



Faculty of Cognitive Sciences and Human Development

**Knowledge Sharing Practices on Work-Related Issues among Managerial
Group in Private Organizations**

Khaddraa Rajuli

**Doctor of Philosophy
2018**

Knowledge Sharing Practices on Work-Related Issues among Managerial Group in Private Organizations

Khaddraa Rajuli

A thesis submitted

In fulfilment of the requirements for the degree of Doctor of Philosophy

(Human Resource Development)

Faculty of Cognitive Sciences and Human Development
UNIVERSITI MALAYSIA SARAWAK
2018

DECLARATION

I, Khaddraa Rajuli (12010047), Faculty of Cognitive Sciences and Human Development hereby declare that the work entitled “Knowledge Sharing Practices on Work-Related Issues among Managerial Group in Private Organizations” is my original work. I have not copied from any other students’ work or from any other sources where due references or acknowledgement is made explicitly in the text, nor has any part been written for me by another person. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature of Student:

Name:

Date:

DEDICATION

This thesis is dedicated to

My wonderful parents- my wings,

Rajuli Rili and Norjannah Bujang,

for their continuous love, encouragement and support.

My late grandparents- my roots,

Hj. Raili Anis and Hjh. Dayang Rafe'ah Awang Hamzah, and

Hj. Bujang Hj. Ahmad and Hjh. Fatimah Abu Bakar,

for their legacy to be always striving for success in this world and the next.

All my family members, especially the younger generations.

May this thesis inspire them to embark on this journey of education,

as it is truly transformational.

ACKNOWLEDGEMENT

This academic pursuit is not possible to be made without the encouragement and support from many people around me. First and foremost, I praise and thank Allah S.W.T for giving me the opportunity, strength and perseverance to complete this PhD journey.

I am extremely thankful to Assoc. Prof. Dr. Shahren Ahmad Zaidi Adruce and Assoc. Prof. Dr. Hasbee Usop, my supervisors, for providing all kinds of possible help and guidance during the course of this study. They are also very humble in personality and whose expertise and knowledge were generously shared. I am grateful to have them as my supervisors.

A special thanks to my family, who have supported me in many ways throughout my study. My family members are the main source of strength for the entire of my life. Their prayer for me was what sustained me thus far.

Also, I would like to convey my gratitude to the organizations involved in this study, for allowing me to conduct my research in their organization. Despite of having a large amount of work to do, the informants too, still spend their time to answer my questionnaire and willing to entertain me whenever I needed clarifications. I would not be able to complete this research without their cooperation and kindness.

Last but not least, I would like to thank all of my friends, lecturers, evaluators, staffs and other people who have been involved, directly or indirectly along the way of completing this study. I really appreciate all opinions and feedbacks regarding this research and the moral support given help me strive towards the end of this journey.

ABSTRACT

The purpose of this study is to explore knowledge sharing practices in the organization. In order to get an in-depth understanding about the practice, various aspects related to knowledge sharing such as its contributing factors, barriers, methods and approaches that can help promote, the benefits, with whom knowledge is shared, types of knowledge shared as well as the characteristics of the knowledge sharer were studied. A qualitative method that is in an open-ended and structured questionnaire was used to collect data, followed by one or more interview with the subject matter, if further clarification is needed. A total of twenty-three informants, of executive and manager level from different private organizations in Malaysia were involved in this study. The conceptual analysis highlights various themes derived from the obtained data. The contributing factors of knowledge sharing and its inhibitors emerged similarly as previous studies. They include issues related to individual, institutional, relationship and knowledge. Meanwhile, the barriers consist of issues related to individual, institutional and technology. In addition, the benefits of knowledge sharing also supported previous studies linking knowledge sharing with innovation, performance and learning. On the other hand, the activities that promotes knowledge sharing in the organization ranges from written documentation, verbal communication, information technology tools and other organizational events or practices. The popular social platform-Facebook and Whatsapp applications were also found to assist employees in sharing knowledge freely. Other than that, the majority of informants consider conscientiousness as the top attribute of the knowledge sharer. Furthermore, there are two types of knowledge identified in this study, which informants were willing to share. They include tacit and explicit knowledge. On with whom to share knowledge, it was reported that knowledge was

not only disseminated within and between firms, but was also dependent on the characteristics of knowledge recipients whom perceived by the knowledge contributors as competent, have good attitude and willingness, inquirer, and rightful or relevant. In the relational analysis, several relationships between the informants' demographic background and knowledge sharing variables were found. Above all, the study also contributes toward the body of knowledge as well as policies, methodologies, practices, society and directions for future research.

Keywords: Knowledge sharing, knowledge management, Malaysia

Amalan-Amalan Perkongsian Ilmu Berkaitan Kerja di kalangan Kumpulan Pengurusan di beberapa Organisasi Swasta

ABSTRAK

Tujuan kajian ini dijalankan adalah untuk meneroka amalan-amalan perkongsian ilmu di dalam organisasi. Pelbagai aspek yang dikaji termasuklah faktor-faktor yang membawa kepada perkongsian ilmu, penghalangnya, aktiviti-aktiviti yang boleh dilakukan, kelebihannya, dengan siapa ilmu dikongsi, jenis-jenis ilmu yang dikongsi serta karakter orang yang berkongsi ilmu. Kajian soal selidik berbentuk kualitatif telah digunakan yang mana dua puluh tiga orang informan berpangkat eksekutif dan pengurus dari industri berlainan telah terlibat. Analisis awal (konseptual analisis) telah merungkai beberapa tema daripada data yang telah dikumpul. Dapatan kajian untuk faktor-faktor yang menggalak dan menghalang perkongsian ilmu adalah sama seperti hasil kajian terdahulu. Faktor-faktor yang menggalakkan perkongsian ilmu datang daripada individu, institusi, perhubungan dan ilmu. Manakala, penghalangnya terdiri daripada isu individu, institusi dan teknologi. Kelebihan berkongsi ilmu juga menyokong dapatan kajian terdahulu yang mengaitkannya dengan inovasi, prestasi dan pembelajaran. Untuk aktiviti-aktiviti perkongsian ilmu pula, ia boleh dipromosikan melalui rekod penulisan, komunikasi secara lisan, penggunaan teknologi maklumat serta lain-lain acara dan praktis. Rangkaian sosial seperti Facebook dan aplikasi Whatsapp turut digunakan sebagai platform perkongsian ilmu. Selain itu, majoriti daripada informan menyatakan “conscientiousness” sebagai karakter utama pengkongsi ilmu. Jenis-jenis ilmu yang dikongsi oleh para informan pula merangkumi ilmu “tacit” dan “explicit”. Kajian juga menunjukkan ilmu bukan sahaja dikongsi dalam dan di antara organisasi tetapi turut menekankan ciri-ciri penerima ilmu. Aras kedua analisis pula telah menemukan

beberapa hubungan antara demografi informan dan data yang telah dikategorikan di dalam analisis pertama. Secara umumnya, kajian ini memberikan sumbangan kepada model dan konsep sedia ada serta polisi, kaedah metodologi, pengamal, masyarakat serta halatuju pengkaji pada masa akan datang.

Kata kunci: *Perkongsian ilmu, pengurusan ilmu, Malaysia*

TABLE OF CONTENTS

	Page
DECLARATION.....	i
DEDICATION.....	ii
ACKNOWLEDGEMENT.....	iii
ABSTRACT.....	iv
ABSTRAK.....	vi
TABLE OF CONTENTS.....	viii
LIST OF TABLES.....	xvi
LIST OF FIGURES.....	xvii
CHAPTER 1: INTRODUCTION.....	1
1.0 Introduction.....	1
1.1 Background of the Study.....	1
1.2 Statement of Problem.....	3
1.3 Research Objectives.....	9
1.3.1 General Objective.....	9
1.3.2 Specific Objectives.....	9
1.4 Research Questions.....	9
1.5 Significance of the Study.....	10
1.5.1 Significance to the Body of Knowledge.....	10
1.5.2 Significance to Policy.....	17

1.5.3	Significance to Methodology	18
1.5.4	Significance to HRD Practitioners/Practices.....	19
1.5.5	Significance to Society.....	19
1.6	Definition of Terms	20
1.6.1	Knowledge	20
1.6.2	Knowledge Sharing.....	20
1.6.3	Knowledge Sharer	21
1.6.4	Private Organization.....	21
1.6.5	Practices	22
1.6.6	Promote	22
1.6.7	Contribute.....	23
1.6.8	Inhibit	23
1.6.9	Benefit	23
1.6.10	Characteristic.....	23
1.7	Summary.....	24
CHAPTER 2: LITERATURE REVIEW		25
2.0	Introduction	25
2.1	Data, Information, Knowledge and Wisdom.....	25
2.2	The Concept of Knowledge Management	26
2.3	Knowledge Sharing in Private Organizations	28
2.4	Related Theories on Knowledge Sharing	32

2.4.1	Theory of Planned Behavior (TPB)	32
2.4.2	Social Exchange Theory	35
2.4.3	Social Network Theory	38
2.4.4	Self-Determination Theory	41
2.5	Review of Knowledge Sharing Studies	44
2.5.1	Different Types of Knowledge to Share	44
2.5.2	With Whom to Share Knowledge	48
2.5.3	Knowledge Sharing Activities	50
2.5.4	The Contributing Factors of Knowledge Sharing	51
2.5.5	The Inhibiting Factors of Knowledge Sharing	61
2.5.6	The Benefits of Knowledge Sharing	74
2.5.7	Knowledge Sharer's Personal Attributes	77
2.6	Related Models on Knowledge Sharing	78
2.6.1	Socialization, Externalization, Combination and Internalization Model	78
2.6.2	Five-Factor Model of Personality	80
2.7	Summary	82
CHAPTER 3: METHODOLOGY		84
3.0	Introduction	84
3.1	Research Design	84
3.2	Research Instrument	86
3.3	Reliability and Validity	88

3.4	Pretest	89
3.5	Ethical Considerations.....	90
3.6	Data Collection Techniques.....	91
3.6.1	Standardized Open-Ended Survey Questionnaire and Follow-up Interview	91
3.6.2	Literature Review Method	92
3.6.3	Personality Test	92
3.7	Actual Data Collection and Analysis.....	93
3.7.1	Research Population, Sample and Sampling.....	93
3.7.2	Data Collection Procedures	94
3.7.3	Data Analysis Procedures.....	95
3.7.4	Data Analysis Techniques	97
3.8	Summary.....	100
CHAPTER 4: RESEARCH FINDINGS AND ANALYSIS		101
4.0	Introduction	101
4.1	Informants' Demographic Background (Descriptive).....	101
4.2	Informants' Profile Report.....	106
4.2.1	Informant 1	106
4.2.2	Informant 2	106
4.2.3	Informant 3	106
4.2.4	Informant 4	107
4.2.5	Informant 5	107

4.2.6	Informant 6.....	108
4.2.7	Informant 7.....	108
4.2.8	Informant 8.....	108
4.2.9	Informant 9.....	109
4.2.10	Informant 10.....	109
4.2.11	Informant 11.....	110
4.2.12	Informant 12.....	110
4.2.13	Informant 13.....	111
4.2.14	Informant 14.....	111
4.2.15	Informant 15.....	111
4.2.16	Informant 16.....	112
4.2.17	Informant 17.....	112
4.2.18	Informant 18.....	113
4.2.19	Informant 19.....	113
4.2.20	Informant 20.....	114
4.2.21	Informant 21.....	114
4.2.22	Informant 22.....	115
4.2.23	Informant 23.....	115
4.3	Research Findings.....	116
4.3.1	Research Objective 1: To identify what types of work-related knowledge employees are willing to share	116

4.3.2	Research Objective 2: To identify with whom people are willing to share knowledge with	120
4.3.3	Research Objective 3: To find out how the organization promotes knowledge sharing among employees.....	125
4.3.4	Research Objective 4: To identify factors that contribute towards knowledge sharing in the organization	131
4.3.5	Research Objective 5: To identify factors that inhibit knowledge sharing in the organization.....	140
4.3.6	Research Objective 6: To identify the benefits of knowledge sharing in the organization.....	150
4.3.7	Research Objective 7: To identify the characteristics of the knowledge sharer	155
4.3.8	Research Objective 8: To identify the relationship between demographic factors and knowledge sharing variables	158
4.3.9	Research Objective 9: To develop a proposition model on knowledge sharing	163
4.4	Possible New Findings	165
4.4.1	Possible new finding on how is knowledge sharing being promoted in the organization.....	165
4.4.2	Possible new finding on the benefits of knowledge sharing	165
4.5	Summary.....	166

CHAPTER 5: DISCUSSION, IMPLICATION, RECOMMENDATION AND

CONCLUSION.....	167
5.0 Introduction	167
5.1 Discussion: Research Objective 1	167
5.2 Discussion: Research Objective 2	170
5.3 Discussion: Research Objective 3	173
5.3.1 Written documentation.....	173
5.3.2 Verbal communication	174
5.3.3 Information technologies (IT) tools or applications.....	177
5.3.4 Other events or practices	179
5.4 Discussion: Research Objective 4	180
5.4.1 Individual factors.....	180
5.4.2 Institutional factors.....	183
5.4.3 Knowledge: Nature, content or representation.....	187
5.4.4 Relationship.....	188
5.5 Discussion: Research Objective 5	189
5.5.1 Individual barriers	189
5.5.2 Institutional barriers	194
5.5.3 Technological barriers.....	198
5.6 Discussion: Research Objective 6	200
5.6.1 Organizational outcome	200

5.6.2	Individual outcome.....	204
5.7	Discussion: Research Question 7	205
5.8	A Proposition Model on Knowledge Sharing.....	207
5.9	Limitations of the Study	210
5.10	Recommendations for Future Research	211
5.11	Conclusion.....	212
REFERENCES.....		217
APPENDICES		233

LIST OF TABLES

		Page
Table 2.1	Categorization of knowledge.....	47
Table 2.2	Five-factor model of personality.....	82
Table 3.1	Interview questions.....	87
Table 3.2	An example of data translation.....	96
Table 3.3	An example of data weeding.....	96
Table 4.1	Informants' demographic background.....	101
Table 5.1	Different kinds of knowledge to share with supporting studies.....	170

LIST OF FIGURES

	Page
Figure 3.1 Data collection procedure.....	95
Figure 3.2 Analysis of framework.....	95
Figure 3.3 Relational analysis process.....	100
Figure 4.1 Number of informant according to service period.....	103
Figure 4.2 Number of informant according to gender.....	104
Figure 4.3 Number of informant according to ethnicity.....	104
Figure 4.4 Number of informant according to educational level.....	105
Figure 4.5 Number of informant according to job position.....	105
Figure 4.6 Number of informant according to industry.....	105
Figure 4.7 Types of knowledge shared.....	116
Figure 4.8 With whom people are willing to share knowledge.....	121
Figure 4.9 The various ways of implementing knowledge sharing.....	125
Figure 4.10 Written documentation activities that promote knowledge sharing.....	126
Figure 4.11 Verbal communication activities that promote knowledge sharing.....	127
Figure 4.12 IT tools/applications that promote knowledge sharing.....	128
Figure 4.13 Internet as IT tools/applications to promote knowledge sharing.....	128
Figure 4.14 Telecommunication as IT tools/applications to promote knowledge sharing.....	129
Figure 4.15 Other events/practices that promote knowledge sharing.....	130
Figure 4.16 Contributing factors of knowledge sharing.....	131
Figure 4.17 Individual factors that help knowledge sharing.....	132
Figure 4.18 Organizational factors that help knowledge sharing.....	135
Figure 4.19 Social group factors that help knowledge sharing.....	137

Figure 4.20	Knowledge as a contributing factor to knowledge sharing.....	139
Figure 4.21	Relationship as a contributing factor to knowledge sharing.....	139
Figure 4.22	Inhibiting factors of knowledge sharing.....	141
Figure 4.23	Individual barriers toward knowledge sharing.....	141
Figure 4.24	Organizational barriers toward knowledge sharing.....	146
Figure 4.25	Social group barriers toward knowledge sharing.....	148
Figure 4.26	Technological barriers of knowledge sharing.....	149
Figure 4.27	The benefits of knowledge sharing.....	150
Figure 4.28	The organizational benefits of knowledge sharing.....	151
Figure 4.29	The individual benefits of knowledge sharing.....	153
Figure 4.30	The personality of knowledge sharer.....	156
Figure 4.31	Relationship between demographic variables on willingness to share knowledge as a sense of responsibility.....	158
Figure 4.32	Relationship between demographic variables on willingness to share knowledge as an organizational commitment.....	160
Figure 4.33	Relationship between demographic variables on unwillingness to share knowledge relating to recipient's cognitive capacity issue.....	161
Figure 4.34	Relationship between demographic on the benefits of knowledge sharing....	162
Figure 4.35	A proposition model on knowledge sharing.....	163
Figure 4.36	Possible new finding on how is knowledge sharing being promoted in the organization.....	165
Figure 4.37	Possible new finding on the benefits of knowledge sharing.....	165
Figure 5.1	With whom to share knowledge with supporting studies.....	171
Figure 5.2	Ways to promote knowledge sharing with supporting studies.....	175

Figure 5.3	Contributing factors to knowledge sharing with supporting studies.....	182
Figure 5.4	Inhibiting factors to knowledge sharing with supporting studies.....	192
Figure 5.5	The benefits of knowledge sharing with supporting studies.....	201
Figure 5.6	Knowledge sharer's personality with supporting studies.....	206

CHAPTER 1

INTRODUCTION

1.0 Introduction

This introductory chapter is divided into seven sections. Section 1.1 provides the background of the study while Section 1.2 describes the problem statement. The next section, Section 1.3 discusses the objectives of the study followed by Section 1.4, which discusses the research questions of the study. The next section, Section 1.5 and Section 1.6 explains the significance and the definition of terms respectively. Lastly, Section 1.7 summarizes the discussion of the first chapter of the study.

