come from junior level, middle level or even senior management level hence it is beneficial to take samples from each strata. Afterward simple random sampling is applied within each stratum.

3.14 Data Collection Procedures

In this research, the questionnaire was used as primary data collection methods. In the initial stage, the researcher obtains several procedures to get legal permissions from 10 IT companies in the Kuala Lumpur and Selangor state. Prior to collecting the data, the researcher needs to apply authorization to collect data from Othman Yeop Abdullah Graduate School of Business (OYAGSB), afterward the researcher seek approval from human resources department and general affairs from each companies. Due to company policies and ethical code, the researcher does not

allowed to expose the company names in this research. Secondly, the researcher is not allowed to circulate the questionnaire by himself. Nevertheless, the documents were handed over to human resources and general affairs department. Subsequently the human resource and general affair department circulated the questionnaire to respective respondent in particular companies.

The respondents were given approximately two weeks to complete the questionnaire and send them back to human resource and general affair department. Time is the biggest constraint to conduct this research, since respondents have only limited time to digest the questionnaire. The respondents are inclusive senior management, middle management and junior management, having total of 450 questionnaires were distributed to ten selected companies. The data collection process took around two weeks, the researcher only collected only 432 set of questionnaires out of 450 set were distributed.

3.15 Measurements

This section explains the measurement for generation Y attitude towards the usage of internet for e-commerce. The instruments were obtained and adapted from the previous literature.

The first section identified the demographic aspects of the respondent, consist range of age, gender, education, income, frequency using internet, and wireless utilization among the selected respondent.

The second section categorized respondents in two categories based on generational difference. A seven point scale was used to measure. The measuring items were taken from the previous research that was done by Society for Human Resource Management (SHRM) in 2004.The items were given below:

1. Willing to navigate office politics;
2. Accepting authority figure in the workplace;
3. Ask for help when needed;
4. Need supervision;
5. Embrace diversity;
6. Give maximum effort;
7. Learn quickly;
8. Like informality;
9. Like structure;
10. Plan to stay with the organization for long term;
11. Process driven;
12. Respectful of organizational hierarchy;
13. Result driven;
14. Retain what they learn;
15. Seek work/life balance;
16. Technologically savvy;
17. Prefer to work alone;
18. Prefer to work in team;

The third section identified the Internetlifestyle. The measuring items were taken from previous research conducted by Swinyard and Smith(2003). A seven

points scale (1 = strongly agree to 7 = strongly disagree) was used. The items are listed below:

1. Internet shopping is easier than local;
2. I like having merchandised delivered at home;
3. Online buying is fun;
4. I enjoy buying things through internet;
5. I would shop more on the internet if prices are lower;
6. Shopping in stores is a hassle;
7. I don't like waiting for products to arrive;
8. It is a hassle to return merchandise bought online;
9. It hard to judge merchandise quality on the internet;
10. Internet buying has delivery problems;
11. I dislike shipping charges on the internet;
12. Stores has better service policy;
13. I want to see things in person before I buy;
14. None of my friend shop through the internet;
15. I don't know much about using the internet;
16. I am not good at finding what I want on the internet;
17. Internet ordering is hard to understand and use;
18. Internet stored don't carry things what I want;
19. I go to internet for reviews or recommendations;
20. I like browsing through the internet;
21. I go to the internet for preview products;
22. I worry about my credit card number being stolen through the internet;
23. I want my purchase absolutely private;

24. I don't want to give a computer my credit card number;
25. Buying things through the internet scares me;
26. I just don't trust internet retailers;
27. I search for lowest price in everything;
28. I like to go shopping with my friends;
29. I like the energy at the local retail stores;
30. I like the friendliness at local retail stores;
31. I often return items I have purchased;
32. Internet shopping offers better selection;
33. Internet has better quality than stores;
34. Internet stores has better prices;

The fourth section will find out attitude towards internet, the respondent were also asked the level of agreement or disagreement of each of the following item based on Mick and Fournier (1998) Paradoxes of Internet, Selective paradox dimensions measured with a 7 points scale (1= strongly agree to 7 strongly disagree), as listed below:

1. Using internet makes me more efficient;
2. The internet makes me feel intelligent;
3. The internet enables me to do things that I wouldn't be able to do otherwise;
4. The internet can facilitate human togetherness and give individuals sense of belonging;
5. The internet is a good way to communicate and encourage human interactions;
6. Using internet makes me feel incompetent;
7. The internet makes me feel incapable;

8. The internet can lead to human separation and cause individuals to withdraw from direct human interactions;

The fifth section will assess knowledge of internet and computer technology among the respondent. The measuring items adopted from Computer Literacy Index (Swinyard & Smith, 2003). The range of scale used was from 1 to 7, 1 means"I could not do this", 4 means "neutral" and 7 means "I could do this".

1. Sending or reading email messages
2. Using word processing program
3. Installing computer software
4. Configuring computer driver
5. Fixing a system problem (e.g. Windows)
6. Installing an operating System (e.g. Windows)
7. Browsing the Internet
8. Using an Internet search engine
9. Making purchase on the internet
10. Finding the best price on the internet
11. Using an internet shopping bot
12. Finding internet retailer quality ratings

The following table is the summary of the questionnaire.

Table 4 :
Summary of Questionnaire

Variables	Number of Items	Items
Section 1		
Demographics:		
Age	1	Item 1
Gender	1	Item 2
Income	1	Item 3
Education	1	Item 4
Frequency using internet	1	Item 5
Wireless utilization	1	Item 6
Section 2		
Generational Differences	18	Item 7 – 24
Section 3		
Internet Lifestyle (E-Commerce)	36	Item 25 – 61
Section 4		
Attitude Towards Internet	8	Item 62 - 69
Section 5		
Computer Literacy	12	Item 70 – 81

The measurement is considered as prominent aspect in every single research, in order to achieve meaningful data the measurement is needed. A scale is used to distinguish individual from one another based on the variables of interest in the

particular study. According to Sekaran (2003) there are four types of scales: nominal, ordinal, interval, and ratio. In this research, the interval scales are chosen. By using interval scale will allow the researcher to qualitatively distinguish respondent based on respondent agreeableness.

3.16 Pilot Test

A pilot test was conducted to ensure the validity and reliability of the instruments. According to Sekaran (2003) a good measurement tool should not only be easy and efficient to use, but also more importantly it should be accurate indicator of what was purported to measure. A questionnaire is considering reliable of its repeated applications results in consistent score. Therefore, in order to determine the reliability of the questionnaire of this study and in order to achieve the study objectives, the questionnaire were distributed randomly to the targeted population and a total of 40respondent's samples were obtained. Upon the completion of the items incorporated in the instruments were identified and rectified. The instrument was improved before the actual survey was carried out.

The pilot study was very helpful to determine the appropriateness of the questionnaire. As a result from pilot study, some change were made due to the comments that made by the respondents.

3.17 Validity Test

The main purpose of validity test is checking and balancing whether the questionnaire is understandable by the respondent, in order to make sure the questionnaire meet the validity requirement. Literally, there are several types of

validity test such as content validity, criterion validity test, face validity, construct validity and predictive validity. The validity test will be concerned on about the issue of the authenticity (cause and effect relationship) and their generalizability to the external environment (Sekaran, 2003).

In order to make sure all of the instruments meet the validity requirement, the researcher applied content validity and face validity. Content validity ensures that the instruments include an adequate and representative set of item, which related to the concept of the study. In the content validity, the expert did the validity test in order to ensure the item in each instrument. Further, the study makes sure the content, construct and face validity in relation to all dimensions, incorporated into questionnaire.

3.18 Reliability Test

The reliability test was conducted to ensure the consistency or stability of the items (Sekaran, 2003). The Croanbach alpha is a reliability coefficient. The Croanbach's alpha (α) test was used to analyze reliability of the instruments. According to (Johnson & Christensen, 2008), the reliability acceptance level should be around 0.70. Cronbach's alpha can be written as a function of the number of test items and the average inter-correlation among the items. The range of Croanbach's Alpha with reliability can be shown below

Table 5:
Croanbach's Alpha Value

Range of Croanbach's Alpha	Reliability
1	Perfect
0.8 – 0.9	Good
0.6 – 0.79	Acceptable
Below 0.6	Poor

The data obtained was analyzed using the Croanbach's Alpha test in the IBM SPSS version 21. Higher internal consistency of reliability indicate when Croanbach's Alpha near to 1.

