RELATIONSHIP MARKETING BASED COMPETING MODEL FOR KNOWLEDGE SHARING IN INCUBATOR

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To my family

A special feeling of gratitude to my loving parents, whose words of encouragement and push for tenacity ring in my ears.

To my in-laws who have supported me throughout the process. I will always appreciate all they have done.

I dedicate this work and give special thanks to my dearest husband Morteza, for being there for me throughout the entire doctorate program.

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ABSTRACT

Knowledge sharing (KS) is referred to as an important strategy for improving innovation, productivity, efficiency and competitiveness of organizations. Outcomes of KS are explained from different standpoints. However, previous studies significantly fail to explore the outcomes of KS from a relationship marketing (RM) perspective. This study examined the outcomes of KS on an organization's performance and its relationship with customers in business incubators. The study demonstrated that individual KS promoted by social relations, positively affect relationship with customers. Drawing on the theoretical foundations of social capital theory and relationship marketing concepts, a conceptual framework was formulated to examine the impact of KS on organizational performance and customer relationship. Tenant startup team members in business incubators in Malaysia were the units of analysis. A random sampling method was employed to derive the sample size from the population. This quantitative study used a cross-sectional survey method data which was collected from 104 respondents. Sixteen hypothetical relationships were examined by adopting the Structural Equation Modeling (SEM) based on the Partial Least Squares (PLS) using SmartPLS 2.0. Results suggest that the model has a good predictive ability. In addition, results revealed that the overall relationship between KS and customer relationship is significant. The findings indicate that KS is perceived to have a positive effect on customer relationship as well as a positive influence on the work performance in individuals, teams and organizations. A competing model is proposed based on the findings to better portray the scenario in the Malaysian context. This research expands the understanding of the effects of KS on organizations from the RM perspective in the business incubators of Malaysia.

ABSTRAK

Perkongsian pengetahuan (KS) dikenal pasti sebagai strategi penting dalam meningkatkan inovasi, produktiviti, kecekapan dan daya saing organisasi. Hasil daripada KS biasanya dijelaskan dari sudut yang berbeza. Walau bagaimanapun, kajian sebelum ini ternyata gagal untuk meneroka hasil KS dari perspektif pemasaran perhubungan (RM). Kajian ini meneliti hasil KS terhadap prestasi organisasi dan hubungan dengan pelanggan dalam inkubator perniagaan di Malaysia. Kajian ini menunjukkan bahawa KS individu memberi kesan positif terhadap pelanggan. Berasaskan teori kapital sosial dan konsep pemasaran perhubungan sosial, satu rangka kerja konseptual telah dibentuk untuk mengkaji kesan KS terhadap prestasi organisasi dan perhubungan pelanggan. Ahli pasukan syarikat permulaan (Start-up) dalam inkubator perniagaan di Malaysia ialah unit analisis. Kaedah persampelan rawak telah digunakan untuk memperolehi saiz sampel daripada populasi. Kajian kuantitatif dengan menggunakan kaedah tinjauan keratan rentas telah dikumpul daripada 104 responden. Enam belas hipotesis hubungan telah diuji dengan menggunakan Model Persamaan Struktur (SEM) berdasarkan Kuasa Dua Terkecil Separa (PLS) menggunakan SmartPLS 2.0. Keputusan menunjukkan bahawa model ini mempunyai keupayaan ramalan yang baik. Di samping itu, keputusan menunjukkan bahawa hubungan secara keseluruhan antara KS dan hubungan pelanggan adalah signifikan. Dapatan kajian menunjukkan bahawa KS dilihat mempunyai kesan positif ke atas hubungan pelanggan serta mempunyai pengaruh yang positif ke atas prestasi kerja pada tahap individu, pasukan dan organisasi. Satu model bersaing telah dicadangkan berdasarkan hasil kajian untuk memberi gambaran yang lebih baik untuk konteks Malaysia. Kajian ini memperluaskan pemahaman tentang kesan KS kepada organisasi dari perspektif RM dalam inkubator perniagaan di Malaysia.