1.1 Background of the Study

The emergence of today's economy is the result of the third wave of globalization, which is enabled by technology (Thurow, 2000, as cited in Squicciarini & Loikkanen, 2008). Huang, Wei, and Chang (2007) further support that technology has a significant influence towards the new type of economy where knowledge is an important source of competitive advantage. In line with a global knowledge-based economy, organizations have raised attention towards knowledge management to minimize the adverse impact of the fast changing environment. The focus is being placed on the creation and sharing of knowledge that is fundamental for the development of intellectual capital (Ichijo & Nonaka, 2006).

The value of knowledge is beyond price. As the competition is getting more ferocious, knowledge is being perceived as the critical element that differentiates one organization from another as well as becoming a driving factor for success. Adding to the fact that today's

workforce is increasingly diversified (Henson, 2009), organizations can be said to be rich in knowledge. While experienced employees hold a great amount of knowledge, the younger generations are armed with creative thinking and are more open to ideas. This signifies that an organization is not only employing the people, but also employing their brainpower.

Deleteriously, knowledge can easily be gone if no proper approach is being taken to preserve it. The consequences can be seen when the employees leave the organization, retire or explore new chances to work with other organizations (Ling, Sandhu, & Jain, 2009). In this regard, the capability of an organization to retain and leverage the use of knowledge is of utmost importance (Chu, Krishnakumar, & Khosla, 2014).

The intention of having knowledge is not to fill minds; rather it is intended to make them open (Siemens, 2006). On many occasions, when new recruits are hired, guidance from those who are familiar with the job is essential, as they may not be capable to complete new and complicated tasks entirely on their own. The acquired knowledge of the experts from their previous experiences or mistakes has to be shared for the collective good as opposed to personal advantage. Hence, people in the organization must collaborate and integrate with each other regardless of the gaps surrounding them.

The perceived “sensitivity” of knowledge and its “ownership” varies among people (Marouf, 2007). People have their own perception on how knowledge is regarded. Viewing knowledge sharing as a loss is a wrong and apprehensive perception that should be discarded. Rather, knowledge will keep on growing when shared. As Tsai, Chen, and Chien (2012) suggested that the purpose of knowledge sharing is not merely for storing and making knowledge available, but also doubling the worthiness of the knowledge itself. In due course, organizations will gain something greater than data and information in their information

systems, which are beneficial for their success (Blair, 2002, as cited in Tohidinia & Mosakhani, 2010).

To remain in the competition, organizations need to inherent capabilities that are crucial for their survival and competitiveness. To keep abreast in the world where globalization has changed the structure of economy, organizations must be able to amplify their adaptability, innovation and process speed (Myers, 1996). Particularly, by imparting the access, donation and sharing of knowledge as part of organizational practices, organizational productivity will be increased (Tsai, Chang, Cheng, & Lien, 2012). Hence, knowledge sharing can act as a mechanism to catalyze the need of an organization to use knowledge at its best.

1.2 Statement of Problem

Knowledge sharing is a very interesting topic to explore. It has received a lot of attention from researchers who aims to understand the sharing process amongst people in the organization. Indeed, the nature of knowledge itself, which can represent a symbol of power, can also positively bring benefit when being invested in and be a stimulating factor for the study. Despite the existence of knowledge in the organization, Davenport and Prusak (1998) argue that it can be unused and not maximized. Meaning, the knowledge, may only reside in the mind of its owner without being disseminated to others. This restraint is described by Syed-Ikhsan and Rowland (2004) as a failure of knowledge transfer, which can only be made possible by the sharing process.

Given a growing recognition on the study of knowledge sharing, however, there have been very little studies done using qualitative methods. Most of the previous research (Cheng, Yeh, & Tu, 2008; H. F. Lin, 2007; Ling et al., 2009; Sáenz , Aramburu, & Rivera, 2009; Sohail & Daud, 2009; Tohidinia & Mosakhani, 2010) are using quantitative questionnaires, in which could lead to potential threats of common method biasness such as recall ability,

perceptual accuracy and response bias (Ford & Staples, 2010; Han & Anantatmula, 2007). Wang and Noe (2010) also urged for more qualitative research of knowledge sharing in the organizational context to help facilitate the design of quantitative research. Indeed, qualitative methods help the researcher to yield additional information, which is rather limited when using quantitative questionnaires.

Besides, few studies have been done in Malaysian context. Most of the studies on knowledge sharing were conducted in Western countries (Christensen, 2007; Han & Anantatmula, 2007; Hara & Hew, 2007; Sáenz et al., 2009; Søndergaard, Kerr, & Clegg, 2007; Sveiby, 2007; Taminiau, Smit, & Lange, 2009) as well as in Taiwanese companies (Cheng et al., 2008; Lai & Lee, 2007; H. F. Lin, 2007; Lin & Lee, 2004; Yang, 2007). According to Geert Hofstede, Malaysia has a very high score on power distance in comparison with Taiwan and the Western countries (The Hofstede Centre, 2012). It is defined as the degree to which institutional or organizational members that are less influential within a country expect and acknowledge that the distribution of power is not equal (The Hofstede Centre, 2012). In this regard, organizations in the Malaysian setting are seen exhibiting a hierarchy of authority amongst individuals and it is presume that such gap and inequality could reduce the effort in getting the most benefit on knowledge sharing from the top level individuals and vice versa. Examining knowledge sharing practices in Malaysian context could provide additional understanding about the topic in another cultural setting.

Nevertheless, the emergence of knowledge management has created awareness to the organization on the importance of developing initiatives in knowledge sharing. Along with that, most managers are setting some questions in their mind about the various reasons people share or vice versa, factors that motivates them to share their personal knowledge to others,

the possible barriers in fostering knowledge sharing among organizational members, and ways to overcome them (Cabrera & Cabrera, 2002).

Furthermore, not many studies have focused on a variety of demographic variables such as age, gender, level of education and working experiences that could significantly affect an individual's knowledge sharing behavior (Ardichvili, Maurer, Li, Wentling, & Stuedemann, 2006; Kharabsheh, 2007; H. F. Lin, 2007). In addition, lack of efforts in examining knowledge sharing among people from different perspectives, in terms of expertise levels should also receive considerable attention for the study (Ford & Staples, 2010; Seidler-de Alwis & Hartmann, 2008).

Although many of the researchers have studied factors that may have a significant relationship toward knowledge sharing; nonetheless, there may be other unidentified factors that could affect knowledge sharing behavior (Tohidinia & Mosakhani, 2010). Besides organizational culture (Lai & Lee, 2007) and human factors of knowledge management framework (Heisig, 2009), there could be other factors that can bring an organization towards successful knowledge sharing. Although H. F. Lin (2007) studied the relationship among knowledge sharing factors on innovation capability, she claims that it did not cover other critical enablers for knowledge sharing. Apart from that, it is also difficult to make a prediction on when and why people share their knowledge (Duguid, 2005, as cited in Tohidinia & Mosakhani, 2010). Therefore, this study will explore the contributing factors of knowledge sharing in the organization.

Subsequently, the unwillingness to share knowledge makes it difficult for the organization to achieve its desired goals of knowledge management as well as to remain competitive in the marketplace. The application of technology has been discovered as a good effort in facilitating knowledge sharing. However, there is no assurance that the sharing

process will occur, even with its presence (Alavi & Leidner, 1999). Unfortunately, attempts in fostering knowledge sharing can be ineffective as it depends largely on the willingness of the organizational members. The underlying problem, according to King, Marks, and McCoy (2002), may arise from the individuals themselves who demand for something that can motivate them to participate.

On the other hand, Søndergaard et al. (2007) agreed that knowledge sharing could be impacted by diverse and complex factors. To explore this further, it is essential to investigate the reasons for knowledge hoarding in the organization. Simultaneously, it may reveal whether the other knowledge behaviors such as knowledge hiding (Connelly, Zweig, Webster, & Trougakos, 2012) and/or disengagement (Ford, 2008) exist in the organization.

Knowledge sharing is not necessarily promoted only among the organizational members. It can also be endorsed amongst other people such as customers and suppliers (Parirokh, Daneshgar, & Fattahi, 2008). According to H. F. Lin (2007), the consideration at inter-organizational level with whom knowledge will be shared has not been viewed seriously. The exchange of knowledge with the external stakeholders is imperative as they signify valuable sources of intellectualism and creativity (H. F. Lin, 2007) as well as providing support in strategic planning (Sivula, Van den Bosch, & Elfring, 2001, as cited in Riege, 2005).

The decision to share knowledge to others is highly dependent on the owner themselves, which leads to the possibility of having their own preferences to whom knowledge will be shared. Lichtenstein and Hunter (2008) elucidate that the sharer depends on own belief whether the recipient needs the knowledge to be shared. In this regard, the recipient of knowledge also has an influence on the motivation of the person who is in the possession of knowledge. Zhang and Jiang (2015) are among the few authors that have

considered the issue of with whom shall an individual share his or her knowledge. Nevertheless, they suggested that a qualitative approach could help explore more on the recipient role in affecting the decision of the knowledge sharer to share knowledge.

The basis of sharing process is the interaction between two or more actors (Hendriks, 1999). It is initiated when one person requires knowledge, expertise or guidance from others regarding a particular matter. Riege (2005) states that it is important to identify people who have interest in sharing knowledge. It is emphasized by Lichtenstein and Hunter (2008) that knowledge sharers should have attributes such as awareness, motivation, behaviors and skills which could affect how the receiver perceive the acquired knowledge. As this particular demand is relatively unexplored, there is a need to uncover what characteristics the sharers should possess.

Additionally, Hara and Hew (2007) argue that not many studies were conducted on the various types of knowledge individuals are willing to share. Christensen (2007) also supported that although much research attention has been devoted to the topic of knowledge sharing issues, very little emphasis has been made towards what knowledge is being shared. He urges that more discovery on that particular question is needed to reach a better understanding on knowledge sharing practices. Indeed, it is crucial to know what kind of knowledge is perceived as worthy when shared in the organization. The beneficial knowledge that can provide the organization with a good source of advantage deserves to be rewarded (Han & Anantatmula, 2007).

Since knowledge can disappear easily once an employee resign or retire from his or her job (Ling et al., 2009), the organizations should be on alert of the circumstances and risks they may face afterwards. A study by Yang (2007) indicated that new knowledge is often not captured and retained through proper documentation. He added that, with the absence of

storing mechanisms, knowledge would easily be dissipated. The ignorance or failure to recognize the importance of sharing knowledge amongst organizational members, according to C. P. Lin (2007), would put organizational survival at stake. Thus, for organizations to compete in the uncertain environment, efforts in promoting its members to share knowledge are of great value.

Although there are differences on defining the concept of knowledge (Martensson, 2000), most researchers agreed that knowledge is beneficial to the performance of the organization (Lai & Lee, 2007; Tohidinia & Mosakhani, 2010). Previously, there were relatively large numbers of works that highlighted the importance of knowledge and knowledge sharing on innovation (Kamasak & Bulutlar, 2010; H. F. Lin, 2007; Plessis, 2007; Sáenz et al., 2009; Seidler-de Alwis & Hartmann, 2008). Given the increased complexity of work, building collaboration with other employees will inspire the creation of new skills and knowledge, the key for successful innovation (Plessis, 2007). A study by Yang (2007) proved that efforts in knowledge sharing could also act as a driving force for organizational learning, which in turn leads to the increase in organizational effectiveness. However, Tohidinia and Mosakhani (2010) believe that knowledge sharing can also contribute to other organizational outcomes. Haas and Hansen (2007) also urge future research to investigate the other measures of knowledge sharing benefit, as their study was restricted to the task performance dimensions. Furthermore, Fullwood, Rowley, and Delbridge (2013) indicate there were lack of association made between knowledge sharing and strategic and performance-related consequences. In this regard, it is crucial to investigate the benefits that can be gained by the organization when investing in knowledge sharing. In conjunction with the general organizational outcomes, this study may also reveal the advantage of knowledge sharing on an individual as well.

1.3 Research Objectives

1.3.1 General Objective

The main objective of the study is to explore knowledge sharing practices in the organization.

1.3.2 Specific Objectives

- i. To identify what types of work-related knowledge employees are willing to share
- ii. To identify with whom people are willing to share knowledge with
- iii. To find out how the organization promotes knowledge sharing among employees
- iv. To identify factors that contribute towards knowledge sharing in the organization
- v. To identify factors that inhibit knowledge sharing in the organization
- vi. To identify the benefits of knowledge sharing in the organization
- vii. To identify the characteristics of the knowledge sharer
- viii. To identify the relationship between the demographic factors and knowledge sharing variable
- ix. To develop a model of knowledge sharing

1.4 Research Questions

- i. What are the types of work-related knowledge employees are willing to share with others?
- ii. With whom are people willing to share knowledge?
- iii. How is knowledge sharing being promoted in the organization?
- iv. What are the factors that contribute to knowledge sharing?
- v. What are the factors that inhibit knowledge sharing?
- vi. What are the benefits that knowledge sharing has brought to the organization?
- vii. What are the characteristics of the knowledge sharer?

- viii. What is/are the relationship(s) between demographic factors and knowledge sharing variables?
- ix. What is the model of knowledge sharing?

1.5 Significance of the Study

1.5.1 Significance to the Body of Knowledge

The primary contribution of this study is to increase the general body of knowledge in the field of knowledge management and knowledge sharing in the private sector organizations. This research has identified various issues related to the practice of knowledge sharing. These include the types of work-related knowledge shared, with whom work-related knowledge is being shared, the activities that help promote knowledge sharing, the driving as well as the inhibiting factors to knowledge sharing, the benefits of knowledge sharing and the characteristics of the knowledge sharer. In overall, most of the findings of this study are compatible with the previous research done on knowledge sharing. The conceptual framework on contributing factors of knowledge sharing, for instance, is in line with the five categories proposed by Schauer, Vasconcelos, and Sen (2015) which are sharer, relations, institution and knowledge. Meanwhile, there are few findings pertaining this study that were not supported by or found in previous research, but could be new and useful to the knowledge management field.

Other than that, this study also enriches the literature resources in Malaysian context, characterized by Geert Hofstede as a collectivist culture (The Hofstede Centre, 2012). This cultural dimension seems to incorporate with findings of this study as employees felt their willingness to share knowledge was also driven by their interest for a collective good. The consideration about their other colleagues' awareness, learning and collaboration as a contributing factor for knowledge sharing is in contrast with the Western culture that are

individualistic (Witherspoon, Bergner, Cockrell, & Stone, 2013). In addition, this study also surfaced a few of potentially salient relationships between the categories and individuals' demographic background. For instance, male and Muslim informants believe on attaining the hereafter rewards as a benefit from the act of knowledge sharing. Hence, a linkage in terms of gender and religion were found under this category.

Further, this research is also beneficial to the current models or theories related to knowledge sharing in its attempt to understand how they work in the actual organizational context. In the theory of planned behavior, this study supports its variables, which are the attitude toward the behavior, subjective norms and perceived behavior control. Individuals are intrinsically driven to share their knowledge because they believe knowledge is important and by sharing, it will eventually help in intensifying their knowledge as well. These outcome belief and outcome appraisal signified that individuals would positively act towards knowledge sharing (Ajzen, 1991). This study also shows a partial support on perceived behavioral control that is a person's perception on his or her ability to perform a particular behavior, is determined by control beliefs (Ajzen, 1991). Although the important build of PBC, which is the individuals perceived self-efficacy did not influence knowledge sharing behavior, nevertheless, the existence of resources and opportunities was reflected in this study. Among the examples of these control beliefs that may assist or impede individuals intention to share knowledge include the opportunities to learn and to give opinions, cohesiveness as well as the availability of time and resources such as competent people, finances, information technology infrastructures and facilities. In addition, the role of leaders is critical in encouraging employees to share knowledge. This is because the informants viewed leaders as the most suitable and powerful individuals to influence conduct of others. In the case of knowledge sharing, the approval of such behavior must not only spread verbally

but they must also be willing to initiate the desired behavior of knowledge sharing before others. In this regard, subjective norms, which is a pressure from important groups or individuals (Ajzen, 1991) was also supported in this study.

Apart from understanding knowledge sharing as a sort of planned behavior, this study also supports the notion that it is part of a social exchange process. Several aspects related to social exchange theory were found through this study. For instance, individuals did anticipate rewards in the future after sharing and disseminating knowledge to other colleagues. This can be seen when some informants acknowledged that knowledge sharing could give them a fair return, not necessarily for extrinsic rewards but also in intrinsic ways. These include earning credibility from the superior, developing a good career image and building or increasing self-confidence. The positive feelings gained from the social interaction of knowledge sharing include self-satisfaction such as feeling proud of being able to be a part of others' development or success and it can also increase one's own knowledge as well.

Moreover, the social exchange perspective also places an emphasis on interpersonal aspects, which are social associations and trust (Liang, Liu, & Wu, 2008). Both of these variables appeared to be relevant in this study by way of knowledge sharing which could help improve relationships with others. Indeed, relationships and trust are somewhat related and dependent on each other. The strength of associations offers a feeling of comfort, trust, closeness, reciprocity and networking.

Another aspect of social exchange correlated with the findings of this study is the cost and benefit factors. This significance was proved through the identification of resources such as time and efforts to share. Based on this analysis, an individual weighs the potential cost that could be incurred before deciding to share his or her knowledge. For instance, an informant said he feels unwilling to share knowledge with the people whom he perceived

exhibit negative attitudes as it is of no benefit to him. In fact, it would only cause him to waste time and energy, equivalent to what Molm (1997, as cited in Kankanhalli, Tan, & Wei, 2005) defined as an actual loss of knowledge. Other examples of an actual loss from a knowledge sharing act indicated in this study are the individual's perception of losing power that is supposed to differentiate them from others and makes them the only expert in a particular area. Nevertheless, the analysis of cost and benefit can also be in terms of opportunity costs (Molm, 1997, as cited in Kankanhalli et al., 2005). This study signified that individuals perceived the cost of sharing knowledge would be beneficial for their career image that enables him to stand apart from others and be recognized by influential people like superiors and top management.

