

**THE EFFECTS OF RELATIONAL FACTORS, TRUST-
COMMITMENT AND INFORMATION EXCHANGE IN SME
SERVICE FIRM AND SUPPLIER RELATIONSHIP IN MALAYSIA**

By

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ABBREVIATIONS

ETP – Economic Transformation Programme

GDP – Gross Domestic Product

MITI – Ministry of International Trade and Industry

MPC – Malaysia Productivity Corporation

MSDC – Malaysia Service Development Council

SME – Small and Medium Enterprise

ICT – Information Communication Technology

SCM – Supply Chain Management

SSCM – Service Supply Chain Management

DV – Dependent Variable

IV – Independent Variable

MV – Mediation Variable

OIE – Operational Information Exchange

SIE – Strategic Information Exchange

OIS – Operational Information Sharing

SIS – Strategic Information Sharing

SV – Shared Valued

IQ – Information Quality

EC – Effective Communication

OB – Opportunistic Behavior

TRT – Trust

CMT – Relationship Commitment

IE – Information Exchange

CTT – Commitment-trust Theory

SEM – Structural Equation Modeling

PLS-SEM – Partial Least Square – Structured Equation Modeling

CB-SEM – Covariance Based Structured Equation Modeling

HCM – Hierarchical Component Model

HOC – Higher-order Construct

LOC – Lower-order Construct

IPMA – Importance Performance Matrix Analysis

VAF – Variance Accounted For

CMB – Common Method Bias

AVE – Average Variance Extracted

CR – Composite Reliability

EKS – Enterpris Kecil dan Sederhana

**KESAN FAKTOR-FAKTOR HUBUNGAN, KOMITMEN-
KEPERCAYAAN DAN PERTUKARAN MAKLUMAT DALAM
PERHUBUNGAN FIRMA EKS PERKHIDMATAN DAN
PEMBEKAL DI MALAYSIA**

ABSTRAK

Dalam model rantaian perbekalan perkhidmatan, pertukaran maklumat antara sesebuah firma dengan pembekal merupakan salah satu daripada praktis yang penting. Walaubagaimanapun, praktis ini kurang mendapat perhatian sebagai subjek kajian terutama yang berkait dengan hubungan firma EKS (Enterprais Kecil dan Sederhana) perkhidmatan dan pembekal. Secara umumnya diketahui bahawa praktis pertukaran maklumat antara firma dan pembekal berlaku pada kadar yang rendah. Oleh itu adalah penting untuk membina satu model kajian yang boleh menjelaskan tentang pertukaran maklumat dalam perhubungan firma EKS perkhidmatan dengan pembekal. Kajian ini mengkaji kesan faktor-faktor hubungan seperti nilai bersama, kualiti maklumat, komunikasi efektif dan kelakuan opotunistik ke atas pertukaran maklumat, kepercayaan dan komitmen perhubungan. Kajian turut mengkaji kesan kepercayaan dan komitmen perhubungan terhadap pertukaran maklumat. Selanjutnya kajian ini mengenalpasti peranan dan kesan mediasi yang dimainkan oleh kepercayaan dan komitmen perhubungan di dalam perhubungan antara faktor-faktor hubungan dengan pertukaran maklumat. Data kajian telah dipungut menggunakan soal-selidik secara mel ke atas 89 firma perkhidmatan di seluruh Malaysia. Analisa data menggunakan kaedah PLS-SEM menemukan bahawa faktor kepercayaan tidak memberi kesan kepada pertukaran maklumat tetapi memberi kesan secara tidak langsung. Dapatan dari perspektif faktor-faktor hubungan menunjukkan tiga faktor penentu iaitu komunikasi efektif, kualiti maklumat dan nilai bersama (disusun mengikut kepentingan)