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LIST OF ABBREVIATIONS

Att	-	Attitude towards KS
CRM	-	Costumer Relationship Marketing
CSC	-	Cognitive Social Capital
Ext	-	Extent of KS
FI	-	Future Intention
I_P	-	Individual Performance
Int	-	Intention towards KS
IS	-	Information System
KM	-	Knowledge Management
KS	-	Knowledge Sharing
O_P	-	Organizational Performance
RSC	-	Relational Social Capital
RP	-	Relationship Performance
RS	-	Relationship Strength
SSC	-	Structural Social Capital
T_P	-	Team Performance
VIF	-	Variance Inflation Factor
RM	-	Relationship Marketing
SC	-	Social Capital

GLOSSARY

Knowledge	Familiarity, awareness or understanding of someone or something, such as facts, information, descriptions, or skills.
Social Capital (SC)	The expected collective or economic benefits derived from the cooperation between individuals and groups.
Business Incubator	Business incubator is a business support unit that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services.
Tenant	Incubated start-up companies in business incubators.
Construct/Latent Variable	Concepts that are abstract and complex and could not be observed directly that are also called latent variables.
Item/Indicator	Directly measured observations that represent a construct, solely or collectively are referred to as item or indicator.
Measurement	The process of assigning numbers to a variable based on a set of rules is measurement.
Formative measurement model	A measurement model that assumes indicators cause the construct
Reflective measurement model	A measurement model that assumes construct causes the indicators

Measurement (Outer) Model	Element of model that contains the indictors in relation to latent variable form the measurement model that is also called the outer model.
Structural Model/Inner Model	Elements of model that contains the latent variables and their relationships.
Endogenous Latent Variable	These variables serve as dependent variable, while they could serve as independent variables, too.
Exogenous Latent Variable	These variables serve only as independent variable and are not dependent to any other variables.

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CHAPTER 1

INTRODUCTION

1.1   Introduction

Knowledge management (KM) has been a significant topic for many people including academicians ever since 50s (Kebede, 2010). However, beyond the academic realm, human beings have tried to preserve and manage knowledge more than 4000 years ago in the script that encodes the writings of the major civilization of the ancient world. KM is a collection of the actions taken to manage the knowledge and associated process and tools with the aim of maximizing its potential to the benefit for the organization and its customers. This offers a collective view that involves processes, people and technologies (Chris & Harry, 2001).

Fast-changing global economy has called for the KM practices to respond to sophisticated demand of intense competition, and increasing communication between organizations and countries. KM is referred to as an important strategy for improving innovation, productivity, efficiency and competitiveness of organizations in different type and segments. Managing knowledge is of concern in order to enhance service quality, efficiencies and performance in organizations in different sectors. Regardless of the type of organization, it is a shared trend to build better information infrastructure to maximize the potential of acquiring and sharing knowledge (Hartley & Benington, 2006). Not only KS develops a knowledgeable work space; it helps service efficiencies and performances (Wiig, 2002). For this reason, it is arguably more than a decade that IS researchers have begun promoting KM.

Knowledge, the core of KM, is an asset that is essential to generate new processes or to respond to changes (McNabb, 2007). Knowledge is information after being processed and/or validated (Alavi & Leidner, 2001). Knowledge is now treated as a significant organizational resource, and especially when it comes to competition and performance, knowledge becomes greatly important. Creating, codifying, storing, manipulating and transfer of knowledge are of high interest (Kebede, 2010). Research has shown that KM processes, especially knowledge sharing (KS), are positively related to the success of organization in many terms, including financial, product success and performance (Wang & Noe, 2010). That is, the value of knowledge is known if only it is shared (Hsu & Wang, 2008).