In exploring the characteristic of the knowledge sharer, this study applied the widely used measure of personality, which is the five factor model or known as Big Five. The findings revealed that the various descriptions of knowledge sharer personality fitted well with the four facets of the model, which are openness to experience, conscientiousness, extraversion and agreeableness. However, the last facet, which is neuroticism did not appear to be part of the characteristics of the knowledge sharer. Hence, corroborates the assumption of Cabrera, Collins, and Salgado (2006) that its relation is insignificant to the intention to share knowledge. In fact, it is difficult to portray a knowledge sharer whom certainly exhibits a willingness to share to be an antagonist, as this kind of dimension illustrates the negative side of individual traits.

This study is also in line with the model proposed by Nonaka (1991), which is the SECI model. Based on the informants' answers on how they share knowledge and the kinds of activities set up to promote knowledge sharing, the researcher is able to relate it with the introduced model. The first step entails the sharing of tacit knowledge between individuals

that takes place through face-to-face interaction. For instance, an informant indicated that during a meeting, he and his colleagues would brainstorm and then share their opinions on how to solve a particular problem. Other than that, tacit knowledge can also be acquired through observation as well. This is shown in the findings whereby an individual indicated that he can learn a lot about presentation skills from his superiors when he sits and listens as an audience. This situation corroborates Nonaka (1991) inference that the individual is “socialized” into the skills. Socialization can also occur in an effortless way like through chatting or lunch and gathering. Other activities such as field demonstration and interaction with the suppliers also correlated to Nonaka and Konno’s (1998) suggestion.

For externalization to occurs, individuals’ tacit knowledge needs to be converted in an explicit way. In this study, this stage of knowledge conversion is made possible when the informants documented their knowledge and ideas in a report, which is then submitted or presented to the top management. By using a computer and through access to the internet, individuals may also post their essays or any relevant documents in a company portal or website for collective utilization.

On the other hand, combination indicates the conversion of explicit to explicit knowledge. This phase incorporates the process of sorting, combination and categorization (Nonaka and Takeuchi, 1995). Based on the findings, the researcher is able to confirm the occurrence of the third conversion of knowledge. For instance, in preparing for a comprehensive report, an informant indicated that it is important for her to exchange documents or data with her colleagues from other departments. Other activities that implicate this stage are the compilation of training courses files and manuals. Nevertheless, this phase is somewhat a continuance from the previous phase, which is externalization. The whole organizational members’ effort to post documents in a company portal will contribute to the

combination process as well. The information from the various sources in the organization eases the work of other employees, alongside facilitating in the development of organizational knowledge (Rice & Rice, 2005).

Finally, the creation of new knowledge involves the conversion of explicit to tacit knowledge (Nonaka & Konno, 1998). In this study, its correlation was found indirectly through the informants' description on how they acquire knowledge when they need it. It was identified that individuals internalize knowledge they obtained from explicit sources such as the agriculture reference manuals, books, journals and regulations. Along with the advancement of technology, the informants can also self-study the relevant articles and videos on the internet. Apart from actualizing this explicit knowledge into action, Nonaka and Konno (1998) also explicated that internalization is somewhat similar to learning-by-doing. Among the ways informants can trigger this course of action are through experimentation and hands-on or on-the-job experience.

Although the researcher could not specifically produce the outcome of mapping as such in the social network theory, the important basis of theory, which is the social network, does correlate to the finding of the study. In a knowledge sharing network, individuals share their knowledge with a diverse range of groups within and between organizations as well as to other recipients of their preference. Knowledge is shared to their superiors, subordinates, top management, colleagues of the same and from different departments, colleagues of the same level or position, trainees, and those from other organizations including the suppliers and customers. In accordance with the theory, the different kinds of people involved in this network are known as actors and represents a node.

Knowledge sharing also revolves around the process of collecting knowledge (Kamasak & Bulutlar, 2010). In facing a challenging task, the informants were asked about

whom they would ask for help, indicative of a task advice network. The advisors range from various levels such as the top management, superiors, subordinates, senior colleagues, team leaders, team members, colleagues and friends. Indeed, the people whom a person opt for sharing the knowledge with does not only come from internal parties but also from the external parties as well. Individuals who have a connection with both in-groups and out-groups take control of the network, characterized as a centrality of betweenness (Krebs, 2011). Hence, the opportunity to combine current information and knowledge from the internal and fresh, new ideas from the external sources leads to the actor's creativity and innovation.

In terms of the strength of ties, this study indicated that a strong tie has a significant impact on different aspects of knowledge sharing. In general, the informants perceive the level of closeness with others relate to the quality and quantity of knowledge shared. Among the important indicators for the closeness of a relationship includes the building of trust and feeling of comfort and ease of transfer. For instance, a strong relationship allows the informants to have an opportunity to talk more freely that leads them to get the best quality and more quantity of information and knowledge. Granovetter (1973) signified that the weak ties help bring valuable, novel knowledge in the network. In this study, the researcher could not find any support to this proposition. Up to this point, this study shows a support to the theory through clarification of the interactions that exist in the knowledge sharing network and task advice network, the importance of betweenness centrality and the strength of ties. However, it is important to note that the list of individuals or actors in this study is rather general compared to the analysis presented in the theory itself. Hence, the findings could only provide sufficient support and a general picture of the social networks.

This study also provides support towards the theory of self-determination. In discovering what propels an individual's intention to share knowledge, the different aspects of motivation appeared to have a role. In this study, employees feel motivated to share their knowledge because of the inner tendency relating to the pursuit of happiness, enjoyment and satisfaction. Nevertheless, this type of motivation is hardly known or seen by others because it is highly intrinsic to the person themselves. Other than that, employees' motivation is also shaped by the internalization of external contingencies. For instance, the employees are aware of the value of the doings, and identified it as part of their job requirement or responsibility towards the organization. This study also discovers the influence of external regulations in terms of rewards in driving an individual's motivation to share knowledge.

Finally, this study makes a theoretical contribution with the build of the proposition model on knowledge sharing that is rather limited in the previous study. The wide-ranging issues of knowledge sharing examined in this study are linked together by knowledge sharing intention. The factors that can influence intention of an individual to share knowledge are important determinants that can further affect his or her willingness to partake in knowledge sharing activities. This in turn will be of benefits towards the individual and organization as a whole. Hence, it is hoped that the proposition model presented in this study will broaden the body of knowledge towards the development of the theory on knowledge sharing.

1.5.2 Significance to Policy

It is optimistic that this research creates awareness to organizations on the importance of knowledge sharing and transfer. Since the sharing of knowledge (particularly tacit knowledge) is in demand, this issue should stand out as an important agenda when revising the current employment policies. The focus is also aimed at the organizational development in which interventions could include creating an environment that can promote employees'

participation in seeking, transferring and sharing of knowledge. The manager level employees also have a role to play in establishing new compliance plans as well as in revamping the organizational culture. In terms of the structure, it is sensible for organizations to make the bureaucracy less complex as it is seen that a highly centralized organization creates a potential gap for interaction and for knowledge sharing, particularly with the top management.

For new or well-established organizations, they should be aware of the advantages of having many “brains” in the organization. Hence, policies on documenting experiences and knowledge is crucial regardless of what level the employees are. At the highest level, it creates a necessity for the government to exercise a policy on spamming. Currently, along with the evolution of technologies, Malaysia has enacted several laws on cyber but not on spam yet (Malaysian Communications and Multimedia Commission, 2016). Hence, enforcing such legislation would help people to have a free and safe experience of sharing information or knowledge in the virtual world. Prior to that, the organizations need to take precautions by installing spam filters whereas individuals should be obligated to make reports about the spammers.

1.5.3 Significance to Methodology

Furthermore, this research has significance on the methodological part. Apart from giving an additional insight from the qualitative point of view, the methodology used in this study can be a guidance for future researchers who have or might not have interest in exploring the knowledge sharing issue. Besides that, the established framework could act as a basis for future research by which it is replicable for further testing and validation. Other than that, the developed instrument can also be used if they want to carry out a similar research in different settings or companies.

1.5.4 Significance to HRD Practitioners/Practices

For HRD practitioners, it is helpful for the purpose of recruitment. The results of the findings will help them know the characteristics of a person who are willing to share knowledge. The prospective recruits who possess the criteria of a good knowledge sharer should be recognized in order to breed the positivity of a knowledge sharing culture. It also shows a necessity for HR practitioners to increase the level of engagement among the employees whenever there are possible gaps identified. Activities such as organizational events, development program, mentoring and coaching could boost the employees' confidence in communicating and sharing knowledge with people from different backgrounds. Besides that, technology should also be improved, as it is vital for employees to have access to a global knowledge. For other organizations, this research provides guidance and ideas for good practices of knowledge sharing. Focusing first on how to ensure knowledge sharing can take place in the organization is a good jump-start for those who wish to practice it.

1.5.5 Significance to Society

For the society, knowledge can be one of their best properties and they ought to be reasonably ambitious to have it. To continuously learn and gain knowledge as well as to have a positive mental outlook on the benefits of sharing them are the qualities of a noble nation. This research promotes the need to exterminate negative working attitudes and thinking in the mind of the society in order to reach an advanced nation by the year of 2020.

1.6 Definition of Terms

1.6.1 Knowledge

Conceptual definition

According to Bartol and Srivastava (2002, p. 65), knowledge is related to “information, ideas and expertise relevant for tasks performed by individuals, teams, work units and the organization as a whole”. It is also described as the information possessed in the mind of an individual that is personal and subjective, and it can be in the form of facts, procedures, concepts, interpretation, ideas, observations, or judgments (of whether or not it is distinctive, helpful, precise, or structural) (Alavi & Leidner, 1999).

Operational definition

This study also adopted a similar definition as the above. Knowledge is regarded as an important aspect of an “individual knowing” that may or may not represent his or her uniqueness from others. The person’s knowledge is restricted to knowledge that is work-related, similar to the description of the concept introduced by Bartol and Srivastava (2002, p. 65). Hence, knowledge that goes beyond an individual work such as knowledge about life, politics and religion, for instance, are not included in this study.

1.6.2 Knowledge Sharing

Conceptual definition

Knowledge sharing can be defined as a social interaction culture, concerning the exchange of employee knowledge, experiences, and skills throughout the whole department or organization (H. F. Lin, 2007).

Operational definition

Knowledge sharing is defined in this study as a willingness of an employee to share what they are knowledgeable of with others within and across the organization. Engaging in knowledge sharing activities signify a positive individual behavior.

1.6.3 Knowledge Sharer

Conceptual definition

Knowledge sharer or frequently mentioned as sharer, is an individual who is in the position of having or owning knowledge (Lichtenstein & Hunter, 2008).

Operational definition

In this study, knowledge sharer is defined similarly and differently as Lichtenstein and Hunter (2008). The researcher acknowledged the knowledge sharer as an individual who is not only in the possession of knowledge but he or she must also be someone who is willing to share it with his or her other colleagues.

1.6.4 Private Organization

Conceptual and operational definition

The term private organization or oftenly acknowledged as private sector refers to the part of national economy that is not under direct control of the state (Hornby et al., 2010). It also incorporates all for-profit organizations that are owned, controlled and managed by private individuals or businesses, rather than by the government (Investopedia, 2017). This study also implied the term similarly as those definition.

1.6.5 Practices

Conceptual definition

According to Hornby et al. (2010), practice is the usual or expected way of doing something in a particular organization or situation.

Operational definition

There are many practices embedded in the organization culture. The practice studied in this research was specifically related to knowledge sharing. The various aspects related to knowledge sharing practices include the study of its contributing factors, inhibiting factors, types of knowledge shared, methods and approaches of knowledge sharing, personality of the knowledge sharer, benefits of sharing knowledge and with whom knowledge needs to be shared.

1.6.6 Promote

Conceptual definition

According to Hornby et al. (2010), the word promote refers to something that can help towards the happening or development of something.

Operational definition

In this study, the researcher defines the term as any formal or informal activities organized by the organization that encourages knowledge sharing.

1.6.7 Contribute

Conceptual and operational definition

In this study, the definition of contribute is used in accordance with the Hornby et al. (2010), in which it is defined as to be one of the reason for something, in essence, towards a successful knowledge sharing.

1.6.8 Inhibit

Conceptual and operational definition

Hornby et al. (2010) define inhibit as preventing something from happening or let it arise more slowly or less often than usual. This term is also defined similarly as in the dictionary. There are elements that can be harmful for knowledge sharing or make knowledge sharing a poor progress and rarely practiced by the organizational members.

1.6.9 Benefit

Conceptual and operational definition

In this study, the operational definition of benefit is similar to what Hornby et al. (2010) has suggested, which is an advantage or a useful effect that something provide. Knowledge sharing can be of an advantage for the organization in many ways within its context, including the organizational members.

1.6.10 Characteristic

Conceptual definition

A characteristic is defined as a common feature or quality that something or someone has (Hornby et al., 2010).

Operational definition

In this study, the characteristic is defined as the personality of the knowledge sharer, perceived by or based on the experience of the informants.

1.7 Summary

This chapter had discussed the background of study, statement of the problem, research objectives, research questions, as well as definition of terms. The next chapter will provide a review of related models and theories as well as highlight the previous studies done on knowledge sharing issues.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter is divided into seven main sections. It begins with an understanding of the differences between data, information, knowledge and wisdom, as well as the concept of knowledge management. Section 2.3 presents the studies of knowledge sharing in private organizations while Section 2.4 discusses the related theories on knowledge sharing. Section 2.5 provides the review of related studies on the different types of knowledge, with whom knowledge is shared, activities that help facilitate knowledge sharing, as well as its predictors, impediments, benefits and personality traits. The related models on knowledge sharing are outlined in Section 2.6. Lastly, Section 2.7 summarizes the literature review conducted.

2.1 Data, Information, Knowledge and Wisdom

In exploring the nature of knowledge sharing, it is necessary to understand the differences between data, information and knowledge. Data is somewhat scattered, information can be used as a basic understanding, whereas knowledge is the integration of useful information that can be applied in any complex situation and is an individual uniqueness.

According to Bierly III, Kessler, and Christensen (2000), data illustrate meanings that are reliant on the illustration system that is characterized by symbols. It is resulted from the interpretation of what has been observed and could be insignificant (Amlus, Hirun Azaman, Susita, & Mohd Radzai, 2006). Although data is considered as the basic form and the lowest element, if it is better constructed, it can be information. Thus, information appears when the

data is processed and those scattered facts are integrated into something that is useful (Bierly III et al., 2000).

In the area of organizational learning, “knowledge is considered as a stock while learning is a flow through which knowledge is developed” (Bontis, Crossan, & Hulland 2002, as cited in Balbastre, Oltra, Martinez, & Moreno, 2003, p. 253). Knowledge can only occur when there is the existence of interaction among individuals in which it involves experiences, insights, beliefs, and lessons learned (Nonaka & Takeuchi, 1995). Moreover, Bierly III et al. (2000) indicate knowledge as part of information that is understood, after it had been analyzed and synthesized. There are various categories and viewpoints offered by researchers in understanding knowledge. The next section will provide several views on the types of knowledge.

In previous studies, many researchers had made a differentiation between those three definitions of data, information and knowledge. Wisdom is another term that rarely receives any attention. According to Bierly III et al. (2000) wisdom refers to “the judgment, selection and use of specific knowledge for a specific context” (p. 597). Wisdom is considered as the highest element, which integrates how knowledge is distributed and applied depending on the environment it is working in. It is personal in nature but can be guided by the organization. Individual and organizational strategies are highly dependent on it to ensure that the outcome of knowledge is high in value (Huang et al., 2007).

2.2 The Concept of Knowledge Management

The emergence of knowledge-based economy which is accelerated by globalization and the advancement of information technology have drawn attention to the new trend known as knowledge management (Ichijo & Nonaka, 2006). Besides, the heightened interest in organizational knowledge has prompted the organizations to leverage its use to full benefits

(Alavi & Leidner, 2001). Organizational knowledge is defined as “all the knowledge resources within an organization that can be practically utilized by the organization, ranging from individuals to groups and organizational level” (Frost, 2010, Organizational Knowledge Resources section, para. 7). On the other hand, knowledge management refers to “the explicit and systematic management of critical knowledge, including the related significant processes of creation, organization, diffusion, use and exploitation to achieve the organizational goals” (Skyrme, 2011, para. 1). Prior to that, the latter emphasize on tangible assets such as machines, properties and labor of the industrial economy have now been superseded by the role of intangible assets such as experience, know-how and knowledge of the latest economy (Amlus et al., 2006).

According to Heisig (2009), the general goal of knowledge management is to enhance the systematic handling of current and potential knowledge that exist within the organization (Heisig, 2009). Besides that, it is also purported to enhance the creativeness of individual, promoting an atmosphere that encourages the exchange of ideas and building a community of practice (Huang et al., 2007). On the other hand, Yahya and Goh (2002) view knowledge management as a means of creating a learning organization that remains to make progress in a constantly changing marketplace. It can also be described as a process that tries to acquire and recreate the different forms of knowledge dispersed ubiquitously in the organization (Kim & Ju, 2008).

Furthermore, the concept of knowledge management can also be understood by a variety of interconnected terms or subcategories (Plessis, 2007). Fundamentally, knowledge management is classified as a process comprise of a range of activities such as knowledge creation, knowledge storage and retrieval, knowledge distribution and knowledge application (Alavi & Leidner, 2001). Kim and Ju (2008) also described it as a process incorporating five

stages of how knowledge is created, preserved, shared, reused and evaluated. In order to sustain an excellent organizational performance, Wah (n.d) has emphasized the adoption of the eight habits and mindsets of knowledge management practice known as knowledge identification, knowledge acquisition, knowledge application, knowledge sharing, knowledge development, knowledge creation, knowledge measurement and knowledge preservation. All of these are the examples of strategies to be implemented by organizations wishing to pursue in knowledge management.

