INITIAL TRUST ANTECEDENTS LEADING TO PURCHASING INTENTION IN B2C E-COMMERCE WEBSITES

by

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reminding us to be in our nature (‘*fitrah’*) of being a trustworthy human being in all aspects of life and may the trustworthy retailers continuously spread their light in the e-Commerce world.

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LIST OF ABBREVIATIONS

AGFI	Adjusted Goodness-of-Fit Index
AVE	Average Variance Extracted
B2C	Business to Consumer
C2B	Consumer to Business
CA	Certificate Authority
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMV	Common Method Variance
CR	Composite Reliability
CRM	Customer Relationship Management
DI	Digital Authentication
DV	Discriminant Validity
EDI	Electronic Data Interchange
EFT	Electronic Fund Transfer
ERP	Enterprise Resource Planning
GFI	Goodness-of-Fit-Index
GOF	Goodness of Fit
KM	Knowledge Management
NFI	Normed Fit Index
NNFI TLI	Non-normed Fit Index
PEOU	Perceived Ease Of Use
PU	Perceived Usefulness
RFI	Relative Fit Index

RMR	Root Mean Square Residual
RMSEA	Root Mean Square Error Approximation
SRMR	Standardized Root Mean Residual
SSL	Secure Sockets Layer
TAM	Technology Acceptance Model
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action

ARUHAN KEPERCAYAAN PERMULAAN YANG MEMBAWA KEPADA KEPERCAYAAN PELANGGAN TERHADAP LAMAN WEB E-DAGANG B2C

ABSTRAK

Perkembangan Internet turut memberi kesan terhadap e-dagang. Interaksi bersemuka di antara pelanggan dan penjual tidak lagi diperlukan kerana urus niaga dijalankan secara maya. Ciri e-dagang yang tidak memerlukan interaksi bersemuka dan melibatkan entiti yang tidak ketara menyebabkan pelanggan mempersoalkan kesahihan sesebuah syarikat, produk dan perkhidmatan. Laman web merupakan wakil pihak syarikat dan pelanggan perlu bergantung kepada laman web syarikat untuk mendapatkan maklumat yang diperlukan. Situasi ini menyebabkan maklumat tak simetri berlaku dan menimbulkan isu kepercayaan. Di dalam e-dagang, kepercayaan memainkan peranan penting bagi urus niaga yang melibatkan risiko dan juga dalam situasi di mana "orang yang mempercayai" tidak mempunyai kawalan terus terhadap tindakan pemegang kepercayaan. Kepercayaan dalam talian adalah merupakan penunjuk/ penanda aras dalam menentukan kejayaan dan kegagalan perniagaan dalam talian. Sebab utama pelanggan melakukan urus niaga dalam talian ialah kerana kepercayaan. Di antara strategi yang digunakan untuk membina kepercayaan adalah kualiti maklumat dan meterai pihak ketiga. Kualiti maklumat merujuk kepada kualiti maklumat yang disampaikan oleh sesebuah laman web. Kajian ini mengklasifikasikan kualiti maklumat kepada empat komponen; 1) ketepatan maklumat 2) kewajaran maklumat 3) kefahaman terhadap maklumat dan 4)

akses kepada maklumat. Meterai pihak ketiga ialah sebuah ikon or imej yang dipaparkan di laman web untuk memberi tahu kepada pelanggan bahawa laman web tertentu telah disemak oleh pihak ketiga dan telah memenuhi segala keperluan/syarat oleh pihak ketiga terbabit. Fokus meterai pihak ketiga untuk kajian ini adalah kedudukan imej meterai pihak ketiga di laman web dan bagaimana kedudukan imej ini boleh memberi kesan terhadap pandangan dan kepercayaan pelanggan. Garis panduan corak berbentuk F diaplikasikan dalam menentukan kedudukan imej meterai pihak ketiga. Manakala, pengetahuan pelanggan mengenai meterai pihak ketiga dijadikan pembolehubah dikawal bagi kajian ini. Sebanyak empat hipotesis akan diuji di dalam kajian ini. Kaji selidik dalam talian telah digunakan sebagai kaedah pengumpulan data, di mana sebanyak 82 orang terlibat dalam kaji selidik ini. Penemuan pertama kajian ini ialah pelanggan mempercayai laman web yang mempunyai kualiti maklumat seperti ketepatan maklumat, kefahaman terhadap maklumat dan akses kepada maklumat. Kedua, dengan meletakkan imej meterai pihak ketiga mengikut panduan corak berbentuk F, keadaan ini boleh meningkatkan kebolehlihatan imej pihak ketiga tersebut lalu mempengaruhi keupayaan melihat kebolehlihatan oleh pelanggan. Ketiga, pelanggan merasa selamat (percaya) apabila mereka melihat imej pengesan pihak ketiga, tetapi keadaan ini juga bergantung kepada beberapa faktor lain. Selain itu, pelangan lebih mementingkan kualiti maklumat berbanding meterai pihak ketiga atau kedua-duanya. Akhir sekali, pengetahuan pelanggan mengenai meterai pihak ketiga adalah penting dalam menentukan kedudukan dan melihat imej meterai pihak ketiga. Sumbangan kajian ini adalah memberikan gambaran atau panduan mengenai kualiti maklumat, meterai pihak ketiga dan hubungan antara keduanya terhadap kepercayaan pelanggan.

