E-COMMERCE IMPLEMENTATION PROCESS FRAMEWORK FOR BUSINESS-TO-CUSTOMER MALAYSIAN SMALL AND MEDIUM ENTERPRISES

DEBORAH LIBU PARIS

A thesis submitted in fulfilment of the
requirements for the award of the degree of
Doctor of Philosophy (Information Systems)

School of Computing
Faculty of Engineering
Universiti Teknologi Malaysia

SEPTEMBER 2018

Specially dedicated to my beloved father and mother, sisters and brothers whose affection, love, encouragement and prays of day and night make me able to get such success and honour.

ACKNOWLEDGEMENT

ABSTRACT

Many small and medium sized enterprises (SMEs) have recently decided to implement electronic commerce (e-Commerce). This requires them to successfully implement e-Commerce systems, since an inefficient implementation may lead to endangerment of the company's survival. However, despite the extensive benefits of e-Commerce, there is still a lack of e-Commerce implementations among SMEs in Malaysia. Therefore, this research aims to develop an e-Commerce Implementation Process Framework for Business-to-Customer (B2C) Malaysian SMEs. A collection of the actual experiences of SME e-Commerce champions who were involved in the implementation of e-Commerce, can facilitate the identification of the activities and the primary determinants for inclusion in the implementation process. This research adopted a positivist qualitative research approach, using case studies of Malaysian SMEs in the fashion and apparel sector, who have implemented B2C e-Commerce. In-depth interviews of e-Commerce champions were conducted over the course of three and six interviews for the pilot and primary case studies, respectively. The analysis of the data collected was divided into four phases. The first phase involved both within and cross-case analysis of the pilot cases. The second and third phases involved within and cross-case analysis of primary cases. The fourth phase involved the verification of the framework with four experts in the related field. Thematic analysis method and NVivo software were employed for data analysis. The findings from this research consist of a set of implementation activities and their main determinants featuring the B2C e-Commerce implementation process based on Kotter's eight-stage framework. Finally, these results provide an appropriate framework for the B2C e-Commerce implementation process for Malaysian SMEs in the fashion and apparel sector. The framework is beneficial for e-Commerce practitioners as well as researchers who have similar interests in this field.

ABSTRAK

Kebanyakan syarikat perusahaan kecil dan sederhana (PKS) memutuskan untuk melaksanakan perdagangan elektronik (e-Dagang) baru-baru ini. Ini memerlukan mereka untuk melaksanakan sistem e-Dagang dengan jayanya kerana pelaksanaan yang tidak cekap boleh membahayakan kelangsungan syarikat. Namun demikian, walaupun manfaat e-Dagang meluas, pelaksanaan e-Dagang oleh PKS di Malaysia masih kurang. Oleh itu, kajian ini bertujuan untuk membangunkan rangka kerja proses pelaksanaan e-Dagang Perniagaan-ke-Pelanggan (B2C) PKS di Malaysia. Koleksi pengalaman sebenar juara e-Dagang PKS yang terlibat dalam pelaksanaan e-Dagang berupaya memudahkan pengenalpastian aktiviti dan penentu utama untuk dimasukkan dalam proses pelaksanaan. Kajian ini menggunakan pendekatan kajian kualitatif positivis melalui kajian kes PKS Malaysia dalam sektor fesyen dan pakaian yang telah melaksanakan e-Dagang B2C. Temubual mendalam dengan juara e-Dagang yang melibatkan tiga dan enam temubual untuk kajian kes perintis dan kes utama, masing-masing. Fasa pertama melibatkan analisis dalam setiap kes dan kes silang bagi kes perintis. Fasa kedua dan ketiga melibatkan analisis setiap kes dan kes silang bagi kes utama. Fasa keempat adalah pengesahan rangka kerja dengan empat pakar dalam bidang yang berkaitan. Kaedah analisis tematik dan perisian NVivo telah digunakan untuk menganalisis data. Hasil dari kajian ini adalah satu set aktiviti pelaksanaan dan penentu utama yang memperlihatkan proses pelaksanaan e-Dagang B2C berdasarkan rangka kerja lapan peringkat perubahan Kotter. Akhirnya, hasil kajian ini menyediakan rangka kerja proses pelaksanaan e-Dagang B2C yang sesuai untuk PKS di Malaysia dalam sektor fesyen dan pakaian. Rangka kerja tersebut bermanfaat kepada pengamal e-Dagang serta penyelidik yang mempunyai kepentingan yang sama.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATION

ACCCIM	-	Association Chinese Chamber Corporation In Malaysia
B2B	-	Business-to-Business
B2C	-	Business-to-Customer
C2C	-	Customer-to-Customer
COD	-	Cash On Delivery
CLMV	-	Cambodia, Laos, Myanmar, Vietnam
CRM	-	Customer Relationship Management
CSFs	-	Critical Success Factors
DOI	-	Diffusion of Innovation Theory
e-Commerce	-	Electronic Commerce
GDP	-	Gross Domestic Products
GMBO	-	Get Malaysian Business Online
ICT	-	Information and Communications Technology
IS	-	Information Systems
IT	-	Information Technology
KPIs	-	Key Performance Indicators
MCMC	-	Malaysian Communications and Multimedia Commission
MDeC	-	Malaysian Digital Economy Corporation
MIS	-	Management Information Systems
MITI	-	Ministry of International Trade and Industry Malaysia
MSC	-	Multimedia Super Corridor
NSDC	-	National SME Development Council
SDLC	-	System Developments Life Cycle

SEM	-	Structural Equation Modelling
SMEs	-	Small and Medium Enterprises
SNS	-	Social Networking Site
SSM	-	Companies Commission of Malaysia
TAM	-	Technology Acceptance Model
TOE	-	Technology, Organization and Environment
USP	-	Unique Selling Proposition
UI	-	User Interface
UX	-	User Experience

LIST OF APPENDICES

CHAPTER 1

INTRODUCTION

1.1   Overview

This research explored the Business-to-Customer (B2C) electronic commerce (e-Commerce) implementation process in Malaysian SME companies from the perspective of e-Commerce champion. B2C e-Commerce can be defined as the use of the global internet by business and consumers for the sale and purchase of goods and services, including business services and after sale support to consumers (Ho, Kauffman and Liang, 2007). The full implementation process here consists of three phases; pre-implementation, during implementation and post implementation (Cohen *et al.*, 2012; Kirk *et al.*, 2016), while implementation is the process where development, installation and maintenance of e-Commerce projects take place (Ashaye, 2014).

This chapter provides an overview of the study and it starts with research background of the study on e-Commerce implementation, followed by problem statement, the research questions and objectives to provide insights about the study focus. The scope of the study and its significant are also discussed. Finally, the organisation of the thesis is briefly explained chapter by chapter.

1.2   Research Background

The Internet makes it practical for consumers to shop without going to a physical store. As shopping online is becoming more pronounced, producers and retailers are making use of the Internet as an alternative to shopping in the store. Many retail stores have implemented the application of e-Commerce transactions to allow the sale of products or services to consumers via the Internet in a very straight-forward manner. Through e-Commerce, significant benefits can be earned in business, and it has a significant impact on marketing worldwide. In the United States (US), American consumers are expected to spend about $637 billion while worldwide consumers would spend $2 trillion online by the year 2017 (Laudon, 2013).

The online transaction between business and consumer is called Business to Consumer (B2C), and it includes online shops, online banking, travel services and online auctions (El-Sofany *et al.*, 2012). It has numerous benefits such as self-service shopping, which can be access 24/7 hours daily, accurate orders and prompt payments. The implementation of B2C e-Commerce has increased the market sale and beneficial for long term of company development. In eMarketer's website latest forecasts, worldwide B2C e-Commerce sales will increase by 20.1% from 2014 levels and reach $1.5 trillion by 2017 (eMarketer, 2014). In 2013, B2C e-Commerce accounted for 0.92 percent of the global gross domestic product (GDP), and this share is projected to reach 1.61 percent in 2018 (Statista, 2014). B2C e-Commerce continues to grow worldwide, with a global growth rate of over 15% and much higher in emerging markets such China, India and Brazil. Asian competitors such as Rakuten (http://global.rakuten.com/en/) or Alibaba (http://www.alibaba.com/) are also constantly expanding their share within the B2C e-Commerce market.

In Malaysia, realizing the benefits of e-Commerce, many communication networks continue to improve their network connection to provide high bandwidth to entrepreneurs in terms of providing prominent levels of service to online business. E-Commerce has been recognised as a critical enabler to accelerate revenue growth for the Malaysian economy under the Digital Malaysia initiative (Nee, February 2017).

The Malaysian government has launched Get Malaysian Business Online in January 2013 with a RM50 million grant, and Cloud Computing Adoption Programme was launched by Multimedia Super Corridor (MSC) Malaysia to encourage the Small and Medium Enterprises (SMEs) into e-Commerce business. More and more organisations are now accepting online payment methods. Furthermore, there are more quality e-Commerce websites developing, with enhanced product offerings and delivery. Zalora (http://www.zalora.com.my), Lazada (http://www.lazada.com.my), Lelong (http://www.lelong.com.my/) and Shashinki (http://shashinki.com/shop/) are examples of famous Malaysian online shopping and auction sites, offering computers, cameras, mobile phones, fashion accessories and more (ExpatGo, 2017). They are allowing consumers to purchase, distribute, communicate, explore, and research from virtually anywhere, anytime where there is Internet access. It is believed that Malaysian users spend 20 hours a week on-line compared to 40 working hours, which is 50% of official working time. Additionally, 83% of internet users have made an online purchase, and 56% have made multiple purchases online (Bernama, 2013).