Nevertheless, knowledge sharing has become the most dominant theme in knowledge management (Boateng, Dzandu, & Agyemang, 2015; Hendriks, 1999; Riege, 2005; Rusuli & Tasmin, 2010; Sveiby, 2007). Skyrme (2011) has regarded human and cultural elements as the biggest challenge to knowledge management rather than the tools, techniques or technologies. For this reason, he also underlined his concern on the necessity for all professionals to have knowledge sharing trait instilled in their behavior. In essence, before any knowledge management programs are initiated, it is essential to know what makes an individual motivated to share knowledge (Han & Anantatmula, 2007). It is also in parallel with the view of human resource practice that regards human capital as an important constituent that enable organizations to gain competitive advantages (Wright, Dunford, & Snell, 2001). It is further added that, participating individual must not only possess high level of skills but also willingness to engage in productive behaviors. This interrelation between knowledge and people is significant because knowledge that exist in individual minds needs to be extracted and managed for the benefits of an organization as a whole.

2.3 Knowledge Sharing in Private Organizations

Knowledge sharing simply means the act of making knowledge available to the organizational members (Ipe, 2003). It concerns about how information and knowledge are

disseminated within an organization (Ling et al., 2009). Another view asserts that knowledge sharing is akin to communication (Hendriks, 1999). The definition fitting this view is provided by H. F. Lin (2007) who defines knowledge sharing as a social interaction culture, concerning the exchange of employee knowledge, experiences, and skills throughout the whole department or organization. In essence, sharing is the term used to describe the process of giving away a resource by one party to another (Sharrat & Usoro, 2003). Therefore, the sharing of knowledge implies a relationship between two or more parties who are in possession of knowledge and others who are in the knowledge gaining position (Hendriks, 1999). The knowing parties play a decisive role in portraying knowledge to others and have an influence on how they want to share and how much they want to share any particular knowledge (Ma, Huang, Wu, Dong, & Qi, 2014).

Studies on knowledge sharing have gained interests from researchers across disciplines and have been linked to literatures such as information system (Hendriks, 1999; Patrick & Dotsika, 2007; Sharrat & Usoro, 2003), strategic management (Haas & Hansen, 2007; Szulanski, 1996), personality (Matzler, Renzl, Müller, Herting, & Mooradian, 2008; Mooradian, Renzl, & Matzler, 2006; Wang & Yang, 2007), innovation (H. F. Lin, 2007; Sáenz et al., 2009), organizational learning (Yang, 2007) and human resource development (Ipe, 2003). In addition, the research on knowledge sharing topic had been done in various settings and contexts including private organizations. For example, Yang (2007) had conducted a study in the Taiwanese international tourist hotels focusing on the correlation between knowledge sharing and its outcomes, which are organizational learning and effectiveness. During the investigation of factors that drive individuals to share knowledge, Han and Anantatmula (2007) have provided an understanding of the topic from the perspective of non-executives employees at two information technology services

organizations in the capital of the United States. Cabrera et al. (2006) also concentrated their focus and examined the same area of the topic, which is the determinant of individual participation in knowledge sharing. The type of company chosen was also similar, which is a multinational information technology company in Spain. Sáenz et al. (2009) carried out another knowledge sharing study from Spain. The companies were chosen from manufacturing industry consisted of energy, water and construction that focused on the impact of different knowledge sharing initiatives on innovation capability.

Another study on a private sector by Chatzoglou and Vraimaki (2009) had looked into the perspective of bank employees in Greece. They have adopted a widely known social psychology theory known as theory of planned behavior (TPB) (Ajzen, 1991) as their theoretical framework that attempted to get an understanding of factors influencing knowledge sharing behavior. Tohidinia and Mosakhani (2010) also adopted the theory of planned behavior in their study. In examining the predictors of knowledge sharing behavior, they selected the Iran's oil industry companies as their research target industry and found significant relationship between the TPB variables. Another study that opted for banking industry was by Marouf (2007), in which she suggested that the nature (business ties and social ties), and strength (frequency and closeness) of relationship have an influence on the sharing of different types of knowledge (public and private knowledge).

With the growing interest on the use of information technology, there were also studies that focused on online knowledge-sharing communities. Among the studies conducted in the private organization was Ardichvili, Page, and Wentling (2003). In their qualitative study, three communities of practice of successful and less successful parties are selected and thirty members from each party, including the three managers of each community, community experts, community members and administrative unit managers were interviewed. The study

centered upon the reasons of willingness and barriers to participate in a virtual knowledge sharing communities. Having the interest with the online communities, Ardichvili et al. (2006) used the same methodology of qualitative but widen the context of a single company into its operation in other three countries. Their study focused on the cultural influences on knowledge sharing. Other than that, Wasko and Faraj (2005) have drawn the sample from a private legal service in the United States. The aim of their study was to examine why people share their knowledge to others in a computer-mediated discussion forum.

In other settings, Matzler et al. (2008) and Søndergaard et al. (2007) undertook a study in an international engineering company. Matzler et al. (2008) had incorporated the less studied individual aspect in their study that affect knowledge sharing process, which is personality, while Søndergaard et al. (2007) sought to explore the facilitators and barriers to knowledge sharing on a new product design project. Other than that, Lichtenstein and Hunter (2008) undertook two interpretative case studies in Australian organizations, one from the retail and other from information technology corporation. They highlighted that the perceived receiver knowledge needs and behaviours plays a critical role in influencing sharer decision to share or not to share knowledge. Knowledge sharing in the context of academic institutions was also examined in the previous studies. Kim and Ju (2008) had administered a survey among the faculty members of different department at a private research university in Seoul, South Korea. The main factors that lead towards sharing teaching and research material was the perception on its necessity and importance. Reward systems, on the other hand, identified as the second important factors that influence the faculty members to share knowledge.

Generally, both public and private organizations have come to realize the importance to take full advantage of the intangible asset, which is knowledge (Syed-Ikhsan & Rowland, 2007). Although many studies on knowledge sharing were conducted in a private

organization, a review of literatures revealed that they were mostly studied in the Western countries and studies involving Malaysian perspectives are lacking. The research by Kathiravelu, Mansor, Ramayah, and Idris (2014) provided an insight on the impact of different facets of organizational culture towards individual knowledge sharing behavior, but focused on the Malaysian Public Service Department's employees. A study by Sandhu, Jain, and Ahmad (2011) gathered the data sample from executives at Grade 41 and above from two government agencies operated under the Malaysian federal government. It was found that barriers to knowledge sharing mainly arise from the organization system as opposed to individual employees. The two organizational barriers were the lack of information systems and lack of rewards and recognition for sharing knowledge.

Ismail and Yusof (2010), in their quantitative study also encompassed the public sector from three agencies in Putrajaya. While investigating factors that influence knowledge sharing among employees, their study was restricted to the individual factors and did not comprehensively cover the other factors such as the organization or technology. On the other hand, Noor Asilah, Normala, and Wan Umami Kalsom (2012) examined knowledge sharing in the context of Malaysian higher learning institutions. Based on their findings at four faculties of a public university, the academic staffs were of the opinion that knowledge sharing with other colleagues occurred but not deliberately practiced. In addition, the level of knowledge sharing showed perceived behavioral control as the main determinant of knowledge sharing behavior as opposed to the other constructs.

2.4 Related Theories on Knowledge Sharing

2.4.1 Theory of Planned Behavior (TPB)

To gain an individual's involvement in any activities in the organization is not an easy task. Part of this is due to the individual himself who has a complete control over his own

action. Ajzen (1991) believes there are several underlying reasons that can influence the behavior of individuals. Hence, in relation to this study, it can be very useful in predicting why employees choose to perform knowledge sharing.

According to Ajzen (1991), three basic elements that can be found in TPB are attitude towards behavior, subjective norm and perceived behavioral control. All of these elements can have an impact on the individuals' intention toward knowledge sharing, and predict how they behave accordingly in a real environment. Attitude towards behavior can be defined as the extent to which an individual evaluates the behavior that he or she will perform later, whether it is favorable or not. Subjective norms relate to the social factor, which is an individual perception towards the environment of social pressure which will affect the behavior that an individual is expected to do (Ajzen, 1991). Lastly, the third element in TPB theory that will affect intention is perceived behavioral control, which can be referred to as the perception of an individual that is reflected by past experience and anticipation of possible barriers that will help determine the difficulty or easiness of their behavior later (Ajzen, 1991). It is noteworthy to mention that this theory is an extension of the theory of reasoned action (TRA). Hence, the added feature of perceived behavioral control is what makes it different from its predecessor (Ajzen, 1991).

Intention acts as an intermediate element that connects the three elements of TPB and individual's behavior. Ajzen (1991) had generated an assumption that the intention would be useful in capturing factors such as motivation, in which it can control one's behavior. Meaning to say, it can act as an indicator on what kind of knowledge employees are willing to share and with whom as well as what their contributions are in knowledge sharing to the organization. Thus, when the individuals act collectively along with positive intentions, it will be reflected in a positive outcome itself. That is, when the intention to engage in a behavior is

high, the performance should be high as well (Ajzen, 1991). Therefore, it is critical for this study to reveal the intention of employees in knowledge sharing by exploring the factors that personally make them want to share or not to share their knowledge with others.

Nevertheless, a number of previous studies on knowledge sharing have dealt with the various aspects of this theory and/or its former version of TRA. Generally, most of the prior studies' findings supported all the three factors that can influence the individuals' behavioral intention (Chatzoglou & Vraimaki, 2009; Lin & Lee, 2004, Tohidinia & Mosakhani, 2010). Chatzoglou and Vraimaki (2009) examined knowledge sharing behavior in the banking sector that indicate individuals' attitude as the main influence followed by the pressure from the important social groups such as peers, supervisors and senior management. In a study conducted in the Asian country, Lin and Lee's (2004) findings were also consistent with Ajzen's (1991) theory. Among the three variables, attitude of senior managers and subjective norms emerged as major factors in predicting individuals' intentions to share knowledge, as Chatzoglou and Vraimaki's (2009) findings.

However, Huang, Davison, and Gu (2008) failed to find subjective norm to be relevant towards intention to share knowledge in the Chinese context. According to them, it may be caused by a weak knowledge sharing culture and an individual's assumption that others may not know that he or she has a particular knowledge when deciding not to share. This result is also contradictory to a study carried out in Korean organizations (Bock, Zmud, Kim, & Lee, 2005) that signifies subjective norms as a positive influence towards knowledge sharing intentions and attitude. The current study is conducted in the Malaysian context, similarly characterized as a country with a strong group orientation as those in Korea and China (The Hofstede Centre, 2012). In an effort to understand the applicability of the theory in the private

organizations' setting, this study might as well help verify whether subjective norms have a control over an individual intention to share knowledge.

2.4.2 Social Exchange Theory

Formerly, there were three major works that have discussed distinctly about this approach. The four responsible figures were, George Homans, John Thibaut, Harold Kelley and Peter Blau (Emerson, 1976). Based on this theory, individuals in an organization interact with one another based on their self-interest analysis of the costs and benefits (Liang et al., 2008). Homans (1961, as cited in Huang et al., 2008) also suggested that exchange among individuals is an important form of behavior and the main highlight for such exchange has always been guided by the principles of cost and benefit.

Kankanhalli et al. (2005), in their study have described resources as the currency of social exchange and it can be either tangible or intangible. The resources given by the contributors to the seekers are considered as costs whereby the received resources by the seekers are regarded as benefits. Consequently, the contributors' behavior for such exchange is largely dependent on how they seek to increase their benefits and reduce their costs (Molm, 2001, as cited in Liang et al., 2008). For instance, costs are indicative of the effort spent to codify knowledge or the loss of knowledge power while benefits concern about the enhancement of personal image such as reputation or recognition (Huang et al., 2008).

By some means, costs seem to be viewed as something negative. However, Molm (1997, as cited in Kankanhalli et al., 2005) has classified it into two types, which include opportunity costs and real costs. Opportunity costs are important in a way that the investment of time individuals have made through the exchange of knowledge is being rewarded in returns. Real costs on the other hand, occur when the exchange process lessens the contributors' power on that knowledge as it has already been disseminated within the

organization (Kankanhalli et al., 2005). While Homan introduced the idea of expectation and reward, Blau (1964, as cited in Huang et al., 2008) attempted to bridge the gap between the human and society by emphasizing the concept of social reward. In particular, “individuals are said to engage in a social interaction based on the expectation that it will lead in some way to social rewards such as approval, status, and respect” (Blau, 1964, as cited in Wasko & Faraj, 2005, p. 39). In this regard, social exchange has also been applied by the researcher to explain the influences of organizational justice and trust (Wang & Noe, 2010) as well as the importance of reciprocity as a driving factor in knowledge sharing (Chiu, Hsu, & Wang, 2006, Kankanhalli et al., 2005).

Although social exchange theory has been used frequently in knowledge sharing research (Liang et al., 2008), the theory of exchange itself is not new and has existed in the economics field (Emerson, 1976). Generally, both forms of exchange shared a similar principle in that any contributions made by an individual come together with an expectation of returns (Bartol & Srivastava, 2002). However, in comparison with the economic theory, social exchange takes on the assumption that the “benefits involved do not have an exact price in terms of a single quantitative medium of exchange, and the nature of the return cannot be bargained about” (Bock & Kim, 2002, p. 15). After doing others a favor, individuals generally expect for some future return but have no certain expectation of the exact future return (Kankanhalli et al., 2005). In other words, the risk obtained by an individual from such exchanges would be of what and when the returns of his or her contribution will be (Bartol & Srivastava, 2002). Hence, social exchange has added its value by revealing the significance of long-term relationship instead of one-off exchanges as proposed by the economics (Molm 1997, as cited in Kankanhalli et al., 2005). Indeed, Bock and Kim (2002) claim that only social exchange place an emphasis to one’s feeling of obligation, gratitude and trust.

Economic exchange theory, on the other hand, focuses on the extrinsic rewards such as increased pay, bonuses, promotion, or educational opportunity.

Several researchers have recognized the usefulness of social exchange theory in interpreting employees' behavior in knowledge sharing. A study by Liang et al. (2008), for instance agreed that knowledge sharing is a social exchange behavior. The theory's constructs such as perceived benefits, organizational commitment, social interaction, trust and reward systems were reported to have a significant impact on knowledge sharing behavior of individuals. Bock and Kim (2002) in their study found expected associations as one of important determinants of the individual's knowledge sharing attitudes. It was indicated that the employees of public organizations in Korea tend to have positive feelings toward knowledge sharing if they believe it could improve their relationships with other employees.

Huang et al. (2008) also used social exchange theory as a theoretical foundation in their study to investigate the impact of personal aspects of cost and benefit on knowledge sharing in China. It was found that people would be disinclined to involve in knowledge sharing if it cause them to lose their knowledge power that is an indication for a long-term cost. As for the benefits factors, anticipated reciprocal relationships were not emphasized as key factors in influencing attitude of individuals towards knowledge sharing. The employees revealed that the reason for knowledge sharing was related to their professionalism effort to increase the effectiveness of their work rather than to have enduring relationships with others. Nevertheless, other benefit factors such as image, sense of self-worth and extrinsic reward played critical roles in motivating employees to share knowledge. The disparity of findings on reciprocity as a benefit for social exchange (Chiu et al., 2006; Wasko & Faraj, 2005) is indicative of the perplexing factors of knowledge sharing that required further examination in this study.

On the other hand, a recent study by Zhang and Jiang (2015) primarily focused on studying the social exchange from the perspective of recipients' characteristic. In the hope of seeking social exchange advantages in the future and considering the knowledge as a resource, it was highlighted that individuals are willing to share knowledge to the recipients who possess high motivation to learn, competent and have a good relationship with them. As far as knowledge sharing is concerned, many previous studies have tried explaining the social exchange factors from the view of the knowledge contributors without giving much attention on the role of knowledge recipients (Zhang & Jiang, 2015). This study also intends to find out the role of recipients in knowledge sharing through the inquiry of with whom knowledge is being shared, in which could help broaden the scope of the theory.

2.4.3 Social Network Theory

There is always likeliness that we are tied-up in a relationship within the social context that connects us with other people. Social network theory has put its interest in those ties between people. In some studies, the term social network theory had also been used interchangeably with the network theory or network analysis (Wade, 2005).

Basically, social network is an ensemble of relationships that apply to a group of actors, including any information on those actors and their relationships (Prell, 2012). According to Krebs (2011), social network analysis is “the mapping and measuring of relationships and flows between people, groups, organizations, computers, URLs, and other connected information or knowledge entities”. There are two important elements in the social network theory, which are nodes and ties (Wade, 2005). The nodes can be said representing the people and groups within the network whereby the ties showing the linkage or flows between the interacting units. To provide an understanding of social network as a relational

concept, Wasserman and Faust (1994, p.4) pointed out the importance of these four elements, which are:

- (a) Actors and their actions are viewed as interdependent rather than independent, autonomous units
- (b) Relational ties (linkages) between actors are channels for transfer or "flow" of resources (either material or nonmaterial)
- (c) Network models focusing on individuals view the network structural environment as providing opportunities for or constraints on individual action
- (d) Network models conceptualize structure (social, economic, political, and so forth) as lasting patterns of relations among actors

Further explanation about the theory raises a necessity to understand the underlying feature of the ties, which are degree centrality, betweenness centrality and closeness centrality (Krebs, 2011). The description of the features take place within a complete network, with the individual actors becomes the focus (Prell, 2012). For the first feature, degree of centrality measures how many direct linkages an actor has in his network. If an actor has the most direct linkage or contact with others in his network, he is deemed to be functioning as a “connector” or “hub” in the network (Krebs, 2011). Hence, this feature does not measure the popularity or power of that particular actor, rather the person is assumed to be the main channel for information in the network (Prell, 2012).

On the other hand, the betweenness takes on the importance of the actor’s locality in the network. Indeed, an individual who represents this feature hold the most influential position in the network as he or she connects two different groups in the network (Krebs, 2011). While the two features correspondingly implied upon activity and control, closeness centrality implies the independency of the actor (Prell, 2012). In this feature, an actor has an

ability to access all the nodes in the network faster than others (Krebs, 2011). Hence, the actor is in the best location to see the current happenings and information flow in the network.