INITIAL TRUST ANTECEDENTS LEADING TO PURCHASING INTENTION IN B2C E-COMMERCE WEBSITES

ABSTRACT

The evolvement of Internet also gives impact to e-commerce. There is no longer a need for face-to-face interaction between the customer and seller as the transactions can be done virtually. The nature of e-commerce with no face to face interaction and involved intangible entities has led customers to question the validity of the company, products and services. Since website is the representative of the company, customers have to rely on the company website to acquire the information they needed. This situation could lead to information asymmetry and also trust issue. In e-commerce, trust is important in the transaction which involved risk and in situation where the trustor has no direct control over the action of trustee. Online trust is also one indicator of success and failure in online business. The major reason customers do the online transaction is due to trust. Among strategies that are used to develop trust are information quality and third party seals. Information quality is the quality of information delivered by the website. This research classifies the information quality into four components; 1) Information accuracy, 2) Information relevance, 3) Understandability of information and 4) Access to information. The third party seal is an icon or image display on the website to signal customers that the particular website has been reviewed by third party and has fulfilled their requirement. The focus of third party seals is on the position of seals and how it can affect customer noticeability and trust. F-Shaped pattern guideline is applied in positioning the seal. Customer knowledge on seals becomes a controlled variable in this research. There are four hypotheses formulated in this research. Online survey is used as the data collection method where a total of 82 participants involved in this online survey. The first finding of this research is that customer trust the website that has information quality in term of information accuracy, understandability of information and access to information. Secondly, by placing the third party seals according to F-Shaped pattern guideline could increase the visibility of the seal then influence the noticeability of the seal by customers. Thirdly, customers do feel safe (trust) when they notice the seal but it depends on other factors as well. Other than that, customers concern most on the information quality rather than third party seal or both. Lastly, customer knowledge on the seal is important in locating and noticing the seal. This research contributes to providing an insight about information quality and third party seals position, and their relationship towards customers trust.

CHAPTER 1

INTRODUCTION

1.1 Introduction

In this era, online shopping has expanded globally where retailers around the world have shifted their focus to e-Commerce in doing business. Business to Consumer (B2C) e-Commerce framework has become the main channel for small business owners to start their business. Normally, small business owners lack the capital for advertising their company and products. This situation leads them to depend on other organizations' websites such as social networks and B2C e-Commerce platforms. The dependency of the small business owners on these organizations is a digital sharecropping phenomenon. The digital sharecropping phenomenon and fraud that happen in such circumstances are discussed in this research. This fraudulent environment is a problem for sincere and honest small business owners who want to conduct a trustworthy business. Thus, this research proposes small business owners to have their own retail store (B2C e-Commerce website).

It is important for small business owners to have a B2C e-Commerce website that can lead consumers to purchase products during their first time visit. Hence, this research investigates the antecedents that can lead consumers to purchase during their first time visit to the e-retailer's B2C e-Commerce website.

In this research, the "e-Commerce website" and "B2C e-Commerce website" refer to the small business owner's website and both terms will be used interchangeably. This chapter is presented as the following: Section 1.2 – Research Motivation, Section 1.3 – Research Problem, Section 1.4 – Research Questions, Section 1.5 – Research Objectives, Section 1.6 – Scope and Limitation of Research and Section 1.7 – Organization of the Thesis.

1.2 Research Motivations

In 2012, AT Kearney ranked Malaysia 7th from a list of 10 developing markets that had potential for e-Commerce global expansion. In the e-Commerce report, "E-Commerce is the Next Frontier in Global Expansion", AT Kearney stated that Malaysia could have been Asia's next e-Commerce leader as the infrastructures and facilities in Malaysia are convenient for online shopping. Firstly, Malaysia has high Internet penetration rates as "*half of all households in Malaysia own a PC, and 56% of the population are connected to the Internet"* (Ben-Shabat, Nilforoushan, & Moriarty, 2012, p. 9)". A recent study shows that Malaysia is the number one country in the world that exclusively use smart phones for Internet access (Lee, 2014). Secondly, Malaysians are heavy credit card users (1.1 cards per household) and debit card users (5.6 cards per household) (Ben-Shabat et al., 2012). Thirdly, Malaysia has high logistic infrastructures (transportation and posting facilities for product delivery). World Economic Forum stated that "*the quality of Malaysia's transportation services is on par with the United States*" (Ben-Shabat et al., 2012, p. 10). With these three bases of infrastructure and facilities existing in a country, it signifies a country is a good platform for e-Commerce expansion.

At first glance, there are two factors that motivate the researcher to pursue this research based on these facts. The first factor is an individual motivation to start a part-time e-Commerce online business as there is a bright future for e-Commerce retailers. The second factor is Malaysia always pays attention to entrepreneur development, thus the researcher is motivated to contribute knowledge for the benefit of the individuals/partners who wish to start their online business or of small and medium sized companies (SMEs) that still lack a reputation.

The researcher believes that a strong practical act actually comes from strong conceptual understanding regarding a subject matter. It is the same with online business. The researcher believes that a good conceptual understanding regarding e-Commerce background can bring to practical success. Thus, the researcher decides to conduct a research on global e-Commerce, understanding of the e-Commerce current and future predictions, and determining the conceptual factors that can lead to small business success and expansion in the e-Commerce sector. Through literature review and a preliminary study, the researcher discovers that trust is the vital key to global e-Commerce success. However, research on trust in e-Commerce needs more conceptual clarification, thus bringing this research to focus globally on trust in e-Commerce. The research starts at individual and practical level, but upon further reading, it is also being led to the global conceptual level.

1.3 Research Problems

Instead of using B2C e-Commerce framework as an added channel to increase sales, small businesses in this era of technology have chosen B2C e-Commerce framework as their main channel in doing business. Small business owners have started their fresh businesses in online mode, using the Internet. These small businesses in B2C e-Commerce usually consist of one single individual or partners that start their own business without having much capital for huge marketing and advertising for their products (Kung, 2014). As these companies are new and small, the business owners need to build their reputation. This creates a huge difference with big companies' strategies like Zalora, which can attract consumers by accomplishing massive marketing and advertising in targeted countries.