However, although there are 700,000 registered SMEs in the country, only 10 percent had their own website and less than 10% involve one-way communication (Report of ACCCIM 2012; Bernama, 2013; Rahman *et al.*, 2013). Furthermore, several issues that have arisen in e-Commerce of SMEs are highlighted in various newspaper articles as illustrated in Table 1.1. These articles urge SMEs to be more open to innovative and disruptive technology and to utilise the support given by the government.

Table 1.1: Related newspaper articles on e-commerce of SMEs in Malaysia

Date	Highlighted Issues	Quote from	Newspaper
May 09, 2013,	"It is a call to action for more businesses in Malaysia to recognise the benefits of e-Commerce and get online. It is also critical for SMEs to identify the right e-Commerce partner who can help them overcome the challenges of operating a successful e-Commerce business"	Audrey Ottevanger, country Manager for Malaysia and Philippines at PayPal	Digital News Asia (DNA)
July, 21 2014	"While many other Asian countries already have significant number of their local e-Commerce based	Chan Keek Siak, Easy.my CEO and founder	MalaysiaInternet

Date	Highlighted Issues	Quote from	Newspaper
	organisations successfully listed on stock boards, Malaysia only has a sad handful"		
November 17, 2014	SMEs should strengthen their management skills, financial and learning capacities, and fully utilise the support given by the government	The Ministry of International Trade and Industry (MITI)	Bernama
December 28, 2015	"While 2015 has been fruitful year for all online businesses and e-Commerce, Malaysia's share of the total retail e-Commerce market is still very low at 2%"	Hoseok Kim, online marketplace 11street chief executive officer	The Star Online
January, 19, 2016	"What we want to do is to come up with a more aggressive campaign to ensure SMEs sector continues to grow at an impressive rate. Our focus is to make e-Commerce even more popular in Malaysia"	Datuk Seri Mustapa Mohamed, The Ministry of International Trade and Industry (MITI)	The Star Online
January 16, 2017	"We need a mind-changing capability among SMEs as well as other local companies. Only those who adopt technology will be able to sustain their capabilities and market share," "I would like to urge SMEs to constantly innovate and adopt technology so that they will not be left behind. Otherwise they might have to close shop"	Malaysian International Chamber of Commerce and Industry (MICCI) president, Datuk Wira Jalilah Baba	The Sundaily
March 3, 2017	"We want to enhance the e-Commerce adoption. Our focus is getting SMEs to be on the e-Commerce platform as it is almost compulsory for every business to be part of it"	International Trade and Industry Minister, Datuk Seri Mustapha Mohamed	MalayMail

Despite a continuous urge and support from government to SMEs to implement e-Commerce through the years (see Table 1.1), the e-Commerce penetration in Malaysia as 2017 is estimate at 5% (Wong, 2017). This low penetration may be because not many companies are aware of the significant benefits of B2C e-Commerce to their company's long-term growth (Ismail, 2008; Hashim and Abdullah, 2014; Kurnia *et al.*, 2015). The failure of immature B2C e-Commerce managers to understand the potential benefit led to failure to support and maintain their e-Commerce system (Khatibi, 2003; Hashim and Abdullah, 2014; Kurnia *et al.*, 2015). In addition, lack of expertise within an organisation will create some other barriers as reported in The Associated Chinese Chamber of Commerce and Industry of Malaysia (ACCCIM) survey of SMEs in 2012 (see Figure 1.1). Other than that, finance difficulties, grasp of technologies and uncertainty of market direction are

among the highest barriers. These barriers make e-Commerce is too difficult to implement within SMEs.
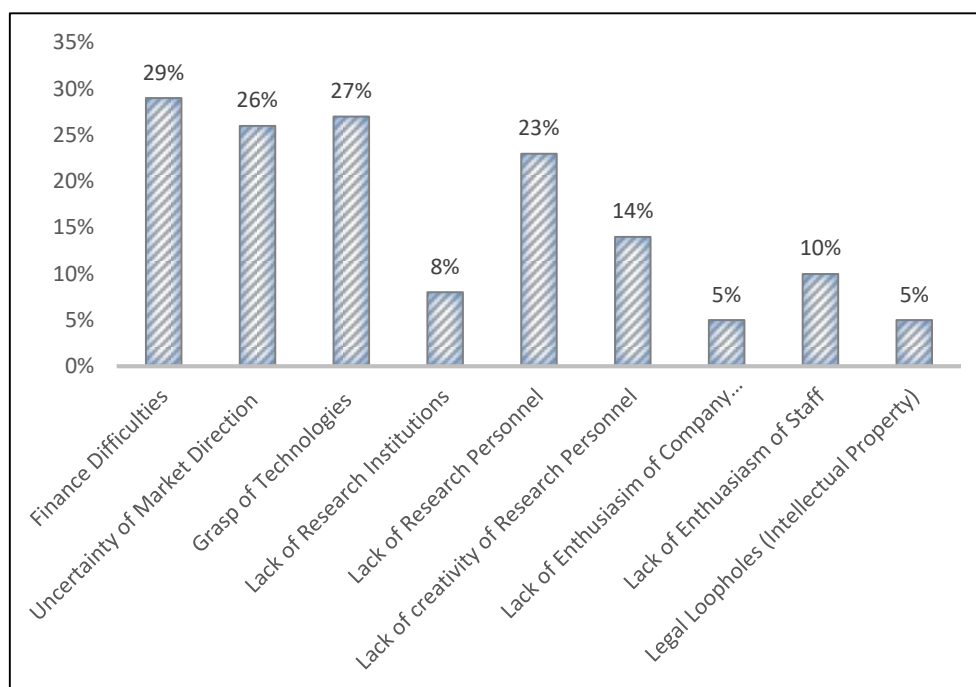
Figure 1.1: Report of ACCCIM 2012 SMES survey (2012)

Consequently, Malaysia SMEs are still far from achieving the satisfactory e-commerce level, which is worrisome as the nation plans to be a developed country by the year 2020 (Rahman *et al.* 2013; Bernama, 2013). In regard to the use of the e-Commerce, Malaysian SMEs are still fond of using conventional methods of doing business. For example, only 28% out of the 965 respondents stated that they are involved in e-Commerce, 24% of them are "in planning", and the remaining 48% are not involved in e-Commerce yet (ACCCIM, 2012). According to Malaysia Digital Economy Corporation (MDEC), only about 10 percent of SMEs in Malaysia were involved in e-Commerce in year 2015. The small number of SMEs implements e-Commerce leads a research questions of what happened during the implementation of B2C e-Commerce in Malaysia.

While implementing e-Commerce system, the e-Commerce champions involved in the implementation were highlighted in prior study. E-Commerce champions such as managers, senior manager and top manager as the main

respondent in prior studies (Ahmad *et al.*, 2011; Alam *et al.*, 2013; Afshar Jahanshahi *et al.*, 2013). E-Commerce champion as individuals in organisation who make decisive contributions to the innovation by actively and enthusiastically promoting it progress through the critical stages of its development and adoption. This indicate that e-Commerce champion is a key contributor to implementation success (Curley and Gremillion, 1983). E-Commerce champion role are so critical in e-Commerce implementation that without a champion, the e-Commerce system might be abandoned because it does not stand much chance to be successful (Agwu and Murray, 2014; Zhang *et al.*, 2016). However, one of the most overlooked areas, where previous study focused on end-user characteristics, developing model for SMEs rather than analysing of what has happened during implementation of e-Commerce (Ahmad and Agrawal, 2012). For instance, prior study explores barriers (Alam *et al.*, 2011; Afshar Jahanshahi *et al.*, 2013) or recognizing determinants (Ahmad *et al.*, 2015; Kurnia *et al*, 2015; Sin *et al.*, 2016) that are important to implement e-Commerce from e-Commerce champion perspective. Identify the barriers and determinants may be beneficial to obtain in-depth understanding of the achievement of e-Commerce implementation but it is inadequate to be used to describe the constant change of e-Commerce implementation process. Thus, the determinants or barriers alone are not sufficient to give clarification on how the transition from imperviousness to success has occurred. The need to understand what has happened during implementation process is rather useful as it creates a moving image on how e-Commerce is implemented from a stage to another stage (Yasin *et al.*, 2014). Aforesaid, e-Commerce champion perspective is needed to determine the activities and determinants that emerged during the implementation process. Once the understanding is achieved, it will help the e-Commerce champion in companies to lead implementation more effectively.

Accordingly, a better awareness about e-Commerce that will allow SMEs to better understand the e-Commerce potential is needed (Alam *et al.*, 2011; Kurnia *et al.*, 2015). Rahman *et al.* (2013) suggest that the SMEs should propose some guidelines in promoting e-Commerce to enhance the success of implementation of B2C e-Commerce in Malaysia. This guideline referring to the change process which include step-by-step plan of SMEs companies went through while implementing e-

Commerce applications. Failure to do so will result the Malaysian SME continues to struggle with e-Commerce implementation.

1.3   Problem Statement

Although Malaysian SMEs demonstrate the profound and pervasive struggles involved in e-Commerce implementation, many developed countries have successfully implemented the e-Commerce to optimize the benefits. It has brought economic success to the organisation including business efficiency, information quality and communication efficiency in USA and European Union countries (Mora-Monge *et al.*, 2010; Lucia-Palacios *et al.*, 2014). The understanding of the process of e-Commerce implementation will increase flexibility in communicating with business partners and providing managers better access to information, improve the customer services and minimal cost of customization of e-Commerce (Hallikainen and Chen, 2005; Noyes and MacInnes, 2006; Seyal *et al.*, 2013). In view of this, B2C e-Commerce systems are believed to have the potential to radically change SMEs and tender some benefits that were previously not foreseen in developing countries, particularly in Malaysia. Despite the interest shown by many governments of SMEs in implementing the B2C e-Commerce system, there are several fundamental issues that require a stronger research focus.