merupakan faktor hubungan yang memberi kesan terhadap pertukaran maklumat, kepercayaan dan komitmen perhubungan. Kajian juga mendapati bahawa kepercayaan dan komitmen perhubungan memainkan tiga peranan mediasi iaitu mediasi mudah, mediasi-pelbagai selari dan mediasi-pelbagai bersiri dengan kesan separa mediasi. Kajian ini pertamanya menyumbang kepada teori menerusi kerangka teori dengan pembolehubah-pembolehubah dan perhubungan di antaranya. Kedua, kepada bidang pengurusan, seperti pengurusan kualiti perhubungan antara pihak pembekal dan firma perkhidmatan, perancangan strategi maklumat dan perancangan sistem maklumat. Ketiga, sumbangan kepada metodologi yang melibatkan skala pengukuran yang digunakan. Akhirnya, dapatan kajian turut memberi implikasi kepada polisi kerajaan dengan mendedahkan perlunya pelan dan tindakan di masa hadapan dan penanda aras bagi pertukaran maklumat di dalam sektor perkhidmatan di Malaysia.

**THE EFFECTS OF RELATIONAL FACTORS, TRUST-
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ABSTRACT

In a service supply chain model, information exchange between a firm and supplier is one of the many important elements. However, this practice receives less attention as a research subject, especially in SME (Small Medium Enterprise) service firm and supplier relationship. In other word, the exchange of information between the firm and supplier occurs at low rates. Thus, it becomes imperative to develop a research model to explain information exchange in SME service firm and supplier relationship. This study investigates the effect of relational factors, namely shared value, information quality, effective communication, and opportunistic behaviour on information exchange, trust and relationship commitment. This study further identifies the mediating role and the effect played by trust and relationship commitment in the relationship between relational factors and information exchange. The data was collected using mail survey done with 89 service firms in Malaysia. Data analysis using PLS-SEM methods revealed that trust does not directly influence information exchange but influence significantly through relationship commitment. The findings from the relational factors perspective showed that three factors, namely effective communication, information quality and shared value (by order of importance) are major factors of relational factors which affect information exchange, trust and relationship commitment. This study also found that trust and relationship commitment played mediation role in three ways, which are simple mediation, parallel-multiple mediation and serial-multiple mediation with partial mediation effect. In term of contribution, this study contributes to theory via proving the theoretical framework with variables and their relationships. Secondly,

this research contributes to several management implications such as relationship quality management for suppliers and service firm, information strategy planning and information system planning. Thirdly, this study also contributes to the proper scientific methodology with measurement scale used. Finally, this study also has implication to government policy by revealing the needs for future plan, action and benchmark for information exchange specific to the service sector in Malaysia.

CHAPTER 1

INTRODUCTION

1.0 Introduction

Nowadays, it is considered as modern economy era (Chen, Huang, & Liu, 2007; Sun & Hao, 2006) and recently, sharing economy has been growing rapidly (Zhang, Yan, & Zhao, 2016). Sharing economy is a phenomenon facilitated by information technology and exchanging information is becoming a significant concern for business organizations to gain competitive advantage (Peppard & Ward, 2016). For firms that are involved in supply chain, the ability to exchange the information has been identified as one of key factors leading to supply chain performance (Khan, Hussain, & Saber, 2016; Lee, Kim, Hong, & Lee, 2010). Due to this reason, this research investigates the key factors that influence firms to exchange information. This chapter provides some basic information regarding to the topic in nine sections. Overall the chapter deals with a research background, problem statement, research objectives, and research questions. The chapter also highlights the significance of study, operational definition of variables, research area, scope of study, methodology and followed by the organization of the chapters.

