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THE IMPACT OF PERCEIVED USEFULNESS AND PERCEIVED EASE OF USE ON THE ADOPTION OF E-COMMERCE IN MALAYSIA

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***Abstract*---*The existing literature and trends suggest that e-commerce channels are fast becoming an integral part of the web based channel strategy. This paper takes a game theoretic approach to study, outlines and analyses the customer's behaviour with respects to their perception and acceptance towards of adoption in electronic commerce. Furthermore, this research not only demonstrate on these contextual differences which influence consumer satisfaction with the purchase products or services using e-commerce, but also investigate the contextual constructs that make consumer satisfied or dissatisfied that lead to acceptance of e-commerce in Malaysia. Thus, this study explores the relationship between independent variables which are perceived usefulness, perceived ease of use, social culture influence and consumer advantages in explaining the dependent variable which is adoption of ecommerce in Malaysia.*

***Keyword*---*World Wide Web, e-commerce, consumer satisfaction, perceived usefulness, perceived ease of use, social culture influence and consumer advantages.*

I. Introduction

Over the last 4 decades, nobody has even heard about e-commerce let alone doing an online transaction. No one has the need of sending and receiving information in big bulk instantly. By 1970's, when the electronic industries take its tolls on the world, many traditional and old fashion method of doing business have changed. Electronic Data Interchange (EDI) and Electronic Fund Transfer (EFT) have made a great impact in the business world. It has made possible for company to move transaction by allowing business document to be sent electronically. The arrival of the internet and World Wide Web (www) have revolutionised business in Malaysia. It existence may not come with great confidence or trust to the online community. But it has started a significant change towards Malaysia retail perspective. Due to increased cost pressure and market demand in the cyberspace, companies have sought to learn the needs and preferences of their customers (Belkhamza & Wafa, 1970). Other sector in Malaysia ecommerce will follow suit but a closer examination will be needed or another research will need to be done on the subject matter, since we have fairly few data on it.

The realization that ecommerce will be growing big in the future is indeed true, in fact to some business it is imperative that their existence may very well depend on it. However in Malaysia, it will take some time to grow and flourish. As most of the Malaysia population still need to pick up the basic essential habit first – reading. No doubt the internet and online shopping will be a charmer to the young group and scholar. There is a saying that "there are opportunities in a problem", for those that had started the processes to go online and start their business will be the first movers in the country and if they able to maintain and persevere they will be the market leader (Lallmahamood, 1970). Malaysian consumer perception towards online ecommerce will further grow and accepted by the different race and culture in Malaysia. Based on (Figure

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1) internetworldstats.com survey, Malaysian online internet users are estimated to be around 17.7 million in quarter 4, 2011.