First issue, there are limitations of understanding for implementation from three different views which are technology aspects (Salleh *et al.*,2010; Hung *et al.*, 2011), organisational aspects (Tarafdar and Vaidya, 2006; Wang and Ahmed, 2009; Hung *et al.*, 2011; Ramanathan *et al.*, 2012; Tibbs *et al.*, 2015) and phases of implementation (Thatcher *et al.*, 2006; Scupola, 2009; Chan *et al*, 2012). The first view, technology aspect, Salleh *et al.*, (2010) define implementation as one phase in system life cycle which is the coding phase or system development solutions. The system is written, tested, documented and installed, at the end of this phase the system is ready to use. The second view, organisational aspect, Tarafdar and Vaidya (2006) study highlight the role of top management, characteristics of information

systems professional and organisational structure determine the enterprise inclination to deploy e-Commerce system. Additionally, operations and marketing of e-Commerce have strong impacts on performance of SMEs (Ramanathan *et al.*, 2012). The third view, the implementation phases consists three phases which are divided into pre-implementation, during implementation and post implementation. Most study in e-Commerce implementation focus on single phase. For instance prior study on pre-implementation focused on adoption topic (Hong and Zhu, 2006; Thatcher *et al.*, 2006; Scupola, 2009; Chan *et al.*, 2012; Tibbs *et al.*, 2015) while prior study on during implementation focused on system design and application (Kang, 2009; Hwang, 2009). Finally, prior study on post implementation focused on performance and business impact (Jehangir 2011; Ahmad 2012). In implementing a successful implementation requires a careful launch strategy and mutual adaptation among the organisation, the technology and the business process (Bozarth, 2006; Salim 2013). This suggests that significant innovative technologies require adjustment within the organisational structure and day-to-day business process (De-Vries and Boonstra, 2012). The implementation of e-Commerce system therefore is not just a technological aimed at adoption of information systems but also encompasses an organisational aspect (Boonstra and Govers, 2009). Furthermore, better understanding of the companies change process, its characteristics during change could bring many positive outcomes, including more effective implementation (Whelan-Berry and Sommerville, 2010). Current implementation studies concern either technology or organisation aspect without combining the two aspects together or neglecting the whole three phases of implementation. To make it as a proper implementation process, this study will combine three aspects together that include three phases (i.e., pre-implementation, during-implementation and post-implementation), the technology and organisation aspects (Salim, 2013).

Second issue, most research in the B2C area highlighted various determinants influencing the B2C e-Commerce implementation (e.g., Sarkar, 2009; Yasin *et al.*, 2010; Makki and Chang, 2015; Altameem and Almakki, 2017) yet without clearly stated activities or which stage it is being influence (Sarkar, 2009; Aljowaidi, 2015). For instance, determinants such as top management support, government regulations, IT infrastructures, and compatibility among determinants that motivate for e-

Commerce implementation (Permwanichagun *et al.*, 2014; Makki and Chang, 2015; Çela, 2016). These determinants, however only show their importance individually without explaining in detail what activities are involved. In addition, other studies such as Yasin *et al.* (2010), stated several activities (e.g., our organisation had well-defined overall organisational strategic plan; our organisation had well-defined departmental or functional plans; benchmarking) involved in the implementation, yet ignoring what corresponding determinants is important associated with their implementation stages. In another study, Aljowaidi (2015) highlights determinants (e.g., compatibility, internal IT infrastructure, e-Commerce strategy, organisation structure) and activities (e.g., skills & attitude, staff training; vision & goals, adequate support), however the study only covers at pre-implementation phase (i.e., adoption) only. To make process change happen, any study should combine activities and determinants and how it evolved (Salim, 2013) within the whole implementation process (i.e., pre-implementation, during implementation and post implementation). The need to have a standardized and systematic B2C e-Commerce implementation framework that include activities and determinants in corresponding implementation phases lead to effective operational and strategic outcomes (Yasin *et al.*, 2010; Broome, 2016). In this regard, exploring and representing the relevant activities and its determinants within B2C e-Commerce implementation process framework in Malaysia SMEs is significant.

This study overcomes these issues by providing an understanding on B2C e-Commerce implementation process in SMEs. The whole implementation phase (i.e., pre-implementation, during-implementation and post-implementation) is included to have the overall picture of B2C e-Commerce implementation process framework. To do this, the study will combine both main determinants and their relevant activities according to specific stages in e-Commerce implementation process. As a case, several Malaysian SMEs e-Commerce companies will be used. SME companies in Malaysia are chosen as they are on track to contribute 41% to the country's gross domestic product by 2020 compared to 32% in 2012, (Minister of International Trade and Industry (MITI) Datuk Seri Mustapa Mohamed). In line with this, the government encourages them to merge to become stronger entities, thus enhancing SMEs competitiveness through e-Commerce (The Star, 2015). Therefore, the

Malaysian SMEs will be the case studies for this research. The framework from this study will provide more-thorough understanding of the underlying characteristics that determine the way e-Commerce system are implemented in Malaysia.

1.4   Research Questions

The main research question in this study is:

"How could the process of B2C e-Commerce implementation in Malaysian SMEs be developed?"

The main question concerns the understanding of the SMEs experience in implementing the B2C e-Commerce system. The question is needed to increase our understanding of what must be included in B2C e-Commerce implementation framework. To further strengthen this study, three sub-research questions are developed. They are:

i)   Sub-Research question 1:

"What are the main activities and determinants that involved in B2C e-Commerce implementation process?"
This first sub-question seeks to identify the activities and its determinants in the B2C e-Commerce implementation. Any activities and its determinants that emerged from the study are related to the actual B2C e-Commerce implementation process (i.e., as they will derive from the data).

ii)   Sub-Research question 2:

"What framework can be used for B2C e-Commerce implementation process?"
The second sub-question intends to develop a framework that is unique to the B2C e-Commerce implementation process in Malaysian SMEs. All identified activities and its determinants will be merged tightly to form a complete framework for the B2C e-Commerce implementation process. The developed

framework hopefully will provide a better understanding of the process of B2C e-Commerce implementation project.

iii) Sub-Research question 3:

"How to verify the B2C e-Commerce implementation process framework?"

The third sub-question is to verify the B2C e-Commerce implementation process framework to increase the trustworthiness and accuracy of final framework.

1.5 Research Objectives

The main objective of this study is to develop a framework that can be used for implementation of B2C e-Commerce system based on Malaysian SMEs experience. Exploring what must be included in B2C e-Commerce implementation through the actual experiences of SMEs e-Commerce champions involved in the implementation of e-Commerce within an organisation can identify all the core requirements (i.e., activities and determinants will emerge from the interview data from e-Commerce champions) in the implementation process. In this sense, the study will evaluate the e-Commerce champions' experience with regard to B2C implementation. This understanding can be achieved through the following sub objectives:

i) To analyse the main implementation activities and its determinants associated with the B2C e-Commerce implementation process

In understanding B2C e-Commerce implementation, there are some activities and its determinants that influence the process of implementation. The exploration into activities and its determinants will be accumulated from the interviews with e-Commerce champions. The identified determinants with its activities that represent relevant B2C e-Commerce implementation stages are presented in chronological order.

ii) To develop a framework that can be used for B2C e-Commerce implementation process.

Here, framework will provide the characteristics (i.e., activities) of the implementation determinants that are found among the various case studies (i.e., by comparing one case study to another). The narration between the activities and determinants then will form a framework that actually is a holistic view of B2C implementation process.

iii) To verify the B2C e-Commerce implementation process framework.

The develop framework is verified here to increase the trustworthiness and accuracy of the research findings. Finally, a final framework for B2C e-Commerce implementation process as outcome of this research.

1.6   Scope of the Research

It is difficult to take account of every aspect of e-Commerce research for business application within the scope of single research study. Consequently, it is necessary to limit the area of focus of this study. Identifying the scope of the research provides a guideline in developing aims if the research. The scope of this study is limited to the following situation:

i)   Business-to-Customer (B2C) e-Commerce type

Business-to-Customer or B2C e-Commerce is defined as activities of businesses selling products and/or services to consumers, usually in the form of online shops. In Malaysian context, the CEO of Multimedia Development Corp (MDeC), Datuk Yasmin Mahmood has urged the e-Commerce industry to boost the domestic e-Commerce revenue in line with the global B2C revenue which is expected to reach RM4.78 trillion by the end of this year (The Malaysian Reserve, 2014). Therefore, the B2C e-Commerce type is selected for this study.

ii) E-Commerce champion

The B2C e-Commerce implementation process study is obtained from the perspective of e-Commerce champion such as owner of firms, manager, managing director, CEOs, Heads of IT, IT experts (Oliveira and Martins, 2010; Sultana *et al.*, 2011; Ahmad and Agrawal, 2012). The role of e-Commerce champion as a key player in implementation process is vital and significant for the success of B2C e-Commerce implementation process because of their skills and expertise in bringing. They are chosen as they have knowledge and experience for implementing e-Commerce in organisation, to give an understanding of the phenomena (Agwu and Murray, 2014; Zhang *et al.*, 2016). Therefore, the e-Commerce implementation in this study acknowledges e-Commerce implementation as holistic approach from the individual experiences of the e-Commerce champion.

iii) Malaysian SMEs in Fashion and Apparel

Malaysian SMEs in fashion and apparel export market has become increasingly attractive for new international entrants as result of the increase demand for the Muslim hijab and headgear for ladies (Malaysian Knitting Manufacturers Association, 2013). Therefore, the Malaysian SMEs in fashion and apparel will be the case studies for this research.