1.1 Background of study

The service sector is an important sector of the Malaysian economy and lately considered as the engine of economic growth. The Malaysian government has paid high

attention for this sector in her Economic Transformation Programme (ETP). Through ETP, it will raise the percentage of skilled workers up to 46% by 2020 (Inside Malaysia, 2012). In 2011, the service sector contributed 52% to Nation's Gross Domestic Product (GDP) based on the report in 11th Malaysian Plan Strategy Report (Unit Perancangan Ekonomi, 2015). In 2012, the service sector contributed 54.6% to GDP with a value of RM408.9 billion (DOSM, 2013). In 2014 and 2015, the service sector remains as the main driver for the Malaysian economy and contributed 53.5% respectively to GDP and it is the key generator for job opportunities of the country (Bernama, 2015; Chin, 2016). Report from the Ministry of International Trade and Industry (MITI) indicated that the growth in this sector is gaining momentum and needs to be sustained (MITI, 2012).

Currently, Small and Medium Enterprise (SME) make up 99.2% of all business in Malaysia and 90.1% of SME is service firm (DOSM, 2012). According to OECD (2013) and Koh et al. (2007), SME through its service sector contributes substantially to the Malaysian economic development and employment generation. However, according to Wayne Lim, Group CEO of Malaysian SME, "*SME business form a very large part of Malaysia's economy but their contribution to GDP is still slightly lacking compared with (their counterparts) in developed countries*" (Wong, 2013). For Example in 2014, SME in Malaysia overall contributed 32.7% to GDP compared to 53% in Japan, 60% in China and 55% in Australia (Pandey, 2015).

Based on the figures, SME service sector supposed to be the highest in research proposition. However, this sector have received less attention compared to manufacturing (Ismail, 2009; Lotfi, Mukhtar, Sahran, & Zadeh, 2013; Suhaiza Zailani,

Jeyaraman, Vengadasan, & Premkumar, 2012) and SME in general (Abdullah, Halim, Zain, & Nizam, 2011; Moghavvemi, Hakimian, Feissal, & Faziharudean, 2012). This is especially in the service supply chain research. Among the reasons is service supply chain is the new fields (Ellram et al., 2004) and information on SME service sector being limited and scattered in its sub-sector such as tourism (Lee & Fernando, 2015; Ramayah, Lee, & In, 2011) and logistic (Zailani et al., 2012).

According to the Malaysian Productivity Council (MPC) (2014) one of the weaknesses of the Malaysian service sector is in the area of competitiveness or sustainability. For growth sustainability, Ling (2009) of the Malaysian Service Development Council (MSDC) and Ismail and Mohd Roslin (2008) have listed challenges regarding research in Malaysia's SME service sector. One of the challenges is the constraint in supply chain practices, and information exchange is one of the practices. This is aligned with Harnesk (2006) when he said that the service sector plays much with managing information and information exchange was set as an important practice.

Managing information has become important for business organizations ever since business world existed. Managing bookkeeping, balance sheet, ledger and process in accounting relates to managing information. Usually the importance of information management fields is only realized after the expansion of the information and communication technology (ICT) field. Business organizations are generally equipped with information technology tools to capture and organize information. However, the information gained from the use of technology is the most important (Li, 2009;

Kauffman, Li, & van Heck, 2010). According to Drucker (1998), information is defined as endowed data with relevance and purpose. Managing information briefly referred as organizing information into unit of analysis (Pearlson & Saunders, 2009) and is increasingly important part in modern business (Kauffman, Li, & van Heck, 2010).

In modern business, any business organization is connected and competition is no longer between firm but between supply chain (Darmasetiawan, Idrus, Troena, & Salim, 2013; Wu, Chuang, & Hsu, 2014). Supply chain is referred as a system that connect a focal firm with its partners (Rai, Patnayakuni, & Seth, 2006). For service sector supply chain is known as service supply chain (Cho, Lee, Ahn, & Hwang, 2012; Ellram, Tate, & Billington, 2004). In supply chain, information flow integration is a major concern in connecting a focal firm with its partners. According to Rai et al. (2006), information flow integration or information exchange is a part of supply chain practices and supply chain performance (Ahmed, 2011).