Table 6:
Reliability Analysis

Variable	Croanbach's Alpha
Generational Difference	0.897
Internet Lifestyle (E-Commerce)	0.894
Attitude Towards Internet	0.813
Computer Literacy	0.848

The table above displays the summary of reliability on the pilot test. Regarding to the initial test or pilot test, it shows that the Croanbach's Alpha for the generational difference is 0.897, while the Croanbach's Alpha for internet lifestyle (e-commerce) is 0.894. theCroanbach's Alpha results for attitude towards internet is 0.813, and ultimately the Croanbach's Alpha for computer literacy is 0.848. Overall the results show that the Croanbach's Alpha exceeding 0.8. Hence, it can be assumed

that the internal consistency for this questionnaire is considered to begood. Afterward, the questionnaire can be circulated to the real sample.

3.19 Data Analysis

Right after collecting the information from the questionnaires, a checking has done to ensure the accuracy of the information gathered. Statistical Packages for the Social Science (SPSS) version 21 used to analyze the data collected in this particular research. Prior data entered to SPSS, completed questionnaire were verified; verified questionnaire was coded and entered into SPSS. For the data processing, four statistical techniques were used for different purposes. These included descriptive statistics, reliability, validity analysis, and multiple regression analysis

3.19.1 Response Rate

Response rate refer to the number of people who answered the survey divided by the number of people in the sample. In general response rate are represented in the percentage form. The response rate also known as completion rate or return rate.

3.19.2 Descriptive Statistic

Descriptive statistics are the method used to organize, display, describe and explain a set of data with the use of table, graphs and summary measure (Johnson & Christensen, 2008). In this part, descriptive statistics such as normality test, frequency, mean and standard deviation are used to describe the basic features of overall data.

3.19.3 Descriptive Analysis

Frequency distribution is one of the most common ways to summarize a set of data (Zikmund and Babin, 2007). A Frequency distribution analysis is a mathematical distribution where the objective is to obtain a count of the number of responded associated with different values of one variable to expresses these counts in percentage terms (Malhotra, 2007).

The major purpose of using descriptive research is to describe characteristics of objects, people, groups, organizations or environments. (Zikmund and Babin, 2007) Data collected through descriptive research can provide valuable insights about the study units along relevant characteristics. In this study distribution were obtain for all the personal data which included demographic profile such as gender, age, highest education obtain, income, frequency using internet, wireless utilization.

3.19.4 Classical Assumption

The main goals of classical assumption test is to make sure multiple regression tools has been used correctly before performing hypothesis testing of the research. Additionally, if classical assumption fails to meet the criteria, the multiple linear regression test tool cannot be conducted. There are several ways to conduct classical assumption test, namely normality test, heteroscedasticity test, and ultimately multicollinearity test. There is no specific sequence to conduct this test. It can be conducted randomly based on availability of the data.

3.19.5 Multiple Regression Analysis

Regression analysis is a set of statistical procedures used to predict and explain the value of dependent variable based on the value of one or more independent variables (Fah & Hoon, 2009)

Multiple regressions are based on correlation, and allow a more sophisticated exploration of the interrelationship among set of variables. This research is using multiple regressions to predict a particular outcome. Multiple regressions is used to examine the amount of variance in dependent variable scores can be explained by all independent variable. In the output of the analysis, the value of coefficient R will point out the relation between variable and indicate the amount of variance in the dependent variable scores can be explained when numerous independent variables are hypothesized to simultaneously influence it. In the event of R squared value, the F statistics and its significant level are known, finally the result can be interpreted (Sekaran, 2003).

3.20 Conclusion

This chapter describes how the research is designed and the method that applied in this research. Moreover, in this methodology chapter, unit of analysis, type of study and sampling techniques has been discussed as well. In this study, quantitative study is applied, and questionnaire has distributed in order to collect data from respondents. Since stratified random sampling give least bias and wider generalizability, proportionate stratified random sampling is chosen in this study. The sample population of this research is working professionals who work in several locations, which are Kuala Lumpur City Center, Technology Park Malaysia, and

Cyberjayawhere the landmark of Multimedia Super Corridor (MSC) is. Total of 450 sets of questionnaires has been distributed to 10 companies in three different locations as mentioned above. In order to test the hypothesis, multiple regression techniques have been used in order to test the relationship between dependent variable and independent variables. For the demographic aspects such as age, gender, education, income, frequency using internet and wireless utilization descriptive statistics likes frequencies and percentage are applied. Ultimately, all variables in this study are adapted from earlier research findings with a good reliability.

CHAPTER 4
RESULT AND DISCUSSION

4.1 Introduction

This chapter portrays the results of data analysis in order to gain meaningful information from questionnaire that completed by the respective respondents. The main purpose of this chapter is accomplishing the research objectives as well as answering the research questions, and testing the hypotheses, which have already developed in the prior stage. Further, this chapter discusses the statistical method and discussion, demographic description, descriptive analysis; reliability analysis, classical assumption test, hypothesis test, summary and discussion about the finding will be explained in this chapter.

4.2 Response Rate

Total 450 questionnaires have been distributed by researcher to respondent in ten companies in three different locations, which are Kuala Lumpur City Center, Technology Park Malaysia, Cyberjaya. Out of 450 questionnaires distributed, only 432 questionnaires have returned. There are several reasons causing the respondent did not collected back the questionnaire, such as the respective respondent were not around or outstation, not interested to provide data, etc. In the meantime, returned questionnaires were verified, only verified questionnaire to be analyzed.

Table 7:
Response Rate

	Total	**Persentage (%)**
Questionnaire distributed	450	100
Collected Questionnaire	432	96
Usable Questionnaire	400	88.89
Considered as other generations	32	7.11
Uncollected Questionnaire	18	4

As shown in the table no. 7 out of 100 percent of distributed questionnaires only 96 percent have collected back and considered as completed questionnaires. In total 432 were categorized as fully completed questionnaire, but only 400 questionnaires or 88.89 percent considered as generation Y based on generational differences section. 7.11 percent out of 100 percent or 32 respondents considered as generations other than generation Y. Returned questionnaire from generation Y only can be analyzed, since this study is focusing on generation Y. Further, 4 percent is accounted for missing questionnaire, which is 18 questionnaires did not collected back.

4.3 Demographic Profile

The next step after coded valid and usable questionnaire, is conducting descriptive analysis. Descriptive analysis has been done, in order to gathered information in terms of the frequency based on demographic aspect in the first section. The main purpose of descriptive analysis is to describe the characteristic of the respondents.

Table 8:
Demographic Profile of Respondent

Demographic	**Categories**	**Total**	**Percentage (%)**
Gender	Male	208	52
	Female	192	48
Age	25 and under	296	74
	26-33	80	20
	34-40 years	52	6
Education	High school or equivalent	48	12
	Diploma	28	7
	Bachelor Degree	248	62
	Master Degree	72	18
	Doctoral Degree	4	1
Income	0 – MYR 2000	216	54
	MYR 2001- MYR 4000	132	33
	MYR 4001- MYR 6000	52	13
Frequency using internet	Several times a day	380	95
	About once a day	12	3
	Every few days	8	2
Wireless utilization	Using wireless	388	97
	Don't use wireless	12	3

4.3.1 Profile of Respondent: Gender

According to table no. 8 demographic of respondent, provide the demographic of the respondents based on gender of sample respondents. The result shows that 208 out of 400 or 52 percent are male. The rest 48 percent or 192 respondents are female.

4.3.2 Profile of Respondent: Age

The table no. 8 demographic of respondent portrays three different categories of respondent age gathered. The result find out that most of respondent are grouped into age 25 and below, which accounted 74 percent out of 400 respondents or 296 respondents. Secondly, 20 percent out of 400 respondents or 80 respondents are in the age 26 – 33. Lastly, 52 respondents are in the age 34 – 40 or accounted for 6 percent.

4.3.3 Profile of Respondent: Education

The profile of respondent table shows respondent level of education. Mostly respondents are holding bachelor degree, which accounted 248 respondents or 62 percent. Followed by, respondents who hold master degree, which accounted 18 percent out of 100 percent or 72 respondents. The third rank is respondents who have high school or equivalent education, which accounted 48 respondents, or 12 percent, 28 respondents or 7 percent are holding diploma. Lastly, only 4 respondents are holding doctoral degree or 1 percent out of total respondents.

4.3.4 Profile of Respondent: Income

The demographic also display income distribution of respondents. Mostly the respondents having income around 0 to MYR 2000 monthly, these accounted 216 respondents or 54 percent. Secondly, 132 respondents or 33 percent out of 100

percent respondents are having income around MYR 2001 to MYR 4000. Lastly, 13 percent or 52 percent of respondents are having income MYR 4001 to MYR 6000 monthly.

4.3.5 Profile of Respondent: Frequency of using internet

Talking about frequency of using internet95 percent out 100 percent or 380 respondents are using internet several times a day. 12 respondents or 3 percent of total respondents said that they are using internet about once a day. Lastly only 2 percent or 8 respondents are using internet every few days.