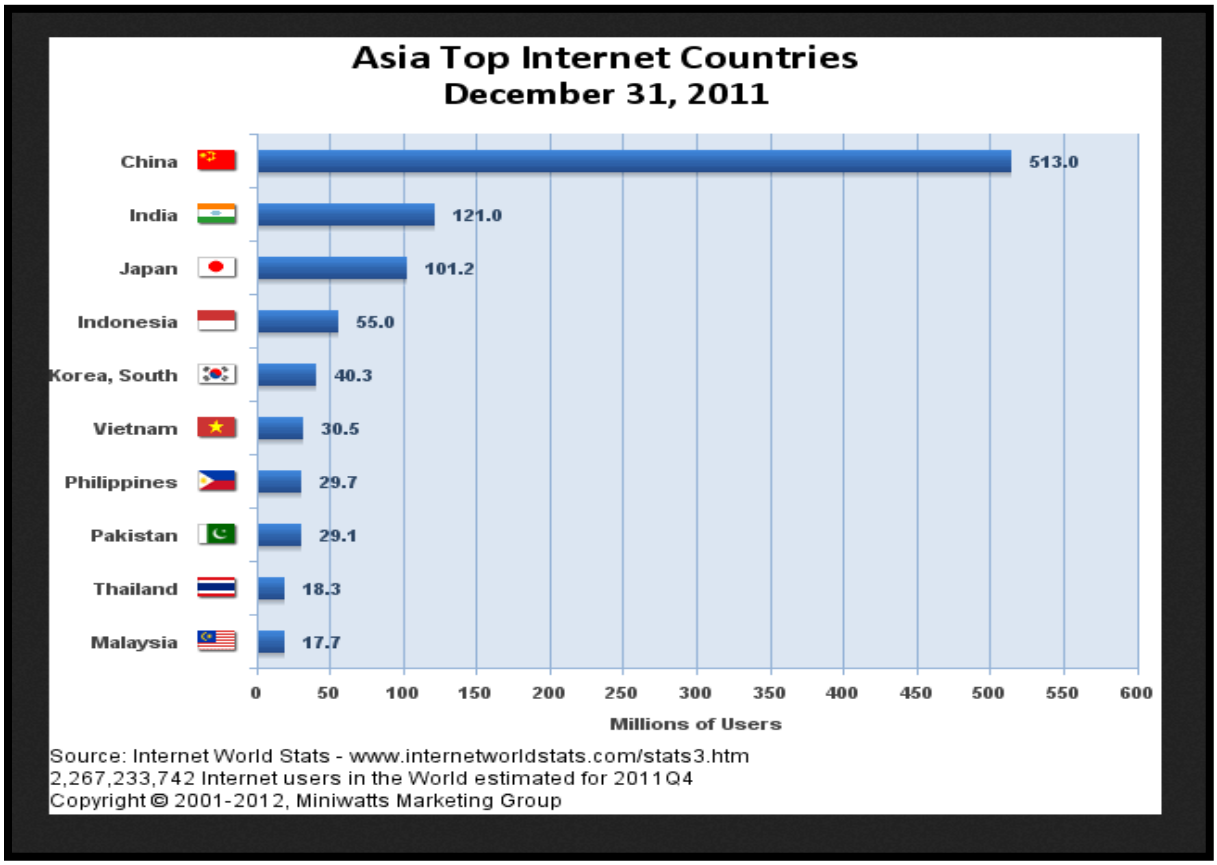


Figure I. – Asia Top Internet Countries

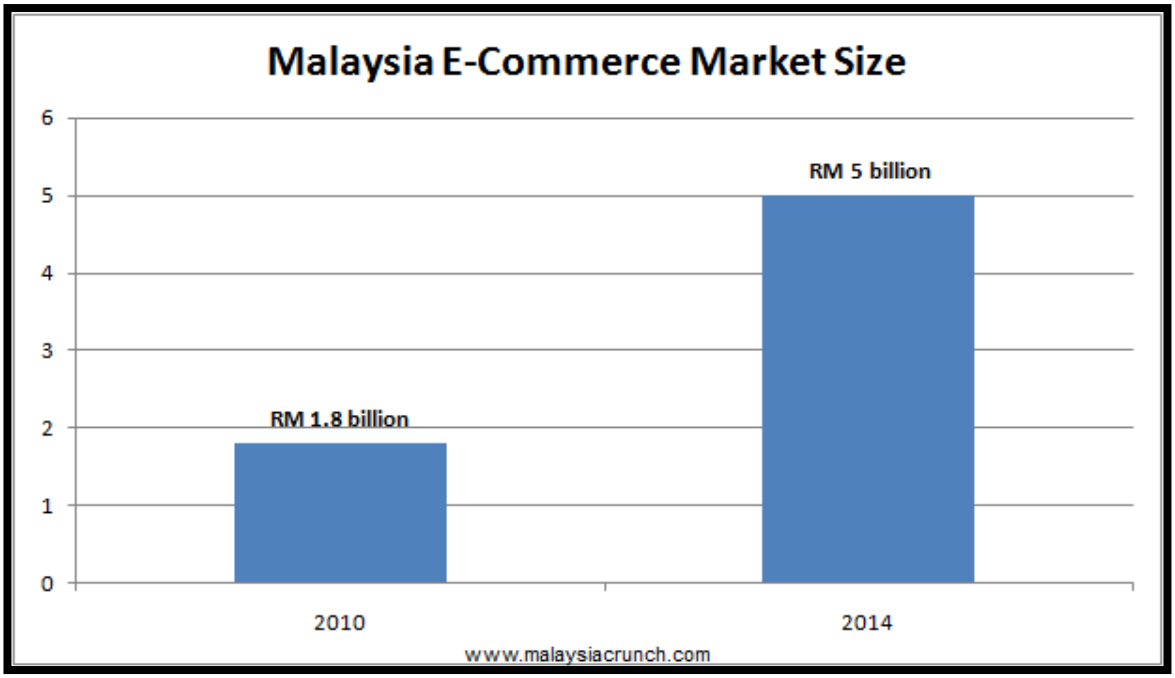


Figure 2. – E-Commerce Market Size

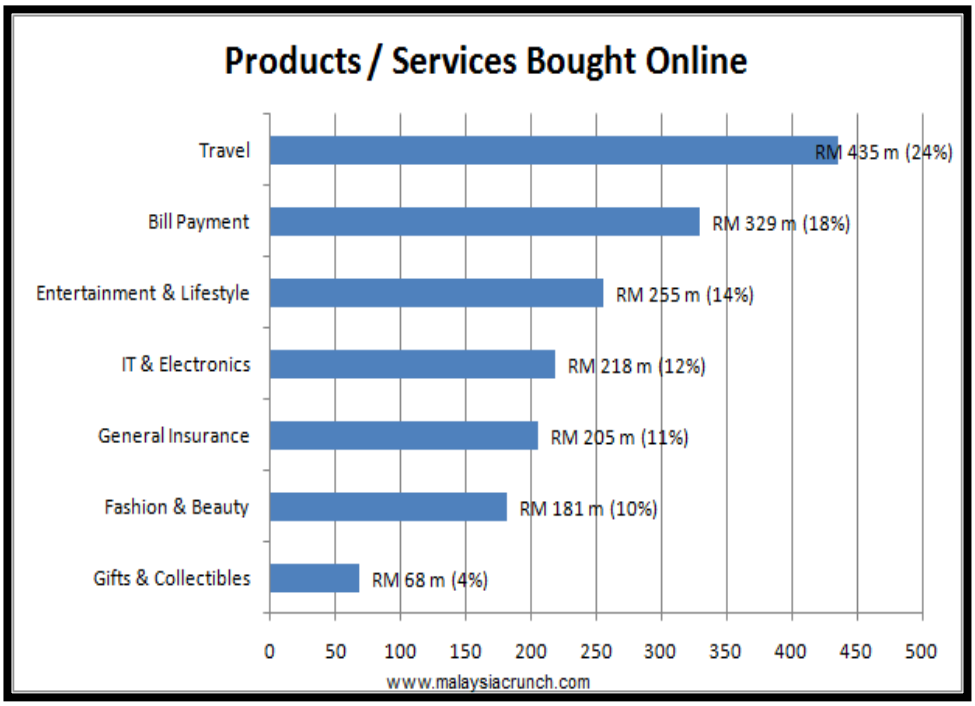


Figure 3. - Product or Service Bought Online

Most of the activities participated by Malaysian is the national past time – gossiping on social networking platform. Main activity in Malaysia when consumer goes online is social networking or gossiping. The internet helps make our lives more convenient and easier. But it also an intrusion to our privacy, such as our personal data information has become accessible to many unknown parties or sources. This relates to security on web transaction security, even though it is not the part of this thesis studies but it relates indirectly to other issues that we are investigating (Suki & Suki, 2011; Nguyen et al., 2019; Nikhashemi et al., 2013; Pathiratne et al., 2018; Seneviratne et al., 2019; Tarofder et al., 2019). One such topic is ease of use, where consumer does not want to be bothered to think about security. All the consumer wants is to enjoy the shopping activities worries free. The issues on securities should be taken care of by the merchant that provides the services or selling the merchandise. Many consumer find that e-commerce web site is complicated enough to understand the content design – let alone to make sense of the financial payment steps that have to be followed. Most of the time, consumers execute payment steps that are difficult for them to understand, that actually made them put off their intention to purchase the product or services.

This research paper will cover the studies of consumer behaviour and online shopping behaviour; it will however touch lightly on online shopper's attitude but not in depth. It will not cover on how the decision of purchase is made or why it is made. Most of the studies will be based on the online consumer empirical characteristic and the result made. Not why it is made – this point is being avoided in this studies since the choice of why is very subjective to study and it also involved psychological into the person mind and situation at the time.

II. Literature Review

From the marketing perspective, a drastic increase in the organization to grab the chance to seek communication directly to potential customer or consumer and pre-purchased information search and online shopping for broad consumer segment on variety of purpose have made the basis of development and growth in commercial use of interactive multimedia (Ramayah & Suki, 2006). The framework and the concept used in this study are summarized into Tables 1 below:

Table 1 - Research methodology Variable Modelling

Model	Variable	Description
Technology Acceptance Model (TAM)	Perceived Usefulness	Define as perception of using the new technology will bring improvement and enhancement to the individual performance.
	Perceived Ease of Use	Define as perception of using the new technology will make the process or task to the individual performance much simpler and effortless.
Diffusion of Innovation (DOI)	Social Culture Influence	Define as social influence that the individual believe they need to used the ecommerce technology or the internet.
	Consumer Advantages	Define as perceive degree of using the internet ecommerce or shopping online or making purchase online would give them better advantages and discount.
Other Factor	Consumer Traits	Refer to as demographic factor and characteristic on consumer profile of interest towards why consumer uses ecommerce or shop online.

According to studies made by Slyke, product difference in terms of male and female interest also affect the decision to made online purchase. But at the time of studies, it is agreeable that most of online merchandise is more male oriented such as hardware, software and electronic. But as the market grow, this factor needs to be re-examined as more and more women oriented product have been introduced to online shopping (Ndubisi, 2007).

As a matter of fact, in the year of 2012, many of online stores that being setup are selling woman apparel, accessories and material. It may have seemed that the market space on the cyber world has shifted from a male dominant or oriented to becoming more female oriented. The female purchasing powers have since then grow and will continue to do so in the near future. As more female enters the work force and industries – most shopping activities have been taken up by women and men have been left behind. This is also true in the Malaysian context as many companies and retailers provide or service woman product more than man (Own findings at the mall, shopping complex and hypermarket, August 2012). In today's Networked Economy, most individuals and companies worldwide are being electronically linked and the business rules keep changing all the time. Companies have to respond fast to changes in order to survive. Changing marketplace at every second is at the pace of technology and internet (Sin, Nor, & Al-Agaga, 2012). E-commerce has become increasingly crucial to business success, but in order to implement it successfully will require a broad understanding of internet web technology,

law, policy, and business processes. There are many factors affecting decision-making in adopting of E-commerce, the decision is getting more complicated with the Internet changing the business model, rules and conduct in the globalization age. Further studies also shown that thrust factor is the main focus to consumer in making any decision to make purchasing online or through a web site. The security factor also plays an important role in decision making to make purchase online. However, this factor will not be discussed or research into, since there have been many findings that support this factor already (Ramayah, Rouibah, Gopi, & Rangel, 2009).

Other factors that influenced a consumer's desire to use a new application such as e-commerce are a factor of social influence. Past studies found that consumers love to give suggestions and recommendations related to the use of a service to others if they are satisfied with the service provided. They usually will tell and recommend it to their closest friends to also try and use the system. Social influences also have a deep effect on consumer acceptance on m-commerce. This shows that social influence in fact have more effect on the acceptance of an application such as e-commerce (Chong, 2013).