In general, information exchange will make information much more accessible (Fink, 2007), and can speed up decision making, providing transparency and capabilities of information (Reeves, Malone, & O Driscoll, 2008). Through information exchange, firms can also increase their sources, reduce duplication and leverage channel resource (Kloth, 2004). Specifically, from firm-supplier perspective, Peng (2011) discussed the benefit of information exchange in food supply chain. Among the benefits are; best in service delivery, support procurement, improve chain level performance, reduction in cost, and improve stability and performance. Based on the listed benefits, information exchange has been recognized as the most important function for the firm-supplier

relationship and critical information are needed to be provided for effective supply chain. Morgan and Hunt (1994) mentioned about the vital components to establish, develop and maintain the relationship between exchange partners in effective supply chain is through trust and relationship commitment. Moberg et al. (2002), Zailani et al. (2008), Lee et al. (2010) emphasized trust and relationship commitment as the influential components in establishing and maintaining information exchange between partners in supply chain. While many kinds of literature concentrate on constructing information exchange, they failed to include relational factors such as shared value, effective communication, information quality and opportunistic behaviour as these factors may affect information exchange (Yang and Maxwell, 2011).

1.2 Problem Statement

In recent year, SME and supply chain have attracted much attention from academician and researchers (Ai Chin et al., 2011; Hashim, 2007). However, it appears that literature does not offer much on supply chain study in SME (Thakkar, Kanda, & Deshmukh, 2009) especially on Service Supply Chain practices in the Malaysian SME service segment. According to Li et al. (2005), Ismail and Mohd Roslin (2008) and Ai Chin et al. (2011), information exchange is one of the critical supply chain practices and based on Mohd Yusoff (2016) it still becomes on-going issue in supply chain study that needs to be manage well.

Information exchange refers to an activity or practice which involves agreement between firms to allow information flow in supply chain management (SSM). However, the reality is that the firms are still reluctant to participate regularly This fact has been

brought up by several researchers (Daley, 2009; Madlberger, 2008; Moberg, Cutler, Gross, & Speh, 2002). Daley (2009) revealed that the survey result by Information Week Research depicted that among service and manufacturing firm who feel that cooperation in supply chain will enhance their performance but only 13% of firms share information. According to Muller and Gaudig (2011), regarding to point of sale, only 10 to 20% of firms exchange information with their main suppliers and overall, the exchange of information was considered as very unsatisfactory. Survey in Malaysia by Omar et al. (2010) about the level of information exchange among firms in supply chain also indicated the same situation. Despite of growing the importance of Service Supply Chain, it is evident that business in general and SME service firms in Malaysia in specific are lack in information exchange between firm and supplier. Due to this fact, there are five main reasons that prompted the researcher to study about information exchange among Malaysian SME service firm in service supply chain context (service firm-supplier relationship).

First and foremost, it was found that studies conducted with regard to information exchange among Malaysian SME service firms are very limited. International studies focusing on information exchange in supply chain, however, show the opposite in terms of research number (Moberg et al., 2002; Maldberger, 2008; Dailey, 2010; Tai & Ho, 2010, Checkrouhou et al., 2013). On the one hand, studies in Malaysia so far focused on information exchange among manufacturing firms (Omar et al., 2010; Ramayah & Omar, 2010; Zailani, Premkumar, & Fernando, 2008) and in the public sector (Kamal, Valbir Singh, & Ahmad, 2012). For example, the study by Zailani et al. (2008) examined the antecedents of operational information exchange between

manufacturing firms with their suppliers. Similarly, the study by Ramayah and Omar (2010), examined the relationship of information exchange with supply chain performance in the context of the manufacturing sector. A study of the SME service firms on the other hand, is being limited and scattered in service sub - sectors such as tourism, and logistic.