4.3.6 Profile of Respondent: Wireless Utilization

In terms of wireless utilization, Most of respondent, 97 percent or 388 respondents are connected to internet wirelessly using laptop or any other handheld devices. Only 12 respondents or 3 percent of total respondents does not utilize wireless connectivity through their laptop or handheld devices.

4.4 Descriptive Statistics

The descriptive statistics are used in quantitative research, this method is used to display, describe, and explain a set of data. In this section, maximum, minimum, mean and standard deviation are used to describe the basic features of overall data.

Table 9:
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AI	400	3.00	7.00	5.0413	.86712
CL	400	2.83	7.00	4.9151	.69533
Ecomm	400	3.24	6.15	4.6997	.64516
Valid N (listwise)	400				

The descriptive statistics above shows means attitude towards internet are 5.0413, indicates that the respondents are having positive view about internet technologies, in addition the minimum value is 3.00 and maximum value is 7.00 While the standard deviation is 0.86712. In other aspect such as computer literacy, the mean value scored 4.9151 with maximum value is 7 and minimum value is 2.83. In addition, the standard deviation is 0.69533. Lastly the mean of e-commerce is 4.6977 with minimum value is 3.24, maximum value is 7 and standard deviation is 0.64516.

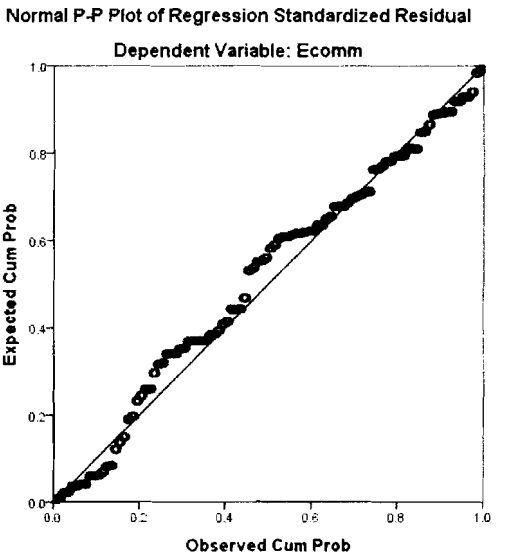
4.5 Classical Assumption

The main goals of classical assumption test is to make sure multiple regression tools has been used correctly before performing hypothesis testing of the research. Additionally, if classical assumption fails to meet the criteria, the multiple linear regression test tool cannot be conducted. There are several ways to conduct classical assumption test, namely normality test, heteroscedasticity test, and ultimately multicollinearity test. There is no specific sequence to conduct this test. It can be conducted randomly based on availability of the data.

4.5.1 Normality Test

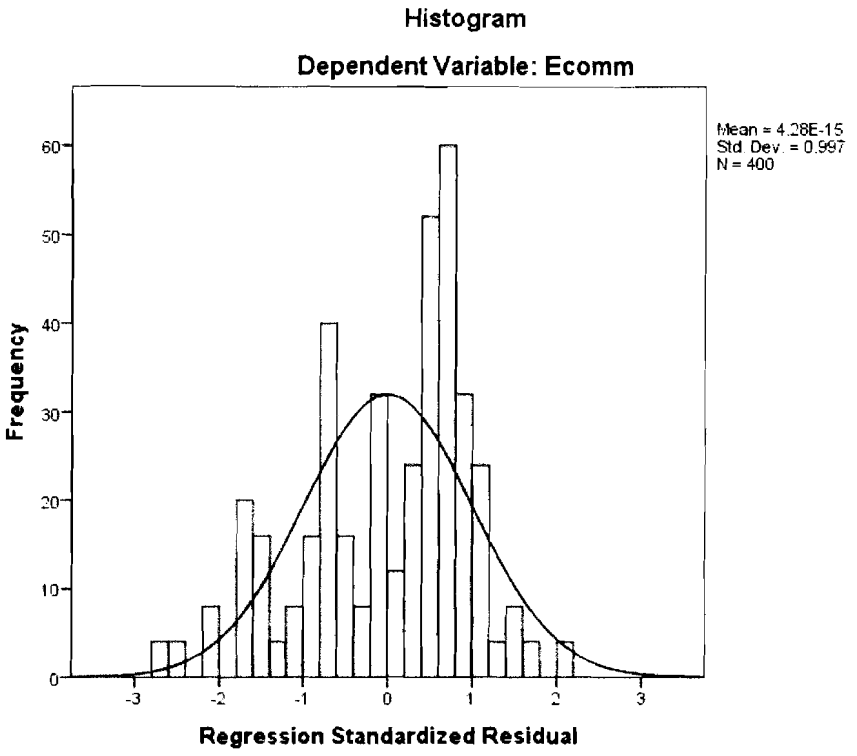
The purpose conducting normality test is to make sure whether confounding or residual variables in a regression are distributed normally or not. A good regression model is normal or close to normal data. Moreover the normality test play critical role in statistic.

Figure 6:
Normality Test Result



The graph above shows pattern that considered as a normal model. If the data spread around the diagonal line and follows the diagonal line, therefore the regression model has met normality assumption, in contrast if the models are spreading far from the diagonal line or does not follow the diagonal line direction, it can be concluded that the regression model has not meet normality test.

Figure 7:
Histogram



The histogram considered as normal, if the distributed data, mean, mode and median are close. And the mode is close to the center of range as well. If the normality distribution does not meet, it can be concluded that data is not meaningful, thus the research have to plan histogram to find out.

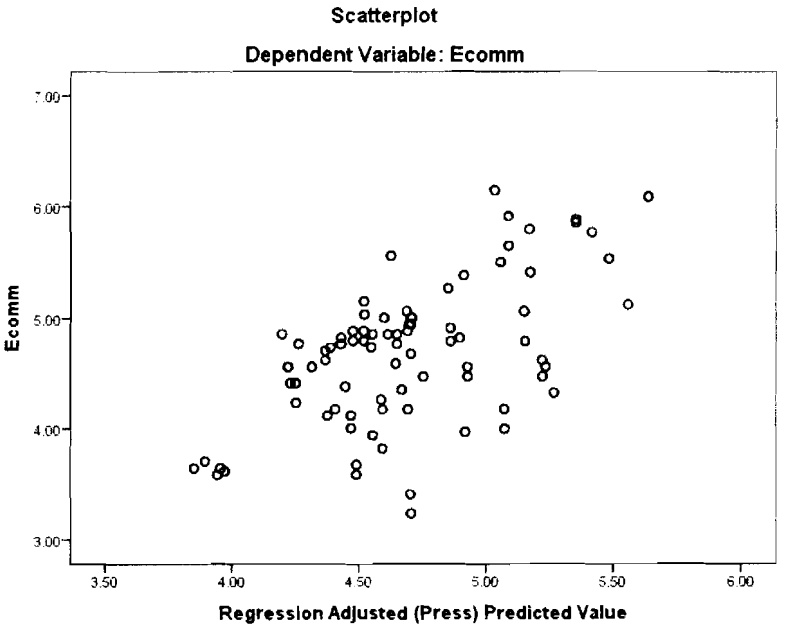
The histogram for this study above, considered as normal, since the data distribution is normal, no extreme data with large value in the distribution. As a result the data distributed normally.

4.5.2 Heteroscedasticity

The purpose of heteroscedacity test is to ensure whether there is dissimilarity of residual variance of an observation in a regression. It is perquisite and must be fulfilled in the regression model; to check is there any symptom of Heteroscedasticity.

In order to check heteroscedasticity symptom can be done by analyzing the dispersion of points in the scatter plot produced by SPSS program. A good model with no heteroscedasticity symptom, when there is no clear pattern and no disperses point above and below the number 0 on y axis.

Figure 8:
Heteroscesadaticity Test Result



The scatter plot above shows that the points are spread randomly and don't form any clear pattern. It means that the heteroscedasticity in the regression model.

4.5.3 Multicolinearity Test

The aim of multicollinearity test is checking whether there is any correlation between independent variable in the regression model. In between variables if there is high correlation inter variable, indicates the regression model cannot be used. In order to indicate themulticollinearity, it can be done by analyzing variable tolerance and variance inflation factor (VIF) (Santoso, 2005). The following conditions are indicating multicollinearity problem:

Variance Inflation Factor (VIF) > 5 indicated multicollinearity problem;

Variance Inflation Factor (VIF) < 5 no multicollinearity indicated.