III. Research Method

Research methodology is developed to meet the key research objective and provides conclusive answers and information to all research questions as detailed and accurate in the objective findings. As quoted from Wikipedia website, "Research can be defined as the search for knowledge, or as any systematic investigation, with an open mind, to establish novel facts, usually using a scientific method (Hussain, Mosa, & Omran, 2017). The primary purpose for applied research is discovering, interpreting, and the development of methods and systems for the advancement of human knowledge on a wide variety of scientific matters of our world and the universe." Most of the method in this thesis will be using Quantitative research method by giving out Survey questionnaire to selected groups of population in a targeted area within Wilayah Persekutuan and Selangor. By using statistical analysis method such as frequency analysis, correlation, ANOVA, normality test and regressions; we will analyse the collected data from the population sample. Frequency analysis will be used to analyse data from the demographic section where the data type is recurring. Frequency occurrences display the sample distribution in tabular form. It later being analyse using mean, mode, median and averages.

From the previous literature review, it is evident that online shopping behaviour is not as straight forward as it seems. Therefore, many studies have been conducted to identify the shopping behaviour that relates with online shopping and what inspire consumers to choose e-commerce as choice to purchase products or services online.

The enormous commercial potential and opportunities using the web to offer online product or services is undeniable. Ecommerce opportunities is also undeniable for many B2C retail revenue have increase in the US of about 18 billion, and from the looks of it, it will continue to grow in the future. Research thesis can be considered to be one of the main foundations for MBA requirement. Each candidate would require doing and submitting a research subject for their MBA programme. In undertaking this project, it will equip the perspective of MBA graduates with the required skills and technique in research, data and information gathering, data analysing and data interpretation and research conclusion (Hussain, Musa, & Omran, 2019). However in this research paper, some modifications and deviations from the above normal practice and will follow with much simpler framework and order. Past studies have used a variety of conceptual frameworks and models to explain the determinants in influencing a consumer's desire and acceptance of a technology in the context of the user (Wei and colleagues, 2009). Most researchers make the theory as TAM, and the Diffusion of Innovation Theory (DOI), as the basis for their research framework. Basically there are 2 types of variable involves in this project research: The "dependent variable" represents the output or effect, or is tested to see if it is the effect. The "independent variables" represent the inputs or causes, or are tested to see if they are the cause.

$AEC = PU + PEU + e$

AEC = Adoption of E Commerce

PU = Perceived Usefulness

PEU = Perceived ease of Use

e = Error Term

In developing the hypotheses, a theoretical model or frame work is introduced to form a working relationship between the objective of the research study topic and the research method. These theoretical framework and concept will be used to later support the collection of data gathering and data analysis. Based on other literature review about consumer factors, it result shows that, there are influenced base on online shopping and to some extend consumer behaviour factor that have been studies do establish the relationship towards e commerce transaction. Even though the literature review and other studies have been made on the attitude and behavioural are based also on the demographic – the results, in my humble opinion, are not significant and conclusive enough. Why? Because the aspect of the behavioural and attitude being studied involve emotion, psychology and spontaneous reaction, which in my opinion were not recorded or evaluated accurately in those studies (Hussain, Musa, & Omran, 2018). Therefore, this research paper will not take the above mentioned set of properties in the studies, but rather look at the survey result as it is without emotion part to clutter it. This approach is taken because the researchers are not a psychology student or have academic knowledge in the area, and nor do we detect the expertise through the literature review papers that is used in this project. Many of the researchers that evaluated the data are academicians of different background of expertise and not one of them came from any psychology background to make sound analysis of the emotion behind the online transaction (Hussain et al., 2012).

Hypothesis 1 – Is based on the success of models such as TAM, which has led researchers to describe the task of explaining and predicting user acceptance of new computer and information technology in the organisational context as a mature research area.

Hypothesis 1: There Is A Significant Positive Relationship Between Factors Usefulness And E-Commerce Adoption.

It forms the foundation of the conceptual model for this study, and includes two specific beliefs that are relevant for adoption of ecommerce use, namely perceived usefulness (PU), the degree to which a person believes would enhance his or her performance. By applying the concept into ecommerce adoption we create the above hypothesis.

Hypothesis 2 – Is also based on the success of models such as TAM, which has led researchers to describe the task of explaining and predicting user acceptance of new computer and information technology in the organisational context as a mature research area.

Hypothesis 2: There Is A Significant Positive Relationship Between Factors Ease Of Use And E-Commerce Adoption.

And perceived ease of use (PEU), the degree to which a person regarded e-commerce as easy to understand and operate. The easier and more useful the e-commerce application technology is – the more likely it will be accepted by more users. By applying the framework concept into e-commerce adoption, we create the above hypothesis.

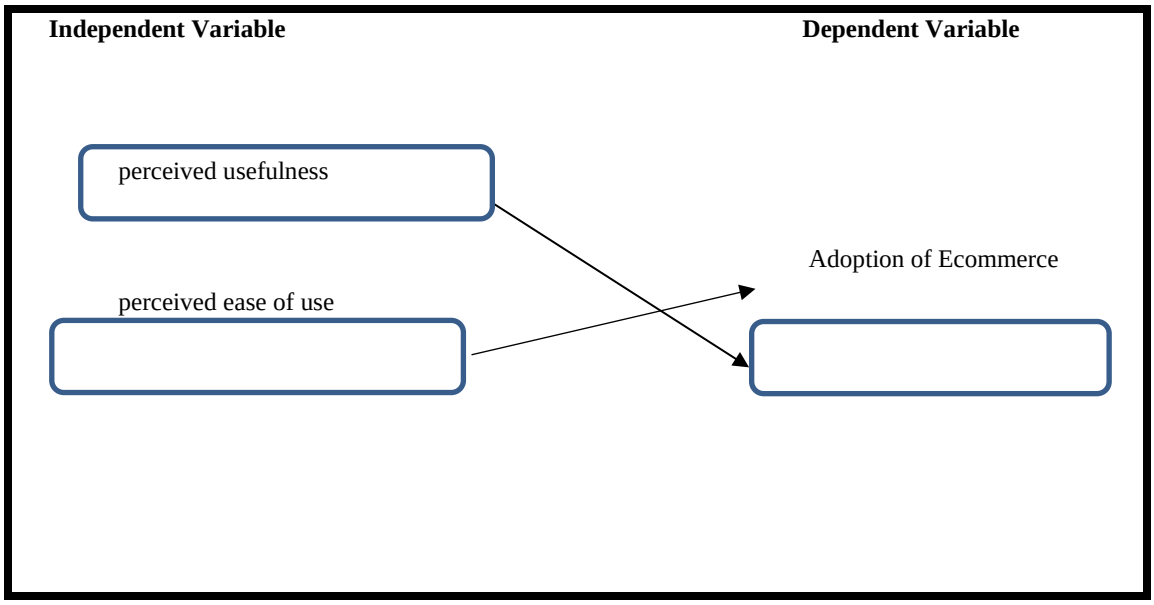


Figure 4. – Research Framework

Based on previous research – many models have been used in many literature reviews: Technology Acceptance Model (TAM) and also the Diffusion of Innovation (DOI) Model have been widely used by other researcher as a guide in their research.

They have used a variety of conceptual frameworks and models to explain about determinants in influencing a consumer's desire and acceptance of a technology in the context of the user (Wei and colleagues, 2009). Most researchers make the theory as TAM, Theory Planned Behaviour (TPB), and the Innovation Diffusion Theory (DOI) as the basic framework of their research.

Multiple choice questions are where the respondents are given a set of answers to choose from and respondents will select the best answer from the list. All the data gathered in this manner will be analysed using frequency response and scale matrix to measure the response made by the respondents. Dichotomous Questionnaire is a structured question with only 2 answer response e.g. a Yes or No type of answer or question on gender with answer selection of either only male or female. Considering for this type of data can only be analysed by counting exactly the amount of repeating item in each group. The frequency response is used to find out how many responses pop up in the research respondent group.

A study is said to be valid if it measures actually what it claims to measure and there is no error in drawing the conclusion from the data. The reliability and validity of the data measured on the variable in this research depends on the following criteria:

1) Validity Criteria:
    a) Content validity
    b) Statistical validity
2) Reliability Criteria:
    a) Internal consistency

The above criteria can be summarized to the following in this study:

1) The design of the questionnaire
2) The collection of the data
3) The interpretation of the data

The conduct of reliability and validity test made is to ensure that the data collected is good and we can or able to separate the bad one from this studies. A reliability study is done at the pilot testing stage.