It is undeniable that information exchange is important in supply chain together with product flow and financial flow (Rai et al., 2006). For the Malaysian service firms, information exchange with supplier is extremely important for their performance (Ramayah & Omar, 2010). However, the extent to which SME service firms in Malaysia are exchanging information with their suppliers is still unknown. Therefore, this study is conducted to fulfill the gap in the literature regarding information exchange at an inter - firm level in the Malaysian SME service sector setting and the factors that lead to inter-firm information performance (Information exchange).

The second reason that leads to this study is that, in spite of the importance of information exchange for firm performance, which eventually improved the firm competitive position, there are reasons for firms to stay at default position not to share information even within the supply chain channel. In Moberg et al., (2002) model of information exchange revealed that relationship characteristics will influence information exchange. Although this study was conducted in the United States of America, it is quite relevant in other parts of the world. This is because the reluctance to exchange information is happening elsewhere such as in China (Peng, 2011; Tai & Ho, 2010), Taiwan (Cheng, 2011), Australia (Baihaqi & Sohal, 2012) and even Malaysia

(Zailani et al., 2008). Research from Omar et al. (2010) showed that lack of relationship characteristics is a major reason for low level of information exchange among firms in Malaysia. Relationship characteristic basically contains two elements, namely trust and relationship commitment (Moberg et al., 2002; Zailani et al., 2008).

This leads to the third reason for conducting this study. Indeed, information exchange/sharing literature consistently argue that trust and relationship commitment are important elements for information exchange between firms (Lee et al., 2010; Wu et al., 2014; Zailani et al., 2008). However, literature that specifically explains the factors to build trust and relationship commitment for information exchange between firms are still limited in number. Most of the researches (Morgan & Hunt, 1994; Zineldin & Jonsson, 2000; Wu et al., 2012; Lee et al., 2010) explained the factor to build trust and relationship commitment only for cooperation in supply chain. Therefore, it is important to investigate the building factors of trust and relationship commitment for information exchange in firm – supplier relationship setting.

Regarding the relationship between trust and relationship commitment toward information exchange, previous research findings reveal a variety of answers which support the theory or vice versa. For example at the early stage of information exchange research, it is found that trust and relationship commitment did not significantly influence information exchange (Madlberger, 2008). Next, the research by Moberg et al., (2002) found that only relationship commitment has significant impact on strategic information exchange. Meanwhile, the latest research found that trust and relationship commitment have a positive influence on information exchange (Lee et al., 2010; Wu et

al., 2014). Another interesting argument from previous study is about the position of trust and relationship commitment which could be debated. Most research regarding information exchange is the positioning of trust and relationship commitment as antecedents (Moberg et al., 2002; Zailani et al., 2008; Wu et al., 2014). Meanwhile Commitment-trust Theory (CTT) places trust and relationship commitment as mediators between relational factors and dependent variables (Morgan & Hunt, 1994; Wu, Weng, & Huang, 2012). This is the fourth reason for conducting this study. Thus, this research positions the trust and relationship commitment as mediators between relational factors and information exchange.

As mentioned earlier, there is limited research regarding the factors to build trust and relationship commitment for information exchange. It brings this study to the root of the Commitment-Trust Theory (CTT). This study will adapt the relational factors in Mukherjee and Nath (2003) CTT model which contains four factors namely shared value, information quality, effective communication and opportunistic behaviour. The justification for choosing these factors is due to the suitability of factors to information exchange and emphasizing the aspect of information on these factors.

As in CTT, it is highlighted that only shared value has a link to both relationship commitment and trust. Besides that, information quality, effective communication and opportunistic behavior only have significant impact on trust (Kassim & Abdulla, 2007; Morgan & Hunt, 1994; Mukherjee & Nath, 2003). However, meta-analysis indicated that, there is evidence in literature that linked information quality, effective communication and opportunistic behaviour to relationship commitment as direct

relationship (Chou, Chang, & Yen, 2011; Zineldin & Jonsson, 2000). This brings to the situation of inconclusive factors for trust and relationship commitment. This is the fifth reason for conducting this study. Thus, there is a need to find out whether relational factors (shared value, information quality, effective communication and opportunistic behaviour) actually do lead to trust and relationship commitment for SME service firms to exchange information with their suppliers.