Table 10:
Multicollinearity Test ResultCoefficients[a]

Model		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		Beta			Tolerance	VIF
1	(Constant)		9.469	.000		
	AI	.338	8.433	.000	.952	1.050
	CL	.371	8.984	.000	.898	1.114
	Gender	.213	5.279	.000	.942	1.062

a. Dependent Variable: Ecomm

The table no. 10 above shows that variance inflation factor (VIF) value for attitude towards internet is 1.050 followed by computer literacy is 1.114 and gender is 1.062. All variables are scoring VIF smaller than 5, and all tolerance value is almost 1. Hence, it can be concluded that the regression model in this research indicated no colinearity problem

4.6 Hypothesis testing

This research is using multiple regressions analysis in order to test the research hypothesis. The objective of hypothesis testing is to measure how far the connection between dependent variable and independent variables. The significant value is a benchmark to measure significance level or connection between dependent variable and independent variables. If the significant value is less than 0.05 can be concluded that there is a significant correlation between independent and dependent variable, thus the null hypothesis or no directional relationship (correlation) is rejected.

Hypothesis 1: Generation Y will have affirmative attitude towards internet on their e-commerce activities.

Table 11:
Model summary Generation Y Attitude towards Internet on their E-commerce

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.879[a]	.687	.683	.58475

a. Predictors: (Constant), AI
b. Dependent Variable: Ecomm

Based on model summary table no. 11 above, indicated that R square value is 0.687 ($R^2 = 0.687$). It means that 68.7 percent of e-commerce activities are predicted by attitude towards internet, in the meantime, the rest 31.3 percent are predicted by other factors, which are not conducted in this research.

Table 12:
ANOVA Generation Y Attitude towards Internet on their E-commerce

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.989	1	29.989	87.704	.000[b]
	Residual	136.089	398	.342		
	Total	166.078	399			

a. Dependent Variable: Ecomm
b. Predictors: (Constant), AI

The ANOVA table no. 12 above shows that F value is 87.704 and the significant level value is 0.000. Followed by the df (degree of freedom), which represents the number of independent variable is 1, which is e-commerce and 398 completed responses for the variable. The result shows that there is a significant relationship between attitude towards internet and e-commerce with prediction equation ($F = 87.704$, $p < 0.05$).

Table 13:
Coefficient of Attitude towards Internet on E-commerce

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.665	.252		2.638	.000
	AI	.836	.058	.829	14.507	.000

a. Dependent Variable: Ecomm

The coefficient table no. 13 above displays the coefficient level stated in Beta is 0.829 for attitude towards internet variable, which is strong, positive, and significant correlation ($\beta = 0.829$, $p < 0.05$) between attitude towards internet and e-commerce. Hence, the result is positive significance between attitude towards internet and e-commerce activities. In conclusion, it has proven that hypothesis 1 (H1), based on the result H1 was accepted. There is a significant relationship between attitude towards internet and e-commerce.

Hypothesis 2: There will be significant relationship between computer literacy and attitude towards internet among generation Y

Table 14:
Model Summary Computer Literacy and Attitude towards Internet

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.618[a]	.473	.457	.84739

a. Predictors: (Constant), CL
b. Dependent Variable: AI

Table no. 14 summary on computer literacy and attitude towards internet above shows the R square values is 0.473 ($R^2 = 0.473$), it means that computer literacy contribute approximately 47 percent of attitude towards internet and the rest 53 percent are predicted by other factors. In addition, the R-value is 0.618, and it is indicating positive value, therefore the relationship between two variables is positive relationship and strong correlation.

Table 15:
ANOVA Computer Literacy and AttitudetowardsInternet

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.214	1	14.214	19.794	.000[b]
	Residual	285.793	398	.718		
	Total	300.007	399			

a. Dependent Variable: AI
b. Predictors: (Constant), CL

The ANOVA no. 15 table shows that F Value is 19.794 with the significant level 0.000. Followed by df (degree of freedom) which represent the number of independent variable is 1 which is computer literacy and 398 total completed responses for the variable. The result shows that there is a significant relationship between computer literacy and attitude towards internet with prediction equation ($F = 19.974$, $p < 0.05$).

Table 16:
Coefficient of Computer Literacy and Attitude towards Internet

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.774	.288		13.104	.000
	CL	.717	.071	.618	4.449	.000

a. Dependent Variable: AI

The coefficient table no. 16 above display the coefficient level of the Beta is 0.618 for computer literacy variable, and there is strong, positive, and significant correlation ($\beta = 0.618, p < 0.05$) between computer literacy and attitude towards internet. Hence, the result is positive and there is significant relationship between computer literacy and attitude towards internet. In conclusion, it has proven that hypothesis 2 (H2), based on the result H2 was accepted, there is a significant relationship between computer literacy and attitude towards internet.

In order to gain deeper information about respondent computer literacy skill and their relation with attitude towards internet, in this research respondent were divided into two categories based on their computer literacy skill. In this research, we found that 196 respondents had high computer literacy skill, 188 respondents had moderate computer literacy skill, and the rest 18 respondents had low computer literacy skill.

Moderate Computer Literacy

Table 17:
Model Summary Computer Literacy and Attitude towards Internet

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.039[a]	.002	-.004	.86106

a. Predictors: (Constant), CL
b. Dependent Variable: AI

Table no. 17 summary on computer literacy (moderate skill) and attitude towards internet above shows the R square values is 0.02 ($R^2 = 0.02$), it means that

computer literacy contribute approximately 2 percent of attitude towards internet. In addition the R value is 0.039, and it is indicating positive value.

Table 18:
ANOVA Computer Literacyand Attitude towards Internet

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.214	1	.214	.289	.592[b]
	Residual	137.905	186	.741		
	Total	138.120	187			

a. Dependent Variable: AI

b. Predictors: (Constant), CL

The ANOVA table no. 18 shows that F Value is 0.289 with the significant level 0.592. Followed by df (degree of freedom) which represent the number of independent variable is 1 which is computer literacy and 188 total completed responses for the variable. The result shows that there is insignificant relationship between computer literacy (moderate skill) and attitude towards internet with prediction equation ($F = 0.289$, $p > 0.05$).

Table 19:
Coefficient of Computer Literacy and Attitude towards Internet

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.344	.865		6.178	.000
	CL	.130	.242	.039	.538	.592

a. Dependent Variable: AI

The coefficient table no. 19 above display the coefficient level stated in beta is 0.039 for computer literacy variable, which is negatively correlated ($\beta = 0.039$

,p>0.05) between computer literacy (moderate skill) and attitude towards internet. Hence the result is positive, insignificant between computer literacy and attitude towards internet.

High Computer Literacy Skill

Table 20:
Model Summary Computer Literacy and Attitude towards Internet

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.870[a]	.732	.684	.84024

a. Predictors: (Constant), CL

b. Dependent Variable: AI

Table summary no. 20 on computer literacy (high computer literacy skill) and attitude towards internet above shows the R square values is 0.732 (R^2= 0.732), it means that computer literacy contribute approximately 73.2 percent of attitude towards internet. In addition, the R-value is 0.870, and it is indicating positive value, therefore the relationship between two variables is positive relationship

Table 21:
ANOVA Computer Literacy and Attitude towards Internet

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.763	1	10.763	15.245	.000[b]
	Residual	136.964	194	.706		
	Total	147.727	195			

a. Dependent Variable: AI

b. Predictors: (Constant), CL

The ANOVA table no. 21 shows that F Value is 15.245 with the significant level 0.000. Followed by df (degree of freedom) which represent the number of

independent variable is 1 which is computer literacy and 196 total completed responses for the variable. The result shows that there is a significant relationship between computer literacy (high computer literacy skill) and attitude towards internet with prediction equation ($F = 15.245$, $p < 0.05$).

Table 22:
Coefficient of Computer Literacy and Attitude towards Internet

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.132	.788		2.705	.007
	CL	.681	.174	.870	3.905	.000

a. Dependent Variable: AI

The coefficient table no. 22 above display the coefficient level stated in beta is 0.870 for computer literacy variable, which is strong, positive, and significant correlation ($\beta = 0.870$,$p< 0.05$) between computer literacy and attitude towards internet. Hence, the result is positive and there is significant relationship between computer literacy (high computer literacy skill) and attitude towards internet.

Hypothesis 3: Computer literacy moderate the relationship between attitude toward internet and e-commerce activities

Table 23:
Model Summary Computer Literacy Moderate Attitude towards Internet and E-commerce Activities

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.496[a]	.246	.244	.56105
2	.593[b]	.351	.348	.52099

a. Predictors: (Constant), CL
b. Predictors: (Constant), CL, AI
c. Dependent Variable: Ecomm

Based on model summary above, table no. 23 shows that model 1 R square value is 0.246 (R^2 = 0.246) which means 24.6 percent e-commerce activities can be predicted by their computer literacy. At the same time, in the model 2 the R square value is 0.351 (R^2 = 0.351) which means 35.1 percent of ecommerce activities can be predicted by their attitude towards internet with computer literacy as moderator. In addition when analyze R-value in the model 1 scores 0.496 and 0.593 as in the model 2, it means there is relationship between variables are in positive relationship.