1.7 Significance of the Research

The significance of this research can be categorized into three various aspects including theoretical, methodological and practical. In terms of theoretical contribution, most previous research used adoption theories such as Technology Acceptance Model (TAM) and Diffusion of Innovation Theory (DOI) for e-Commerce implementation research. However, this research contributes to Change Management Theory in IS research context, e-Commerce implementation process research studies. Furthermore, the selection of Kotter's model (from change management theory) in the study contributes to Kotter's eight stages of change model with the real context of case study in e-Commerce implementation process

field. Moreover, the definition of implementation process in this study considered as essential contribution that can be used by future researchers regarding implementation process in e-Commerce or other domains.

The methodological contribution involves using interpretive case study for the e-Commerce implementation process that specifically focused in Malaysian fashion and apparel SMEs can be replicated to similar contexts. This could be achieved by using the applied methodology to understand the B2C e-Commerce implementation process in similar industry.

In terms of practical contribution, this research offers a B2C e-Commerce implementation process framework to e-Commerce champion. For e-Commerce champion, understanding the B2C e-Commerce implementation process will help businesses identify the most strategic activities and determinants in specific stages to gain expected benefits from e-Commerce. It also gives a holistic view of B2C e-Commerce implementation process that includes the implementation activities, determinants and stages, which might lead to a higher awareness of how to implement B2C e-Commerce. It therefore can help to increase the participation of Malaysian SMEs in global competition in near future.

1.8   Organisation of the Thesis

This section provides an overview of the overall thesis structure. This thesis is organized in seven chapters as depicted in Figure 1.2. The figure summarizes each chapter in thesis in terms of the main objectives of the chapter, the outcomes of each chapter and related phase in research design.
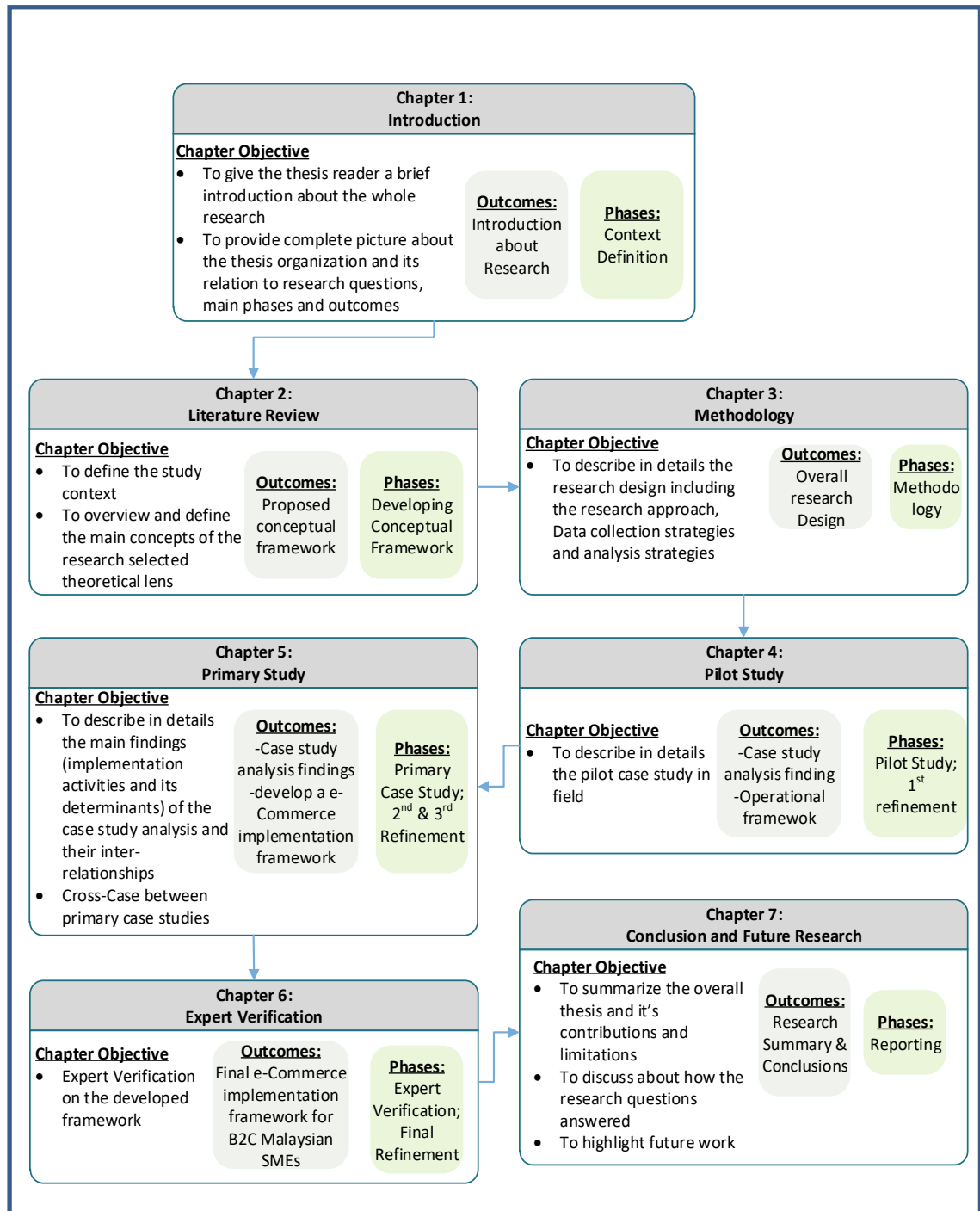
Figure 1.2: Organisation of the thesis

Chapter 1 provides the background of the current research and highlights the objectives of this study. It then establishes the scope of this research and the research significance. This chapter also presented the overall organisation of the current thesis.

Chapter 2 reviewed the relevant literature in respective research topic. This chapter presented the preliminary review where several gaps were identified in an effort to justify the significance of the study. Chapter 2 also provided a review of related studies such as the B2C e-Commerce implementation in developed and developing countries, B2C e-Commerce implementation study in Malaysia context, previous B2C e-Commerce implementation framework, the benefits and implementation determinant of B2C e-Commerce, and the relevant IS theories. Finally, a conceptual framework for B2C e-Commerce implementation process for Malaysia is proposed. The chapter concludes with a discussion of the main outcomes from the review of the literature and its implications on this research.

Chapter 3 provides an overall description of the research design and methodology used in this study. The chapter provides details about the interpretative paradigm as the selected paradigm for this study. The qualitative case study is discussed as the selected research strategy. This was followed by a detailed description of the procedures followed in data collection and the methods used to analyse the data. The research validity and trustworthiness are discussed in this research design.

Chapter 4 described in detail the pilot case study process and findings. The qualitative case study is conducted through open-ended interview questions with three Malaysian SMEs across fashion and apparel sector. Data were analysed using thematic coding approach and cross-case analysis with help of NVivo software used to generate the findings of the study. As outcome in this chapter, the findings are presented, as well as a set of implementation activities and determinants. The first refinement of conceptual framework to operational framework is then developed.

Chapter 5 discussed in detail the main findings of analysis of six case studies and their inter-relationships. The case study analysis findings were discussed such as implementation activities and determinants were mapped to its relevant B2C e-Commerce implementation stages in sequences. This followed by the cross-case study analysis between the six case studies, from which emerged a detailed set of

REFERENCES

Aboelmaged, M. G. (2014). Predicting e-readiness at firm-level: An analysis of technological, organisational and environmental (TOE) effects on e-maintenance readiness in manufacturing firms. *International Journal of Information Management*, *34*(5), 639-651.

Abou-Shouk, M., Lim, W. M., and Megicks, P. (2013). Internet adoption by travel agents: A case of Egypt. *International Journal of Tourism Research*, 15(3), pp. 298-312.

Abubakre, M., Crispin, C., and Jayawardhena, C. (2011). The diffusion of management information systems in organizations-an organizational sub-culture perspective. In: *Proceedings of the 19th European Conference on Information Systems (ECIS 2011).*

Afshar Jahanshahi, A., X. Zhang, S., and Brem, A. (2013). E-commerce for SMEs: empirical insights from three countries. *Journal of Small Business and Enterprise Development*, *20*(4), 849-865.

Agwu, M. E., and Murray, J. P. (2015). Empirical study of barriers to electronic commerce adoption by Small and Medium scale businesses in Nigeria. *International Journal of Innovation in the Digital Economy, 6*(2), 1-19.

Ahmad, A., Lyytinen, K., and Newman, M. (2011). The evolution of process models in IS research: From a punctuated social process model to a socio-technical process model. In *ECIS Proceedings*,161, 1-13.

Ahmad, I., and Agrawal, A. M. (2012). An empirical study of problems in implementation of electronic commerce in Kingdom of Saudi Arabia. *International Journal of Business and Management*, *7*(15), 70.

Ahmad, S. Z., Abu Bakar, A. R., Faziharudean, T. M., and Mohamad Zaki, K. A. (2015). An empirical study of factors affecting e-commerce adoption among

small-and medium-sized enterprises in a developing country: Evidence from Malaysia. *Information Technology for Development*, *21*(4), 555-572.

AlGhamdi, R., Nguyen, A., and Jones, V. (2013). A Study of Influential Factors in the Adoption and Diffusion of B2C E-Commerce. *Editorial Preface*, *4*(1).