This study uses convenient sampling method in gathering and collecting the data. Since, it is not possible to do a random sampling method for this study. However, the word random may have been used to describe the action or the way this research is conducted – but it is not purposely to indicate that the sampling method is/has change to random method. ***We must stress it again that this study uses convenience sampling method.***

Since it is impossible to collect data from the entire population, a sample of population is selected for the purpose of this research paper. A sample from a subgroup of population is use to conduct and collect data by method of questionnaire survey.

The sample data is collected in Malaysia within the state of Wilayah Persekutuan and Selangor. A total of 270 questionnaires are being distributed into a few geographic locations in KL and Selangor at the target area of population. By studying this sample, we hope to arrive at some conclusion and are able to generalize the population interest and intention of adopting e commerce in their daily lives. Data source for this research paper is by using Primary data sources. Primary data source are obtained by conducting public survey questionnaire.

Primary data types are the main instrument used in evaluating determinant of Adoption of E Commerce in Malaysia. The data is originating from the survey perform from public location. As for this research paper most of the data use is from primary data. The questionnaires were distributed to a group of respondent and they were guided through the process of answering the questionnaire. After the participant have completed in answering the questionnaire, they were collected immediately. This method was chosen because it gave the best despondence rate on data collection – a 100% collection rate, without any loss or damage of the questionnaire. The researcher also found that – this method made the respondent committed to provide the answer on the survey form and return it back as soon as they finish it (Nawaz, Afzal, & Shehzadi, 2013).

Once the survey questionnaires are collected, each individual answer response will be coded and transferred to the SPSS system for analysis. The data transferred is then recorded to ensure every data is correctly transferred before the analysis is made. All data will undergo double checking to ensure the data correctness. Descriptive analysis will be used in the forms of frequency analysis, min, max, mode, median, and averages for all concerning variables. This descriptive analysis is conducted to obtain a general profile of the distribution in the sample responses and identify the characteristic of the sample under study. This entire test is to enable the researcher to correctly interpret the data and come up with meaningful prediction in answering the research objective made here. Hypotheses testing are according to the significant level setting, where the acceptable percentage confidence level is 95% significant, will be accepted (Nawaz, Azam, & Bhatti, 2019).

IV. Findings

In chapter four, the findings we collected through the survey, an analysis will be made on data. The data will be manipulated to get useful information to find the results of the study and the results are used to interpret the research hypothesis. Interpretation of the study, are based on the research objectives and the problems that have been identified in the earlier chapter. The collected data were analysed using SPSS software version 17.0 and is represented in the Table.

The survey question is being designed to house similar criteria for the same variable being research. There are all together 5 dimensions of independent variable that are been tested. For each dimension contain 5 question that are related to the dimension and also having the relationship towards the dependant variable.

For example, in section Dimension 1, there are 5 questions related to perceive of usefulness and to the adoption of E-Commerce. All of the questions were constructed in a positively manner therefore the construct need not be re-recoded when entering into SPSS. Items in the construct are measured using Likert Scale from 1 to 5. Where 1 indicates Extremely Strong Disagreement while 5 indicates Extremely Strong Agreement. Scale 3 indicates that respondents do not have opinion on the

subject matter or not knowledgeable in the subject matter. Scale 2 indicates that they are in disagreement with the statement and scale 4 indicates that they are in an agreement with the statement.

As shown in the Table 4.1 below, most of the Cronbach alpha value came from the following section 4.1.5, 4.1.6, 4.1.7 and 4.1.8. It is being summarized here.

Table 2 - Instrument Reliability Test on Independent Variable and Dependent Variable

Reliability Test On	Cronbach's Alpha	Cronbach's Alpha base on standardizes Item	N of Item
PU = Perceive Usefulness And AEC (Dimension 1)	0.814	0.819	10
PEU = Perceive ease of Use And AEC (Dimension 2)	0.872	0.891	10
SCI = Social Culture Influence And AEC (Dimension 3)	0.820	0.822	10
CA = Consumer Advantages And AEC (Dimension 4)	0.701	0.706	10

In total of 50 respondents were hand selected in this pilot survey to ensure the respondents met the criteria set by the researcher. In Table 4.2 below, are the test pilot samples.

Table 3 - Test Pilot Samples

Case Processing Summary

		N	%
Cases	Valid	50	100.0
	Excluded	0	.0
	Total	50	100.0

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

The

Questionnaires consist of 5 Section or Dimension and in each of the dimension have 5 questions in them. Below in Table 3 is the Cronbach's alpha based on the construct item.

Table 4 - Reliability Statistic - Cronbach's alpha

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.849	.856	5

Based on pilot test, the results shown in Table 3, the reliability coefficient or Cronbach's alpha is at 0.849 to 0.856. Cronbach's alpha is used as a scale to indicate how well each of the items in the questionnaire design are related or correlated with each other in the construct set. According to Sekaran the Cronbach's alpha measure the internal consistency reliability of the item in the construct, the closer Cronbach's alpha to 1 means the higher the reliability.

Table 5 - Statistic Item for the Standard Mean

Item Statistics

	Mean	Std. Deviation	N
PU	3.8560	.61417	50
PEU	3.4360	.71107	50
AEC	3.3300	.53557	50

In Table 4 above, shows the Statistic Item for the standard mean on each dimension:

1) Dimension 1 or Construct on Perceive Usefulness (PU) have mean of 3.8560 from population sample of 50.
2) Dimension 2 or Construct on Perceive Ease Usefulness (PEU) have mean of 3.4360 from population sample of 50.
3) And the dependent variable standard mean for Construct on Adoption of Ecommerce (AEC) have mean of 3.3300 from population sample of 50.

By reading the mean value result, the value measures the central tendency for the data. If the data fall close to the middle, like in this case, perhaps the data is symmetry. There are not many extreme values on the data and there also not many outlier in the data. In general, the mean shows that respondents prefer perceived usefulness and consumer advantages when they wanted to adopt using e-commerce.

Based on the result shown on Table 4, the general feeling or sentiment of the selected public on regards of adoption of e-commerce can be said as using it in try and error mode or unsure. But with the progress of IT technology and e-commerce, the public is willing to try using it but with a note of caution and reservation. We will go more detail as we analyse more of the full result.

Table 6 - Inter-Item Correlation Matrix

Inter-Item Correlation Matrix

	PU	PEU	SC	CA	AEC
PU	1.000	.472	.423	.558	.693
PEU	.472	1.000	.510	.286	.804
AEC	.693	.804	.698	.546	1.000

Inter Item Correlation Matrix is represented in Table 4.5. This table relates the item in independent variable with dependent variable. It shows how strongly the item relates. If the correlation value is between 0.3 and 0.9 it is said that the items have adequate correlation or sufficiently correlate (MSU Statistical Method Hand-out). If the correlation is more than or equal to 0.9, the correlation is said to be strongly correlated. If the correlation is less than 0.3, the correlation is said to be weak correlated. It also shows whether the questions in the survey are related towards the research topic, which is the adoption of e-commerce.

From Table 4.5 – the correlation matrix between PU and AEC is 0.693 which means that the question and the dependent variable have adequate correlation with each other. Among the 4 items of independent variable, PEU question is to have strongest correlation towards AEC, at 0.804. The correlation matrix between CA and AEC is at 0.546, still above 0.3, which means that the question and the dependent variable have adequate correlation with each other. Among the 4 item of independent variable, CA question is said to have the least correlation towards AEC.

SC and AEC correlation matrix is at 0.698, still above 0.3, which means that the question and the dependent variable have adequate correlation with each other. Among the 4 item of independent variable, SC question is said to have the moderate correlation towards AEC. This test is done to show the construct reliability between dependent variable and independent variable and to show the reliability of the questionnaire construct design – whether it is good or not by design.