Since 2010s, information system scholars have paid notable amount of attention to KS. The fostering factors of KS in organizations have been well-explored. IS researchers have also attempted to assist practitioners and managers in promoting KS to organizations to enhance inner processes such as decision making and problem solving qualities and to improve organizational performance (Alavi & Leidner, 2001). Many studies have explored KS to highlight its role in management and maximizing the organizational success.

Another key point, knowledge is created and maintained by individuals (Nonaka, 1994). Being an interactive process, KS demands participation of people and fair status of social interactions to perform the role of dissemination channel (He, Qiao, & Wei, 2009). Therefore, prior to any systematic or technological aspect of KS, it is essential to learn about the role of people, their behavior and other social issues regarding KS (Wiig, 2002).

There is evidence that KS has influence on organizational performances at different levels (Wang & Noe, 2010). Furthermore, the performance affects status of organization in the market from several perspectives (Bell, Menguc, & Merlo, 2004). Different frameworks are introduced that identify and evaluate the expected benefits of KS from different standpoints, regarding context of study, type of organization and many other factors. However, systematic review of literature highlighted that KS studies has significantly failed to explore the outcomes of KS from the relationship

marketing (RM) perspective. RM encompasses emotional and behavioral concepts such as reciprocity and trust (Yau et al., 2000). This is a new approach to explore the outcomes of KS and, more specifically, the performance of business incubators.

This new approach is justified by two following reasons. First, the focus of previous studies were on the outcomes of KS in terms of performance from management point of view which has been applied in few studies of business incubators (Adlešič & Slavec, 2012). Second, evolutionary approaches to the outcomes of KS in the form of firm's performance have emphasized the organizations' success to reach goals and objectives (Mendez-Duron & Garcia, 2009); not in terms of firm's relationship with the customers. Third, although some authors point out the importance of the role of KS on business relations (Tsai, Joe, Ding, & Lin, 2013), the elaboration of such a concept remains a gap in the literature.

1.2   Problem Background

Despite the importance of KS, how knowledge is kept and shared determines its effectiveness. Another main factor is antecedents of KS. Finally, its effect on the organization and individuals is of interest. Thus, in order to better understand KS in every context, one must consider three main factor categories; namely antecedents of KS, KS operationalization and KS outcomes.

KS is an "activity through which knowledge (i.e., information, skills, or expertise) is exchanged among people, communities or organizations" (Rogozińska-Pawełczyk, 2014). Providing access to precious knowledge and information is considered as one of the most important issues in KM area as upon which most of the alliances are formed, and relations are established (Patnayakuni, Seth, & Rai, 2006). Organization members connect to gain access to required information, know-how, and solution to the repetitive problems and gain required information with fewer constraints through the informal interactions (Lawson, Petersen, Cousins, & Handfield, 2009; S. Wang & Noe, 2010). Internal informal and mutual knowledge exchanges between individuals are free of charge, sustained over time and beneficial.

KS facilitates the development, innovation and learning process (Kankanhalli, Pee, Tan, & Chhatwal, 2012) and contributes to operational effectiveness (Cadima, Ojeda, & Monguet, 2012). A well devised interaction framework that supports the transfer of internal knowledge will gross benefits to the beholding organization (Wada, Sakoda, Tsuji, Aoki, & Seta, 2009). According to (King & Marks, 2008), KS cannot be fulfilled without contribution of individuals to informal sharing process or a communication system. According to (Widén-Wulff & Ginman, 2004) challenges in KS are summarized into:

- Technical challenge: regarding the provided information systems that help individuals in the sharing process. It also refers to the issues related to inspiring people to work with such technologies and get the most advantage of it.
- Management challenge: regarding the cultural aspects of KS to create such an atmosphere that individuals in the organization cooperate in sharing process.
- Personal challenge: regarding the ability to share and re-use the shared knowledge.
- Social challenge: regarding to creating communities that promote KS.