Small business owners which still lack a reputation and branding rely on social network websites such as Facebook (Miller, 2014; Small Biz Technology, 2015) and B2C e-Commerce Software Company such as Alibaba (Credit Suisse, 2013), to become their main platform in conducting online business. Small businesses are prone to rely on these types of platforms as these platforms provide free services and help to advertise small businesses’ stores and products worldwide. Although on the surface these platforms are giving solutions to small business owners in advertising their new business, they are not as effective as what they claim to be. By using these platforms, the small business owners are at risk in getting themselves involved in fraud advertising, clickfarms’ fraud business (selling and buying “likes”) (Muller, 2014) and “brushing activity” (placing fake orders in order to get more review) (Wong, Chu, & Osawa, 2015). These have led small business owners that have sincere and honest intention in doing trustworthy business get trapped in fraudulent activities, while giant companies keep on generating large profits from advertising small businesses.

By depending on these giant companies, small business owners are actually making themselves victims of the digital sharecropping phenomenon. Further explanation on this issue is presented in the next section (Problem Statements).

1.3.1 Problem Statements

Small businesses that still lack a reputation and capital are prone to depend on giant companies that provide free services, as their middleman in managing the online store and in advertising their online business. By depending on these organizations, small business owners have become victims of digital sharecropping and this phenomenon will bring negative effects on their business, especially in the long run.

"Sharecropping" is a term used in agriculture system in the 1870s, where a big land owner (landlord) allows a tenant (farmer) to use the land and reaps big profits generated from the crops. In this case, the landlord has full control of the farmers' activities and in the worst case scenario, the landlord can force the farmers out of the land, or the landlord goes bankrupt and this can seriously affect the income (Simone, 2015).

Digital sharecropping has a similar concept of landlord and farmers, where the landlord is the giant company whereas the farmers are small business owners. The giant companies have full control over small businesses' activities and gain large profits from small businesses (Simone, 2015). There are other platforms that exist as "middleman" for small businesses, but for this research, the researcher will focus on Facebook and AliBaba as examples of digital sharecropping. This is because Facebook is the largest social network used among small businesses (Saba, 2015) and AliBaba is the largest and the most successful software company in the world that provides platforms for small business owners (Youderian, 2014). The largest and most successful companies are considered as trend setters in the retail market, where others will follow their suit.

When using these platforms as their online store, small business owners have no choices and have to follow these platforms' business logic. Facebook offers two types of advertising to online business: "Page Suggestion" (Schneider, 2014b) and

“Facebook Adverts” (Facebook, n.d; Muller, 2014). The “Page Suggestion” is free while “Facebook Adverts” requires users to pay (Facebook, n.d; Muller, 2014; Schneider, 2014b). Having more “like” is a promise from Facebook for business owners to get more potential customers attached to their page. However, the result of both advertising types is surprising for the users of these advertisements as they get thousands of “fake like” (Muller, 2014; Schneider, 2014b). These “fake like” are coming from suspicious Facebook profiles with weird names that “like” thousands of different pages (Jones, 2012; Muller, 2014; Schneider, 2014b).

In YouTube channel Veritasium entitled “Facebook Fraud”, Muller who is a science communicator (“Derek Muller”, 2016), discovered that these “fake likes” were coming from “click farms” (Muller, 2014). Click farms have become a phenomenon in early 2012, when the world started the “like” market (DePillis, 2014). The “like” market is about getting more “like” to increase popularity on certain pages. Businesses rely on the social media “like” in creating good perception to real consumers about their company and products. These business owners can buy illegitimate “like” from companies such as Boostlikes.com, which sell 1000 “like” for $70 (Muller, 2014). For sincere and honest individuals , who did not buy illegitimate “like”, their pages will be affected by click farms, as the click farmers click the page for free in order to avoid detection by Facebook spam radar (Muller, 2014; Schneider, 2014b). The click farmers “like” the pages other than the ones they have been paid for to make it seem more genuine and natural (Muller, 2014; Schneider, 2014b). On August 2012, Facebook deleted more than 83 million fake profiles which was represented by 8.7% of its overall account in the current year (BBC News, 2012; Muller, 2014). However, the fake “like” that have been generated by the click farmers were not deleted (Muller, 2014). Muller (2014) stated that if Facebook removed all the fake "likes", this means that Facebook is indirectly admitting that it is generating revenue from clicks that are not genuine.

Apart from that, small business owners that rely on Facebook were very much upset when Facebook changed their organic reach algorithm on December 2013 (Schneider, 2014). Facebook had stated that "*We expect organic distributed of an individual page post to gradually decline overtime"* (Moth, 2014). This means that Facebook is manipulating the algorithm to restrict the post from reaching people organically as usual. A study by Ignite (2013) on 21 brand pages with different sizes and across industries showed a dramatic decrease in reach and engagement. Most pages decline in reaching and engagement on an average of 44% where some pages decline as much as 88% and only one brand has improved reach at 5.6% (Schneider, 2014; Tobin, 2013).

What is even worse is that with the change of Facebook organic reach algorithm, business companies can no longer reach their most engaged readers (when these companies posted on Facebook, the most engaged users can no longer see their pages). Engaged users are the ones that are most likely to click and purchase (Forrester, 2013) but they are no longer connected to the business page. This organic reach algorithm has been changed by Facebook in order to make people use their Facebook Adverts. When Facebook users choose to pay Facebook for using Facebook Adverts, Facebook users still get click farmers as followers. Therefore advertising their business in Facebook is a waste of money (Muller, 2014) as Facebook is not effective in getting genuine customers.