1.3 Research Objectives

Based on the problems discussed in the context of the relationship between SME service firm and supplier in Malaysia, the objectives of this study are:

1. To examine the effect of trust on information exchange in the relationship between service firm and supplier.
2. To examine the effect of relationship commitment on information exchange in the relationship between service firm and supplier.
3. To investigate the effect of trust on relationship commitment in the relationship between service firm and supplier..
4. To determine whether the relational factors (shared value, information quality, effective communication, opportunistic behaviour) have an influence on trust in the relationship between service firm and supplier..

5. To determine whether the relational factors (shared value, information quality, effective communication and opportunistic behaviour) have an influence on relationship commitment in the relationship between service firm and supplier.
6. To investigate whether the relational factors (shared value, information quality, effective communication and opportunistic behaviour) have an influence on information exchange in the relationship between service firm and supplier.
7. To evaluate the mediating effect of trust and relationship commitment between the relational factors (shared value, information quality, effective communication and opportunistic behaviour) and information exchange in the relationship between service firm and supplier.

1.4 Research Questions

Therefore, several research questions are addressed based on the relationship between SME service firm and supplier in Malaysia:

1. Does trust have positive direct effect information exchange?
2. Does relationship commitment have a positive direct effect on information exchange?
3. Does trust have a positive direct effect on relationship commitment?
4. Does the relational factors (shared value, information quality, effective communication, opportunistic behaviour) influence trust?

5. Does the relational factors (shared value, information quality, effective communication, opportunistic behaviour) influence relationship commitment?
6. Do the relational factors (shared value, information quality, effective communication, opportunistic behaviour) influence information exchange?
7. What mediation effects do trust and relationship commitment work in the relationship between relational factors and information exchange?

1.5 Significance of the Study

This study contributes to theoretical, practical and methodological perspectives regarding the information exchange issue in the Malaysian service industry by focusing on SME service firm-supplier relationship in the service supply chain setting.

1.5.1 Theoretical Significance

First, this study significance to service supply chain topics by taking one of their importance practices which are information exchange. There are empirical researches toward the information exchange in supply chain management exist in the literature. However, most of them focus on manufacturer – supplier information exchange (Moberg et al., 2002; Li and Lin, 2006; Rai et al., 2006; Ramayah and Omar; Zailani et al., 2008). This study, however, considered the Malaysian service industry and SME as the context of the study. By doing this, the study investigates the issue of information exchange in a different context, setting and industry.

Second, this study significance to business information management literature by presenting a theoretical framework for information exchange in service supply chain setting. The framework was developed by strengthening the information exchange model in Moberg et al. (2002). Relational factors under Commitment-Trust Theory (CTT) namely as shared value, effective communication, information quality and opportunistic behaviour are merged into an information exchange model. This study also used relationship quality factors (trust and relationship commitment) as integrated variables between information exchange and the relational factors in the theoretical framework.

Third, this study also significance to relational factors perspective. Despite many studies on information exchange within the supply chain, not much knowledge addresses the issue of the effect of relational factors towards information exchange. The knowledge on the influence of relational factors on information exchange in the SME service industry should give new information on the nature that affect information exchange in the service supply chain environment especially in Malaysia. This study comes outs with the list of relational factors, by a rank as in Mukherjee and Nath (2007) that affect information exchange in the service supply chain focusing on Malaysian SME service firm-supplier relationship. The effect of relational factors on information exchange, trust and relationship commitment also investigated.

Fourth is the study's significance to Commitment–Trust Theory (CTT). This study extends the application of the key mediating variable of trust and relationship commitment toward information exchange. Previous researchers used Commitment-

Trust Theory in a different environment and concluded that trust and relationship commitment are key mediation variables between relational factors and purchase, retention (Mukherjee & Nath, 2003; 2007), and cooperation (Morgan & Hunt, 1994; Wu et al., 2012).