Table 24:
ANOVA Computer Literacy Moderate Attitude Towards Internet and E-commerce Activities

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.796	1	40.796	129.601	.000[b]
	Residual	125.282	398	.315		
	Total	166.078	399			
2	Regression	58.321	2	29.161	107.434	.000[c]
	Residual	107.757	397	.271		
	Total	166.078	399			

a. Dependent Variable: Ecomm
b. Predictors: (Constant), CL
c. Predictors: (Constant), CL, AI

The table no. 24 shows about the ANOVA result. The model 1 have F Value for computer literacy is 129.601 and the significance is at 0.000 levels. Continued by the df (degree of freedom) whereby df represent the number of independent variable is 1 which is computer literacy, and then the 398 is total number of complete responses for the variable.

While in the model 2 have the F value for the computer literacy, attitude towards internet are 107.434, and the significant is 0.000 levels. Followed by the number of independent variable is 2 which is computer literacy, attitude toward internet, then the 397 is total number of complete responses for the variable. The result indicated there is a significant relationship computer literacy moderating attitude towards internet and e-commerce activities with prediction equation, ($F = 129.601$, $p < 0.05$) & ($F = 107.434$, $p < 0.05$).

Table 25:
Coefficient of Computer Literacy Moderate Attitude towards Internet and E-commerce Activities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.553	.191		13.387	.000
	CL	.537	.047	.496	11.384	.000
2	(Constant)	1.618	.212		7.638	.000
	CL	.459	.045	.423	10.217	.000
	AI	.248	.031	.333	8.035	.000

a. Dependent Variable: Ecomm

The coefficient table no. 25 above shows the coefficient level stated in beta. The result is computer literacy have significant influence toward e-commerce activities because the significant level scores 0.000. In the third hypothesis, computer literacy moderatethe attitude towards internet and e-commerce activities. The result shows a significant relation because computer literacy (β = 0.423, $p < 0.05$) and attitude towards internet (β = 0.333, $p < 0.05$). Hence, it supported that in the third hypothesis (H3), the computer literacy moderate the attitude towards internet and e-commerce.

Moderate Computer Literacy Skill

Table 26:
Model Summary Computer Literacy Moderate Attitude Towards Internet and E-commerce Activities

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.256[a]	.065	.060	.56228
2	.378[b]	.143	.133	.53995

a. Predictors: (Constant), CL
b. Predictors: (Constant), CL, AI
c. Dependent Variable: Ecomm

Based on model summary table no. 26 above, it shows that model 1 R square value is 0.065 (R^2 = 0.065) which means 6.5 percent e-commerce activities can be predicted by their computer literacy. At the same time, in the model 2 the R square value is 0.143 (R^2 = 0.143) which means 14.3 percent of ecommerce activities can be predicted by their attitude towards internet with computer literacy as moderator. In addition when analyze R-value in the model 1 scores 0.256 and 0.378 as in the model 2, it means the relationship between variables are in positive relationship.

Table 27:
ANOVA Computer Literacy Moderate Attitude towards Internet and E-commerce Activities

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.112	1	4.112	13.005	.000[b]
	Residual	58.805	186	.316		
	Total	62.916	187			
2	Regression	8.980	2	4.490	15.400	.000[c]
	Residual	53.936	185	.292		
	Total	62.916	187			

a. Dependent Variable: Ecomm
b. Predictors: (Constant), CL
c. Predictors: (Constant), CL, AI

The table no. 27 shows about the ANOVA result. The model 1 have F Value for computer literacy is 13.005 and the significant is 0.000 levels. Continued by the df (degree of freedom) whereby df represent the number of independent variable is 1 which is computer literacy, and then the 188 is total number of complete responses for the variable.

While in the model 2 have the F value for the computer literacy, attitude towards internet are 15.400, and the significant is 0.000 levels. Followed by the number of independent variable is 2 which is computer literacy, attitude toward internet, then the 188 is total number of complete responses for the variable. The result indicated there is a significant relationship betweencomputer literacy (moderate

computer literacy skill) moderate the attitude towards internet and e-commerce activities with prediction equation, ($F = 13.005$, $p < 0.05$) & ($F = 15.400$, $p < 0.05$).

Table 28:
Coefficient of Computer Literacy Moderate Attitude towards Internet and E-commerce Activities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.378	.565		4.210	.000
	CL	.570	.158	.256	3.606	.000
2	(Constant)	1.374	.596		2.307	.022
	CL	.595	.152	.267	3.913	.000
	AI	.188	.046	.278	4.086	.000

a. Dependent Variable: Ecomm

The coefficient table no. 28 above shows the coefficient level stated in Beta. The result is computer literacy (moderate computer literacy skill) have significant influence toward e-commerce activities because the significant level scores 0.000.. The result shows a significant relation because computer literacy ($\beta = 0.267$, $p < 0.05$) and attitude towards internet ($\beta = 0.278$, $p < 0.05$). Hence, there is significant relation computer literacy moderate attitude towards and e-commerce activities.

High Computer Literacy Skill

Table 29:
Model Summary Computer Literacy Moderate Attitude towards Internet and E-commerce Activities

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.189[a]	.036	.031	.56156
2	.496[b]	.246	.238	.49788

a. Predictors: (Constant), CL
b. Predictors: (Constant), CL, AI
c. Dependent Variable: Ecomm

Based on model summary above, it shows that model 1 R square value is 0.036 (R^2 = 0.036) which means 3.6 percent e-commerce activities can be predicted by their computer literacy. At the same time, in the model 2 the R square value is 0.246 (R^2 = 0.143) which means 24.6 percent of ecommerce can be predicted by their attitude towards internet with computer literacy as moderator. In addition when analyze R value in the model 1 scores 0.189 and 0.246 as in the model 2, it means the relationship between variables are in positive relationship.

Table 30:
ANOVA Computer Literacy Moderate Attitude towards Internet and E-commerce activities

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.264	1	2.264	7.180	.008[b]
	Residual	61.177	194	.315		
	Total	63.441	195			
2	Regression	15.600	2	7.800	31.466	.000[c]
	Residual	47.841	193	.248		
	Total	63.441	195			

a. Dependent Variable: Ecomm

b. Predictors: (Constant), CL
c. Predictors: (Constant), CL, AI

The table no. 30 shows about the ANOVA result. The model 1 have F Value for computer literacy is 7.180 and the significant is 0.008 levels. Continued by the df (degree of freedom) whereby df represent the number of independent variable is 1 which is computer literacy, and then the 196 is total number of complete responses for the variable.

While in the model 2 have the F value for the computer literacy, attitude towards internet are 31.466, and the significant is 0.000 levels. Followed by the number of independent variable is 2 which is computer literacy, attitude toward internet, then the 196 is total number of complete responses for the variable. The result indicate that there is a significant relationship computer literacy (high computer literacy skill) moderate the attitude towards internet and e-commerce with prediction equation, ($F = 7.180$, $p < 0.05$) & ($F = 31.466$, $p < 0.05$).

Table 31:
Coefficient of Computer Literacy Moderate Attitude towards Internet and E-commerce Activities

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.601	.527		6.835	.000
	CL	.312	.117	.189	2.680	.008
2	(Constant)	2.936	.476		6.170	.000
	CL	.100	.107	.060	.930	.353
	AI	.312	.043	.476	7.335	.000

a. Dependent Variable: Ecomm

The coefficient table no. 31 above shows the coefficient level stated in beta. The result indicates that computer literacy (high computer literacy skill) have

significant influence toward e-commerce because the significant level scores 0.000. The result shows a significant relation because computer literacy ($\beta = 0.060$, $p < 0.05$) and attitude towards internet ($\beta = 0.476$, $p < 0.05$). Hence, there is significant relation computer literacy moderate attitude towards and e-commerce.

Hypothesis 4: There will be significant relationship between gender and attitude towards internet among generation Y.

Table 32:
Model Summary Genderand Attitude towards Internet

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.577[a]	.333	.272	.71279

a. Predictors: (Constant), Gender
b. Dependent Variable: AI

Table summary on gender and attitude towards internet above shows the R square values is 0.333 ($R^2 = 0.333$). It means that gender contribute approximately 33 percent of attitude towards internet. In addition, the R-value is 0.577, and it is indicating positive value, therefore the relationship between two variables is positive relationship.