Aljowaidi, M. A., Arbia, S., and Arabia, S. (2015). *A study of E-Commerce Adoption Using the TOE Framework in Saudi Retailers: Firm Motivations, Implementation and Benefits*. (Doctoral dissertation). RMIT University, Australia.

Alsaad, A. K., Mohamad, R., and Ismail, N. A. (2014). The moderating role of power exercise in B2B E-commerce adoption decision. *Procedia-Social and Behavioral Sciences*, *130*, 515-523.

Al-Shamlan, H. M., and Al-Mudimigh, A. S. (2011). The Change management strategies and processes for successful ERP implementation: a case study of MADAR. *International Journal of Computer Science*, *8*(2), 399-407.

Al-Taie, M. Z., and Kadhim, A. M. (2013). Factors Disrupting a Successful Implementation of E-Commerce in Iraq. *Academic Scientific Journals,* 531 – 558.

Altameem, E., and Almakki, R. (2017). E-Commerce Implementation: A Critical Review. *International Journal of Computing Academic Research,* 6(2), 12–19.

Appelbaum, S. H., Habashy, S., Malo, J. L., and Shafiq, H. (2012). Back to the future: revisiting Kotter's 1996 change model. *Journal of Management Development*, 31(8), 764-782.

As'ad, I., Ahmad, F., and Sentosa, I. (2012). An Empirical Study of E-Commerce Implementation among SME in Indonesia. *International Journal of Independent Research and Studies*, 1(1), 13-22.

Ashaye, O. O. R. (2014). *Evaluating the implementation of e-government in developing countries: the case of Nigeria.* (Doctoral dissertation). Brunel Business School, Brunel University.

Atanasova, S., Kamin, T., and Petrič, G. (2017). Exploring the benefits and challenges of health professionals' participation in online health communities: Emergence of (dis) empowerment processes and outcomes. *International Journal of Medical Informatics*, 98, 13-21.

Awa, H. O., Awara, N. F., and Lebari, E. D. (2015). Critical factors inhibiting Electronic Commerce (EC) adoption in Nigeria. *Journal of Science and Technology Policy Management*, 6(2), 143–164.

Bahari, M., (2012). Citizen relationship management implementation in local government-towards a theoretical research framework. *Journal of Information Systems Research and Innovation,* 2(2), 51-61.

Bernama (2013, August). *Response to GMBO scheme from SME still far from satisfactory.* Retrieved January 21, 2014 from http://english.astroawani.com/malaysia-news/response-gmbo-scheme-smes-still-far-satisfactory-20034.

Bingley, S. and Burgess, S. (2012). A case analysis of the adoption of Internet applications by local sporting bodies in New Zealand. *International Journal of Information Management,* 32(1), 11-16.

Boonstra, A., and Govers, M. J. (2009). Understanding ERP system implementation in a hospital by analysing stakeholders. *New Technology, Work and Employment*, 24(2), 177-193.

Braun, V., and Clarke, V. (2014). What can "thematic analysis" offer health and wellbeing researchers? *International Journal of Qualitative Studies on Health and Well-Being, 9,* 9–11.

Brdesee H., Corbitt B. and Pittayachawan S. (2012). Lessons to Be Learnt: Cultural Means Impeding e-Commerce Adoption in a Saudi Industry. *International Journal of E-Education, E-Business, E-Management and E-Learning,* 2(6), 488–492.

Broome, P. A. (2016). Conceptualizing the foundations of a regional e-commerce strategy: Open networks or closed regimes? The case of CARICOM. *Cogent Business and Management, 3*(1), 1139441.

Burke, W. (2008). *Organization Change – Theory and Practice* (2nd ed). Thousand Oaks, CA: Sage Publications Inc.

Burke, W. W. (2017). *Organization change: Theory and practice*. Thousand Oaks, CA: Sage Publications.

Campbell, D. E., Wells, J. D., and Valacich, J. S. (2013). Breaking the ice in B2C relationships: Understanding pre-adoption e-commerce attraction. *Information Systems Research*, 24(2), 219-238.

Cegarra-Navarro, J. G., JiméNez, D. J., and MartíNez-Conesa, E. Á. (2007). Implementing e-business through organisational learning: An empirical investigation in SMEs. *International Journal of Information Management*, 27(3), 173-186.

Çela, G. (2016). Implementation of e-Commerce in developing countries: impact and its limitations-Albanian Case study. *Academic Journal of Business, Administration, Law and Social Sciences,* 2(2), 66–73.

Cesta, A., Cortellessa, G., Orlandini, A., and Tiberio, L. (2016). Long-term evaluation of a telepresence robot for the elderly: Methodology and ecological case study. *International Journal of Social Robotics*, 8(3), 421-441.

Chan, C., and Swatman, P. (2002). Management and Business Issues for B2B eCommerce Implementation. In *Proceedings of the 35th Annual Hawaii International Conference on System Sciences (*HICSS'02), 8, 229.

Chan, X., Lau, Y. Y., and Ng, J. M. J. (2012). Critical evaluation of ERP implementation on firm performance: a case study of AT&T. *International Journal of Logistics Systems and Management*, 12(1), 52-69.

Chen, J. E., Pan, S. L. and Ouyang, T. H. (2014). Routine reconfiguration in traditional companies' e-commerce strategy implementation: A trajectory perspective. *Information & Management,* 51(2), 270–282.

Chong, S. (2008). Success in electronic commerce implementation: A cross-country study of small and medium-sized enterprises. *Journal of Enterprise Information Management*, 21(5), 468–492.

Clarke, V., and Braun, V. (2014). Thematic analysis. In *Encyclopedia of Critical Psychology*,1947-1952.

Clarke, V., and Braun, V. (2013). Teaching thematic analysis: Over- coming challenges and developing strategies for effective learning. *The Psychologist*, 26(2), 120–123.

Cohen, S., Kallirroi, G., Hallikainen, P., Chen, L., McAvoy, J., Miranda, F. J., and Holst, M. (2012). e-Commerce Investments from an SME perspective: Costs, Benefits and Processes. *Leading Issues in ICT Evaluation*, 1, 17.

Collis, J., and Hussey, R. (2009). *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*. Basingstoke, UK: Palgrave Macmillan.

Cooper, R. B., and Zmud, R. W. (1990). Information technology implementation research: a technological diffusion approach. *Management Science*, 36(2), 123-139.

Crabtree, F. B., and Miller, L.W. (1992). *Doing qualitative research*. Beverly Hills, CA,US: SAGE Publications.

Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA, US: SAGE Publications.

Creswell, J. (2013). *Research Design* (4th ed.) Thousand Oaks, CA, US: SAGE Publications.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124-130.

Croom, S., and Brandon-Jones, A. (2007). Impact of e-procurement: experiences from implementation in the UK public sector. *Journal of Purchasing and Supply Management*, 13(4), 294-303.

Cullen, A. J., and Taylor, M. (2009). Critical success factors for B2B e-commerce use within the UK NHS pharmaceutical supply chain. *International Journal of Operations and Production Management*, 29.

Curley, K. F., and Gremillion, L. L. (1983). The role of the champion in DSS implementation. *Information and Management*, *6*(4), 203–209.

Curran, J., and Blackburn, R.A. (2001). *Researching the small enterprise.* London: SAGE Publications.

de Vries, J., and Boonstra, A. (2012). The influence of ERP implementation on the division of power at the production-sales interface. *International Journal of Operations & Production Management*, 32(10), 1178-1198.

Dezdar, S., and Ainin, S. (2011). The influence of organisational factors on successful ERP implementation. *Management Decision*, 49(6), 911-926.

DiCicco-Bloom, B., and Crabtree, B. F. (2006). The qualitative research interviews. *Medical Education*, 40(4), 314–321.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532-550.

Elahi, S., and Hassanzadeh, A. (2009). A framework for evaluating electronic commerce adoption in Iranian companies. *International Journal of Information Management*, 29(1), 27-36.

El-Sofany, H., Al-Malki, T., AlZamel, A.-A., and Alharbi, A.-A. (2012). Impact of Trust Factors in Improvement and Development of E-commerce in Saudi Arabia. *International Journal of Computer Applications*, 55(9), 15–24.

eMarketer. (2014, October). *Global B2C Ecommerce Sales to Hit $1.5 Trillion This Year Driven by Growth in Emerging Markets.* Retrieved February 23, 2015 from http://www.emarketer.com/Article/Global-B2C-Ecommerce-Sales-Hit-15-Trillion-This-Year-Driven-by-Growth-Emerging-Markets/1010575.

Ern, P. A. S., Kasim, N., Masrom, M. A. N., and Chen, G. K. (2017). Overcoming ICT Barriers in IBS Management Process in Malaysia Construction Industry. In *MATEC Web of Conferences*, 103, 3007.

ExpatGo, (2017, March). *Online shopping websites you should know in Malaysia*. Retrieved October 15, 2017 from http://www.expatgo.com/my/2013/04/03/6-online-shopping-websites-you-should-know-in-malaysia/.

Fraser, J., N. Fraser and F. McDonald (2000). The strategic challenge of electronic commerce. *Supply Chain Management: An International Journal,* 5(1), 7-14.

Fusch, P. I., and Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report*, 20(9), 1408.

Garland, A. F., Bickman, L., and Chorpita, B. F. (2010). Change what? Identifying quality improvement targets by investigating usual mental health care. *Administration and Policy in Mental Health and Mental Health Services Research*, 37(1-2), 15-26.