While the central questions in knowledge management have always been about how individuals learn, how they make a decision for their next learning and what influence them to start sharing knowledge, Morville (2002) argued that the mechanisms such as corporate portals and online communities are created in ignorance of their answers. The author believed the solutions lie within the social structure that is enabled by relationships, trust, and serendipity. In studying the motivation and barriers to participation in online knowledge sharing communities of practice, Ardichvili et al. (2003) indicated the concept of social network was instrumental in understanding the association between people of diverse positions and their role in adjoining the flow of information with weakly or non-related groups. The relevance of this theory particularly derives from the fact that it provides the distinction between the different relationships in terms of their centrality in the network, whereby individuals who play a role as boundary spanners are regarded more dominant than the others (Krebs, 2011).

In other knowledge sharing studies, Marouf (2007) has tried to explain the social networks but switched the highlight to the dimensions of tie strength, which are frequency of interaction and closeness of the relationship. The author also notified different relationships that exist in the organization and further associate them with the sharing of different kinds of knowledge. The overall findings showed that the strength of business relationships is more significant to the sharing of both public and private knowledge than the strength of social relationship. More specifically, the frequency of business interaction helps facilitate the sharing of public non-codified knowledge, whereas the closeness of business relationship

helps facilitates the sharing of private non-codified knowledge and public codified knowledge.

According to Cross, Parker, and Borgatti (2002), the success of a particular project individual is not solely up to the individual's knowledge but critically through the role played by the myriad of relationships in creating and sharing knowledge. In the organizational context, the natures of ties are complex and diverse, in which they could be based on companionship, work, or advice; and could involve the flows of resource, information, knowledge or affection; via electronic or face-to-face (Marouf, 2007). Consequently, social network analysis is useful in answering questions such as how the information flow within the organization or to whom individuals seek for information or advise (Cross et al., 2002).

2.4.4 Self-Determination Theory

Developed by Deci and Ryan (Deci, 2013), this theory's emphasis centered upon the two aspects of motivation, which are intrinsic and extrinsic, and how their regulation process are linked with one's level of determination. Generally, individuals whose behaviors are intrinsically motivated are driven by a sense of enjoyment and satisfaction towards the activity to be engaged. In contrast, extrinsically motivated behaviors are driven by external factors that are not grounded by one's act of volunteering or own free will. Deci, Vallerand, Palletier, and Ryan (1991) distinguished these types of motivation into a class of behavior that is self-determined versus controlled. They deduced that those behaviors are caused by different regulatory processes, of choice and of compliance, respectively.

As opposed to other theories of motivation that primarily focus on the direction of behavior, Deci et al. (1991) pointed out that self-determination theory recognized the need to address the energization issue that implies the inner drive behind the realization of a particular outcome. The three basic psychological needs of an individual are associated with

competence, relatedness and autonomy. The need for competence is concerned with the attainment of the internal and external outcomes as well as the feeling of self-efficacy; relatedness entails the importance of having a secure relationship with others in one's social context; and autonomy indicates the sense of self-government in pursuing any conducts (Deci et al., 1991). In essence, although these three needs act as important support for individuals' intrinsic motivation, Deci et al. (1991) suggested that fulfilling one's need for autonomy is the closest means to support a self-determined behavior instead of controlled.

Concerning the extrinsic motivation, the early work of Deci (1971, as cited in Deci et al., 1991) has postulated such behavior as a nonself-determined. However, the degree to which its regulatory process varies has made it impractical to be viewed in that particular direction. Based on the notion of internalization that accentuate towards assimilation and reconstitution of external regulation, four types of extrinsic motivation were suggested, which are external, introjected, identified and integrated (Deci et al., 1991). Being positioned at the lowest point in the continuum of autonomy (i.e. controlling), external regulation indicates the influence of an external contingency towards people's behavior, be it in a form of reward or punishment. On the other hand, introjected regulation necessitates one to make use of regulations as a way of behaving but it is not truly an integral part to his or her own self. The next type of regulation named as identified, is somewhat internal to the person, whereby he or she begins to acknowledge the value or usefulness of undertaking a particular behavior.

Lastly, integrated regulation refers to the integration between what is being perceived as important with the other aspects of the self, such as values, needs and identities. Although it appeared to be a fully internalized form of extrinsic motivation, it cannot breach the boundary of or becoming intrinsic motivation because of the presence of instrumentalities (Deci & Ryan, 2000). In a worst circumstance, *amotivation* signifies a situation in which

individuals have less behavioral intention due to the lack of nourishment of both intrinsic and extrinsic motivation, hence, signifying a total loss of self-determination.

In the previous section, studies that employed social exchange theory have also incorporated rewards as one of important driver for knowledge sharing. Due to the complexity of this social exchange activity, different studies tend to adopt different social exchange factors to fit the theory (Liang et al., 2008). Bartol and Srivastava (2002) are among those scholars that studied the role rewards system in encouraging individuals to share knowledge but explicitly acknowledged the work of Deci and Ryan (Deci, 2013) is fundamental to provide insightful understanding of the issue. This is because the theory concerns about what would happen to individuals' intrinsic motivation when extrinsic motivation was introduced (Deci, 2013).

In the case whereby individuals' motivation is being controlled by extrinsic reward, the locus of causality of behavior would be shifted from internal to external, causing them to be less intrinsically motivated in doing a particular activity (Deci & Ryan, 2000). Simply put, most individuals who pursue something because of rewards will lose their motivation when they are no longer being paid for it (Deci, 2013). Bartol and Srivastava (2002) argued that it is not easy to predict the impact of extrinsic rewards on intrinsic motivation. Their argument has largely been driven by Eisenberger, Pierce, and Cameron's (1999) study that found extrinsic rewards as a mechanism for individuals to become self-determined that is important for intrinsic motivation. However, additional studies have shown other extrinsic factors that prompted a shift of locus of causality as external such as deadlines and threats would undermine people's intrinsic motivation (Deci & Ryan, 2000).

On a study of the various antecedents to knowledge sharing, Witherspoon et al. (2013) have clearly specified theory of self-determination as a basis literature for the intrinsic

motivation construct. Accordingly, intrinsic and internalized motivations for knowledge sharing were found to have a significant influence on individuals' knowledge sharing intention and behavior. Acknowledging the importance of motivation, this study could provide a support to the notion of theory, particularly on the big role of internal tendencies towards a sustainable effort or behavior of knowledge sharing. In addition, this study could provide an additional understanding on how the extrinsic motivation operates an individuals' behavior towards knowledge sharing in the organization.

2.5 Review of Knowledge Sharing Studies

This section provides literature review related to knowledge sharing studies. It is presented according to the research objectives of this study.

2.5.1 Different Types of Knowledge to Share

Knowledge can be divided into different types. The basic and simple codification of knowledge is organized in these four categories which are know-what, know-why, know-how and know-who. Know-what constitutes the knowledge about facts, know-why is about the scientific knowledge of the principles and laws of nature, know-how concerns about skills or the capability of doing something, and know-who is related to information on who knows what and who knows how to do what (Lundvall, 2006).

Tacit and explicit knowledge is another classification of knowledge that has been broadly used and described in knowledge management and knowledge sharing literatures (Han & Anantatmula, 2007; Kamasak & Bulutlar, 2010; Ling et al., 2009; Martensson, 2000; Psarras, 2006; Seidler-de Alwis & Hartmann, 2008; Taminiau et al., 2009). Based on Michael Polanyi's differential, tacit knowledge refers to individual knowledge that is context-specific and could be difficult to formalize and convey to others (Nonaka & Takeuchi, 1995). In contrast, explicit knowledge is known as a knowledge that is transferable in a formal and

systematic form. Brown and Duguid (1998) infer these types of knowledge as know-how and know-what respectively. As opposed to know-what where individuals might feel violated by the revealed knowledge, the individuals with know-how can control and guard this unique knowledge from being exposed to others (Brown & Duguid, 1998).

In some other ways, knowledge can be categorized into two categories of market knowledge, which are public and private knowledge (Marouf, 2007). According to Uzzi and Lancaster (2003, as cited in Marouf, 2007), public knowledge is knowledge that could be answered and opened to request; regarded as “hard” information. On the other hand, private knowledge is “soft” information concerned with further confirmation by the other people. An example of public and private knowledge is annual report and organizational strategy correspondingly. Based on the former type of knowledge, Marouf (2007) has extended them into two major type of knowledge with different attributes known as public codified and noncodified, and private codified and noncodified, which are then, associated with the strength of different types of ties called business and social relationship. It was found that the business relationship has a significant impact towards both public and private knowledge whilst the social relationship provides no impact on any types of knowledge.

On the other hand, Christensen (2007) claims that there are four important kinds of knowledge to share with others. They are professional knowledge, coordinating knowledge, object-based knowledge, and know-who. Professional knowledge is a combined knowledge of an individual’s education and experiences while coordinating knowledge is an embedded kind of knowledge that has been set beforehand such as rules, standards and job description. Object-based knowledge, on the other hand deals with one particular object passing through the company’s production line, while knowing where knowledge can be found signifying the know-who. Christensen (2007) stated that he only provided the basic part of the type of

knowledge being share and suggested that further studies on this matter is vital to achieve a better understanding.

Hara and Hew (2007) also studied the types of knowledge to share with others and they adopted the framework of knowledge introduced by Hara (2007). The three main types of knowledge include book knowledge, practical knowledge and cultural knowledge. Book knowledge pertains to knowledge about standards and policies whereby practical knowledge relates to the application of book knowledge as a routine. Cultural knowledge concerns with individual's belief on a practice and their personal responsibilities. Based on the findings, the members in the community of practice actively shared these two types of knowledge, which are practical and book knowledge.

Among the practical knowledge, institutional practice is ranked at the highest, followed by personal opinion and personal suggestion. It is noteworthy to mention that Hara (2007) has made a clear distinction between these different types of knowledge in her ethnographic study. Cultural knowledge was specified as tacit while book knowledge was regarded as explicit. However, depending on context, practical knowledge can be in both forms of categories of tacit and explicit knowledge. Based on the classification by Blumentritt and Johnston (1999), the four types of knowledge are codified knowledge, common knowledge, social knowledge and embodied knowledge. They have offered a comprehensive kind of knowledge categorization in which it covers other models such as the traditional epistemology, Blackler and Fleck's, Collins', Lundvall's and Millar et al.'s model. The following table shows the summarization of kind of knowledge that has been developed by Blumentritt and Johnston (1999).

Table 2.1: Categorization of knowledge
Source: Blumentritt and Johnston (1999)

Codified knowledge <i>Information of all kinds - facts and figures</i>	Common knowledge <i>Knowledge that is accepted as standard without being made formally codified</i>	Social knowledge <i>Knowledge of social links and shared values</i>	Embodied knowledge <i>Knowledge that is rooted in experience, background and skill of a person. It is strongly related to the person that holds it</i>
Knowledge of things and objects Knowledge of statements and propositions Musgrave	Embedded knowledge Knowledge that resides in systemic routines Blackler	Know who Lundvall	Embodied knowledge Knowledge of playing Golf (feeling that it is right) Collins
Know what Know why Lundvall	Embrained knowledge Knowledge that is dependent on conceptual skills and cognitive abilities Knowledge that or knowing about Blackler	Social knowledge know who Context dependent knowledge Millar	Embodied knowledge Depends on combining sentient or sensory info and physical cues Knowledge how or knowledge by acquaintance (craft skills) only partly explicit Blackler
Explanatory knowledge Know why Knowledge of information Millar	Experiential knowledge what was Context dependent knowledge Millar	Encultured knowledge Other word social knowledge that reflects certain common experiences Collins	Tacit knowledge Instrumentalities Fleck
Catalogue knowledge know what Knowledge of information Millar	Informal knowledge Meta knowledge Fleck	Encultured knowledge Share understanding of social links Blackler	Tacit knowledge Polanyi
Symbolic knowledge Information Collins			Know how Lundvall
Encoded knowledge information conveyed by signs and symbols Books, manuals ... Blackler	Knowledge of how to do things Musgrave		These concepts might contribute to either process knowledge or embodied knowledge depending on their content
	Process knowledge know how Context dependent knowledge Millar		
Formal knowledge Contingent knowledge Fleck			
Explicit knowledge Polanyi			

Based on the review above, the categorization of knowledge can be made in many ways. However, investigation on the types of knowledge employees are willing to share had received little attention from the researchers. Several research works had looked into the topic, however, focused on knowledge sharing in one department (Christensen, 2007) as well as among nurses in the community of practice (Hara & Hew, 2007). Another work by Marouf (2007), who studied knowledge sharing in the banking industry, covered people from different units (of eight main functional groups) but had used the quantitative method in her study. In fact, the different settings involved in this study would further enhance our understanding of the types of knowledge employees are willing to share in other industries.

2.5.2 With Whom to Share Knowledge

Knowledge creation is made from various levels in the organization through communication, be it individuals, group or organizational level (Nonaka & Takeuchi, 1995). In a study conducted by Ling et al. (2009), the findings showed that most of the employees are willing to share knowledge with their co-workers. A previous study by Han and Anantatmula (2007) revealed that people from the top management are willing to share their knowledge with their subordinates and vice versa. Regardless of their position in the organization, they are actively participating in exchanging information and their leaders also encourage knowledge sharing among employees. It is anticipated that employees will not hesitate to share their knowledge with fellow co-worker who had helped them in the past (Han & Anantatmula, 2007). Besides, the sharing process is easy to incite through an active discussion with colleagues who are willing to learn and have common interest and attention on a particular problem (Kamasak & Bulutlar, 2010).

Basically, there are many initiatives that can be done through the practice of knowledge management. Among them, the encouragement of knowledge transfer from

experienced workers to less experienced workers have been rated as the most commonly practiced knowledge sharing by employees in the organization (Baastrup, 2003, as cited in Peariasamy, 2006). In addition, it was found that people are willing to share information even though they are not from the same department (Kamasak & Bulutlar, 2010; Søndergaard et al., 2007). This, in turn, would uphold the creation of new knowledge, a benefit from their mutual learning and collaboration (Tsai & Goshal, 1998, as cited in Marouf, 2007). However, in a cross-cultural study of online communities of practice by Ardichvili et al. (2006), a strong in-group orientation that regards other groups as “outsiders” limit the sharing of knowledge even though their nationality are similar or working for the same organization.

Apart from that, Uzzi and Lancaster (2003, as cited in Marouf, 2007) urge that learning can also take place between organizations, not only within organizations. Cheng et al. (2008) had carried out a study on inter-organizational knowledge sharing. In the environment where both cooperation and competition exist, it is supported that knowledge sharing improves the competitive advantage of the joint organizations as a whole. In other study, H. F. Lin (2007) did not covered knowledge sharing at this level. Acknowledging that knowledge from the stakeholders such as customers and suppliers represent a valuable source for innovation, she suggested future studies could consider it as important topic to investigate. In finding with whom people are willing to share knowledge, this study may reveal whether the employees share his or her knowledge with these external parties.

In a case where electronic networks become a platform for individuals to share knowledge, Wasko and Faraj (2005) asserted that individuals also share their knowledge with strangers. Sharratt and Usoro (2003) believed that asking help from others is an effective mechanism for gaining knowledge. There was a study by Søndergaard et al. (2007), which revealed that an experience worker disliked sharing his knowledge through the intranet. In

fact, only those who approach him and bring up enquiry will receive his attention. This is also similar to Zhang & Jiang's (2015) claim that those with humble and respectful attitude along with the willingness to learn and listen are preferable for knowledge sharing. Lichtenstein and Hunter (2008) also found several issues of receivers that influence the sharers' choice to whom knowledge will be shared. These include the need and desire to know, accessibility and anticipated use.

Based on the review above, there are several studies that investigated the potential people whom one could share his knowledge with (Cheng et al., 2008; Han & Anantatmula, 2007; Kamasak & Bulutlar, 2010; Ling et al., 2009; S ndergaard et al., 2007; Wasko & Faraj, 2005). However, most of the studies were done in foreign countries and were conducted using the quantitative method. Giving that there is a dearth of research studies focusing on the Malaysia context, this study could provide valuable findings from other business cultures. It is practically known that employees are likely to engage in the transfer of knowledge with their colleagues, for instance. However, to some extent, the sharer might have certain preferences on the recipient's side before knowledge could be shared (Lichtenstein & Hunter, 2008; Zhang & Jiang, 2015). In that regard, there are also a few sources of implicit evidence found that specifically characterized who could be the beneficiary of the sharer's knowledge (Han & Anantatmula, 2007; Peariasamy, 2006; Sharratt & Usoro, 2003). Hence, this requires further investigation.

2.5.3 Knowledge Sharing Activities

Knowledge sharing is action-oriented. The organization needs to have several mechanisms to facilitate the process so that the organizational members can apply it continuously. Han and Anantatmula (2007) suggested that knowledge sharing can be promoted by the usage of communication media such as intranet, facsimile, email, telephone,

internet, video conferencing and web conferencing. Other communication mediums include the use of video to record and capture the important knowledge (Bednar, 1999). According to Parirokh et al. (2008), other strategies that can be adopted by the organization to encourage knowledge sharing include training, documentation such as a publication of manuals and discussion. Training may include activities such as team building (Ling et al., 2009), seminar (Sohail & Daud, 2009) and workshop (Sáenz et al., 2009).

According to Sohail and Daud (2009), a discussion may take place in formal or informal spaces. For instance, meetings can be conducted via email or face-to-face interaction (Ling et al., 2009). Other face-to-face activities include presentations in which knowledge sharing can take place in a large scale (McDermott & O'Dell, 2001). As discussion and dialogue are exploratory and complementary in nature, they can be a great source for team effectiveness (Senge, 1990). Moreover, Wiig (2004, as cited in Sáenz et al., 2009) has suggested some of the people-oriented knowledge sharing in his study such as community of practice, forum, workshop as well as coaching and mentoring are significantly involved with social interaction. The community of practice, for instance, informally engages the organizational members in the collaboration and networking process over a broadly defined discussion (Hinton, 2003). Prospectively, it will contribute towards learning and the creation of new knowledge in the organization.

2.5.4 The Contributing Factors of Knowledge Sharing

In this section, the reviews of previous empirical studies on contributing factors of knowledge sharing are divided into four main sub-sections. They are individual factors, institutional factors, knowledge: nature, content or representation, and relationship.