Table 33:
ANOVA Gender and Attitude towards Internet

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.242	1	.242	.322	.001[b]
	Residual	299.764	398	.753		
	Total	300.007	399			

a. Dependent Variable: AI
b. Predictors: (Constant), Gender

The ANOVA table no. 33 shows that F Value is 0.322 with the significant level 0.001. Followed by df (degree of freedom) which represent the number of independent variable is 1 which is computer literacy and 398 total completed responses for the variable. The result shows that there is a significant relationship between gender and attitude towards internet with prediction equation ($F = 0.322$, $p < 0.05$).

Table 34:
Coefficient of Gender and Attitude towards Internet

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.114	.136		37.695	.000
	Gender	.495	.107	.412	3.160	.001

a. Dependent Variable: AI

The coefficient table no. 34 above display the coefficient level stated in beta is 0.412 for gender variable, which is positive, and significant correlation ($\beta = 0.412$, $p < 0.05$) between gender and attitude towards internet. Hence the result is positive, significant relationship between gender and attitude towards internet. In conclusion, it has proven that hypothesis 4 (H4), based on the result H4 was accepted, there is a significant relationship between gender and attitude towards internet.

Hypothesis 5: Gender moderates the relationship between attitude toward internet and e-commerce among generation Y.

Table 35:
Model Summary Gender Moderate Attitude towards Internet and E-commerce

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.311[a]	.097	.095	.61384
2	.520[b]	.270	.267	.55251

a. Predictors: (Constant), Gender
b. Predictors: (Constant), Gender, AI
c. Dependent Variable: Ecomm

Based on model summary above, it shows that model 1 R square value is 0.097 ($R^2 = 0.097$) which means 9.7 percent e-commerce can be predicted by their gender. At the same time, in the model 2 the R square value is 0.270 ($R^2 = 0.270$) which means 27 percent of ecommerce can be predicted by their attitude towards internet with gender as moderator. In addition when analyze R value in the model 1 scores 0.311 and 0.520 as in the model 2, it means the relationship between variables are positive

Table 36:
ANOVA Computer Literacy Moderate Attitude towards Internet and E-commerce

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.112	1	16.112	42.762	.000[b]
	Residual	149.966	398	.377		
	Total	166.078	399			
2	Regression	44.888	2	22.444	73.523	.000[c]
	Residual	121.190	397	.305		
	Total	166.078	399			

a. Dependent Variable: Ecomm

b. Predictors: (Constant), Gender

c. Predictors: (Constant), Gender, AI

The table no. 36 shows about the ANOVA result. The model 1 has the F Value for computer literacy is 42.762 and the significant is at 0.000 levels. Continued by the df (degree of freedom) whereby df represent the number of independent variable is 1 which is gender, and then the 398 is total number of complete responses for the variable.

While in the model 2 have the F value for the gender and attitude towards internet are 73.523, and the significant is at 0.000 levels. Followed by the number of independent variable is 2 which is gender and attitude toward internet, then the 397 is total number of complete responses for the variable. The result indicated there is a significant relationship gender moderating the relationship between attitude towards

internet and e-commerce with prediction equation ($F = 42.762$, $p < 0.05$) & (F 73.523, $p < 0.05$)

Table 37:
Coefficient of Gender Moderate Attitude towards Internet and E-commerce

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.294	.096		55.171	.000
	Gender	.402	.061	.311	6.539	.000
2	(Constant)	3.710	.185		20.091	.000
	Gender	.386	.055	.300	6.986	.000
	AI	.310	.032	.416	9.709	.000

a. Dependent Variable: Ecomm

The coefficient table no. 37 above shows the coefficient level stated in Beta. The result is gender has significant influence toward e-commerce, because the significant level scores 0.000. In the fifth hypothesis, gender plays a role as moderator attitude towards internet and e-commerce. The result shows a significant relation because gender and e-commerce ($\beta = 0.311$, $p < 0.05$) and gender moderate attitude towards internet and e-commerce ($\beta = 0.300$, $p < 0.05$). Hence, it supported that in the fifth hypothesis (H5), that gender moderate the relationship between attitude towards internet and e-commerce among generation Y.

4.7 Summary of Findings

In this chapter, the entire hypothesis findings are summarized. In the previous section the hypothesis was tested using multiple regression analysis. The benchmark to test the hypothesis is significance level, which is 0.05. The following table shows the entire hypothesis tested.

Table 38:
Summary of Findings

	Descriptive	Accepted/Rejected of Hypotheses
H1	Generation Y will have affirmative attitude toward internet on their e-commerce.	Accepted
H2	There will be significant relationship between computer literacy and attitude towards internet among generation Y	Accepted
H3	Computer literacy moderate the relationship between attitude toward internet and e-commerce	Accepted
H4	There will be significant relationship between gender and attitude towards internet among generation Y	Accepted
H5	Gender moderate the relationship between attitude toward internet and e-commerce among generation Y	Accepted

4.8 Discussion

This section, discusses each objective that are reviewed and explained with reasonable explanation according to the findings of this study. The results from the findings in this study are important for next Malaysian generation in relation to their computer literacy, attitude towards internet and their e-commerce activities. Since the generation Y is dominating Malaysian population pyramid and in addition this generation is someway existing, entering workforce and starting to earn money. Furthermore, the result may help to gain deeper understanding of generation Y characteristic in relation with computer literacy, attitude towards internet and lastly e-commerce. This study may contribute to the body of knowledge at academicals level and provide some useful information for e-commerce companies to formulate the strategy in order to boost their sales and focusing on generation Y consumer.

4.8.1 Generation Y will have affirmative attitude toward internet on their e-commerce.

The first objective in this study is to analyze generation Y attitude towards internet. According to the first hypothesis, (H1) test indicates that there is a significant relationship between attitude towards internet and their e-commerce. This study found that Hypothesis (H1) R squared value scores 0.687, it means that 68.7 percent of e-commerce are predicted by attitude towards internet and the rest 31.3 percent are predicted by other factors. The attitude towards internet itself is related to user's positive or negative perspectives closely knit with their internet activities or experiences. Further, the purchasing decision is highly influenced by perception (Kottler, 2004). If the consumers are having positive view about internet technology then there is high possibility to utilize internet for e-commerce activities.

Several researches have been done in order to relate the relationship between attitude towards internet and e-commerce. Chiu (2005) has tried to assess the model of online purchase intention and he found that online application such as e-commerce is highly influenced by the site perceive of ease use, or simply the user perception is critical. In line with Chiu (2005), Crisp, Jarvenpaa& Todd (2007) also found the same findings, they pointed out that positive experience, and positive perspective with similar consumer behavior and web technology is a good predictor of behavioral intention to purchase products or services through electronic environment. Latest research conducted by Jusoh and Ling (2012) reveled attitude towards internet has significant effect to their e-commerce activities. In conclusion, the user or customer perspectives about internet, its usage as well as e-commerce bring significant impact to their e-commerce activities.

4.8.2 There will be significant relationship between computer literacy and attitude towards internet among generation y

The second objective of this study is to examine the relationship between the role of computer literacy and attitude towards internet among generation Y. Based on the hypothesis testing in this study, observe that hypothesis 2 (H2) R squared value scores 0.47 therefore it means that computer literacy predicted moderately high percentage of user attitude towards internet. Moreover, the finding indicates that there is a significant relationship between computer literacy and attitude towards internet.

Computer literacy is related with the user knowledge and ability to operate computer and other related technology efficiently. In this study respondents come from service companies, which are mainly, working with IT related tasks. Therefore,

the respondents score high and moderate on computer literacy skill, leaving only a few of them having low scores on computer literacy skill.

Many previous studies have tried to examine the relationship between computer literacy and attitude towards internet. Gibbs (2008) pointed out that the better the user perceived on internet the better they are using it. In his study he also found that there is a strong relationship between frequency on using internet and how they perceive using computer. Since current generation spends most of their time online, the result proves that higher intensity usage will make them computer literate. In line with Gibbs statement Karsten&Roch (1998), Delcour&Kinzie (1993), and Zubrow (1987) pointed the same idea, those who have sufficient computer literacy tend to involve more in activities related to internet.

In this study based on the computer literacy skill, respondent were divided into three groups: high computer literacy, moderate computer literacy and low computer literacy. Based on the test shows that there is significant difference between those who has greater computer literacy and lower computer literacy. For those who has moderate computer literacy skill indicates insignificant relationship between computer literacy and attitude towards internet and those who has high computer literacy skill indicates significant relationship between attitude towards internet and computer literacy.This finding is supported by Yanik (2010), which is pointed out that those who have higher computer literacy were the one more enjoying internet usage, and the opposite. The study found that there were positive relationship between computer literacy and their attitude towards internet.