From another view, the problem in practice is in limelight. Start-ups have been the main contributors to economic growth (Witt, 2004). Despite the efforts put on understanding of the mechanisms to facilitate their creation and growth, the internal process of business start-ups is still under-investigated (e.g., (McAdam & Marlow, 2007)).

Business incubation is one of the many programs and the most comprehensive, mainly designed to support business start-ups in the first steps, which are the mostly crucial. In this favorable environment for business, structural factors create an environment for entrepreneurship that increases probabilities of success (Malecki, 1993). Researchers have constantly discussed how such programs should be structured in order to provide better support and increase success rates. New firms operate embedded in a social system within business incubators. Therefore, if neglected, such

factors may act as barriers. As a result, it is widely admitted that new venture creation is "a multi-dimensional phenomenon" (Fisher, Maritz, & Lobo, 2014). Out of a myriad of variables relating to the new firm in incubator, their social contributions has been under the focus of scholar's to date (Hackett & Dilts, 2004).

One of the main concentrations of the literature is how knowledge may help business incubators, and start-ups reach their goals and aims. Although KM in general and KS in specific are clearly studied in literature, such assessments are usually restricted to the country and cannot be generalized to other environments due to cultural differences. Indeed, studies on business incubators in Malaysia are rather limited. Moreover, little is known about how social issues in the business incubator affect KS. In addition; tenants are customers of a business incubator and business incubators rely on the resources gained from the relationship with their customers. However, the outcomes of KS have not been well explored from perspective of relationship between incubators and tenants. Therefore, it is felt that there is a need for additional examination on understanding of KS in incubator environment.

Although business assistance is a strategically important part of support, the relationship of a business incubator with tenants as a client is an important issue, as well (Abduh, D'Souza, Quazi, & Burley, 2007). It has been asserted that satisfaction of tenants from the perspective of clients with the assistance services provided by their incubators can determine the efficacy and efficiency of incubation programs (Allen & Bezan, 1990). Quality perception of managers is highly tied to their view of performances of services (Abduh, 2003). While, it is vitally important to uncover perceived expectations of clients and to recognize the possibility of differences between the two views (Vanderstraeten & Matthyssens, 2012). Scholars have argued that meeting tenant expectations is the cornerstone of a good incubator performance evaluation (Vanderstraeten, Matthyssens, & Van Witteloostuijn, 2014). Not only the consideration of tenants' perspective as clients is essential to the incubation services' success, it relates to incubators' reputation. Since only satisfied customers will provide word-of mouth to potential clients (Abduh et al., 2007). Whereas, the tenants rely on the incubator's image or credibility to enter the sector or acquire external resources (Ferguson & Olofsson, 2004; Studdard, 2006).

1.3   Problem Statement

Malaysia's third industrial master plan (2006-2020) emphasizes the promotion of small enterprises. However, the dominant ideology of government-owned or government-related business incubators has not fulfilled this plan. Most of the incubators lie in the first-generation category and the few in the second category have failed in providing a complete process of incubation.

Near 100 business incubators with average of 35 tenant are challenged with the performance issues in their incubation process. This has result in drastic number of failed start-ups and waste of lots of resources dedicated to them. The problem can be probed into the framework of incubation process, which is being used. The frameworks being used are old, traditional and subject to corrections. Role of internal connections among tenants is neglected and the KS has not been considered as an important factor. In addition, the viewpoint of 'incubator as service provider' is missing form them. Currently there is no model that includes a relationship marketing view to describe the outcomes of KS. In addition, there is no model that illustrated the role of social determinants in KS practices in Malaysian business incubators.

On the other hand, there is an imminent need in the literature and in practice to investigate the outcomes of KS from RM perspective. The view of incubation as a service and the tenants as the service seekers will provide better insight into the existing scenarios.