Alibaba group is the biggest e-Commerce platform that is based in China (News18, 2016; Smith, 2014). The company provides technology and services to enable consumers and merchants to conduct commerce online (News18, 2016). This group was founded by Jack Ma in 1999 with a mission “to make it easy to do business anywhere” (Alibaba Group, n.d.). On the surface, Alibaba is promising and very helpful especially to new small business owners to get active online (Credit Suisse, 2013). However, in the long run Alibaba can be a cause to an unhealthy competition among small business owners (Chu & Wong, 2015; Wong et al., 2015). This is due to the superfluous race phenomenon among small business owners to get their products noticeable in the search results of Alibaba’s website.

Mr Cui, a former Alibaba’s client had difficulties to get his products noticeable in AliBaba’s search result and had to depend on “brushing” activity (Wong et al., 2015). “Brushing” is an activity of creating fake orders from AliBaba’s clients in order to get more positive reviews from customers that have already purchased their products (Wong et al., 2015). Wong et al. (2015) in The Wall Street Journal article entitled “Inside Alibaba, the Sharp-Elbowed World of Chinese e-Commerce”, expose the process of creating fake orders in Alibaba’s website. Firstly, AliBaba’s clients have to hire “brushers” and pay them a certain amount of money that will cover the cost of the products and their fee. Subsequently, “brushers” will place orders in Alibaba’s website as agreed, waiting for empty parcels from the Alibaba clients. Lastly, “brushers” will pay to Alibaba’s clients and write good reviews for the product. This activity is needed for the transaction to appear and to be recorded as real transaction in Alibaba’s website.

Although AliBaba reputation is affected by the "brushing" activity, their business is still growing and get lots of profit, but the ones who endure the unhealthy competition are the small business owners. Lu Yunsong, one of the sellers on the Alibaba site - Taobao and Tmall - stated *"This is the model of Chinese commerce, in the end everyone will die a tragic death"* (Chu & Wong, 2015).

With Facebook and AliBaba as examples, the phenomenon of landlord and farmers fits the concept of sharecropping in the digital world. With cases reported as in the above discussion, it is proven that the digital landlords strengthen their position with digital tenants. For small business owners that do not have their own website, they will be trapped in fraud and online manipulation activities.

It is important to note that giant companies that act as digital landlords are among companies that have huge investment in the stock market. The Youtube video entitled "The Ascent of Money" by Niall Ferguson, a Professor of History at Harvard University (Ferguson, n.d.), clarifies that history has proven that giant companies can crash overnight while playing the stock market (Rebel Mystic, 2013). By depending on these giant companies, small business owners will risk themselves to be crashed overnight too as the crashing of the digital landlord will be followed by the crashing of the tenants.

Besides that, small business owners that do not have their own website have to tolerate both known and especially the unknown changes being made by the website owners. For example, the website's owners could simply perform backend changes unnoticed or unknown to the small businesses. This is similar to what had happened when Facebook suddenly changed their backend operation to restrict posts from organic reaching to increase profit (Schneider, 2014). This circumstance relates to the real world when the tenant who rents a shop/land is required to pay a higher rent by the landlord when the latter sees that tenant's business has achieved great success (Simone, 2015).

In a nutshell, the researcher's main concern about this problem is to highlight the small business owner's dependency on other organizations' websites such as social networks and B2C e-Commerce platforms. Small business owners that operate on someone else's site are vulnerable to direct or indirect manipulation by the site's owners. Moreover, small business owners basically have no control on an internal operation of their store. They are also susceptible to the site owner's irresponsibility and insatiability. Other than that, when they depend on other organizations' website to advertise their business, they are indirectly involved with fraud activities such as the click farm's business fraud that takes advantage of 'like' markets; the e-retailers that play tactful techniques in getting more potential customers as well as fraud activities among the click farm's workers and "brushers" who are willing to work illegitimately on getting some penny. Although each one of them has their own agenda in getting their own benefits, they are working together in creating fraud in online business as a whole. This fraudulent environment can be troublous to sincere and honest small business owners who want to conduct a trustworthy business. Based on the above impasse, it is imperative for small business owners to have their own retail store (B2C e-Commerce website).

The researcher proposes that small business owners have their own website since the start of their online business operation. Although small business owners still lack a good reputation and face advertising drawbacks, it is wise to remember that a big success starts with an intelligent step. As the first step, small business owners are advised to have an e-Commerce website that can lead consumers to purchase during their first time visit.

Logically, potential customers will search for products using search engines like Google. Google is strict in ranking the search result as they value pages with the highest trusted authority and quality content (Shopify, 2013). What Google considers important is trustworthiness issue and high quality representation of a website. Silverthorn (2015), a small business's consultant, advises business owners to "*be the one that establish trust and become an effective communicator and you will rise to the top*". Based on Silverthorn's advice and Google's ranking process, it is known that successful online business emerge from trustworthy small business owners that can communicate effectively with potential customers by representing their trustworthiness attributes in their B2C e-Commerce website.

Even though the small businesses are not yet reputable, consumers who are searching for products will find the trustworthy website using a search engine. This circumstance raises the following questions: How can we know that a particular B2C e-Commerce website is trustworthy? What are the attributes of a trustworthy website that can be embedded in small businesses' B2C e-Commerce websites which still lack a reputation and branding? Do these attributes of trustworthy website lead the consumers to purchase products during their first time visit?

1.4 Research Questions

1) How can we know that the B2C e-Commerce website is trustworthy?
2) What are the attributes of a trustworthy website, which can be embedded in small businesses' B2C e-Commerce websites that still lack a reputation and branding?