Finally, in theory, trust and relationship commitment are two important factors for relationship quality to improve information exchange between firms and their supplier (Moberg et al., 2002; Lee et al., 2010; Zailani et al., 2008). However, the inconsistencies of the result of the effect of trust and relationship commitment on information exchange discovered in the literature. This study's significance of relationship quality topics of discovering that trust exists together with relationship commitment. It indicates that relationship commitment is a dominant factor for relationship quality (Ceceras & Paparoidamis, 2007).

1.5.2 Significance to Management

This study provides empirical evidence of the theoretical framework among Malaysian service firms. Specifically, it is useful for service firms that are involved in the relationship between suppliers in service supply chain. It benefits the firm, especially in purchasing/procurement, logistic or business practitioners in understanding inter-firm relationship through information exchange.

First, this study significances to the management field by validating the success of information exchange management is closely related to the excellence in managing relational factors, namely effective communication, information quality and shared value (order by rank). This study also proves that implementing relationship quality is vital factors for the success of information exchange and gain benefit from the information exchange. These two contributions could help service firm manager/executive in understanding how to manage information exchange with their supplier in an effective way.

Second, perception of service firm toward their supplier regarding trust and relationship commitment could be important to the supplier in managing inter-firm relationship. The supplier may be able to create value, gain competitive advantage and improve their performance when they know the level of trust and relationship commitment of service firm towards them.

Third, this study also significance to the information strategy planning (ISP) perspective by providing the type of information involved in the information exchange process. Developing an information portfolio is the main objective of information strategy planning (Md Dahalin, 2005). This study discovered that critical business, proprietary, strategic and operational information are components of exchanging information in the service supply chain.

Finally, manager of information system could be benefited from this study by providing information on what the information system needs in developing inter-firm information system which involves interaction between firm and supplier. The aspect of privacy and security also need to be emphasized in the information system.

1.5.3 Implication to Government Policy

This study gives implication to government policy regarding to information exchange in the service sector. Previous studies (e.g. Baltacioglu, Ada, Kaplan, Yurt, & Kaplan, 2007; Shing, Nadarajah, & Nadarajan, 2014) on service supply chain revealed that information exchange is an important component of service supply chain that drives the performance of a firm. So, this study could be useful for the government agencies such as Malaysia Productivity Corporation (MPC), SMECorp and Ministry of Industry and International Trade (MITI) to plan the future action and planning towards information exchange, develop an information exchange index and benchmark as an indicator or key performance indicator (KPI) for information exchange in the Malaysia service sector.

1.5.4 Methodological Significance

This study is also significant to methodology perspective. The previous study categorized information exchange into strategic and operational business information exchange (Moberg et al., 2002; Dailey, 2009; Ramayah & Omar, 2010; Wu et al., 2014). However, Wu et al., (2014) suggested that the researcher could revise the scale and chose different industry. So, this study chose the Malaysian service industry and come

with different scales and manifestation items in measuring information exchange. Instead of 5-point Likert scale this research, implement 7-point Likert scale to measure information exchange. Finally, this study provides a robust and useful measurement for information exchange in the context of Malaysian service industry by selecting and combining all reliable and valid measurements from previous studies for example share business and proprietary information, order status and price strategies (Omar et al., 2010; Ramayah and Omar, 2010; Moberg et al., 2002; Li and Lin, 2006).

1.6 Definitions of Key Terms

The following are the definition of the variables used in this study.

1. Information exchange is adapted from Omar et al. (2010). Hence, information exchange refers to the extent to which information is shared or being communicated between a service firm and its supply chain partners which are strategic, operational, and critical business information.
2. Trust is conceptualized based on Morgan and Hunt (1994). Trust refers to a willingness to rely on an exchange partner in whom one has confidence in an exchange partner's reliability and integrity.
3. Relationship commitment refers to an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum effort at maintaining the relationship. The conceptualization of relationship commitment was developed based on Morgan and Hunt (1994).