Gazepidis, N., and Rigas, D. (2008). Evaluation of Facial Expressions and Body Gestures in Interactive Systems. *International Journal of Computers*, 2(1), 92-97.

Gerdsri, N., Assakul, P., and Vatananan, R. S. (2010). An activity guideline for technology road-mapping implementation. *Technology Analysis and Strategic Management,* 22(2),229-242.

Ghobakhloo, M., Arias-Aranda, D., and Benitez-Amado, J. (2011). Adoption of e-commerce applications in SMEs. *Industrial Management & Data Systems*, *111*(8), 1238-1269.

Gilaninia, S., Danesh, S. Y., Amiri, M., Mousavian, S. J., and Eskandarpour, B. (2011). Effective factors on adoption of e-commerce in SME cooperative. *Interdisciplinary journal of contemporary research in business*, 3(6), 144-161.

Glesne, C. (2011). *Becoming qualitative researchers: An introduction* (4th Ed.). Boston: Pearson Education, Inc.

Gong, W. (2009). National culture and global diffusion of business-to-consumer e-commerce. *Cross Cultural Management: An International Journal, 16(*1), 83-101.

Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Technology Research and Development*, 29(2), 75-91.

Ha, S., and Stoel, L. (2009). Consumer e-shopping acceptance: Antecedents in a technology acceptance model. *Journal of Business Research*, 62(5), 565–571.

Hai, W.T and Leon, K.O.K (2013). Malaysian Economic Outlook. In *E-Commerce for Global Reach*.

Hallikainen P and Chen L. (2005). A Holistic Framework on Information Systems Evaluation with a Case Analysis. *The Electronic Journal Information Systems Evaluation*, 9,57 – 64.

Hashim, N. A., and Abdullah, N. L. (2014). Catastrophe of e-commerce among Malaysian SMEs - Between its perceived and proven benefits. *Jurnal Pengurusan*, 42(2014), 145–157.

Hiatt, J. (2006). *ADKAR: A model for change in business, government, and our community*. Loveland, Colorado: Prosci Learning Center Publications.

Ho, S. C., Kauffman, R. J., and Liang, T. P. (2007). A growth theory perspective on B2C e-commerce growth in Europe: An exploratory study. *Electronic Commerce Research and Applications*, 6(3), 237 – 259.

Hong, W., and Zhu, K. (2006). Migrating to internet-based e-commerce: Factors affecting e-commerce adoption and migration at the firm level. *Information & Management*, 43(2), 204-221.

Houghton, C., Casey, D., Shaw, D., and Murphy, K. (2013). Rigour in qualitative case-study research. *Nurse Researcher*, 20(4), 12.

Howell, J. M., and Boies, K. (2004). Champions of technological innovation: The influence of contextual knowledge, role orientation, idea generation, and idea promotion on champion emergence. *Leadership Quarterly*, 15(1), 123–143.

Hsia, T. L., Wu, J. H., and Li, E. Y. (2008). The e-commerce value matrix and use case model: A goal-driven methodology for eliciting B2C application requirements. *Information & Management*, 45(5), 321-330.

Hu, X., Wu, G., Wu, Y., and Zhang, H. (2010). The effects of Web assurance seals on consumers' initial trust in an online vendor: A functional perspective. *Decision Support Systems*, 48(2), 407–418.

Huang, C. C., Liang, W. Y., Lai, Y. H., and Lin, Y. C. (2010). The agent-based negotiation process for B2C e-commerce. *Expert Systems with Applications*, 37(1), 348-359.

Hung, S. Y., Chang, S. I., Yen, D. C., Kang, T. C., and Kuo, C. P. (2011). Successful implementation of collaborative product commerce: An organizational fit perspective. *Decision Support Systems*, 50(2), 501-510.

Hussin, A. R. C. (2010). *Kawalan Dan Pengauditan Sistem Maklumat*. Skudai, Johor, Malaysia: Penerbit UTM Press.

Hvorecký, J., and Drlík, M. (2008). Enhancing Quality of E-Learning. *International Conference ICL*, 1(11), 54–65.

Hwang, Y. (2009). The impact of uncertainty avoidance, social norms and innovativeness on trust and ease of use in electronic customer relationship management. *Electronic Markets*, 19(2–3), 89–98.

Iahad, N.A. (2007). *Task and collaboration design guidelines towards effective group-based threaded discussions.* (Doctoral Dessertation). University of Manchester, United Kingdom.

Ifinedo, P. (2011). Internet/e-business technologies acceptance in Canada's SMEs: an exploratory investigation. *Internet Research*, 21(3), 255-281.

Ismail, Shahril Azwan (2008) *Consumers' evaluation on B2C e-commerce service quality (Malaysian perspective).* (Master's thesis). University of Malaya, Malaysia.

Jehangir, M., Dominic, P. D. D., and Downe, A. G. (2011). Business resources impact on e-Commerce capability and e-Commerce value: An empirical investigation. *Trends in Applied Sciences Research*, 6(9), 1063.

Jehangir, M., Dominic, P. D. D., Naseebullah, and Khan, A. (2011). Towards digital economy: The development of ICT and E-Commerce in Malaysia. *Modern Applied Science*, 5(2), 171–178.

Jiménez-Jiménez, D., and Cegarra-Navarro, J. G. (2007). The performance effect of organizational learning and market orientation. *Industrial Marketing Management*, 36(6), 694-708.

Jones, K., and Leonard, L. N. (2008). Trust in consumer-to-consumer electronic commerce. *Information & Management*, 45(2), 88-95.

Kamal, M. (2010). Investigating the Role of Project Champions in e- Government Integration Initiatives in Local Government Domain. *16th Americas Conference on Information Systems (AMCIS 2010)*, 1–10.

Kamaruzaman, K.N. and Handrich, Y.M. (2010). E-Commerce adoption in Malaysia: Trends, issues and opportunities. *ICT Strategic Review 2010/2011*, 89-134.

Kanchanopast, S. (2014). The Factors Influencing Successful Implementation of E-Commerce within SMEs Businesses. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 8(9), 3009–3012.

Kang, K. (2009). Supportive web design for users from different culture origins in E-Commerce. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, *5623 LNCS*, 467–474.

Karrar, A. Z. (2014). *Collaboration Design for Mobile Money Service: Service network perspective.* (Doctoral Dissertation). Universiti Teknologi Malaysia, Johor, Malaysia.

Khatibi, A., Thyagarajan, V., and Seetharaman, A. (2003). E-commerce in Malaysia: perceived benefits and barriers. *The Journal for Decision Makers,* 28(3),77-82.

Kiani, M. M., Raza, A., and Gill, K. D. (2014). Centralized collaborative reputation model for B2C E-Commerce. In *Multi-Topic Conference (INMIC), 2014 IEEE 17th International*, 450-455.

Kim, D. J., Ferrin, D. L., and Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, *44*(2), 544–564.

Kim, D. J., Steinfield, C., and Lai, Y. J. (2008). Revisiting the role of web assurance seals in business-to-consumer electronic commerce. *Decision Support Systems*, 44(4), 1000-1015.

Kirk, M. A., Kelley, C., Yankey, N., Birken, S. A., Abadie, B., and Damschroder, L. (2015). A systematic review of the use of the Consolidated Framework for Implementation Research. *Implementation Science*, 11(1), 72.

Klein, K.J. and Kozlowski, S.W.J. (eds) (2000) *Multilevel Theory, Research and Methods in Organizations*. San Francisco: Jossey-Bass.

Korpelainen, E. (2011). Theories of ICT system implementation and adoption–A critical. *Aalto University Publication Series,* 1, 14-17.

Kotter, J. P. (1995). *Leading change: Why transformation efforts fail.* Boston, Massachusetts, US: Harvard Business Review Press.

Kotter, J. P. (2008). *Corporate culture and performance*. New York, US: Simon and Schuster.

Kuligowska, K., & Lasek, M. (2011). Virtual assistants support customer relations and business processes. In *The 10th International Conference on Information Management, Gdańsk*.

Kurnia, S., Choudrie, J., Mahbubur, R. M., and Alzougool, B. (2015). E-Commerce technology adoption: A Malaysian grocery SME retail sector study. *Journal of Business Research*, 68(9), 1906–1918.

Kwadwo, M. S., Martinson, A. T., Evans, T. T., and Esther, A. (2016). Barriers to E-Commerce Adoption and Implementation Strategy: Empirical Review of Small and Medium-Sized Enterprises in Ghana. *British Journal of Economics, Management and Trade,* 13(1), 1–13.

Laudon, Kenneth C., and Traver, Carol Guercio (2014*). E-Commerce: Business, technology, society* (10th ed). England: Pearson Education Limited.

Lawrence, J. E., and Tar, U. A. (2010). Barriers to e-Commerce in developing countries. *Information, Society and Justice Journal*, 3(1), 23-35.

Lee, S., and Kim, K. J. (2007). Factors affecting the implementation success of Internet-based information systems. *Computers in Human Behavior,* 23(4), 1853-1880.

Lemanski, T., and Overton, T. (2011). An introduction to qualitative research. *Report of United Kingdom Physical Sciences Centre. UK*.

Li, F., and Li, Y. (2011). Usability evaluation of e-commerce on B2C websites in China. *Procedia Engineering*, *15*, 5299-5304.

Liao, C., To, P. L., and Shih, M. L. (2006). Website practices: A comparison between the top 1000 companies in the US and Taiwan. *International Journal of Information Management*, *26*(3), 196-211.

Lichtman, M. (2012). *Qualitative research in education: A User's Guide: A user's guide*. Thousand Oaks, CA, US: SAGE Publications.