1.4   Aims and Objectives of the Study

The purpose of this study is to develop an understanding of how KS practices affect organizational performances through the concepts of RM. It sets sights on exploring the outcomes of KS in business incubators of Malaysia. The study investigated from the viewpoint of RM concepts to better highlight the role of tenants as customers and the importance of the customer to business relationship in this matter. Moreover, in order to better understand KS, this study investigates the social relations

and its configuration as determinants of KS. This work aims to offer a theoretical contribution to the understanding of the concept of KS and its effects on business incubators through the RM lenses.

Since the aim of this study is to explore the KS and its outcomes in business incubators, the discussions of governance of business incubator and success factors of incubation services are beyond the scope of this study.

The study proposes to use the relationship marketing concepts to operationalize performance of organization. In accordance with the purpose, the knowledge-intensive type of organization selected was the business incubators in Malaysia, in regard to relations with customers i.e. the tenant start-ups at an individual level (employees).

Therefore, main objectives of this study are to:

1. To identify the various KS conceptualizations, determinants and outcomes in literature and find existing gaps;
2. To develop a theoretical framework to evaluate how KS affects organizational performance in business incubators in Malaysia; and
3. To develop and evaluate the competing model for KS among such organizations in Malaysia.

The research findings will contribute to better understanding of the relationship between KS and performance characteristics in business incubators of Malaysia. It will also help the managers, policy makers and practitioners to decide on the incubation policies for Malaysian business incubators.

1.5   Research Questions

The basic research question needed to be addressed is: How does KS improve the organizational performance in Malaysia and how it can be assessed?

This is broken up into following sub-questions:

1. What are the determinants and outcomes of KS intention, attitude and extent among organization members?
2. How a theoretical framework illustrates the relationship between KS and organizational performance at individual, team and organizational in Malaysian incubators the best?
3. Which model is the best to explain the KS determinants and outcomes in this context and how to evaluate it?

The research questions above are obtained from two major sources. First a systematic inspection and review on the literature of KM and incubator process. In this review, 173 published studies relevant to this research were analyzed. The review helped to identify the areas for further research. Major motivation theories were identified to establish the possible link between KS, determinants and outcomes and develop the theoretical framework. Prior to developing the research's objective, interviews were conducted in order to provide proof of existence for the gap in practice. According to the primary data, there is high demand of study on KS as one of the success key factors in an incubator. Primary data on supporting the validity of problem in practice will be later discussed in Chapter 4.

1.6   Proposed Theoretical Framework

The proposed theoretical framework will be an integration of social capital theory in three dimensions recognized by (Nahapiet & Ghoshal, 1998), three relationship marketing constructs, three levels of performance (individual, team and organization) and three components of KS extracted from literature. The framework, will be later used to develop hypotheses in order to test each question.

To test the framework, this study plans a positivism paradigm and cross-sectional quantitative method approach and a questionnaire survey as strategy. As the purpose of the study is to evaluate the relationship between KS and its outcomes in