3) Do these attributes of trustworthy websites lead the consumers to purchase products during their first time visit?

1.5 Research Objectives

The objectives of this research are:

1) To identify the attributes of:

   (i) trustworthy e-retailer

   (ii) trustworthy website

2) To test empirically the correlation between attributes of trustworthy e-retailer and trustworthy website.

3) To test empirically the correlation between attributes of trustworthiness (e-retailer and website) and purchasing intention.

1.6 Scope and Limitation of Research

The scope of this research is Business to Consumer (B2C) e-Commerce. B2C e-Commerce is buying and selling activities from retailers to individual consumers, using the website as the retailer's store.

In B2C e-Commerce environment, purchasing behaviour occurs when consumers purchase goods or services from the retailers' e-Commerce website. In this research, the scope of research focusses on the purchasing intention as this will lead to purchasing behaviour in B2C e-Commerce.

This research is limited to the circumstances of consumers' first time visit to the online store that still lacks a reputation. The antecedents that lead consumers to purchase products in circumstances of consumers' repeated visits to online stores that are already reputable can be different.

For the purpose of the empirical evaluation, the researcher has decided to select Malaysians as sample respondents since consumer behaviour might differ based on culture. The condition of trust in e-Commerce research is not the same as many other areas of research as other areas usually already have a strong conceptual model that can be tested in order to understand the consumers' behaviour in one's country. Trust in e-Commerce research is still considered "young" and in the process of the development of firm conceptual models.

1.7 Organization of the Thesis

The thesis is composed of six chapters which are structured as follows:

Chapter One – Introduction: This chapter discusses the overall motivation, problem statements, research questions, research objectives and scope and limitation of the research.

Chapter Two – Literature Review: This chapter provides literature review on e-Commerce and initial trust in B2C e-Commerce. It also discusses the research gap and proposed work which lead to the generation of hypotheses.

Chapter Three – Research Methodology: This chapter presents the methods used in the generation of hypotheses, questionnaires development and evaluation of the data and results.

Chapter Four – Results and Analysis: This chapter presents the demographic results of respondents and hypotheses that have been tested.

Chapter Five – Discussion: This chapter discusses the results of the hypotheses, answers the research questions and describes the contributions for this research.

Chapter Six – Conclusion: This chapter provides the conclusion for this research and suggestions for future research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

2.1.1 The Positivist Philosophy

Positivist or positive philosophy was first introduced by Auguste Comte, the French philosopher who had a positive view regarding “knowing” things (Comte, 2000). Positivists believe that knowledge is gained using scientific methods, by doing observation, hypothesis and empirical experimentation. The positive stage is a stage of purely scientific thinking (Richey, 2014). In this literature review section, the researcher views the world based on the positivist’s philosophical view, where the generation of hypothesis is made using empirical evidence from past research in combination with logical explanation. The hypothesis generated in this section will be tested empirically.

2.2 E-Commerce

E-Commerce refers to buying and selling of products and services using electronic transmission medium (Dirks & Keeling, 2010; Greenstein & Vasarhelyi, 2002; King, Viehland, & Lee, 2006). The buying and selling activities can include customers, suppliers and external partners with purchasing product of goods, raw and production materials and services like payment (card, bank transfers, Paypal), legal advice and tickets for transportation. The electronic transmission medium can be in the form of Internet or other computer networks like Electronic Data Interchange (EDI) and Electronic Fund Transfer (EFT). In describing business activities that are being conducted in electronic medium, the terms - e-Commerce, e-business and e-tailing - are being used interchangeably, however, these have different meanings based on the context of the operation.

E-business is a term broader than e-Commerce as it is about re-structuring and streamlining of business using information system strategies to save cost and improve efficiency and productivity of business (Bateni, 2012). E-business has components of E-Commerce, Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), Knowledge Management (KM) and Supply-chain Management Systems (Bartels, 2000; Cadden & Lueder, 2013). In brief, e-Commerce is the subset of e-business.

On the other hand, e-tailing is the subset of e-Commerce as e-tailing refers to business to consumer (B2C) activity ((n.d.), 2013). Other business models in e-Commerce are Business to Business (B2B), Business to Government (B2G), Consumer to Business (C2B) and Consumer to Consumer (C2C). The differences between e-Business, e-Commerce and e-Tailing are depicted in Figure 2.1.

B2C e-Commerce is the scope covered within this research. The practice of using electronic commerce between business and consumers (B2C) is one of the concepts that bring the emergence to e-Commerce nowadays. A discussion on B2C e-Commerce is presented in the next section.