We can see that the score between PU – AEC is 0.814 for the reliability coefficient or Cronbach's alpha. As shown in Table 4.6 below, in this pilot test, Cronbach's was performed on each construct to measure internal consistency reliability for the individual construct and the overall measures. The constructs scored above 0.70 and therefore are considered reliable in all aspects. What this means is the question or construct of PU is related to AEC. Items of PU then have relationship with AEC.

Table 7 - Reliability Coefficient or Cronbach's Alpha AEC - PU

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.814	.819	2

Table 8 - Statistics Standard Mean PU - AEC

Item Statistics

	Mean	Std. Deviation	N
PU	3.8560	.61417	50
AEC	3.3300	.53557	50

Given here on Table 4.6 the Cronbach's alpha for the 2 item is 0.814, and the standard mean for the 2 item is 3.8560 for PU and 3.3300 for AEC.

Table 9 - Inter-Item Correlation Matrix PU - AEC

Inter-Item Correlation Matrix

	PU	AEC
PU	1.000	.693
AEC	.693	1.000

From Table 4.8, it shows that item in PU do correlate with item in AEC at 0.693.

The score between PEU – AEC is 0.872 for the reliability coefficient or Cronbach's alpha. As shown in Table 4.9 below, in this pilot test, Cronbach's was performed on each construct to measure internal consistency reliability for the individual construct and the overall measures. The constructs scored above 0.70 and therefore are considered reliable in all aspects. What this means is the question or construct of PEU is related to AEC. Items of PEU then have relationship with AEC.

Table 10 - Reliability Coefficient Or Cronbach Alpha AEC - PEU

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.872	.891	2

Table 11 - Statistics Standard Mean AEC - PEU

Item Statistics

	Mean	Std. Deviation	N
AEC	3.3300	.53557	50
PEU	3.4360	.71107	50

Given here on Table 11, the standard mean for the 2 item is 3.4360 for PEU and 3.3300 for AEC.

Table 12 - Inter-Item Correlation Matrix AEC - PEU

Inter-Item Correlation Matrix

	AEC	PEU
AEC	1.000	.804
PEU	.804	1.000

From Table 12, it shows that item in PEU do correlate with item in AEC at 0.804.

Table 13: One Way ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.468	5	.694	2.061	.072
Within Groups	65.294	194	.337		
Total	68.762	199			

Table 13, the one way ANOVA shows that significant level at p = 0.072. Since the p value is above 0.05, this can be concluded that there is no significant difference in Adoption of Ecommerce that can affect the use of ecommerce based on their religion (F = 2.061, P = 0.072). Religion does not have any influence on intention to adopt ecommerce.

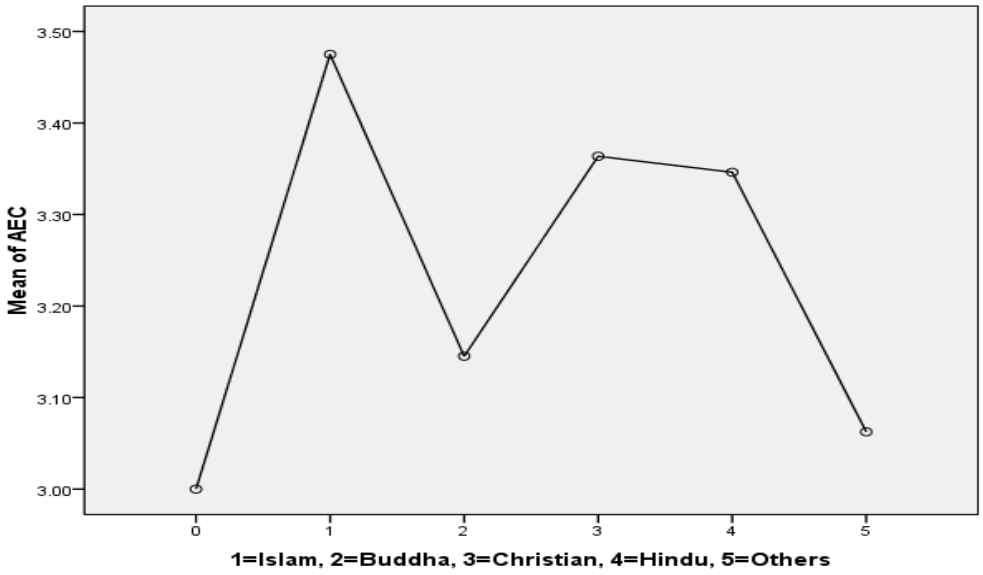


Figure 5 – Plot of Effect on Adoption of Ecommerce across Religion Group

Table 14 - ANOVA – Effect on Adoption of Ecommerce across Education Group

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.304	5	.461	1.345	.247
Within Groups	66.458	194	.343		
Total	68.762	199			

Table 14, the one way ANOVA shows that significant level at p = 0.247. Since the p value is above 0.05, this can be concluded that there is no significant difference in Adoption of Ecommerce that can affect the use of ecommerce based on their education (F = 1.345, P = 0.247). Education does not have any influence on intention to adopt e-commerce.

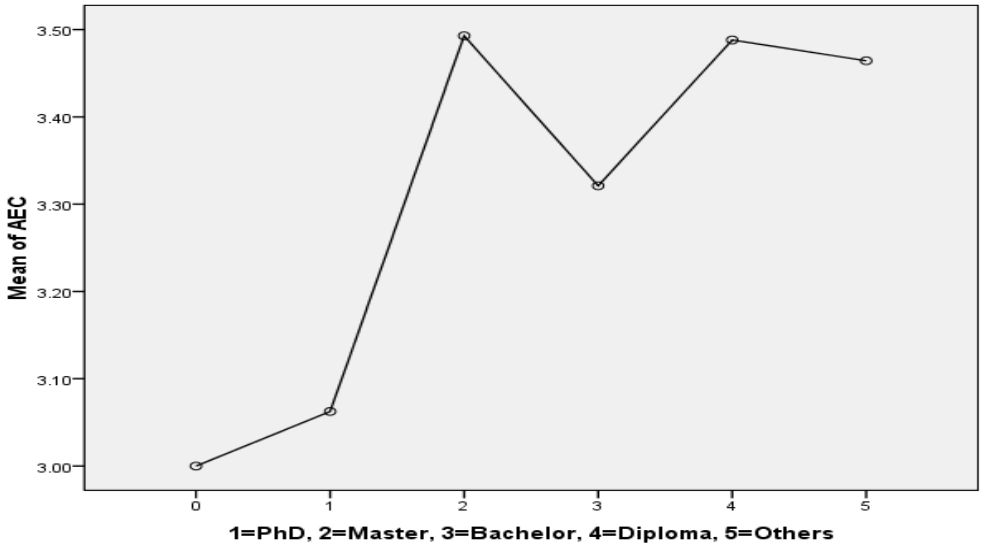


Figure 6 – Plot of Effect on Adoption of Ecommerce across Education Group

Table 15 – ANOVA - Effect on Adoption of Ecommerce across Employment Status Group

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.555	5	1.111	3.410	.006
Within Groups	63.207	194	.326		
Total	68.762	199			

Table 15, the one way ANOVA shows that significant level at p = 0.006. Since the p value is below 0.05, this can be concluded that there is significant difference in Adoption of Ecommerce that can affect the use of ecommerce based on their employment status (F = 3.410, P = 0.006). Employment status does have influence on intention to adopt e-commerce.