business incubators in Malaysia, individuals (employees) of tenant firms are the unit of analysis. As of the first quarter of 2015, there are more than 78 business incubators in Malaysia according to *Malaysia's National Incubator Network Association (NINA)*. Population being vast, a simple random sampling method will be employed to derive a sampling frame from the population. The hypothetical relationships will be examined by adopting PLS path modeling which is a second-generation multivariate analysis technique using SmartPLS 2.0 that is a suggested and common package for PLS path modeling (Wetzels, Odekerken-Schröder, & Van Oppen, 2009). Figure 1.1 depicts the research methodology in a bird-eye view.
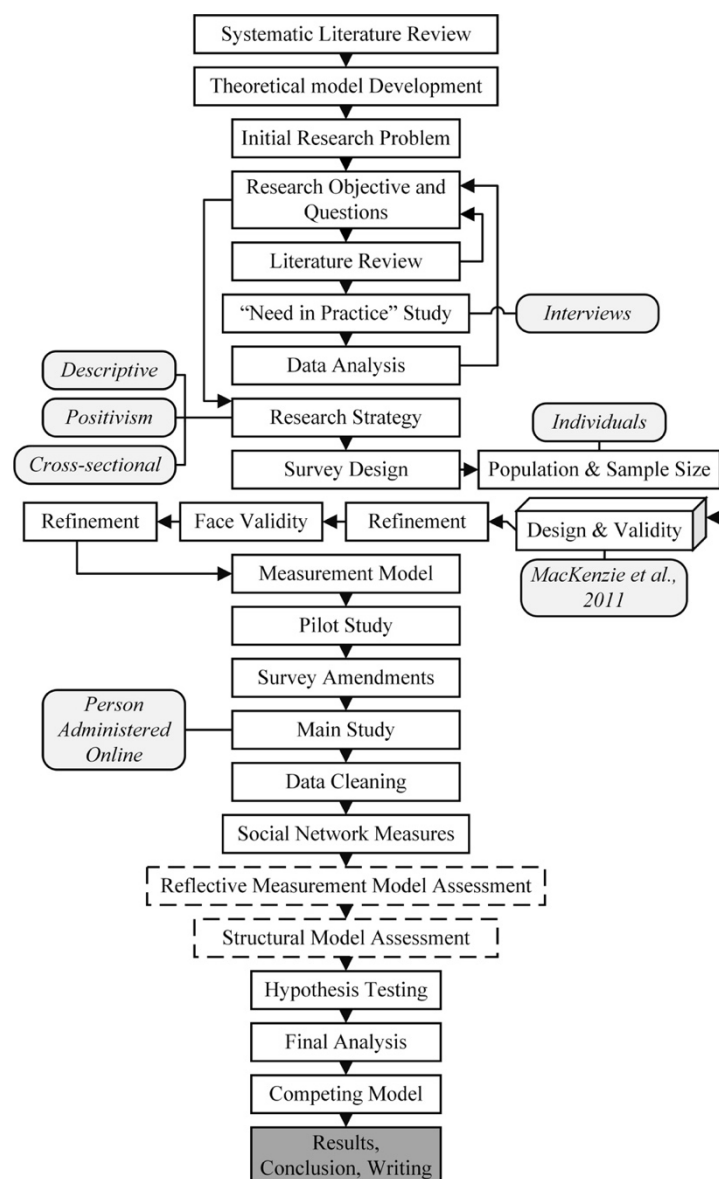
Figure 1.1   Research Plan Framework

1.7   Significance of the Study

As Malaysia is developing, entrepreneurship and human capital have become as one of the country's core strategies. The government's intention to implement local entrepreneurship and the startup scene has become stronger, creating the strongest government-supported entrepreneurship ecosystems in the world. Cyberjaya has become home to the technology-driven startup community, and a versatile number of different business incubators have been established all over the country. As a result, Malaysia has one of the best infrastructure for entrepreneurship in the region, while according to GEM 2014, she ranks less than average in other entrepreneurship criteria, compared to 11 Asia Pacific and South Asian countries (Singer, Amorós, & Arreola, 2015). Thus, any research into the area should be valuable to both theory and practice.

The study responds to the calls for more attention to the concept of business incubation. Evidence shows that funding and structural support has not resulted in the desired outputs (Jamil et al., 2016). Such a study can stop waste of huge budgets spent on the actives that have not produced desired outcomes. The interview results help in this way, by bolding that Malaysian business incubators should consider promoting, networking and sharing in their strategies more seriously. It is reasonable to assume that the startups lack in practice and skills required for survival. Demand for knowledge on one hand and higher potential of entrepreneurs to create and reshape organizational routine, increases the business incubators' encounter with the sharing practices.

Therefore, by developing theoretical framework the study sets out to expand the understanding of the effects of KS on performance and the relationship of business incubators and tenant firms in Malaysia. This provides a better understanding of KS in relation to a rather-new organizational aspect and performance as a dependent variable could be measured more precisely by adopted constructs.