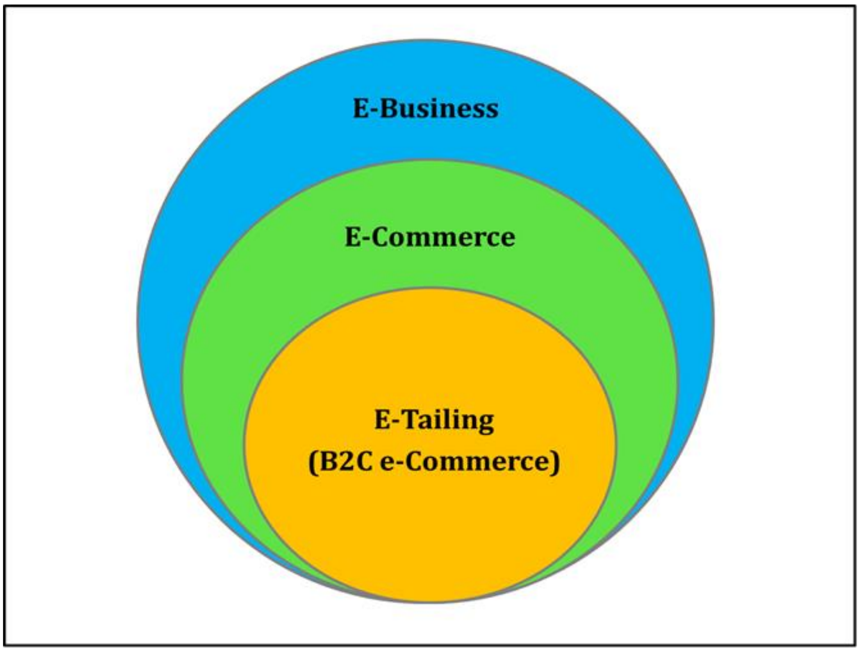

Figure 2.1: E-Business, E-Commerce and E-Tailing (B2C E-Commerce)

2.3 B2C E-Commerce

B2C e-Commerce refers to buying and selling activities from retailers to individual consumers, using the website as the retailer's store.

The practice of electronic commerce (e-Commerce) between retailers and individuals has existed since late 1960s to 1970s when consumers and retailers started using a payment card instead of cash and paper-based transaction for buying and selling activities (Fellenstein & Wood, 2000; Senn, 2000). The payment card has a credit and debit function, where funds are transferred immediately from the consumer's bank account to the retailer's bank account. If the consumer uses a debit card, funds will be deducted from the consumer's savings account, while extension of credit by the financial institution will be made if the consumer uses a credit card. This transaction is being conducted using the Electronic Fund Transfer (EFT) system (see Figure 2.2 and Figure 2.3). In the EFT system, the pay terminals are connected to the computers of a financial institution. Funds are transferred to the pay terminal when the payment card is being activated using the consumer's personal identification number.

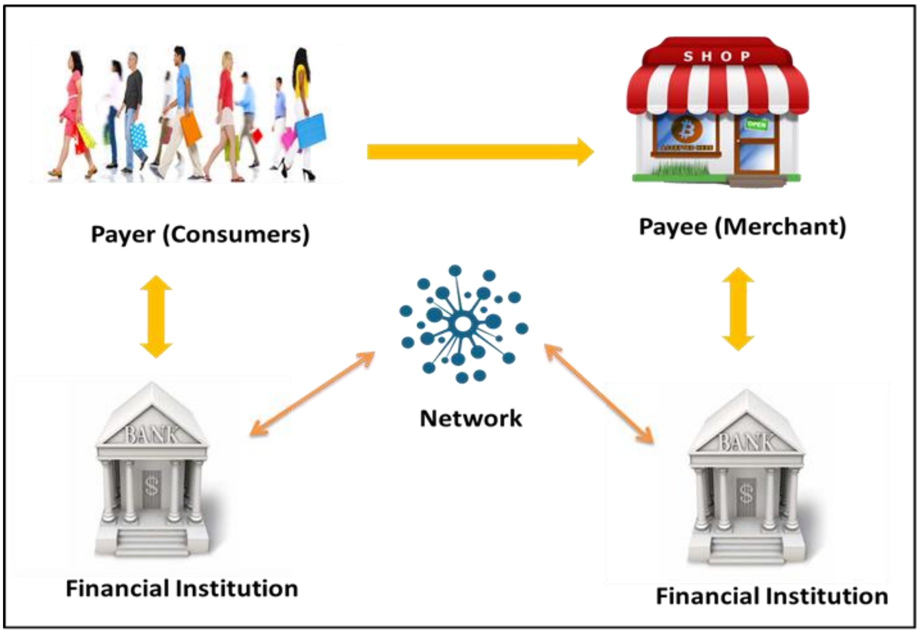

Figure 2.2: Electronic Fund Transfer (EFT). Adapted from EFIEC IT Examination HandBook InfoBase,n.d., Retrieved from http://ithandbook.ffiec.gov/it-booklets/retail-payment-systems/payment-instruments,-clearing,-and-settlement/card-based-electronic-payments/eftpos-networks.aspx

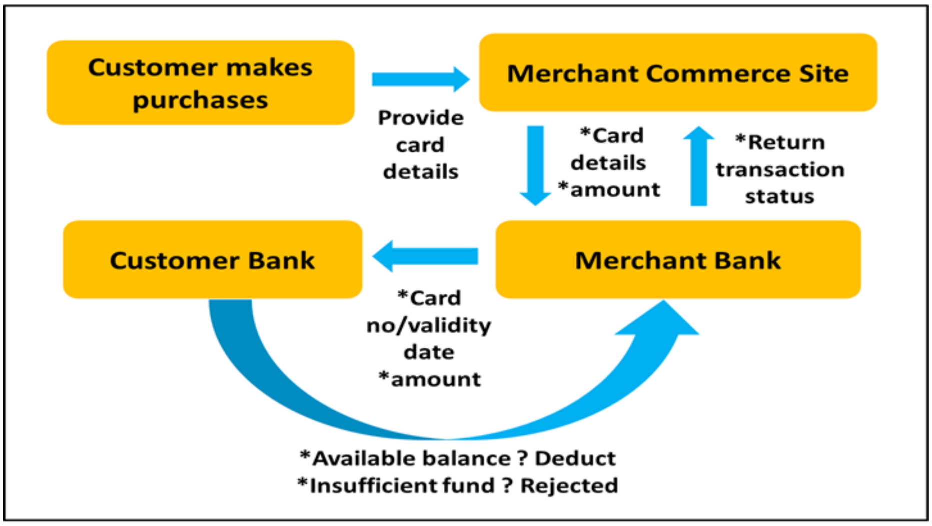

Figure 2.3: The Process of EFT

Other than EFT, Electronic Data Interchange (EDI) is another system that operates as a platform for early e-Commerce transactions. The EDI system links the retailer's and supplier's databases. Using the EDI system, retailers and suppliers connect with each other using computer systems to send and receive electronic documents that comply with standard formats (Figure 2.4). The EDI system assists the companies to perform varied transactions such as order purchasing, invoicing, notice receiving, shipping confirmation, etc.