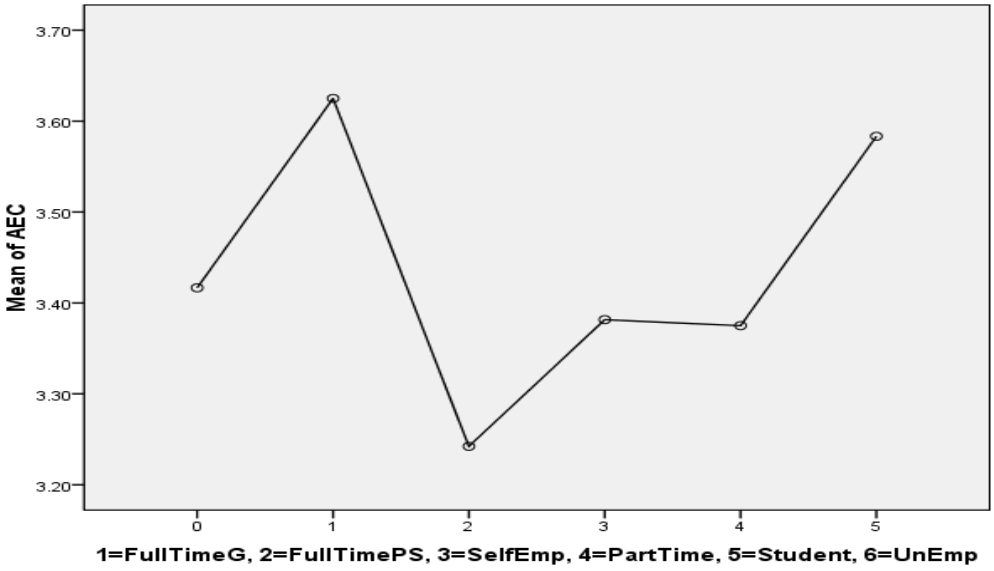


Figure 7 – Plot of Effect on Adoption of Ecommerce across Employment Status Group

Table 16 - ANOVA – Effect on Adoption of Ecommerce across Martial Status Group

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.668	3	.223	.641	.590
Within Groups	68.095	196	.347		
Total	68.762	199			

Table 16, the one way ANOVA shows that significant level at p = 0.590. Since the p value is above 0.05, this can be concluded that there is significant difference in Adoption of Ecommerce that can affect the use of ecommerce based on their employment status (F = 0.641, P = 0.590). Marital Status does not have influence on intention to adopt e-commerce.

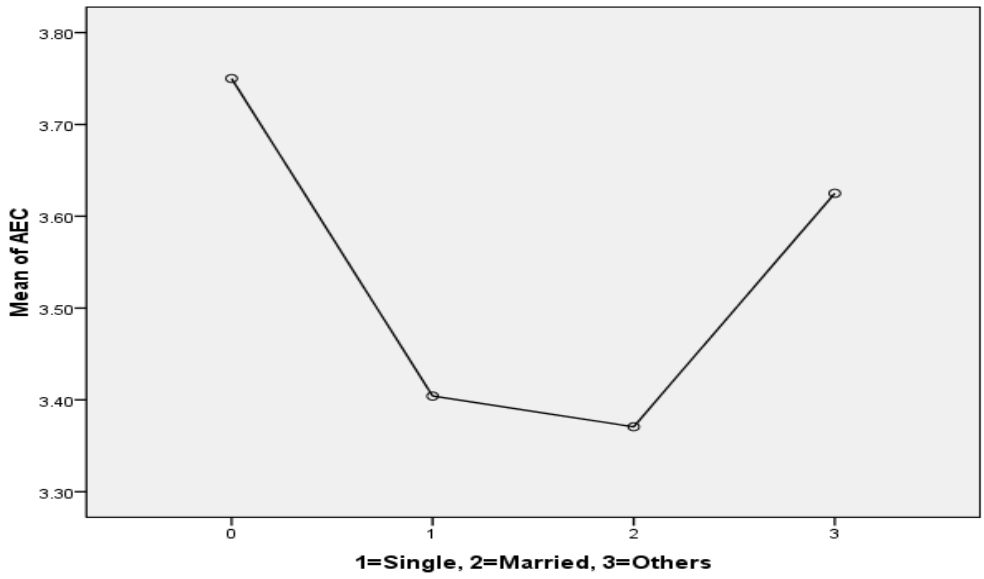


Figure 8 – Plot of Effect on Adoption of Ecommerce across Martial Status Group

Table 17 - ANOVA – Effect on Adoption of Ecommerce across Income Level Group

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.640	6	.273	.786	.582
Within Groups	67.122	193	.348		
Total	68.762	199			

Table 17, the one way ANOVA shows that significant level at p = 0.582. Since the p value is above 0.05, this can be concluded that there is no significant difference in Adoption of Ecommerce that can affect the use of ecommerce based on their religion (F = 0.786, P = 0.582). Religion does not have any influence on intention to adopt e-commerce.

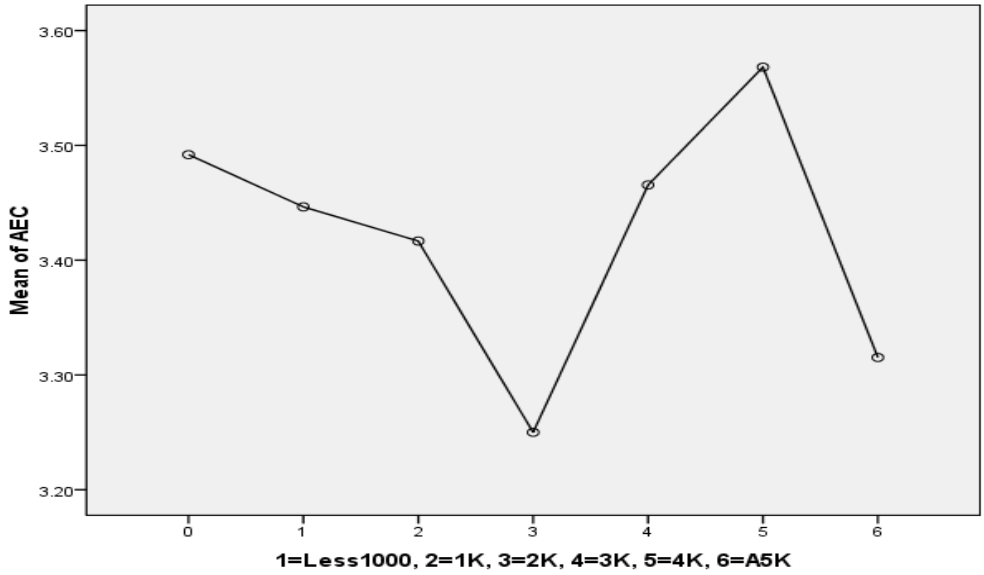


Figure 9 – Plot of Effect on Adoption of Ecommerce across Income Level Group

Table 18 - Normality Test -PU

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PU	.150	200	.000	.945	200	.000