4. Relational Factors are conceptualized from Morgan and Hunt (1994). It is referred as the factors that concerning the way two or more firms are connected. Based on Mukherjee and Nath (2003), Kassim and Abdulla (2007), four factors contribute to this factor which are shared value, effective communication, information quality and opportunistic behaviour.
5. Shared value is conceptualized from Mukherjee and Nath (2003) and Morgan and Hunt (1994). It is referred as the extent to which partners have beliefs in common about behaviours, goals and policies toward information are important or unimportant, appropriate or inappropriate, and right or wrong. Based on Mukherjee and Nath (2003) and Kassim and Abdulla (2007), ethics, privacy and security are the key aspects of shared value.
6. Information quality is based on the work of Lee et al., (2010), Moberg et al., (2002) and Chen et al, (2011), information quality is defined as the value of the information exchanged by both parties (firm and supplier). Enhancing the work of Mukherjee and Nath (2007), the concept of information exchange is expanded to timely, accuracy, completeness, adequacy and reliability.
7. Effective Communication refers to the extent to which partner can enhance its interaction in terms of communication openness and response quality (Mukherjee and Nath, 2007).
8. Opportunistic behavior is based on the work of Mukherjee and Nath (2003), (2007) and Kassim and Abdulla (2006), opportunistic behaviour referred as the extent of violation of rules and information distortion.

9. SME service firm is defined based on the size of operation with 5 to less than 30 full-time employees for the small enterprise and 30 to not exceed 75 full-time employees for the medium enterprise (SMEECorp, 2013) and listed in The SMEECorp database. Micro enterprise with employee less than 5 full-time employees is also considered.
10. Service is all services including distributive trade; hotels and restaurants; business, professional and ICT services; private education and health; entertainment; financial intermediation; and manufacturing-related services such as research and development (R&D), logistics, warehouse, and engineering (SMEECorp, 2013)

1.7 Scope of Study

This study focuses on SME service firm (excluding manufacturing service) and emphasizes on service firms relationship with their supplier. The SME service firm is the centre because they are the entities who running the firm with supply chain practice constraint. The sampling frame is drawn from the directory of SMEECorp at <http://www.SMEECorp.gov.my>.

1.8 Research Area

The area of this research is under business information management. There are many subjects relating to information can be researched such as information strategy (Md Dahalin, 2005; Wahid, Md Dahalin, Idrus, & Omar, 2010), information provision (Thimm & Rasmussen, 2010a, 2010b, 2012), information system management (Porter & Millar, 1985), information work (Huvila, 2010) and information behaviour

(sharing/exchange) (Clemons & Hitt, 2004; Kauffman & Mohtadi, 2004, 2009; Moberg et al., 2002; Ramayah & Omar, 2010). For this research, information exchange is chosen as the subject of the study.

1.9 Organization of Chapter

This thesis consists of five chapters. The beginning chapter mainly discusses on the background of the research and problem statements followed by the rest of sub-topics. Chapter two contains two parts. First part discusses an overview of the service industry. Among the topics are Malaysian service sector, issues and challenges regarding this sector and service supply chain. The second part provides an extensive literature review on the theoretical background of study, conceptualization of information exchange, trust, relationship commitment and relational factors of shared value, information quality, effective communication and opportunistic behaviour, which are central to this study. As a result of literature review, we develop a theoretical framework and hypotheses for this research.

Chapter three describes the research methodology applied in the study to answer the research questions. It includes sampling design, data collection procedure, research instrument, variable measurement and the PLS-SEM methodology. Under PLS-SEM Methodology, the phase started after the theoretical framework development from the survey, data analysis using PLS-SEM until interpretation and conclusion.