Lin, W. B. (2008). Factors influencing online and post-purchase behaviour and construction of relevant models. *Journal of International Consumer Marketing*, 20(3-4), 23-38.

Lincoln, Y. S., Lynham, S. A., and Guba, E. G. (2011). Paradigmatic controversies, contradictions, and emerging confluences, revisited. *The Sage Handbook of Qualitative Research*, 4, 97-128.

Lucia-Palacios, L., Bordonaba-Juste, V., Polo-Redondo, Y., and Grünhagen, M. (2014). E-business implementation and performance: analysis of mediating factors. *Internet Research*. 24(2), 223-245

M. Yasin, M., Alavi, J., Czuchry, A., and Shafieyoun, R. (2014). An exploratory investigation of factors shaping electronic commerce practices in Iran: benchmarking the role of technology and culture. Benchmarking: *An International Journal*, 21(5), 775-791.

Ma'aruf, L. M., and Abdulkadir, K. (2012). An overview of e-commerce implementation in developed and developing country; A case study of United State and Nigeria. *International Journal of Modern Engineering Research (IJMER)*, 2(5), 3068-3080.

MacGregor, R. C., and Kartiwi, M. (2010). Perception of Barriers to E-Commerce Adoption in SMEs in a Developed and Developing Country. *Journal of Electronic Commerce in Organisations*, *8*(1), 61–82.

Maier, C., Laumer, S., Eckhardt, A., and Weitzel, T. (2013). Analysing the impact of HRIS implementations on HR personnel's job satisfaction and turnover intention. *The Journal of Strategic Information Systems*, 22(3), 193-207.

Makki, E., and Chang, L.-C. (2015). E-Commerce Acceptance and Implementation in Saudi Arabia: Previous, Current and Future Factors. *International Journal of Management Research and Business Strategy*, *4*(3), 29–44.

Malaymail (2017, March). *Minister urges Malaysian SMEs to adopt e-commerce platform to strengthen exports.* Retrieved September 15, 2017 from http://www.themalaymailonline.com/money/article/minister-urges-malaysian-smes-to-adopt-e-commerce-platform-to-strengthen-ex#2TCxfx3j00dEJMHL.97.

Mashanda, P. R. (2012). An analysis of factors affecting the adoption of business-to-consumer e-commerce by SMEs in developing countries: case study

Zimbabwe. *Proceedings of the 14thAnnual Conference on World Wide Web Applications Durban.*

Mbukusa, N. R. (2015). Distance Education Undergraduate Students 'experiences Of Project Work Supervision in Namibia. *International Journal on New Trends in Education & Their Implications (IJONTE)*, 6(3).

McDonough, J. and McDonough, S., (1997). *Research Methods for English Language Teachers.* London: Arnold.

Miles, M. B., and Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: SAGE Publications.

Miles, M. B., Huberman, A. M., and Saldana, J. (2013). *Qualitative data analysis*. Thousand Oaks, CA: SAGE Publications.

Mohanna, S., Yaghoubi, N., Motlaq, S., and Motlaq, T. (2011). Limitations of E-commerce implementation in developing countries: Case study of Iran. *American Journal of Scientific and Industrial Research*, *2*(2), 224-228.

Mora-monge, C. A., Azadegan, A., and Gonzalez, M. E. (2010). Benchmarking: An International Journal Assessing the impact of web-based electronic commerce use on the organizational benefits of a firm: An empirical study. *International Journal International Journal of Retail & Distribution Management ISS Industrial Management & Data Systems*, 17(8), 773–790.

Myers, M. D., and Avison, D. (Eds.). (2002). *Qualitative Research In Information Systems: A Reader*. London: SAGE Publications.

Nawaz, A. (2011). Investigating the change management For implementing e-learning projects in higher education. *Journal of Research*, 1, 11.

Nee, E. A., (2017, February). Malaysia at the cusp of e-commerce boom. *The Sun Daily.* Retrieved September 17, 2017 from http://www.thesundaily.my/news/2151543.

Nejad, M. B. (2011). Customer relationship management and its implementation in e-Commerce. *International Journal of Computer Science and Information Security*, 9(9), 86.

Newman, M., and Robey, D. (1992). A social process model of user-analyst relationships. *MIS Quarterly*, 249-266.

Nograšek, J. (2011). Change management as a critical success factor in e-government implementation. *Business Systems Research*, *2*(2), 13-24.

Noyes, E., and MacInnes, I. (2006). Small business electronic commerce implementation: A case study. *Journal of Internet commerce*, 5(1), 1-22.

Oates, B. J. (2005). *Researching information systems and computing*. London: SAGE Publications.

Oliveira, T., and Martins, M. F. (2010). Understanding e-business adoption across industries in European countries. *Industrial Management & Data Systems*, 110(9), 1337–1354.

Oliveira, T., Faria, M., Thomas, M. A., and Popovič, A. (2014). Extending the understanding of mobile banking adoption: When UTAUT meets TTF and ITM. *International Journal of Information Management*, 34(5), 689-703.

Oreku, G. S., Mtenzi, F. J., and Ali, A. D. (2013). A viewpoint of Tanzania E-Commerce and implementation barriers. *Computer Science and Information Systems*, 10(1), 263–281.

Patil, H., and Divekar, B. R. (2014). Inventory Management Challenges for B2C E-Commerce Retailers. *Procedia Economics and Finance*, 11(14), 561–571.

Patton, M. Q. (2003). Qualitative evaluation checklist. *Evaluation Checklists Project*.

Permwanichagun, P., Kaenmanee, S., and Naipinit, A. (2015). The external environments factors affecting success for implementation: In context of sole proprietorship e-Commerce entrepreneurs in Thailand. *International Business Management*, 9(1), 122–127.

PIKOM (2015). *Annual Report 2014/2015*. Retrieved June 15, 2016 from http://www.pikom.org.my/annual-report-2014-2015/.

Poon, P. L., and Lau, A. H. (2006). The present B2C implementation framework. *Communications of the ACM*, 49(2), 96-103.

Porat, T., and Tractinsky, N. (2012). It's a Pleasure Buying Here: The Effects of Web-Store Design on Consumers' Emotions and Attitudes. *Human–Computer Interaction*, 27(3), 235-276.

Princely Ifinedo, (2011) Internet/e-business technologies acceptance in Canada's SMEs: An exploratory investigation, *Internet Research*, 21(3), 255-281,

Rahman, N. A. A., Sharif, S. M., and Esa, M. M. (2013). The implementation of e-commerce application in Bumiputera Small and Medium Enterprises (SMEs) in Malaysia. *International Journal of Advances in Management and Economics*, 2 (2). 101-110.

Ramanathan, R., Ramanathan, U., and Hsiao, H. L. (2012). The impact of e-commerce on Taiwanese SMEs: Marketing and operations effects. *International Journal of Production Economics*, *140*(2), 934–943.

Ramasubbu, N., Mithas, S., and Krishnan, M. S. (2008). High tech, high touch: The effect of employee skills and customer heterogeneity on customer satisfaction with enterprise system support services. *Decision Support Systems*, *44*(2), 509–523.

Rosaci, D., and Sarnè, G. M. (2014). Multi-agent technology and ontologies to support personalization in B2C E-Commerce. *Electronic Commerce Research and Applications*, *13*(1), 13-23.

Rose, W. R., and Grant, G. G. (2010). Critical issues pertaining to the planning and implementation of E-Government initiatives. *Government Information Quarterly*, *27*(1), 26-33.

Saif, N., Ahmad, B., Nasir, R., Urrehman, S., and Aziz, J. (2013). The concept of change management in today' s business world. *Information and Knowledge Management*, *3*(6), 28–34.

Salim, S. A. (2013). Cloud ERP Adoption-A Process View Approach. In *PACIS 2013 Proceedings*, 281.

Salleh, M. I. M., Zainudin, M. A., Rosman, M. R. M., Muhammad, M. Z., and Yaacob, R. A. R. (2010). Design of integrated online information system for e-commerce adoption and efficient records management among Malaysian businesses. In *Science and Social Research (CSSR),* 1154-1159.

Samadi, B., Gharleghi, B., and Syrymbetova, M. (2015). An Analysis of Consumers' Trust, Logistic Infrastructure and Brand Awareness towards E-Commerce Implementation in Kazakhstan. *International Journal of Business and Management*, 10(10), 96–107.

Sandberg, K. W., and Håkansson, F. (2014). Barriers to adapt eCommerce by rural microenterprises in Sweden: A case study. *International Journal of Knowledge and Research in Management and E-Commerce, 4*(1), 1-7.

Sarkar, A. (2008). E-Commerce Adoption and Implementation in SMEs: An Analysis of Factors. *21ˢᵗ Annual Conference of the National Advisory Committee on Computing Qualifications (NACCQ 2008)*, 11.

Sarkar, A. (2009). E-Commerce adoption and implementation in automobile industry: A case study. *World Academy of Science, Engineering and Technology*, *58*(10), 587–594.

Sarosa, S. (2007). The Information Technology Adoption Process within Indonesian Small and Medium Enterprises. *International Conference on Small and Medium Enterprises Development,* 1–248.

Savrul, Mesut and Kılıç, Cüneyt (2011). E-Commerce as An Alternative Strategy In Recovery From The Recession, *Procedia Social and Behavioral Sciences*, 24, 247–259.

Schwandt, T. A., Lincoln, Y. S., and Guba, E. G. (2007). Judging interpretations: But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New Directions for Evaluation*, 114, 11-25.

Scupola, A. (2009). SMEs' e-commerce adoption: perspectives from Denmark and Australia. *Journal of Enterprise Information Management*, *22*(1/2), 152–166.