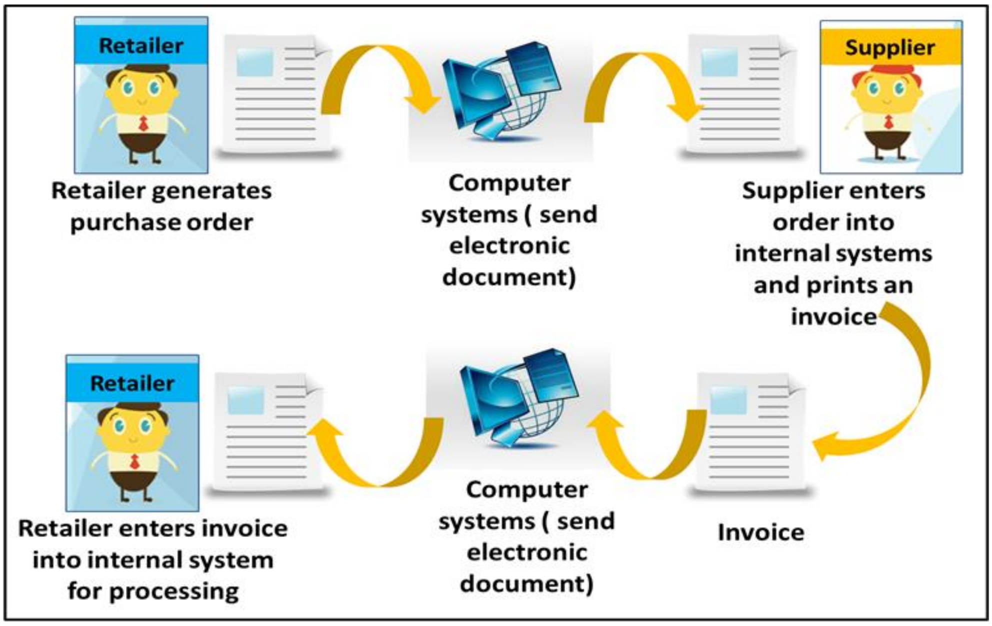

Figure 2.4: Electronic Data Interchange (EDI)

The development of World Wide Web from 1979 to 1991 has affected the electronic transmission medium of e-Commerce (Hahn, n.d) and Internet browsers such as Nexus and Netscape had promoted Internet technologies as a new platform for e-Commerce transactions. In 1994, Netscape Company created the SSL protocol that allows secure transmission which involves data encryption between computer application on a remote server and a client's computer. This protocol provides privacy and integrity of data which ensures personal consumer information (e.g. names, addresses, credit card numbers) safe over the Internet (Dirks & Keeling, 2010; Martinez, n.d.). In supporting the security issue that existed in e-Commerce, companies such as VeriSign was founded in 1995. VeriSign developed Digital Authentication (DI) with the responsibility as a Certificate Authority (CA) provider. They used DI to verify the identity of online business and e-Commerce web by validating the security and encryption of the data transmitted over the web server. With all these technologies, early 1990's has been cited as the year for e-Commerce early development for public usage (Adam, Dogramaci, Gandopadhyay, & Yesha, 1999).

Since the late 1990's, e-Commerce has undergone substantial industry bursts (Dirks & Keeling, 2010). The evolution of brick and mortar transaction to e-Commerce transaction like Amazon.com and E-bay that started to operate online in 1995 had been an early trigger for consumers and retailers in using e-Commerce as a medium for transacting business. From that year onwards, e-Commerce started to emerge in industries where North America and Western Europe became the leading regions. Currently, North America and Western Europe regions have been mature markets in e-Commerce with buyer penetration reaching more than 70% (Nagelvoort, Brink, Weening, & Abraham, 2014; Richther, 2013). In 2013, global population reached 7,233 million people, 2,668 million of the population were Internet users and 1,181 million of the population were e-Commerce users (Nagelvoort et al., 2014). United States of America (USA), United Kingdom (UK) and China were the top three countries that accounted for 57% of the total B2C e-Commerce sales in the world (Nagelvoort et al., 2014).

B2C e-Commerce growth in a country highly depends on three factors: infrastructure, technology adoption and consumer behavior (Ben-Shabat, Nilforoushan, & Moriarty, 2012, 2013). Infrastructure and technology adoption depend very much on a country's economic policy, on how the country organizes its financial and logistical infrastructure besides its government commitments for technology adoption in its country. If these two factors are present, a country will start to attract B2C e-Commerce retailers, whether it is local or foreign retailers, to start an e-Commerce business. These two factors, infrastructure and technology adoption, become a pre-condition for B2C e-Commerce retailers to start an e-Commerce business operation steadily within a country. The third factor which is consumer behavior is the most critical factor for B2C e-Commerce retailers in ensuring positive adoption and continuity of purchasing using online transaction. In 2013, Digital River, an e-Commerce expert, agreed that trust is central to consumer spending habits and the level of online spending increases with the level of consumer trust (Heimes, 2013). In B2C e-Commerce research, trust has been determined as vital and a global ongoing issue in deciding the purchasing behavior among Consumer in the world.