4.8.3 Computer literacy moderate the relationship between attitude toward internet and e-commerce

The third objective was trying to examine the moderating effect of the role of computer literacy in its attitude towards internet and e-commerce. The result shows that the computer literacy moderates theattitude towards internet and e-commerce. Computer literacy is the amount of computer skill a person acquires overtime and has been shown to be both related to attitude towards computer or internet and their use (Smith, Caputi, Crittenden, Jayasuriya, & Rawstorne, 1999)

This finding is supported by previous study conducted in Singapore in the year 2000.The study conducted by Liao and Cheung (2000) has tried to examine the role of computer literacy and e-commerce. They pointed out that computer literate person has a positive view about the internet, and they would tend to be more attracted by the opportunities of e-marketplace. In addition, Dillon and Reiff (2004) revealed that the more experienced user in computer or computer literate user exhibited more positive attitude towards internet and online purchasing

In this study respondents were working professional from service companies who works mainly with IT related tasks, therefore the respondents mostly having a good computer literacy, only a few of them scores low on computer literacy skill. Thus, they had a positive view about attitude towards internet and e-commerce activities. Hypothesis testing proves that computer literacy skill moderate attitude towards internet and e-commerce.

4.8.4 There will be significant relationship between gender and attitude towards internet among generation Y

The fourth objective in this study is to ascertain the relationship between gender and attitude towards internet among generation Y, in this study the result shows that there is positive relationship between gender and attitude towards internet. The R square value scores 0.333, it means gender contribute approximately 33 percent of attitude towards internet. Further, the result shows that there is significant relationship between gender and attitude towards internet.

In the technological era, like nowadays people have high dependency on internet. Surprisingly in this study it was found that the digital divide still exist surround us. There are many factors contributing to the disparity such as income, educational level, class, race, gender, geographical location and cultural differences (Papastergiou & Solomonidou, 2005).

The gender gap in the adoption of internet may exist because male and female are different in the socio economic status on average, thus it will influences their computer and internet access (Bimber, 2000; Ono, 2003). In general male tend to have more hours spending time in the internet compared to female (The Broadband Comission Working Group on Broadband & Gender, 2013). In addition Ford and Miller (1996) reported that women experienced greater disorientation level and disenchantment in relation to the internet usage compareed to men. Women went online less intense, spent less time to surf digitally and utilized internet for narrower purpose compared to men (Tsai & Lin, 2007). The result turns substantiali the hypothesis formulated in this study.

4.8.5 Gender moderate the relationship between attitude toward internet and e-commerce among generation Y

The fifth objective in this study was to analyze the moderating effect of gender and relationship with attitude towards internet and e-commerce. Based on the hypothesis testing, it was predicted a considerable proportion of respondents' attitude towards e-commerce could be predicted by their attitude towards internet with gender as a moderator. Further, the result indicated that there is a significant relationship between gender and further it moderate attitude towards internet and e-commerce.

As the result from previous hypothesis indicated that gender gap does exist and affecting their attitude towards internet, therefore gender moderate attitude towards internet and e-commerce. This finding is supported by previous research. Many scholars alleged that male and female differ in their processing information. Mainly men and women accept stimuli in consumption such as graphic or text. In addition women accept more response on imagery stimuli while men more intend to text based. This fact may lead to the moderating roles for attitude towards internet and e-commerce (Holbrook, 1986). The influence of gender upon decision making on the e-commerce has been analyzed with regard the process of acceptance of new information technologies. The information technology characteristic and use are evaluated differently, depends on the gender of individual (Venkatesh & Davis, 2000). The greater attitude towards internet, the greater the number of exchanges and the more positive the attitude towards online shopping (Hernandez, Jimenez, & Martı´n, 2009).In conclusion it was reported that gender moderating user attitude towards internet and their attitude towards e-commerce.

CHAPTER 5

CONCLUSION& IMPLICATION

5.1 Conclusion

This study is aimed to examine attitude towards usage of internet for e-commerce among generation Y.In the recent years, the trend of internet usage has been increased tremendously. This phenomenon has contributed a great impact to business sector and individuals. The great numbers of internet users have attracted business to transform their business into digital.

The millennial or generation Y, commonly referred as digital native, since their characteristic, which is familiar to technology. Technology is the second environment to this generation. Furthermore generation Y are dominating the pyramid of population almost all over the world inclusively Malaysia, currently the generation Y is entering workforce and start earning money. In addition this spending pattern of this generation is quite surprisingly, nearly 1.8 billion ringgit annually in e-commerce only. This generation are looking for more convenient way to shop instead doing conventional way. A huge number of Malaysian generation Y and their familiarity will open a huge opportunity to utilize technology as the media of business in this digital era that captured the trend.

In order to support this study, both primary and secondary data were used. The primary data are gathered through surveys, a set of questionnaire has been distributed to gain deeper understanding regarding their attitude towards internet and e-commerce. Secondly, secondary data such as journal, statistical bulletin also gathered to strengthen and support primary data

The major objective of this study is to analyze the generation Y attitude towards

internet. The results indicated that attitude towards internet contributed considerable proportion and turned to be the predicted factor to their e-commerce activities. It is clearly observed that there is significant relationship between attitude towards internet and e-commerce activities. In addition, there are some other factors influencing attitude towards internet such as gender and computer literacy. Factor such as gender and computer literacy in this study play a major role as moderator toward internet. Further, the relationship between gender and computer literacy as a moderator highly is significant.

5.2 Implications

There are some implications for policy level, managerial level, as well as for the body of knowledge in the future research; in order to boost e-commerce especially focuses on the next generation.

Policy Implications

This study provides a better understanding on generation Y attitude towards usage of internet for e-commerce. In this study reveals that attitude towards internet contribute a large portion to e-commerce. The more positive attitude towards internet, more intense the e-commerce activities. The policy makers, in this case, Ministry of Trading, Ministry of Education and Malaysia Communication and Multimedia Commission (MCMC) should facilitate people of Malaysia to have better training and development initiatives that provide more understanding about internet itself and with its usage more online consumer purchasing behavior. The customers can act as better online shoppers and government initiatives can control customer congestions in the retail and shopping malls. Government can act as better facilitator to gain technology skills to their present and upcoming generations and further influence their e-

commerce activities. Moreover the government should provide stimulus to small medium enterprise (SME) to transform and innovate their business through provide e-commerce.

As well as industrial concern considering the more influence of generation y consumer whether it is male or female, the marketing division of companies should think about realignment of marketing policies, in accordance with their modern generation Y consumers, which how to tackle better appreciation and appeal towards their product and services through technology application and internet usages. The marketing policies should consider more to obtain more female generation Y consumer by providing better ease of use of technology or internet that may lead to better business performance with accountability

Managerial Implications

This study provides wonderful information about generation Y attitude towards usage internet for e-commerce. This generation is spending pattern is incredibly high, and they are techno savvy people. In addition, generation Y currently entering the workforce and started their earning life. The consumption most probably will be at higher as well. For companies that involve in electronic commerce, this study will provide wonderful information about generation Y. Therefore, the companies may plan good strategies in order to get more customers, especially customers from generation Y. For those companies, which have established brick, and mortar, in the future they may provide online services, transforming into brick and click, that further to enhance their business, ultimately getting more customer from generation Y.

The executive on the organization, as well as in the field should gather the changing interest of consumers belong to generation Y, in correlation with their preferences towards internet usages. Continuous feedback from male and female consumer belong to generation Y need to be entertained to grab business opportunities through technology application and adoption with facilitate better e-commerce activities. As well as Malaysian population, the executive should target both literate and semi literate consumer having the capability to make use of internet and e-commerce activities for better business opportunities, it can be inferred that the company policies and managerial level business making should concentrate more heterogeneous generation Y communities who is having better computer literacy as well as in the emerging state.

Theoretical Implications

In the theoretical field, this study adds up a small portion of information to the literature about generation Y, attitude towards internet and electronic commerce. Currently there is a limited resource focus on e-commerce and generation Y in Malaysian scenario. This study may provide an insight to the future research, adding up existing literature with recent findings that support academicians and research scholars to conduct deeper research on e-commerce and generation Y.\

The major theoretical contribution of this research is related to gender variation in e-commerce activities, with the support of internet usages, though the literature review has established the role of internet usages towards e-commerce activities in different countries, this is the first time, the theoretical coming from MSC area in Kuala Lumpur and Selangor, such theoretical information will be a wonderful insight to new research which carry forward presents difference between rural urban,

techno savvy and non techno savvy, employed and unemployed, professional and non professional, married and unmarried, variation in the ages, etc. Thus this study is eye opener to the academician and researchers in the field of management, technology management and business management.