2.5.4.1 Individual factors

(a) Sense of responsibility

Individuals are driven to share knowledge because they may perceive it as their role and responsibility in the organization. In general, not many studies have made any relations between this factor and knowledge sharing. Herzberg (1987), based on his twelve investigations, has indicated responsibility as one of the top factors that affect job attitude or satisfaction. In other studies, Cabrera and Cabrera (2002) suggested several interventions to curb the issues of social dilemma. Among them, they indicated the importance of establishing identity for a group as well as personal accountability to elevate cooperation between employees. Besides that, Cabrera et al. (2006) believed that job autonomy positively relates to knowledge sharing by taking into consideration its possible impact on an individual's job responsibility. However, to a lesser extent, further analysis showed that it has an indirect effect on knowledge sharing. Hence, further investigation is needed to confirm this proposition.

(b) Intrinsic motivation

Several studies have indicated the importance of inherent motivation in exhibiting knowledge sharing behavior. In a study conducted in a collectivist culture, personal achievement or growth as compared to extrinsic reward was found affecting one's decision to share knowledge (Ma et al., 2014). In another relation, people might just want to share knowledge because of the feeling of pleasure to help other colleagues with the knowledge they own (Witherspoon et al., 2013). It was found that gratification in helping others increased the tendency to collect and donate knowledge (H. F. Lin, 2007). Ford and Staples (2010) are also of the same opinion by indicating that people with high propensity to share knowledge are enjoying the process, hence, allowing the full sharing of knowledge.

(c) Personality

An individual's personality has its own influence towards knowledge sharing behavior and attitude. In general, studies on personality in a knowledge sharing topic focused on these three types of personalities: conscientiousness, agreeableness and openness. In their quantitative studies, both Chu et al. (2014) and Matzler et al. (2008) have generated similar results on this issue. They have indicated that these three types of personalities have a significant influence on knowledge sharing. On the contrary, Cabrera et al. (2006) found that openness to experience to be among the main contributing factors in a psychological dimension while conscientiousness appeared to be insignificant in their study.

(d) Positive attitude

The impact of attitude towards individuals' action is imperative. Indeed, studies investigating such matter are common as it is somewhat related to the theory of planned behavior or theory of reasoned action (Bock et al. 2005; Chatzoglou & Vraimaki, 2009; Huang et al., 2008). Consequently, having a positive attitude will lead towards a positive intention and behavior to knowledge sharing among employees in the organization (Witherspoon et al., 2013; Fathi, Eze, & Goh, 2011).

(e) Organizational commitment

Organizational commitment indicates the willingness of an individual to commit and contribute something to the organization (Mowday, Steers, & Porter, 1979). In a previous study, C. P. Lin (2007) has applied the exchange ideology as a mediator in her study and focused on a social perspective on knowledge sharing by taking organizational commitment into part. Regardless of the different ideologies, individuals who feel attached to the organization are more likely to involve themselves in knowledge sharing. On the contrary, a study by Ma et al. (2014) and Cabrera et al. (2006) signified the negative relationship for

organization goal and commitment to knowledge sharing. The results from the collectivist culture in China and multinational company in Spain were somewhat perplexing and far from expectation. Hence, further clarification is needed.

(f) Self-efficacy

The belief that an individual has on knowledge sharing might influence he or she to interact with others. According to Bandura (1994, as cited in Tohidinia & Mosakhani, 2010), self-efficacy refers to “the person’s beliefs about his/her capabilities to produce desired effects” (p. 614). Several studies have dedicated their focus on this aspect as the antecedent of knowledge sharing (Cabrera et al., 2006; Fathi et al., 2011; H. F. Lin, 2007; Tohidinia & Mosakhani, 2010). In a study conducted at a large multinational company, Cabrera et al. (2006) have found that self-efficacy and openness to experience as the most significant variables in the psychological/personal variable towards individual engagement in knowledge sharing. It was also indicated that high self-efficacy employees are more likely to have positive attitudes towards knowledge sharing as compared to those who have lack of confidence on their own ability (Fathi et al., 2011; Tohidinia & Mosakhani, 2010).

(g) Interpersonal trust

Based on a study conducted by Cheng et al. (2008), the effect of trust was found significant to interorganizational knowledge sharing. It indicated that active participation and communication between the organizations are the basic constituent parts to develop trust and knowledge sharing. In addition, in the presence of information technology, trust plays a significant role towards individual’s knowledge sharing behavior (Liang et al., 2008). Besides, the influence of trust is also needed for social exchange to occur. Trust enables one to develop and retain exchange relationships resulting in quality knowledge sharing (Blau, 1964 as cited in Liang et al., 2008). The importance of trust on a quality knowledge sharing is

also supported by Chiu et al. (2006). However, it has no significant effect on the quantity of knowledge sharing. On the other hand, the main findings of Bakker, Leenders, Gabbay, Kratzer, and Van Engelen (2006) explicated that trust is a poor explanation for knowledge sharing. Without the team effect, the result has indicated that all of the dimensions of trust (capability, integrity and benevolence) have no significant effect towards knowledge sharing, at the individual level.

2.5.4.2 Institutional factors

(a) Organizational factors

Leadership

Although the individual is the ultimate person who will decide with whom he or she wants to share knowledge, organizations, especially the manager's support will give the best perception to the employees. Several studies have found a correlation of this factor to knowledge sharing (Han & Anantatmula, 2007; Parirokh et al., 2008; Schauer et al., 2015; Witherspoon et al., 2013). Indeed, an individual's intention to share knowledge will increase proportionately with the support given by the managers (Ford & Staples, 2010). The perceived support will indirectly change one's perception that their managers are encouraging knowledge sharing culture among them. It is because leaders have a power that can influence people who work with them. Instead of being task-oriented, they also need to provide an ample amount of supportive leadership style that is based on people-oriented behavior. Søndergaard et al. (2007) also implied that leadership could act as an important pre-requisite for an organization to create a knowledge sharing culture, which sequentially could promote individual behavior.

Organizational culture

Another factor that can drive knowledge sharing is the organizational culture. According to McShane and Glinow (2004), organizational culture is “a collection of values, norms and behavior shared by workers that control the way workers interact with each other” (p. 16). It is something that is already accepted and applied by all the people within the organization and is known by outsiders. The influence of culture is highlighted by Tohidinia and Mosakhani (2010), asserting that any exertions on knowledge sharing seem to be meaningless if the atmosphere within the organization does not match properly. Wang and Noe (2010) also put an emphasis towards this organizational issue and specified that it needed further investigation.

In order to encourage knowledge sharing among its people, organizations must create a strong knowledge sharing culture. Thus, it is the responsibility of the top management to encourage the knowledge sharing culture as an individual's behavior is directly associated with organizational commitment (Sohail & Daud, 2009). Besides that, the employees need to be empowered and given control as it will not only cause them to have a mutual interest in knowledge sharing, but, will also facilitate how the work is being done (Sohail & Daud, 2009). De Long and Fahey's (2000) investigation on cultural barriers have suggested four approaches that require managerial accountability. The different aspects of culture assessed ensure that a particular action fit the organization's existing culture. Still, Gurteen (1999) argues that it is a responsibility of an individual to initiate knowledge sharing culture, rather than a responsibility of the manager.

Other previous studies indicating culture as a factor in influencing employees' willingness to share includes Witherspoon et al. (2013) and Han and Anantatmula (2007). Among the construct used in Han and Anantatmula's (2007) study are organizational

practices, trust, technology, and leadership support. Witherspoon et al. (2013), on the other hand, found organizational support, communication, subjective norm, knowledge resources and technology, and participation as stronger influences on individuals' knowledge sharing intention and behavior. Furthermore, Søndergaard et al. (2007) implied the aspects of individual, organizational and leadership are important determinants in encouraging a knowledge sharing culture, which then leads an individual to perform knowledge sharing. Furthermore, they suggested that the positive behavior could be used to further strengthen the culture and influence the progress of this element either positively or negatively.

Reward and recognition

At some point, reward and recognition becomes an important factor that can encourage employees' participation in knowledge sharing. In a study conducted at manufacturing companies in Malaysia, Fathi et al. (2011) found that the existence of incentive systems positively encouraged knowledge sharing intention among employees. Witherspoon et al. (2013) also support this proposition in their meta-analytic study of forty-six literatures. The belief that sharing knowledge could bring incremental increases and/or increase the chances to be promoted as well as bring an advantage to building reputation was found to have a positive impact on knowledge sharing behavior. By taking social exchange theory into their study, Huang et al. (2008), also implicated that extrinsic monetary reward also encourages knowledge sharing.

Meanwhile, Ma et al. (2014) study in a Chinese culture obtained surprising results on reward. It was found that employees seem to be more motivated with extrinsic rewards and less to intrinsic motivation. This is somewhat puzzling as a collectivist culture is supposed to value the collective good more. Since Malaysia is also regarded as a high collectivism culture, it is interesting to find out what the perception of today's society is.

Opportunities to share

The organization can enhance its organizational members to share knowledge by providing many opportunities for them to get involved. Sohail and Daud (2009) acknowledged its contribution in a study carried out at Malaysia's public and private universities. In general, the teaching staffs accorded that the provision of training programs, structured teamwork and good infrastructure in accessing the shared knowledge enabled effective knowledge sharing. Besides, learning activities, be it in a formal, planned or informal approach, enhance the social interaction between employees. Hence, supports the knowledge sharing process (Tsui, Chapman, Schnirer, & Stewart, 2006). Cabrera and Cabrera (2002) also added that being in a group meeting allowing people to not only interact more, but also make them easier to be identified, which in turn forms a sense of responsibility.

On the other hand, the importance of placing appropriate technology and information infrastructure has appeared frequently in knowledge sharing-related studies (Alavi & Leidner, 1999; Han & Anantatmula, 2007; Sohail & Daud, 2009; Tohidinia & Mosakhani, 2010). Parirokh et al. (2008) found that the librarians perceived the use of internet to be of importance to the same extent as interaction with their colleagues. Often, they are relying more on the technological medium in obtaining information rather than from the knowledge that is already resided in their colleagues. Its application eases people in a way that interaction is improved and information and knowledge can be accessed immediately and across the boundaries (Cabrera & Cabrera, 2002). However, having modern technology will not solve the knowledge sharing issues (Han & Anantatmula, 2007). Additional steps need to be taken to ensure the usage of technology is being employed and benefited by the organizational members.

(b) Social group factors

Need for better understanding; coordination and cooperation

A study focusing on the group context was rather limited. Wang and Noe (2010) in their review of individual-level knowledge sharing have put an emphasis on interpersonal and team characteristics and processes as part of contributors to knowledge sharing. Indeed, C. P. Lin (2007) also explicates cooperation as a basis for the knowledge sharing process. Among the important points featured in her study was the received task interdependence. In her viewpoint, employees whose tasks are interrelated would intensify a cooperating behavior and direct towards stronger intentions to share knowledge. Besides, a collectivism culture that exhibits high values of group efforts show a positive support to individuals' attitude to share knowledge (Fathi et al., 2011).

2.5.4.3 Knowledge: Nature, content or representation

Another important element that can add an influence to knowledge sharing is the representation of knowledge. Its consideration as part of the contributing factors has been neglected in many studies. In previous studies, the type of knowledge was recognized to be imperative in enhancing knowledge sharing (Sohail & Daud, 2009; Ipe, 2003). Hence, the studies marked the characteristics as tacit and explicit as well as the value of knowledge. Nevertheless, Syed-Ikhsan and Rowland (2004) have looked at the perspective of the performance of knowledge transfer, which concerns about the speed, reliability and accuracy of knowledge. In a qualitative study, Schauer et al. (2015) also pointed out that knowledge as part of the factors that can form an individual perception on knowledge sharing. Based on their analysis, examples of knowledge issues arise when dealing with confidential knowledge while nature of knowledge issues pertain to where it resides. Nevertheless, Cabrera et al. (2006) investigated on the perceived quality of the content in the knowledge management

system and showed a positive relationship with knowledge sharing. The content quality is also an important indicator when a person attempts to participate in the knowledge sharing process as it shapes his or her interest in both processes of seeking and providing. Although their investigation focused on the system-variables, the researcher anticipates that its impact is also relevant in influencing an individual's decision in any activities related to knowledge sharing.

2.5.4.4 Relationship

The relationship between employees in the organization has a significant influence towards knowledge sharing. However, it is important to notice that there are different types of relationships established in the organizational context. Marouf (2007) had studied the strength of two types of relational ties, namely known as social and business ties on types of knowledge to share. She pinpoints that employees who are associated based on work duties and under professional context have high possibility to share both public and private knowledge.

The issue of connectivity was also a highlight in Fathi et al. (2011) study. They pointed out that social networking could act as an important element in an individual's attitude towards knowledge sharing. Ipe (2003) has identified relationships with recipients as an external factor influencing an individual's motivation to share. He claims that elements associated with relationships are also associated with trust and power. Other than that, it is important to locate employees who work on the same task close to each other, as it will ease them into sharing knowledge as well as maintaining the network (Søndergaard et al., 2007). Huang (2009) indicates the network ties in an organization can also enhance group cohesiveness in the organization. However, he did not study its impact on knowledge sharing.

2.5.5 The Inhibiting Factors of Knowledge Sharing

This section provides the reviews of previous empirical studies on inhibiting factors of knowledge sharing. It is divided into three main sub-sections, which are individual barriers, institutional barriers, and technological barriers.

2.5.5.1 Individual barriers

(a) Lack of cognitive capacity

Szulanski (1996) refers this issue as a person's ability to value, assimilate and utilize the new knowledge in his or her learning area. In his study on internal stickiness, he discovered lack of absorptive capacity as one of the three main barriers for knowledge transfer within an organization. Davenport and Prusak (1998) added that the transfer of knowledge is considered incomplete if it is not absorbed. Lichtenstein and Hunter (2008) also elucidate this point in their case study. The recipients' cognitive capacity is problematic for the sharers, as it limits the expansion of knowledge. The lack of relative absorptive capacity and ability to absorb unlimited knowledge are issues that need to be improved by the recipients. In using the theory of planned behavior as the basis of research, Bock et al. (2005) asserted it did not cover other aspects including cognitive barriers that may hinder communication between individuals, in which the consequence may lead to an ineffective transfer of knowledge.

(b) Lack of intrinsic motivation

Knowledge is not possible to be shared without an inner movement. The underlying cause for this was described by Santos, Soares, and Carvalho (2012) as the laziness syndrome, that is, providing a "just enough" effort in presenting their knowledge. On the other hand,

Søndergaard et al. (2007) perceived this issue as a double-edged factor, which act as not only a facilitator but also an inhibitor of knowledge sharing as well.

(c) Time constraint

Knowledge sharing cannot be fully applied by all people in the organization because of the limitation of time they have. Consultants for instance, have to work on their own ideas during their leisure time as they are not able to share ideas with other colleagues during working hours (Taminiau et al., 2009). In studying the impact of various knowledge sharing barriers on knowledge sharing and individual innovation behavior, Yeşil and Hirlak (2013) have adopted Riege's (2005) categorization and lists of barriers. Among the chosen variables, lack of time has no impact on knowledge sharing but it lessens the ability of an individual to exhibit innovative behavior. Khalil and Shea (2012) have conducted another knowledge sharing barriers study located at a Higher Education Institution in the United States. Based on their findings, lack of time added with too many students and overloaded work became an alarming case for less participation of faculty members in knowledge sharing. Besides, the time pressure in completing a group work project has led employees to focus solely on his or her own working environment, hence, hindering any collaboration and knowledge sharing with other units (Sveiby, 2007). Other studies indicating time as a barrier of knowledge sharing include Davenport and Prusak (1998) and Santos et al. (2012), and Ling et al. (2009), even though it was marked as the weakest variable.

(d) Perceived irrelevance/unusefulness of knowledge to others

It is of concern that individuals may have weighed the value of knowledge to others before sharing it. In their initial proposition, Ford and Staples (2010) anticipated that individuals whose jobs are similar would get useful knowledge to apply afterwards, directing towards full knowledge sharing. Nevertheless, as the usefulness of knowledge to others

increases, an individual may perceive that such situations can disrupt his or her competitive advantage. In this regard, the aspect of protection would become the main issue. Ford and Staples (2010) raised this matter in their study, suggesting its influence towards partial knowledge sharing. In other clear cases, the knowledge holder will not share his or her experience if it does not give any benefit to others. In a qualitative case study conducted at a multinational organization, Ardichvili et al. (2003) also indicate this as a barrier, by which the employees perceive that their knowledge may be irrelevant and unimportant enough to be posted or shared, or worried that it may mislead others. However, this study was done within a circle of a virtual community of practice. Hence, the finding was limited to such setting.

(e) Lack of trust

The concern of trust in knowledge sharing comes from either the receivers or the sources (Riege, 2005). From the sharer's perspective, trust appears to be an issue when the receiver is misusing the knowledge shared, such as claiming others' ideas as their own. Moreover, depending on the level of people who provide the knowledge, the level of trust might be different. For instance, the sources provided by the experts are more trusted as its credibility is high (Riege, 2005).

(f) Job security

In a study conducted in a different culture, Ardichvili et al. (2006) revealed that, younger and lower-level employees in a Chinese culture are very competitive, circumventing the sharing of expertise. From the view of the executives, Ling et al. (2009) found that the perceived threat to job security is an obstacle to knowledge sharing. Riege (2005) also listed it amongst the potential individual barriers. In an online community of practice, Hara and Hew (2007) exemplify the willingness of the nurses to share knowledge remotely, along with a non-competitive environment. Thus, there is likeliness that individuals might withhold

knowledge from their colleagues of the same organization or department, where the competition is obvious. Nevertheless, the issue of job security was also reported irrelevant in affecting an individual's unwillingness to share knowledge. According to Han and Anantatmula (2007), most of the employees did not feel insecure with their job when they share knowledge with other colleagues and believed it would not decrease their power either.