2.4 Uncertainty, Trust and Purchasing Intention in B2C E-Commerce

In B2C e-Commerce environment, purchasing behavior occurs when consumers purchase goods or services from the retailers' e-Commerce website. As e-Commerce activities use a website (information system), it is being known in IS theories that a particular "behavior" occurs because of "intention". User Acceptance, Adoption and IT Usage Behavior theories such as Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM) state that "intention" will lead to "behavior". Thus, in this research, focus will be given to purchasing intention as purchasing intention will lead to purchasing behavior in B2C e-Commerce.

In B2C e-Commerce research, it is agreeable among scholars that trust positively affects purchasing intention (Abbasi, Bigham, & Sarencheh, 2011; Broutsou & Fitsilis, 2012; Chen & Barnes, 2007; Gefen, 2000; Hong & Cha, 2013; Kim & Kim, 2005; Ogonowski, Montandon, Botha, & Reyneke, 2014). Trust is vital in ensuring purchasing intention, because the online atmosphere faces high psychological uncertainties if compared to traditional commerce (Kim & Park, 2013; Liu, Chen, & Zhou, 2010). In a B2C e-Commerce environment, psychological uncertainties occur when consumers have to provide financial information of credit or debit card number, personal information of name, address, mobile phone number and email address in doing a transaction (Che Hussin, Othman, & Mohamed Dahlan, 2008; Wakefield, 2013). Psychologically, in the consumers' mind, the action of providing their financial and personal information could lead to their credential information being stolen or being spread over the Internet (Ho & Chen, 2014; Hong & Cha, 2013; Pavlou, 2003) and the worst thing that could happen is identity theft. Pennanen, Kaapu, & Paakki, (2006) provides research evidence qualitatively, describing psychological uncertainties among Internet users regarding privacy and security issues in providing their financial and personal information as a root barrier for e-Commerce. Apart from that, in online retail, potential consumers have issues on products which they cannot touch and feel in a tangible way (Li & Meshkova, 2013). This situation is also part of a psychological uncertainty that only occurs in a B2C e-Commerce environment and not in traditional commerce. Some of the Internet users just had irrational fear because of psychological uncertainties in committing to B2C e-Commerce (Pennanen et al., 2006).

Trust can reduce uncertainty as trust creates the feeling of security regarding the object they trust, in spite of the uncertainty in a situation (McKnight & Chervany, 2001). Egger (2001) adds that trust acts as a mental mechanism, which is based on incomplete information that helps reduce complexity to allow for decision making under uncertainty. Trust reduces the perceptions of uncertainty in online environment (Brengman & Karimov, 2012; Pavlou & Gefen, 2004) by increasing the securable perception (Zhu, Lee, & O'Neal, 2011) in e-Commerce which positively affect the purchasing intention among consumers (Abbasi et al., 2011; Broutsou & Fitsilis, 2012; Chen & Barnes, 2007; Gefen, 2000; Hong & Cha, 2013; Kim & Kim, 2005; Ogonowski et al., 2014).

Research shows that first time consumer perception about a particular website is very crucial, in determining ongoing purchasing intention among consumers (McKnight, Choudhury, & Kacmar, 2002a). The consumers' first time perception about the particular website is termed as 'initial trust' - trust that happens during the initial phase when two parties first meet each other. Every ongoing relationship and transaction between the two parties will always depend on the trust created during the initial phase (McKnight & Chervany, 2006).

2.5 Initial Trust in B2C E-Commerce

2.5.1 The Origin of Initial Trust

Before the "initial trust" term enters trust research (a term that posits trust to happen during the initial phase when two parties meet each other), early trust theories (e.g. by Blau, 1964; Zand, 1972; Rempel, Holmes & Zanna, 1985) state that trust grows over time, which means, trust only develops within time, starting small, gradually increases by experience between two parties (knowledge-based trust). Economic trust researchers (e.g. Coleman, 1990 and Williamson, 1993) state that trust is based on benefit (calculative-based trust), which means; by providing a higher incentive, a higher trust level is expected, and by providing a lower incentive, a lower level of trust is expected from the trustor. The findings that indicate trust grows over time (knowledge-based trust) and it is based on benefits (calculative-based trust) contradicted the survey and experimental studies by Kramer (1994) and Berg, Dickhaut & McCabe (1995) where high levels of trust were found in students that never knew each other. Kramer's study and Berg's results showed low incentives have no relevance in predicting low trust level (McKnight, Cummings, & Chervany, 1998; Wang, Guo, Niu, & Li, 2011). This reason leads to an argument by McKnight et al. (1998) that there may be hidden factors and processes that enable trust to be high when people in an organization firstly meet, that brings them to develop a conceptual model on initial trust formation in a new organization. Although this model has yet to have any empirical evidence, coming from the management and organizational view, this study has been a large reference for trust among e-Commerce researchers as a basis model for initial trust in e-Commerce study. Trust in e-Commerce research started to emerge in 1999 while initial trust study that appeared to have empirical evidence started in 2002 (Karimov, Bregman, & Hove, 2011; McKnight, Choudhury, & Kacmar, 2002b).

2.5.2 Initial Phase of Trust in B2C E-Commerce

Initial phase of trust in B2C e-Commerce refers to trust of consumers in an unfamiliar e-Commerce website during their first time visit (Li, Jiang, & Wu, 2014b; Lowry, Vance, Moody, Beckman, & Read, 2008; McKnight et al., 2002a, 2002b). The consumers had no first-hand information or experience with that particular B2C e-Commerce website as they were visiting that B2C e-Commerce website for the first time (McKnight, Kacmar, & Choudhury, 2004). For a thorough understanding about the initial phase, McKnight et al. (2004) had divided the initial period into two