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APPENDIX

UUM
Universiti Utara Malaysia

Othman Yeop Abdullah Graduate School of Business (OYAGSB)

Date: _ _ /_ _ / _ _ _ _

Dear Sir/Madam

Survey on Generation Y attitude towards usage of internet for e-commerce in

I am currently pursuing a master degree in Msc. Management at Othman Yeop Abdullah Graduate School of Business (OYAGSB), Universiti Utara Malaysia. As part of my study, I am conducting the above-mentioned survey to investigate the generation Y attitude towards usage of internet for e-commerce. In this regard, I would like to invite you to be a respondent to this survey. Your contribution will provide useful inputs, as it would help to achieve the objective of this study, please be assured that all information provided will be kept strictly confidential, as findings will be presented on an aggregated basis to be used solely for academic purpose. In anticipation of your positive response, I would appreciate very much your kind assistance in completing and returning the attached questionnaire within a week or by _ _ / _ _ /_ _ _ _ .

What is your age?

1. 25 and under
2. 26-33
3. 34-40
4. 41-55
5. 55 and above

What is your gender?

1. Male
2. Female

What is your income?

1. 0 – MYR2000
2. MYR 2001 – MYR 4000
3. MYR 4001 – MYR 6000
4. MYR 6001 – MYR 8000
5. MYR 8001 and above

What is the highest level of education you have completed?

1. High school or equivalent
2. Diploma
3. Bachelor Degree
4. Master Degree
5. Doctoral Degree
6. Professional Degree

How often do you visit the Internet site you use most often several times a day, about once a day, every few days, once a week or less often?

1. Several times a day
2. About once a day
3. Every few days
4. Once a week
5. Less often Don't know

When you are away from home or work, do you ever connect to the internet wirelessly using a laptop or handheld device, or not?

1 Yes
2 No
3 Don't know

Generational Differences

Kindly rate your trait below, 1 means not applicable while 7 means very applicable

Questions								
Not Applicable	Willing to navigate office							Very Applicable
	1	2	3	4	5	6	7	
	Accepting of authority figure in the workplace							
	1	2	3	4	5	6	7	
	Ask for help when needed							
	1	2	3	4	5	6	7	
	Need supervision							
	1	2	3	4	5	6	7	
Not Applicable	Embrace diversity							Very Applicable
	1	2	3	4	5	6	7	
	Give maximum effort							
	1	2	3	4	5	6	7	
	Learn quickly							
	1	2	3	4	5	6	7	
	Like informality							
	1	2	3	4	5	6	7	
Not Applicable	Like structure							Very Applicable
	1	2	3	4	5	6	7	
	Plan to stay with the organization for long term							
	1	2	3	4	5	6	7	
	Process driven							
	1	2	3	4	5	6	7	
	Respectful of organizational hierarchy							
	1	2	3	4	5	6	7	
Not Applicable	Result driven							Very Applicable
	1	2	3	4	5	6	7	
	Retain what they learn							
	1	2	3	4	5	6	7	
	Seek work/life balance							
	1	2	3	4	5	6	7	
	Technologically savvy							
	1	2	3	4	5	6	7	
Not Applicable	Prefer to work alone							Very Applicable
	1	2	3	4	5	6	7	
	Prefer to work in a team							
	1	2	3	4	5	6	7	

Internet Lifestyle

The following items indicate your internet lifestyle. There is no right and wrong answers. The answers should reflect your attitude. Number 1 indicate strongly disagree and number 7 indicate strongly agree. Kindly choose the figure in between.

Questions							
Strongly Disagree	Internet shopping is easier than local						Strongly Agree
	1	2	3	4	5	6	7
	I like having merchandised delivered at home						
	1	2	3	4	5	6	7
	Online buying is fun						
	1	2	3	4	5	6	7
	I enjoy buying things on internet						
	1	2	3	4	5	6	7
Strongly Disagree	I'd shop more on the internet if prices are lower						Strongly Agree
	1	2	3	4	5	6	7
	Shopping in stores is a hassle						
	1	2	3	4	5	6	7
	I don't like waiting for products to arrive						
	1	2	3	4	5	6	7
	Returning product from e-commerce is simple						
	1	2	3	4	5	6	7
Strongly Disagree	It's easy to judge merchandise quality through Internet						Strongly Agree
	1	2	3	4	5	6	7
	Internet buying has not delivery problems						
	1	2	3	4	5	6	7
	I don't have a problem with shipping charge on the Internet						
	1	2	3	4	5	6	7
	Ecommerce has better service policy						
	1	2	3	4	5	6	7
Strongly Disagree	We don't have to see things in person before we buy through Internet.						Strongly Agree
	1	2	3	4	5	6	7
	A lot of my friend shop on the internet						
	1	2	3	4	5	6	7
	I know about using the Internet						
	1	2	3	4	5	6	7
	I am good at finding what I want on the internet						
	1	2	3	4	5	6	7
Strongly Disagree	Internet ordering is easy to understand and use						Strongly Agree
	1	2	3	4	5	6	7
	Internet stored carry things what I want						
	1	2	3	4	5	6	7

	I go to internet for reviews or recommendations							
	1	2	3	4	5	6	7	
	I like browsing on the Internet							
	1	2	3	4	5	6	7	
Strongly Disagree	I go to the Internet for preview products							Strongly Agree
	1	2	3	4	5	6	7	
	I trust about the security (credit card number) in the Internet							
	1	2	3	4	5	6	7	
	I want my purchase private							
	1	2	3	4	5	6	7	
	I give my credit card number to the online merchant							
	1	2	3	4	5	6	7	
Strongly Disagree	Buying things on the internet is not scares me							Strongly Agree
	1	2	3	4	5	6	7	
	I trust Internet retailers							
	1	2	3	4	5	6	7	
	I search for lowest price in everything							
	1	2	3	4	5	6	7	
	I like to go shopping with my friends							
	1	2	3	4	5	6	7	
Strongly Disagree	I like the ambience at the local retail stores							Strongly Agree
	1	2	3	4	5	6	7	
	I like the friendliness at local retail stores							
	1	2	3	4	5	6	7	
	I often return items I have purchased							
	1	2	3	4	5	6	7	
	Internet shopping offers better selection							
	1	2	3	4	5	6	7	
Strongly Disagree	Internet stores has better quality than stores							Strongly Agree
	1	2	3	4	5	6	7	
	Internet stores has better prices							
	1	2	3	4	5	6	7	

Attitudes toward Internet

The following items indicate your attitude toward Internet. There is no right and wrong answers. The answers should reflect your attitude Number 1 indicate strongly disagree and number 7 indicate strongly agree

Questions							
Strongly Disagree	Using Internet makes me more efficient						Strongly Agree
	1	2	3	4	5	6	7
	The Internet makes me feel intelligent						
	1	2	3	4	5	6	7
	The Internet enables me to do things I wouldn't be able to do thing I will not be able to do otherwise						
	1	2	3	4	5	6	7
	The Internet can facilitate human togetherness and give individuals sense of belonging						
	1	2	3	4	5	6	7
Strongly Disagree	The Internet is a good way to communicate and encourage human interactions						Strongly Agree
	1	2	3	4	5	6	7
	Using Internet makes me feel incompetent						
	1	2	3	4	5	6	7
	The Internet makes me feel incapable						
	1	2	3	4	5	6	7
	The Internet can lead to human separation and cause individuals to withdraw from direct human interactions						
	1	2	3	4	5	6	7

Computer Literacy

Kindly indicate your knowledge related to computer. There is no right and wrong answer. Number 1 indicate having less knowledge and number 7 indicate having perfect knowledge

Questions								
Having Less Knowledge	Sending or reading email messages							Having Perfect Knowledge
	1	2	3	4	5	6	7	
	Using word processing program							
	1	2	3	4	5	6	7	
	Installing computer software							
	1	2	3	4	5	6	7	
	Configuring computer driver							
	1	2	3	4	5	6	7	
Having Less Knowledge	Fixing a system problem (e.g. Windows)							Having Perfect Knowledge
	1	2	3	4	5	6	7	
	Installing an operating System (e.g. Windows)							
	1	2	3	4	5	6	7	
	Browsing the Internet							
	1	2	3	4	5	6	7	
	Using an Internet search engine							
	1	2	3	4	5	6	7	
Having Less Knowledge	Making purchase on the Internet							Having Perfect Knowledge
	1	2	3	4	5	6	7	
	Finding the best price on the Internet							
	1	2	3	4	5	6	7	
	Using an Internet shopping bot							
	1	2	3	4	5	6	7	
	Finding Internet retailer quality ratings							
	1	2	3	4	5	6	7	