(g) Personality issues

Individual's personality has appeared to have a significant influence on knowledge sharing. In the previous studies, the researchers are keen to predict how personality and its trait affect knowledge sharing (Cabrera et al., 2006; Chu et al., 2014; Matzler et al., 2008; Wang & Yang, 2007). Nevertheless, these studies only revealed how personality can contribute towards knowledge sharing, rather than on what kinds of personality would inhibit the process.

(h) Negative attitude

The importance of attitude in knowledge sharing is indisputable. In previous research, most of the hypotheses were developed based upon the theory of reasoned action (TRA) (Huang et al., 2008) or the similar yet extended version of TRA, which is theory of planned behavior (Bock et al., 2005; Chatzoglou & Vraimaki, 2009; Tohidinia & Mosakhani, 2010). In general, the results of these studies were quantitative and connected with other independent variables. Sveiby (2007) has found negative attitude as one of the issues that can disable knowledge sharing. Nevertheless, the descriptions of the issue focused on the management behavior, whereby the managers do not walk the talk and do not encourage organizational information.

2.5.5.2 Institutional barriers

(a) Organizational barriers

Unsupportive culture

Organizational culture has always been an interesting topic to explore in the field of knowledge management and others, in general. Due to its large role in the organization, it is often being claimed as the main factors for ineffective knowledge sharing (De Long & Fahey, 2000; McDermott & O'Dell, 2001). Lai and Lee (2007) are also of the same opinion as De Long and Fahey (2000) and McDermott and O'Dell (2001). For that reason, their study investigated how the different types of cultural aspect could affect the organization's initial effort on knowledge sharing. It was discovered that an authority culture did not help the organization in achieving knowledge sharing. In a study conducted in the Chinese context, Huang et al. (2008) did not find any significant impact of subjective norms on intention to share knowledge. They believed some possible reasons behind this might be caused by a weak knowledge sharing culture in the organization. Hence, even though the social pressure is high, unsupportive culture let an individual feel unobligated to share his or her knowledge. Yao, Kam, and Chan (2007) also found that individuals dislike sharing their knowledge due to a weak knowledge sharing culture. However, only five percent of the respondents perceived it that way.

Leadership/management behavior

Top management and leaders can also be part of the obstacle in knowledge sharing if the employees perceive no support from them. Managers' roles are not only developing a framework on how to disseminate and capture knowledge. For instance, they need to realize that they must engage with the implementation of the framework itself. Often, they make an

assumption that by placing appropriate technology such as intranet or knowledge management system at the workplace, people will eventually share their knowledge with others (Han & Anantatmula, 2007). The management has overlooked the ways to improve the value of knowledge sharing (Sohail & Daud, 2009). Rather, they need to build a rapport with the employees and show their openness in sharing the knowledge with the employees by taking their suggestion as well as finding solutions for tough problems. Insufficient support from managers will reduce the generation of innovative ideas, thus weaken the culture of an organization (Taminiau et al., 2009). In addition, Sveiby (2007) has classified several problems related to leadership in his study, with the highest concern for managers who do not act accordingly to what he or she has claimed about knowledge sharing.

Rules and regulations

Adherence to the policy and rules of the organization also affects the employees' decision before sharing any knowledge or information with others. In essence, rules and regulations were established to regulate employees' action and behavior, so things are done in an appropriate way. It helps employees in prioritizing and decision making in solving problems (Christensen, 2007). Lai and Lee (2007) described this as a punctilious culture, whereby the employees with traditionalist ideas on innovation care about abiding the law and how jobs are being done. Although such culture contributes toward an effective culture, nevertheless, their results showed that its direct impact on the achievement of knowledge sharing is insignificant.

In other studies, Riege (2005) also listed this among the organizational level problems to be considered by the managers that makes it difficult to attain knowledge management goals. In a study conducted at the government ministry of Malaysia, Syed-Ikhsan and Rowland (2004) asserted that confidentiality of documents can be divided into four types,

which are open, confidential, secret and top secret. However, their propositions on its adverse effect on knowledge transfer performance and knowledge asset creation appeared to be insignificant. These results may be different in the private setting or in a different organizational context that confronts a restriction on information and knowledge, high bureaucracy, or poor communication between departments (Syed-Ikhsan & Rowland, 2004).

Bureaucratic structure

In most cases, a hierarchical structure of organization can be problematic. Sveiby (2007) and Riege (2005) categorized this bureaucratic procedure as an organizational level issue hindering knowledge sharing. On the other hand, Lai and Lee (2007) who were interested in evaluating the consequence of different types of cultures, had revealed that a control and power-based kind of structure or bureaucracy had a negative impact on knowledge sharing. Indeed, its positive correlation on organizational culture effectiveness was not supported. In a qualitative study, Ardichvili et al. (2006) have attempted to explore the influence of cultural differences on knowledge sharing behavior among Chinese, Brazilian and Russian online community members. The results, however, found that the effect of hierarchy on knowledge sharing was less critical, possibly because of the assimilation of culture from their United States headquarters.

Communication issues

The negative influence of restricted communication on knowledge sharing was indicated in several studies. In his review, Riege (2005) classified this issue a detriment to organizational knowledge sharing if the knowledge only flows in one direction such as from top to down. In a quantitative study, Yeşil and Hirlak (2013) have adopted some organizational barriers from Riege (2005) study including the top-down communication.

Based on their findings, there is a substantial effect of organizational barriers on the two dimensions of knowledge sharing, which are knowledge donating and knowledge collecting.

Santos et al. (2012) found that communication issues have an effect on employees' collaboration in a research and development project. These include the difficulties in setting up a common technical language, presenting information in a proper timing and structure, ensuring the clients' expectations and needs are well communicated, managing conflicts and misunderstanding caused by workplace diversity as well as in adapting to technology. In arguing the impact of conflicting goals on knowledge sharing, Søndergaard et al. (2007) believed that an issue of concern lies upon the failure of getting the message across the organization. Nonetheless, Ardichvili et al. (2003) believed promoting clear and transparent communication would be insufficient if an organization does not instill the value of trust among its members.

Lack of resources

An investment of resources can be in terms of human, systems and contents (Chu et al., 2014). Based on the perspective of strategic management, Haanes and Løwendahl (1997, as cited in Martensson, 2000) described resources may include the material, person, and expense as well as information-based. They further broaden the definition into intangible resources that consist of competence, in which referring to information-based, skills and aptitudes, and relational, which refers to reputations, loyalty and relations. In any kind of activity, its implementation require support from many different resources. Several studies have indicating the lack of resources as an obstacle to knowledge sharing (Khalil & Shea, 2012; Riege, 2005; Santos et al., 2012; Sveiby, 2007; Taminiau et al., 2009; Yeşil & Hirlak, 2013).

Riege (2005) pointed out that inadequate and improper allocation of company resources of skilled employees, capital and technology make it difficult for the company to provide more knowledge sharing opportunities. Thus, would make knowledge sharing efforts less functional. In the consulting firm setting, the respondents stressed out the manager's disapproval in providing necessary monetary resources has led employees' ideas to be thrown away without further development (Taminiau et al., 2009). Khalil and Shea (2012) placed this issue as an inadequacy of organizational capability in their quantitative study at a public higher education institute in the United States. Their findings indicated that employees' perceptions are generally neutral but some feedback revealed the culture and structure of the organization that discourages collaborative efforts.

Location

In other cases, being separated by location can present a struggle for knowledge sharing between individuals or groups. Based on the interviews conducted in four different branches of an information technology services company, Schauer et al. (2015) indicated that one of the respondents perceived it to be difficult for their group to share knowledge when other members are not in the same workspace. In Hara's (2007) ethnographic study, the different types of communities of practice that exist in the organization being studied include the less experienced, more experienced and juvenile-case attorneys. Because there was not enough space to fit them altogether, they had to be separated in three different locations. This isolation had caused the less experienced attorneys to have limited chances to observe how the more experienced attorneys are doing their job. Riege (2005) in his review on various knowledge sharing-related barriers also discovered this issue to be detrimental mainly for large organizations, in which widely dispersed geographical locations have a large effect on basic communication and trust. On the other hand, Søndergaard et al. (2007) regarded trust,

individual motivation and geographical location as double-edged factors that can act mutually as a facilitator and inhibitor to knowledge sharing.

Lack of reward system

In some cases, individuals are more likely to be disengaged or demotivated to involve in any activity that is perceived as unnecessary. Given the fact that knowledge sharing is a sensitive behavior, allocating any reward can motivate people to engage in such behavior (Tohidinia & Mosakhani, 2010). Hence, the absence of a reward and recognition system may not be able to encourage less motivated and less interested employees to engage in knowledge sharing (Riege, 2005). However, there are contradicting results on how the organizational reward system affects the employees' willingness to share. H. F. Lin (2007) found that the introduction of rewards did not have any impact on the employee's knowledge sharing behavior, in both forms, which are knowledge donation or collection.

(b) Social group barriers

Lack of cohesiveness

Defined as a process in which a particular group tends to act jointly, group cohesiveness is crucial in developing an understanding of group performance (Huang, 2009). In his study, group cohesion was constructed based on the two variables known as network ties and collective mind. The first element relates to the social dimension while the latter implies the task dimension. The results of the study indicated a positive influence of group cohesiveness towards team performance. Nevertheless, the evidence showed no significant impact of knowledge sharing on team performance. Therefore, it anticipated that the lacking of this aspect would not only be detrimental to the effectiveness of the group but will also lower the engagement in knowledge sharing.

Cabrera and Cabrera's (2002) review on various public good dilemmas has offered some interventions for organizations to promote the social systems, which can eventually enhance knowledge sharing overall. An individual's decision to cooperate was viewed as a critical example of the social dilemmas that could be the cause for unsuccessful knowledge sharing. In a situation of received task interdependence, teamwork effort is paramount. By using exchange ideology as a moderator, C. P. Lin (2007) has found that group members whose task completion were highly dependent on other colleagues', are more likely to contribute towards knowledge sharing. However, the strength of its influence was strong for those with higher exchange ideology compared to those with lower exchange ideology.

2.5.5.3 Technological barriers

Some of the previous researchers were dedicated to find out more about the impact of technology towards knowledge sharing (Alavi & Leidner, 1999; Lundvall, 2006). Riege (2005) had classified the barriers of knowledge sharing into three, which are individual, organizational and technological. Examples of technological issues include those associated with the technical support, integration and compatibility between the systems and processes. Other problems also involve employees' disinclination, impractical belief on the functions of technology, disability to support the actual need of solving problems as well as poor efforts on training, communicating and demonstrating the functions of new technologies.

Ardichvili et al. (2003) found two major barriers that prevent the employees from sharing knowledge with their communities in a virtual setting. It was identified that the online knowledge network did not fit the preference of employees, who favor seeking help with their existing informal groups. As opposed to just joining the existing communities with the introduced technology, it is advisable for the organization to revise the strategy and ensure that the technology supports the communities. In a situation where the participants needed a

quick response, posting problems through the system may lead towards receiving excessive responses. Thus, the issue of the accuracy of the answers become a main concern and necessitates further verification, which is very time-consuming.

Tsui et al. (2006) were aware of the impact of technology. In this regard, it is important to recognize challenges posed by the users as their comfort level may differ significantly. Jarvenpaa and Staples (2000) had studied the issues affecting the usage of collaborative electronic media for information sharing. For successful implementation of technology in sharing information, they signified the importance of the system to match the need of the users. Other than that, the users must feel comfortable when using it and the system must possess valuable characteristics. In other studies, Fullwood et al. (2013) have obtained negative responses on the impact of technology on knowledge sharing activities. It was found that the investments done were mostly perceived as having no practical value in connecting the university members, both internally and externally. Besides that, the technology for collaboration was not made available for the employees in a quick enough time and the systems did not provide a friendly experience to the user.

In exploring the factors that can sustain knowledge sharing in an online community of practice, Hara and Hew (2007) found that there is a need to have a moderator. Perceived ease of use was brought up as an issue that can assist the users in using the technologies. Hinton (2003) also recognized this claim, by asserting that it is important to consider the ease of use and familiarity in the early implementation and activity. Han and Anantatmula (2007) have taken technology as one of the constructs in their knowledge sharing study. This construct has addressed issues of usability, accessibility and findability of information, and the respondents perceived all of them as useful. Hence, if the employees raise these issues of technology in a negative way, it is anticipated that it could act as barriers to knowledge sharing.

Christensen's (2007) interview with twelve employees of operation support department had implicitly brought up a matter regarding the organization's database. Given the fact that this technological tool is designed for written communication, whereby explicit knowledge is communicated into it. Nevertheless, he argues that the absence of standard ways to key in the knowledge has made knowledge sharing activities poorly supported. On the other hand, Alavi and Leidner (1999) findings showed the managers' concerns over knowledge management systems issues. In terms of the information systems, the challenges raised include deciding the need for infrastructure, keeping pace with new technology and ensuring that data on the internet is secure.

Parirokh et al. (2008) regarded the obstacle related to technology as an unsuitable match between the available functions which were not intended to facilitate the organizational process discouraging people from using it. Sveiby (2007) study had resulted in fifty-four negative responses regarding technology-related issues. Without any specific hint, however, there were seven problems identified and it was ranked at the second highest among ten issues that impede knowledge sharing. Based on the generated results, Ling et al. (2009) had ranked the items on knowledge sharing barriers accordingly, from the strongest to the weakest. It was found that the absence of the system in identifying potential recipients for knowledge sharing purpose had gained the strongest score among all eighteen barriers.

Lundvall (2006) argues that information technology is not an absolute answer for knowledge management dilemmas. In addition, there are several drawbacks to anticipate if organizations want to put it into use. Employees could be overloaded with information and experiencing a waste of time doing irrelevant things (Gurteen, 1999). Although technology can support the process of knowledge sharing, Sohail and Daud (2009) asserted that its value in enhancing the quality of knowledge sharing is questionable. Hence, it is important for this

research to explore the perception of informants on the technologies, which could further unveil its limitation on knowledge sharing. Santos et al. (2012) in their findings have also classified inadequacy of information technology as part of the knowledge sharing barriers. This includes perceived user-unfriendliness that leads toward the employees' reluctance to use it, ambiguity issue that could potentially lead to misunderstanding and the inability to support fuzzy content.

Despite the agreements on the disadvantages of technological barriers, Yeşil and Hırlak (2013) empirical investigation on the academic staff in Turkey had generated the opposite result. The findings did not support the premise that technological barriers have negative influence on individual innovation behavior. Fullwood et al. (2013) also conducted a study on the same population but in the United Kingdom. Nevertheless, it was revealed that technology is not essential for knowledge sharing.

2.5.6 The Benefits of Knowledge Sharing

There are tremendous benefits that can be achieved by organizations when they emphasize knowledge sharing. The most frequently studied knowledge sharing outcome is on innovation (Kamasak & Bulutlar, 2010; H. F. Lin, 2007; Sáenz et al., 2009; Taminiau et al., 2009). For instance, H. F. Lin (2007) found significant relationships in both the knowledge sharing processes, which are knowledge collecting and donating, on the organization's innovational capability. In exploring issues faced by the Dutch consultants, Taminiau et al. (2009) made a claim that innovation is best achieved through informal methods. Skyrme (2011) in his analysis of various cases indicated that a good management of knowledge would increase the efficiency of information and knowledge processing, improve the internal organizational efficiency and effectiveness as well as boost the productivity and customer focus.

Knowledge sharing also increases the capability of the organization to keep up with organizational learning. Previous study has indicated that organizational learning plays an important role in determining organizational effectiveness and performance (Yang, 2007). Indeed, Zhang and Jiang (2015) are of the opinion that organizational learning and knowledge management are critical influences for the organization's competitive advantages. The relationship between knowledge sharing and organizational learning is apparent because it aids the transformation of individual knowledge into organizational knowledge (Yang, 2007). Alavi and Leidner (1999) also acknowledged the benefits of knowledge sharing, particularly for an organization and its process. The organizational outcomes include the financial, marketing and general aspects such as good project management, while the process outcomes include the communication and efficiency aspects such as minimizing the time spent on a particular task or problem. However, their study focused on the utilization of information technologies known as Knowledge Management System.

Chu et al. (2014), in their aim to investigate the traits of knowledge workers that suit the communities of practice, have made further linkage on how those traits affect the organizational benefits. The benefits include increased core competency, promoted responsiveness, induced innovation, and enhanced work efficiency. All hypotheses of personality traits studied were found to have a positive impact on the organizational benefits differently. In another study, Haas and Hansen (2007) have proposed that different types of knowledge have different benefits when being shared. The tacit and explicit types of knowledge were conceptualized into how they are being shared, which is through electronic documents and personal advice. Based on their content and process, it was found that the higher the quality of the document is, the more time could be saved. On the other hand,

personal advice gained from the experts will improve work quality and signalize one's competency.

Nevertheless, the benefits of knowledge sharing can be found implicitly in other studies. For instance, Han and Anantatmula (2007) asserted that knowledge sharing can sustain the competitiveness and increase the survivability of the organization. It also helps to develop and nurture communities of practice (Ardichvili et al., 2006). According to Lave and Wenger (1991, as cited in Ardichvili et al., 2006), communities of practice involve a social interaction among the members of the community in which shared understanding is being developed. As people have a tendency to seek for other chances out from the organization, it helps to reduce the knowledge gap among the less experienced and more experienced employees (Ling et al., 2009; Dunford, 2000, as cited in Taminiau et al., 2009).

Other than that, knowledge sharing also gives benefit to its organizational members. This is because employees can increase their competencies such as communication skill (Sohail & Daud, 2009). In fact, knowledge sharing enables employees to increase their networking with others. According to Marouf (2007), there are two types of networking, which are business and social relationships. She added that network ties may comprise of formal and informal relationships. Fullwood et al. (2013) also indicated that the respondents anticipate knowledge sharing as a chance to build relationship with others. Moreover, knowledge sharing help employees in solving problems in daily operation (McDermott & O'Dell, 2001) to reduce the use of time during the process of learning (Christensen, 2007; McDermott & O'Dell, 2001) as well as in making effective decisions for any uncertainty (Cheng et al., 2008). In response to efforts in documenting experience, Huang et al. (2008) indicated that the respondents feel it could benefit new employees by preventing them from making mistakes, so that they will become more efficient at work.