a. Lilliefors Significance Correction

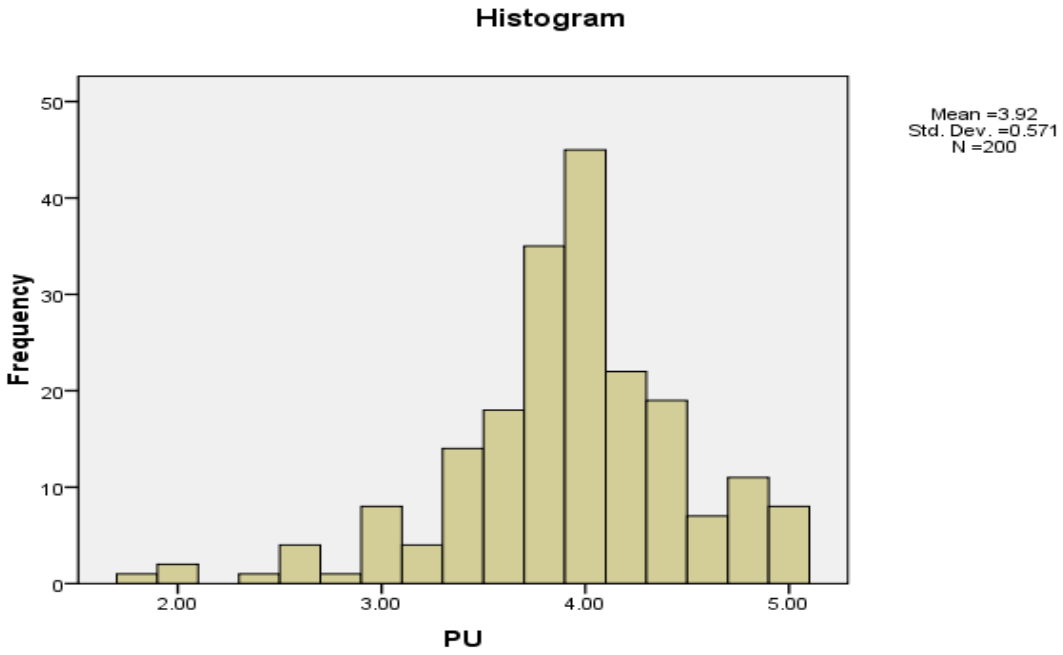


Figure 10 - Histogram Normality Test -PU

Table 10 – Kolmogorov-Smirnova the test for normality result, the significant level is at 0.00, which is less than 0.05. Thus the assumption that the distribution normal is not met because the scale use is such that the value 1 to 2 is leaning towards disagrees. But as shown in the histogram Figure 3, the graph is of normal distribution but more skewed towards right, which shown leaning on the Likert scale value of agreeing. Value of 4 is agreed and value of 5 is extremely agreed. Naturally, this normality test would lean more towards the agreeing value on category of usefulness. If we look at the Figure 4.14, Normal Q-Q Plot graph, the result plotted against the linear line falls close to the straight line, which can be assumed that this sample is from a normal distribution.

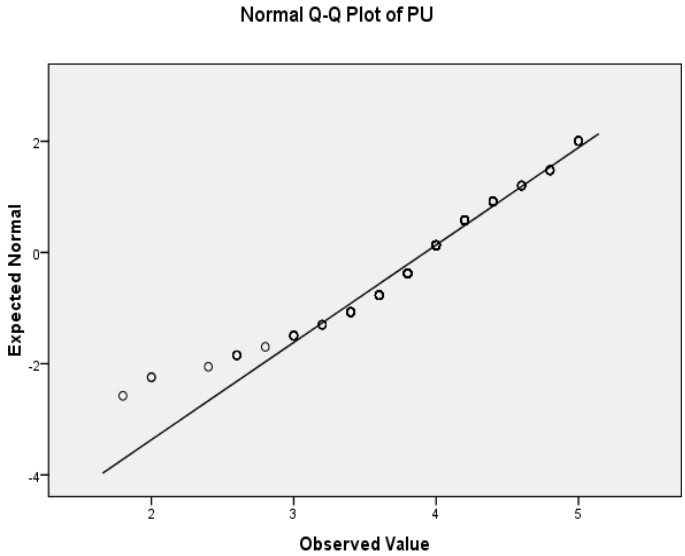


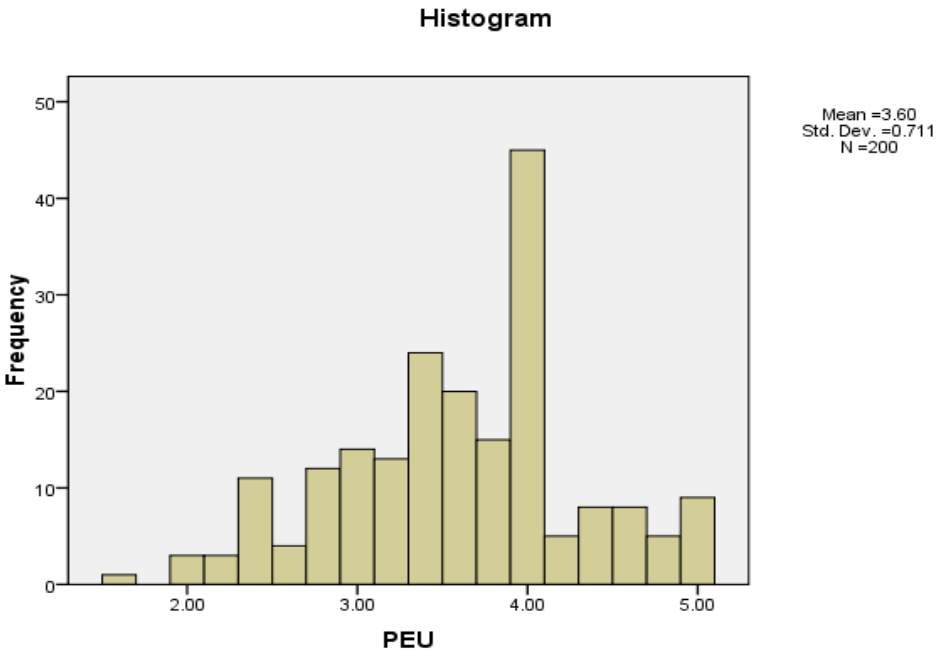
Figure 11 - Normal QQ Plot of PU

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PEU	.114	200	.000	.975	200	.001

a. Lilliefors Significance Correction

Table 19 - Normality Test -PEU



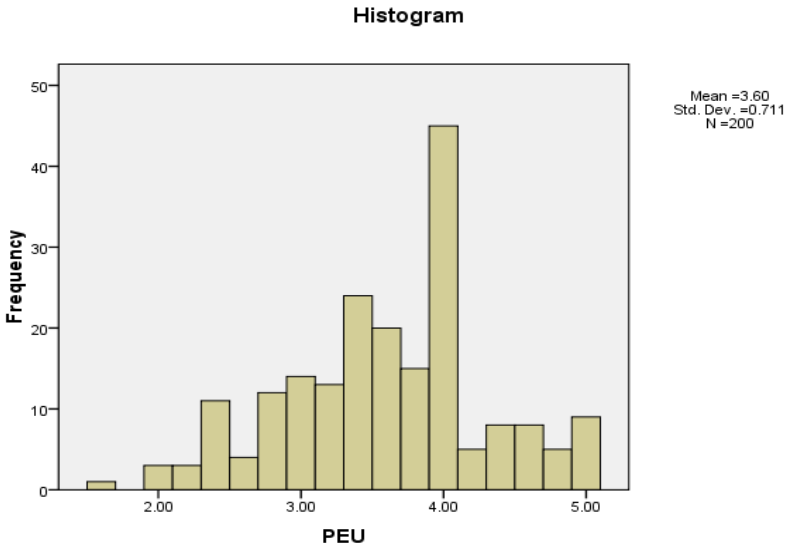


Figure 12 - Normal QQ Plot of PEU

Kolmogorov-Smirnova the test for normality result, the significant level is at 0.00, which is less than 0.05. Thus, the assumption that the distribution normal is not met. But as shown in the histogram Figure 4.15 the graph is of normal distribution but more skewed towards right, which shown leaning on the Likert scale value of agreeing. Value of 4 is agreed and value of 5 is extremely agreed. Naturally, this normality test would lean more towards the agreeing value on category of ease of use. If we look at the Figure 4.16, Normal Q-Q Plot graph, the result plotted against the linear line falls close to the straight line, which can be assumed that this sample is from a normal distribution.