The study aims to address lack in the existing body of knowledge on KS in several ways. This is a new approach to explore the outcomes of KS and, more specifically, the performance of business incubators. Clearly, this study has taken a

significant leap in its efforts to examine the effect of internal relationships on the tenant individuals (employees) making future decisions about their incubator. Given this scenario, this prologue positions the study in relation to the previous studies.

The results of this study not only could rationalize the importance of KS in order to increase the effectiveness services, it helps managers in identifying key factors in establishing the KS promoting strategies to utilize it as a tool for satisfying the customers (i.e. tenants) and improving the customer relationship. The area of relationship with customer is apparent in other contexts. Management of business incubators should come forward to resolve the issues in this regard for business incubators. To wrap it up, the results offer further empirical evidence that business incubators should take KS as a significant matter to shape performance and enhance their relationship to tenant firms. Incubator managers may use the findings to rethink the principles and implement different KS practices. Further, the results can be of interest to managers who seek to have a better relationship with tenant firms and establish a good client-organization relationship.

Finally, this study stimulates further research in formulating KS and client-business view in business incubators. This study will be one of the few that tried to address the relationship between tenants and incubator as a service provider. The concepts borrowed from the RM literature were general concepts that embodied the definition of some other concepts that could also be considered, separately. This is a potential for future studies to investigate this relationship in depth and detailed.

1.8   Organization of the Thesis

This study is organized as follows. Chapter 2 discusses the relevant literature. Chapter 3 explains the research model of study and hypotheses to be tested and the design of study. Chapter 4 is an overview of research implementation. Chapter 5 explains the data analysis and findings. Finally, Chapter 6 is the last Chapter that covers the discussion and conclusion.

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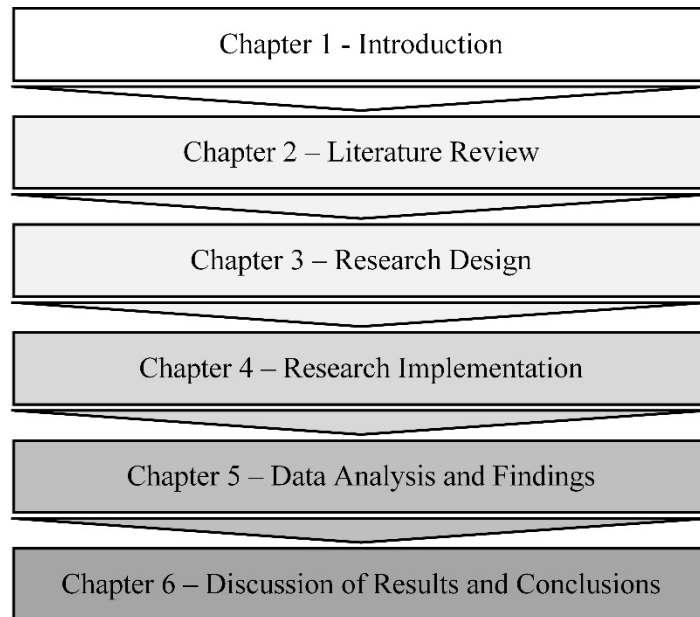
Figure 1.2   Organization of Thesis

1.9   Chapter Summary

This Chapter provided an overview of the research. The main aim of the study was to investigate structural properties of incubator tenants' network for the purpose of identifying its influence on the KS practices, and the performance from a relationship marketing perspective. The performance of incubators in Malaysia which is operationalized with managerial definitions of work performance, is sought to be measured through components of relationship marketing studies. To conceptualize the study, the first section discussed the issues and challenges encountered by business incubators in Malaysia. The areas of interest were discussed and the need for KS in response to the demands and expectations from the business incubators' stakeholders were highlighted. The next Chapter provides a glance at the relevant literature which will be used to develop the model and hypotheses.

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