Seale, C. (2002). Quality issues in qualitative inquiry. *Qualitative Social Work*, 1(1), 97-110.

Secco, L., Pettenella, D., and Maso, D. (2009). "Net-system" models versus traditional models in NWFP marketing: The case of mushrooms. *Small-Scale Forestry*, *8*(3).

Seyal, A. H., Rahman, M. N. A., and Abid, A. A. (2013). An investigation of perceived benefits and perceived barriers of e-businesses among Bruneian SMEs. *Journal of Advanced Management Science, 1*(2).

Shah Alam, S., Ali, M. Y., and Mohd. Jani, M. F. (2011). An empirical study of factors affecting electronic commerce adoption among SMEs in Malaysia. *Journal of Business Economics and Management*, 12(2), 375-399.

Shah Alam, S., Khatibi, A., Ismail Sayyed Ahmad, M., and Bin Ismail, H. (2008). Factors affecting e-Commerce adoption in the electronic manufacturing companies in Malaysia. *International Journal of Commerce and Management*, *17*(1/2), 125-139.

Shaheen, A. N. (2011). *An electronic service quality reference model for designing e-Commerce websites which maximizes customer satisfaction*. (Doctoral Dessertation). Lawrence Technological University, United States.

Sila, I. (2013). Factors affecting the adoption of B2B e-commerce technologies. *Electronic Commerce Research*, *13*(2), 199-236.

Simon, M. K. (2011). *Validity and reliability in qualitative studies.* (Master dissertation). University of Minnesota, Washington, United States.

Sin, K. Y., Osman, A., Salahuddin, S. N., Abdullah, S., Lim, Y. J., and Sim, C. L. (2016). Relative Advantage and Competitive Pressure towards Implementation of E-Commerce: Overview of Small and Medium Enterprises (SMEs). *Procedia Economics and Finance*, *35*, 434-443.

Spremic, M., and Hlupic, V. (2007). Development of e-Commerce in Croatia: A survey. *Information Technology for Development*, *13*(4), 391–409.

Stake, R. E. (2013). *Multiple case study analysis*. New York, US: Guilford Press.

Statista (2014, October). *B2C e-Commerce sales worldwide from 2012 to 2018 in billion U.S. dollars.* Retrieved January 15, 2015 from http://www.statista.com/statistics/261245/b2c-e-Commerce-sales-worldwide/.

Stoltenkamp, J., and Kasuto, O. A. (2011). E-Learning change management and communication strategies within a HEI in a developing country: Institutional organisational cultural change at the University of the Western Cape. *Education and Information Technologies*, 16(1), 41-54.

Sultana, R., Lopez, J. L., and Rusu, L. (2011). Barriers to e-Commerce Implementation in Small Enterprises in Sweden. *Enterprise Information Systems*, 178-189.

Suri, H. (2011). Purposeful sampling in qualitative research synthesis. *Qualitative Research Journal*, 11(2), 63-75.

Syed Zamberi Ahmad, Abdul Rahim Abu Bakar, Tengku Mohamed Faziharudean and Khairul Anwar Mohamad Zaki (2015). An Empirical Study of Factors Affecting e-Commerce Adoption among Small- and Medium-Sized Enterprises in a Developing Country: Evidence from Malaysia. *Information Technology for Development*, 21(4), 555-572.

Tarafdar, M., and Vaidya, S. D. (2006). Challenges in the adoption of e-commerce technologies in India: The role of organizational factors. *International Journal of Information Management, 26(*6), 428-441.

Tavallaei, M., and Talib, M. A. (2010). A general perspective on role of theory in qualitative research. *Journal of International Social Research*, *3*(11).

Tax, S. S., McCutcheon, D., and Wilkinson, I. F. (2013). The service delivery network (SDN) a customer-centric perspective of the customer journey. *Journal of Service Research*, 16(4), 454-470.

Thatcher, S. M. B., Foster, W., and Zhu, L. (2006). B2B e-Commerce adoption decisions in Taiwan: The interaction of cultural and other institutional factors. *Electronic Commerce Research and Applications*, 5(2), 92–104.

The Associated Chinese Chambers of Commerce and Industry of Malaysia, ACCCIM (2014). *SME Survey Report.* Retrieved January 15, 2015 from http://www.acccim.org.my/blog/topic/26/1/182/ACCCIM+2014+SME+Survey+Report).

TheStar (2015, December*). E-commerce set for growth.* Retrieved June 15, 2016 from https://www.thestar.com.my/metro/smebiz/news/2015/12/28/ecommerce-set-for-growth/.

Thomas, D. F., Gould, J. M., Gaede, D. B., and Jurin, R. R. (2011). Transformational place building: a mixed method exploration of small businesses. *Journal of Enterprising Communities: People and Places in the Global Economy*, *5*(4), 286-299.

Thompson, L. L. (2008). *Organizational behaviour today*. USA: Prentice Hall.

Tibbs, C. Y., Ondiek, J., Kingori, P. G., and Mwazuna, A. N. (2015). E-Commerce Adoption Levels and Applications among Manufacturing SMEs in Kenya. *International Journal of Economics, Commerce and Management*, *3*(4), 1-11.

Trochim, W. M. (2006). Qualitative measures. *Research Measures Knowledge Base*, *361*.

Turban, E., King, D., Lee, J., and Viehland, D. (2002). *Electronic commerce: A managerial perspective.* New Jersey: Prentice Hall.

Turel, O., Yuan, Y., and Connelly, C. E. (2008). In Justice We Trust: Predicting User Acceptance of E-Customer Services. *Journal of Management Information Systems*, 24(4), 123–151.

Vaidya, S. D., and Nandy, M. (2006). Use of business-to-business websites: delineation of measures and some influencing factors. *Indian Institute of Management*, 587, 1 -11.

Van Laere, J., and Aggestam, L. (2016). Understanding champion behaviour in a health-care information system development project – How multiple champions and champion behaviours build a coherent whole. *European Journal of Information Systems*, *25*(1), 47–63.

Wang, T. C., and Lin, Y. L. (2009). Accurately predicting the success of B2B e-commerce in small and medium enterprises. *Expert Systems with Applications*, *36*(2), 2750-2758.

Wang, Y., and Ahmed, P. K. (2009). The moderating effect of the business strategic orientation on eCommerce adoption: Evidence from UK family run SMEs. *The Journal of Strategic Information Systems*, *18*(1), 16-30.

Weitzman, E. A. (2000). Software and qualitative research. *Handbook of qualitative research*, *2*, 803-820.

Weltevreden, J. W., and Rotem-Mindali, O. (2009). Mobility effects of B2C and C2C e-commerce in the Netherlands: A quantitative assessment. *Journal of Transport Geography*, *17*(2), 83-92.

Whelan-Berry, K. S., and Somerville, K. A. (2010). Linking change drivers and the organizational change process: A review and synthesis. *Journal of Change Management*, *10*(2), 175–193.

White, A., Daniel, E., Ward, J., and Wilson, H. (2007). The adoption of consortium B2B e-marketplaces: An exploratory study. *The Journal of Strategic Information Systems*, 16(1), 71-103.

Wong, CK (2017, March). eCommerce penetration in Malaysia now 5% of retail sales. *ecInsider.* Retrieved September 15, 2017 from http://www.ecinsider.my/2017/03/ecommerce-penetration-malaysia-is-5pct-of-retail-sales.html.

Yan, B. N., Lee, T. S., and Lee, T. P. (2015). Analysis of research paper on e-commerce (2000 – 2013): Based on a text mining approach. *Scientometrics*, 105(1), 403 – 417.

Yasin, M., Augusto, M., Czuchry, A., and Lisboa, J. (2010). Effect of implementation reasons, implementation plans and system modifications on e-commerce outcomes: a structural equation approach. *International Journal of Management*, 27(2), 303.

Yin, R. K. (2009). *Case study research: Design and Methods*. Thousand Oaks, CA: SAGE Publications.

Yin, R. K. (2013). *Case study research: Design and methods*. Thousand Oaks, CA: SAGE Publications.

Yiu, C. S., Grant, K., and Edgar, D. (2007). Factors affecting the adoption of Internet Banking in Hong Kong: implications for the banking sector. *International Journal of Information Management*, 27(5), 336-351.

Yoon, V. Y., Hostler, R. E., Guo, Z., and Guimaraes, T. (2013). Assessing the moderating effect of consumer product knowledge and online shopping experience on using recommendation agents for customer loyalty. *Decision Support Systems*, 55(4), 883–893.

Youssef, M. A. (2013). Management accounting change in an Egyptian organisation: an institutional analysis. *Journal of Accounting and Organisational Change*, 9(1), 50–73.

Zafar, F., Khan, S., and Qayyum, K. (2014). E-Commerce and Change Management-Transforming Existing Organizational System to Virtual Organizations. *International Journal of Academic Research and Reflection,* 2(1), 30 – 40.

Zainal, Z. (2017). Case study as a research method. *Jurnal Kemanusiaan*, 5(1).

Zhang, K. Z., Cheung, C. M., and Lee, M. K. (2014). Examining the moderating effect of inconsistent reviews and its gender differences on consumers' online shopping decision. *International Journal of Information Management*, 34(2), 89-98.

Zhang, P., Tremblay, M. C., and Klein, R. (2016). An Empirical Investigation of Health Information Exchange Success Factors. *37th International Conference on Information Systems, Dublin.*

Zhang, S. (2017). *Factors that impact on the success of E-commerce for B2C SMEs in China*. (Master's thesis). Unitec Institute of Technology, New Zealand.