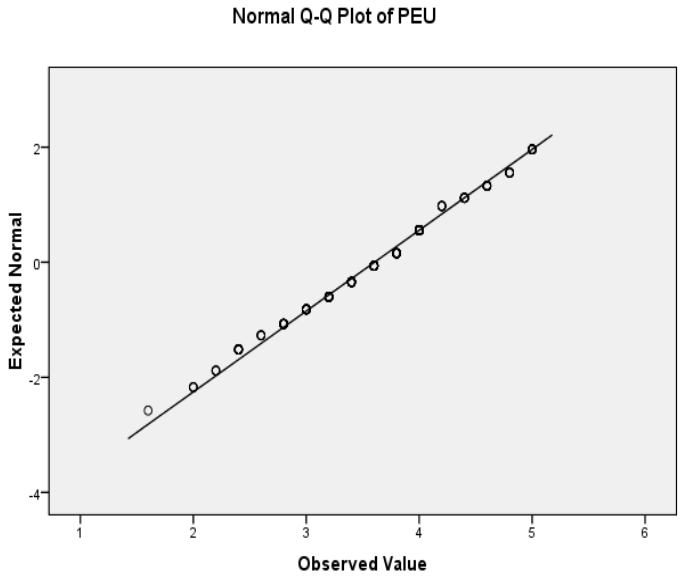


Figure 13 - Normal Q-Q Plot of PEU

Regression Coefficients

Table 20: Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		Collinearity Statistics		
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-.416	.141		-2.946	.004					
	PU	.189	.036	.184	5.242	.000	.599	.351	.157	.730	1.370
	PEU	.335	.032	.405	10.585	.000	.771	.604	.317	.612	1.634

a. Dependent Variable: AEC

The regression equation:

The regression analyses were conducted to understand the association between more than 2 quantitative variables (Table 20). This is done by quantifying the strength of association using correlation analysis. If an association can be established both empirically and theoretically, the research can then pursue to obtain regression model. With this model, it can be used to predict the value on one outcome of the variable based on the value on the other predictor variable in the model.

Y = B0 + B1X1 +B2X2 + e (equation A)

Y = Adoption of E Commerce

B0 = Intercept

B1...B4 = Slope (estimate of coefficient)

X1 = Perceive Usefulness

X2 = Perceive ease of Use

e = random error

Equation model on theory:

AEC = -0.414 + 0.189(PU) + 0.335(PEU) + e (equation B)

If we assume that all variable factors interact independently from one another, we can deduce that:

- For every 1 unit increase in PU, AEC is expected to be higher by 0.189 units.
- For every 1 unit increase in PEU, AEC is expected to be higher by 0.335 units.

Table 21 - VIF Scale

VIF Value	Indicator

VIF < 5	Multicollinearity is not serious
VIF > 5	Multicollinearity is substantial
VIF >10	Multicollinearity is serious

Variance Inflation Factor (VIF) is an indicator used to measure the inverse of tolerance. Following the sequence transformation when R2 value is large, the VIF value (Table 4.49) is also large. VIF is use to identified if the predictor has problems in multicollinearity. So VIF is used to indicate if the regression analysis is reliable or not. As for our sample, the results are as follows.

The VIF values for each variable factor are as follows:

- The VIF value for PU is less than 5. Therefore, there is no problem of multicollinearity.
- The VIF value for PEU is less than 5. Therefore, there is no problem of multicollinearity.

From Table 21, the significant p-value for the predictor – PU, PEU, SC and CA are all less than 0.001. This means the predictor variable can be used to predict AEC. Therefore all variables are a significant predictor in the equation B.

The results reveal that there is positive correlation between independent variable and dependent variable. There is high correlation between these two dimensions as correlation coefficient is as follows:

- PEU correlation is the highest at 0.771 which indicate that PEU is the strongest factor that contribute or have impact on AEC. PEU can easily influence AEC.
- PU correlation is the last at 0.771 which indicate that PU is the least factor that contribute or have impact on AEC. PU can still influence AEC, but not so easily.

Based on all 4 hypothesis proposed in earlier chapters and the analysis run on the data, we have come to the following result and conclusion. Using a population sample of 200 respondents, survey data was collected from many respondents at public location and also from government employee as well as from private employees in Klang valley, Kuala Lumpur, KL Sentral, Putrajaya and Bandar Tun Hussein Onn - Cheras.

V. Summary and Conclusion

In this final chapter, our aim is to discuss findings and summarizing the finding for entire of the research project. Generally, the objective of this study is to understand the relationship and the significant of the independent variables towards dependent variable. Second objective is to examine the strength of predictors towards intention to adopt e-commerce among respondents. Third objective is to develop suggestion and comment for future marketer, producer and researchers in order for them to prepare strategies in marketing their product or study. The conclusion will describe the important variables that have been applied to the research. Finally, some recommendations are presented.

The main research topic is to find out the adoption of E-commerce by Malaysian consumer from the consumer perspective or views. Based on previous researches and review of the works of other researchers, these variables have been identified as to be the key factor for this research: perceived usefulness, perceived ease of use, social influence and consumer advantages. The secondary research problem is to address the possibility that the data is already too old and may not reflect the current situation in Kuala Lumpur and Klang Valley. Using the theoretical construction and analytical framework, an attempt to investigate the consumer behavioural on e-commerce adoption and try to Figure out the connection between

demographic factor such as gender, age, race, education level and income level. The analysis of e-commerce adoption shows that there was general acceptance of effects that have been recognized through the literature. Education level demographic shows that 88 of respondents have a bachelor degree which represents 44% of population. 63 of respondents have a diploma education level which represents 31.5% of population. While 35 respondents have a master's degree which represent 17% of population and 2% of the population is having PhD level of education which represents 4 respondents. ANOVA analysis test shown result for religion, that a significant value of p = 0.072. Since the p value is above 0.05, this can be concluded that there is no significant difference in Adoption of E-commerce by religion group that can influence the use of ecommerce. Religions do not have influence on AEC.

Analysis test shown result for education level, that a significant value of p = 0.247. Since the p value is above 0.05, this can be concluded that there is no significant difference in Adoption of E-commerce by education level group that can influence the use of e-commerce. Educations do not have influence on AEC. Increasing availability of online access by the country's population have made the internet popular among young adults and newly graduates either in urban or in rural areas. (Sharif, R., 2004). Increase of e-commerce website build by online entrepreneur to offer goods and service online, have some influence on ease of use factor as indicated in Table 4.48. This means that this factor makes the strongest statement to explain about Adoption of E-commerce by consumer. It also imply that consumers have benefited by the rate of internet growth across the country, have in fact directly indicate a direct growth to e-commerce adoption among consumers. SME and businesses should take this advantage from the continuous increase of internet in the urban and rural area. It is a good indicator that e-commerce have been accepted by Malaysian community and consumers in general. Through e-commerce adoption, SME and businesses can reach the consumers directly to their target markets or market segment. And the interaction between the business merchants and consumers are one of direct interaction without any middleman or medium. It should be a good sign to the merchants that the responses towards their products or services is or are coming from the consumers themselves.

Knowledge of the internet reflects can reflect the individual system of belief and cultural system of belief in the society. When society have collective believe, that is an indication that the society is growing and flourishing to be a better state. When the society is having knowledge, it also means the society have the means to influence others in the society. Thus it sparks curiosity and create interest which can lead to expectation on how the member of society will behave and performed task that will be in coherent with each other. This is the level of society influence that we are talking about in this research. The individual will likely to perform the same behaviour to satisfy the society norm. Studies made by the respective authors also consistent with this research that knowledge is related to individual belief system or society beliefs system. This thesis report address about the Malaysian consumer on ecommerce situation, usefulness of ecommerce to consumer, ecommerce ease of use from consumer view point, peer and social influence on ecommerce and advantages of using ecommerce to consumer. This thesis is based on perspective reviews in chapter 1, 2 and 3. The aims are to investigate 4 factors – usefulness, ease of use, social influence and consumer advantages for adopting ecommerce in their daily lives or routine. The research models, hypothesis and questionnaire design and development were based on the integration of related theories mention in chapter 2 and 3. The research population were done at these locations – KL Sentral, Bandar Tun Hussein Onn Mac Donald's, Putrajaya Government Office Dept., and Private Sector Office in KL, Friends and Relatives (Chong, 2013).

VI. Limitation and Recommendation for Future Research

There are limitations related to this research. First is this study only covered area of Kuala Lumpur, Cheras and Putrajaya only. This research did not cover whole population of that area. Therefore the results cannot be expected to explain the

overall intention of Malaysia consumer toward adoption of ecommerce. It however can still be used to make a small model or sample of the population. But to make sure that the results are of better quality, a larger sample size must be taken. Each sample must be taken in a large portion at least from 10's different vicinity of the areas and from other major cities in Malaysia.

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