2.5.7 Knowledge Sharer's Personal Attributes

Different people have different personal attributes. The individuals' unique characteristic is what makes them distinct from others, which is manifested by their actions or emotions. Many previous studies did not explore much on the attributes of individuals and relate it to knowledge sharing. Tsui and Gutek (1999) also questioned how these differences could influence the attitudes and behavior of an individual towards others and the organization as a whole.

Given that a review on personality was provided in the previous section on model of personality, the researcher will add some elaboration on it along with the demographic factors. The attributes of the knowledge sharer can be also be found implicitly in previous research. For instance, Peariasamy (2006), in his review on the influence of performance reward on knowledge sharing has indicated the individual's openness as one of the decisive elements in enabling knowledge sharing. This kind of attribute denotes an individual's willingness to partake in the sharing process and interaction. In respect of trust, he also implied that a sharer is someone who can be relied upon and is honest.

As the knowledge sharing involves the transfer of knowledge from the more knowledgeable to the less knowledgeable (Christensen, 2007), it is assumed that a sharer is someone who is knowledgeable, at least in his area of expertise. There was a study by Lichtenstein and Hunter (2008) examining how the perceived needs and behaviors of the receivers towards knowledge influences the sharers' decision to share. In general, a sharer is an individual who has appropriate awareness, motivation, behavior and skills (Lichtenstein & Hunter, 2008).

In terms of demographic variables, C. P. Lin (2007) in her quantitative study on knowledge sharing, used gender as a control variable. She claims that gender can potentially

influence an individual's willingness to share. Nevertheless, the effect of gender was found insignificant in her study. On the other hand, Organ and Rayan (1995, as cited in Kharabsheh, 2007) proposed that personal traits such as gender and tenure of service might have a positive influence on knowledge sharing. Gender differences might have an impact on how interaction is being conveyed, thus, acts as a potential factor to knowledge sharing (Kharabsheh, 2007).

Respectively, an individual's tenure of service does have an influence on knowledge sharing. Han and Anantatmula (2007) found that new employees and senior employees are more willing to share knowledge with their colleagues. The respondents' working years are divided into three ranges, which are less than two years, two to four years and more than six years. There was also a case where older workers are more sensitive about 'face' as opposed to the younger workers who can tolerate the issue. However, it is only relevant in the Chinese culture (Ardichvili et al., 2006). By the hierarchical concern, there is an assumption that higher-level managers are reluctant to participate in knowledge sharing activities (Ardichvili et al., 2006). It is due to the reason that it did not reflect their status image in the organization. Basically, some demographic variables may have significant impact on employee's choice to share knowledge. Due to the scarce source of information, this study attempts to explore what characterizes a knowledge sharer and the role of demographics in it.

2.6 Related Models on Knowledge Sharing

2.6.1 Socialization, Externalization, Combination and Internalization (SECI) Model

SECI model is developed by Nonaka (1991) to explain how the knowledge is conveyed in the organization. The four decisive elements in converting knowledge in the organization are through socialization, externalization, combination and internalization. Before elucidating how this model works, it is important to understand the two types of knowledge known as tacit and explicit knowledge. According to Duffy (2000, as cited in

Martensson, 2000), tacit knowledge is existing only in the individual mind, behavior and perception while explicit knowledge is open to all, which can be made accessible through documentation and involves individual consciousness. As compared to explicit knowledge, tacit knowledge is hard to capture and should be considered as a valuable factor in helping the organization to remain competitive in the industry (Frappaolo & Wilson Todd, 2000, as cited in Psarras, 2006).

Nevertheless, both tacit and explicit knowledge are interrelated with each other. They are necessary in the knowledge creation (Seidler-de Alwis & Hartmann, 2008) and in the learning process (Psarras, 2006). In fact, Nonaka and Takeuchi (1995) have recognized that new knowledge is produced only if the interaction between explicit and tacit knowledge exists. Socialization, which is the first process of knowledge creation, occurs when two individuals share their tacit knowledge with each other (Nonaka, Toyama, & Konno, 2000). Tacit knowledge steps out of the boundaries and happens via interaction through deep discussion, observation and analyzation within the same environment (All KM, 2011). In fact, the socialization process works best with the involvement of the experts (Senker, 1993, as cited in Seidler-de Alwis & Hartmann, 2008) as well as through collaboration that can enhance the relationship between the actors involved (Cavusgil, Calantone, & Zhao, 2003).

Next, the externalization arises from tacit to explicit knowledge. It is about making the tacit knowledge become explicit; to confine it in a form that is comprehensible by others. Meaning to say, knowledge of personal property will be shared throughout the organization, becoming a collective knowledge. The knowledge can also be said to have gone through the process of crystallization (All KM, 2011). The scattered particles of tacit knowledge are trapped and articulated into a solid form through the documentation process. The collection of

knowledge is then made accessible and retrievable by others using information technologies such as discussion databases or online collaborative communities of practice (Plessis, 2007).

The conversion from explicit to explicit knowledge is called combination. According to Nonaka and Takeuchi (1995), this phase involved the process of sorting, combination and categorization. It is where the various sources of explicit knowledge are being filed together so that the relevant knowledge can be organized systematically. The accumulation of explicit knowledge will be constructed into a useful format (Rice & Rice, 2005).

The fourth phase, the internalization, is a stage that widens, expands and reframes an individual's tacit knowledge when he acquires knowledge explicitly (Nonaka, 1991). Ultimately, the explicit knowledge acquired through reading, for instance, will become part of the individual's tacit knowledge that is relevant to them. Nevertheless, to internalize the explicit knowledge, it is crucial for an individual to put it into action. A few ways as suggested by Nonaka and Konno (1998) include learning-by-doing, training and exercises. As this model occurs in a spiral process, it will begin again through the process of socialization by way of a newly created knowledge that will be shared with others.

2.6.2 Five-Factor Model of Personality

Fundamentally, there are various perspectives related to personality. They are psychoanalytic, neo-analytic/ego, biological, behaviorist, cognitive, trait, humanistic and interactionist (Friedman & Schustack, 2012). In the trait perspective, the most widely used framework is the five-factor model or known as the Big Five. Initially, Costa and McCrae developed this model in the late 1970 to 1980 (Feist & Feist, 2009). Nevertheless, the traits study was first put into practice by Allport and Odbert, carried on by Cattell and then Tupes, Christal, and Norman (John & Srivastava, 1999). Unlike the other researchers, who intended to test the hypotheses of personality traits taxonomies, Costa and McCrae's construct was

based on factor analysis techniques that aimed to answer the questions of stability and structure of personality (Feist & Feist, 2009). Hence, they became the strongest advocates of the Big Five taxonomies (Cooper, 2010).

In this model, the representation of personality is clustered into five dimensions: Extraversion, Neuroticism, Openness, Agreeableness and Conscientiousness. It is of concern that three factors, which are neuroticism, extraversion and openness, became a focus in the early work of Costa and McCrae, in 1983 (Feist & Feist, 2009). They also concurred that these factors should have an appropriate definition of behavior. Therefore, six related scales were developed and named as “facets” (Cooper, 2010). The emergence of the latter factors, which are agreeableness and conscientiousness, appeared in the 1985 inventory. However, well-developed facets of a domain were only introduced in the Revised NEO Personality Inventory in 1992 (Feist & Feist, 2009). The description of these five-factors is shown in the Table 2.2.

In the area of knowledge management, there is a lack of studies done to uncover the personality of knowledge sharer, especially in the Malaysian context. There was also a dearth of research in finding a linkage between personal dispositions in knowledge sharing process or individuals’ intention to share (Wang & Yang, 2007). Among a few studies that touched upon personality were Cabrera et al. (2006), Chu et al. (2014), Matzler et al. (2008), and Wang and Yang (2007). Among the Five-factors, three dimensions: agreeableness, conscientiousness and openness to experiences have been their focus of study. As a result, they have found a positive correlation between all three dimensions and knowledge sharing. Matzler et al. (2008) also took the same proposition as Cabrera et al. (2006), and generated similar results. On the other hand, Chu et al. (2014) tried to find integration and suitability for the communities of practice oriented knowledge management and business strategy based on these three personality traits as well. In other empirical studies, Wang and Yang (2007) opted

for a full spectrum of the traits and found positive linkages between three dimensions of agreeableness, conscientiousness and extraversion and individuals' intention to share. Meanwhile, the remaining two: openness to experiences and neuroticism appeared to have negative relations to knowledge sharing intention.

Table 2.2: Five-factor model of personality

Source: Feist and Feist (2009)

Costa and McRae's Five-Factor Model of Personality		
Extraversion	High scores	Low Scores
	Affectionate	Reserved
	Joiner	Loner
	Talkative	Quite
	Fun loving	Sober
	Active	Passive
	Passionate	Unfeeling
Neuroticism	Anxious	Calm
	Temperamental	Even-tempered
	Self-pitying	Self-satisfied
	Self-conscious	Comfortable
	Emotional	Unemotional
	Vulnerable	Hardy
Openness	Imaginative	Down-to-earth
	Creative	Uncreative
	Original	Conventional
	Prefers variety	Prefers routine
	Curious	Uncurious
	Liberal	Conservative
Agreeableness	Softhearted	Ruthless
	Trusting	Suspicious
	Generous	Stingy
	Acquiescent	Antagonistic
	Lenient	Critical
	Good-natured	Irritable
Conscientiousness	Conscientious	Negligent
	Hardworking	Lazy
	Well-organized	Disorganized
	Punctual	Late
	Ambitious	Aimless
	Persevering	Quitting

2.7 Summary

This chapter has provided a review on related literatures to the study. In accordance with the objectives of this study (described in Chapter One), the findings from previous studies that relate to a particular objective were elaborated and specified thoroughly. Several

theories and models correlating with the topic were also described in this chapter to gain a better understanding on knowledge sharing and the importance of contribution to the general body of knowledge on the related field. The next chapter will elucidate the methodological part of the study.

CHAPTER 3

METHODOLOGY

3.0 Introduction

This chapter describes how this study is conducted and it consists of eight sections. Section 3.1 is the research design and its justifications. Section 3.2 presents the instrument used in this study while Section 3.3 covers the issues of reliability and validity. Section 3.4 and Section 3.5 discuss the pretest of the study as well as the ethical consideration. The techniques and procedures involved in collecting and analyzing data are outlined in Section 3.6 and Section 3.7. Finally, Section 3.8 summarizes the chapter.

3.1 Research Design

In conducting a research on knowledge sharing practices, the researcher has employed the use of a qualitative method. According to Bratlinger, Jiminez, Klingner, Pugach, and Richardson (2005), qualitative method refers to “a systematic approach to understanding qualities, or the essential nature, of a phenomenon within a particular context” (p. 165). This discovery-oriented approach places a focus on finding new empirical data, at the same time it may improve the theories of interest rather than to test them again (Flick, 2009). Therefore, more emphasis is placed on disclosing one’s insight or ‘your say’ rather than summarizing it statistically. Denzin and Lincoln (2011) regard it as a form of inquiry and it seeks ways on how to create and give meaning to one’s answer that is based on their social experience.

The exploratory kind of qualitative research (Creswell, 2003; Denzin & Lincoln, 2003) is helpful in uncovering the topic of interest directly from the intended sources. The unspecified factors or variables of this research will lead to “the depth, openness, and detail of qualitative inquiry” (Patton, 2002, p. 14). It considers the descriptions of one’s interpretation

and understanding about their surroundings. Thus, it enables the researcher to yield deeper understanding on the individual's stories and experiences on knowledge sharing issues.

There are several approaches that can be used by the researcher during application of qualitative research (Morse & Richards, 2002). Each approach offers their users a different way of implementation and each serves different purposes. The differences are being viewed by Morse and Richards (2002) as “having its own prism in viewing the world, perspectives on reality and ways to organize chaos” (p. 5). According to Merriam (1998), three philosophical orientations or schools of thought that can be a basis to a research project are positivist, interpretive, and critical. This study examined the social phenomena relating to the practice of knowledge sharing whereby the act of sharing itself relies upon the inner self-factors that is not easily understood and interpreted by others. Hence, interpretive research seeks to understand the meaning of a process or lived experience, rather than to formulate and test a hypothesis, is a fitting stand for qualitative research (Merriam, 1998). In other studies, an interpretive position is also known as phenomenological, qualitative, subjectivist or humanistic (Rusli & Hasbee, 2011).

As for the research design, this study utilized a qualitative case study method to gain in-depth data in various situations relating to individual, group, organizational, social and political setting (Yin, 2003). A case study is also characterized as a type of qualitative research that provides intensive descriptions and analysis of a single unit or bounded system (Merriam, 1998). It is also a strategy to use when the researcher seeks to find answers to the “why” and “how” questions, when there is limited control over events, and when the focal point is on a contemporary phenomenon within some real-life context (Yin, 2003).

Nevertheless, the most important constituent for choosing this design is the need to delimit the object of study (Merriam, 1998). Miles and Huberman (1994) define the case as “a

phenomenon of some sort occurring in a bounded context”, essentially acting as the unit of analysis (p. 25). They depicted it at the center or as the “heart” of the study, with a dashed circle constitute the boundary of the case, of what will not be studied. This study undertook a case limited to the context of big private organizations that are successful in Malaysia. Hence, it did not study knowledge sharing phenomenon in small and medium-sized enterprises or public organizations setting. The focus centered on employees in the management position because of their involvement in the decision-making process, supervising, various teamwork projects, and liaising with other departments. Therefore, they are aware of the central phenomenon relating to knowledge sharing, of why people are willing or not willing to share their knowledge with others. In addition, since it is difficult to gain an access to those in the non-management roles due to their busyness and working in swift schedule has made it appropriate to bound the selection of the case merely within the executive in the managerial positions.

3.2 Research Instrument

The research instrument in this study is consisted of three components. First, a consent form was given to ensure the informants understand all terms and conditions of the study and sign his or her name on the form as an endorsement. A personality test was also distributed beforehand to get an overview on the personality of the informants involved as an additional profile. It was adopted from the Big Five Inventory (John & Srivastava, 1999) because it has been used widely in many studies on personality (Wang & Yang, 2007). The findings from personality test may give rooms to explore relational analysis as additional findings in this study (Bogdan & Biklen, 2003). This test also allows the researcher to achieve the objective of the study on finding personality and demographic background, specifically in identifying its relationships or patterns with whichever categories from the findings. Then, the interview

questions based on the standardized open-ended interview were used. This type of approach ensures the consistency across data collection as each informant was being asked the same questions, in the same sequence (Patton, 2002). The review of literatures and objectives of the study guided the development of interview questions. The questions are divided into four parts as below:

i. Part 1: Warming up questions

Initially, this is the part where the researcher tries to build a good rapport with the informant before proceeding with specific questions.

For an example: “Hi. My name is Khaddraa Rajuli. How are you?”

ii. Part 2: Situating questions

This part required the informant to recall his or her experiences based on a question.

For an example: “Based on your previous working experience, what is/are the useful knowledge and skills that you can apply into current work?”

iii. Part 3: Interviewing questions

This part asked questions based on the objectives or research questions. The questions asked are presented in the following table:

Table 3.1: Interview questions

Research Objectives	Interview Questions
1. To identify what types of work-related knowledge employees are willing to share	- What types of knowledge do you share and what types of knowledge do you withhold? Please explain.
2. To identify with whom people are willing to share knowledge with	- Are you willing to share your knowledge with your (refer to the list of people) Do you have any set of preferences on the kind of people that you perceive as worthy to be the recipients of your knowledge? Please explain.
3. To find out how the organization promotes knowledge sharing among employees	- How is knowledge created, captured, shared and used in your company? Please explain briefly and give some examples.

Table 3.1 continued

Research Objectives	Interview Questions
4. To identify factors that contribute towards knowledge sharing in the organization	- What are the reasons for your willingness to share knowledge with other employees? - Do you think rewards can encourage you to share knowledge with others? Please explain your answer. - In your opinion, what are the other enabling conditions that help to promote knowledge sharing in your organization? - Based on your various connections with others, do you think the difference in the strength of the relationship has any influences on the content of knowledge being shared (e.g. quality and/or quantity of knowledge). Please explain.
5. To identify factors that inhibit knowledge sharing in the organization	- Have you ever encountered a situation where you are not willing to share your knowledge with others? Please explain. - What are the other potential barriers, issues or challenges to effective knowledge sharing?
6. To identify the benefits of knowledge sharing in the organization	- Are you aware of the importance and impact of knowledge sharing towards (i) you and (ii) your company? Please explain.
7. To identify the characteristics of the knowledge sharer	- From your experience, what are the characteristics of the knowledge sharer?

iv. Part 4: Demographic background questions

This part gathered information on demographic background of informants such as gender, race, age, education and others. Taking into consideration that informants might not have any clue on what questions will be asked, this part was placed last. This is done to ensure that informants feel secure with their answers and only then provide their personal information.

3.3 Reliability and Validity

Reliability refers to the degree of consistency in which it measures whatever it is measuring and validity refers to the extent to which an instrument measures what it claims to measure (Ary, Jacobs, Razavieh, & Sorensen, 2009). Some researchers used confirmability as

the alternative word for validity. Confirmability is defined as the accuracy or credibility of the findings determined by the researcher through specific strategies (Stoner, 2010). To avoid any inconsistencies or error in the data, the researcher had conducted a pretest study by interviewing several informants in an organization. Structured interview was used to ensure that same questions are being asked for every informant. Using a structured data collection instrument ensured the reliability of data in this study.

As mentioned earlier, it is important for the informant to understand the questions. In order to achieve this, some changes could be made whenever it is required without altering the purpose and nature of the question. Thus, validity is critical since the initial process of developing the instrument. Pretests are done to determine the rigorousness of the instrument and method used to ensure the elimination of biasness and incorrectness. To verify validity of data analyzed, the researcher requested the help of peers as inter-coders to review on the analysis and coding done. Each information provided by the informants was checked thoroughly. Experts such as the research supervisor and linguists were involved in the coding. The researcher seeks their expertise in their area of knowledge management and language. Their guidance is also acquired for the analysis of data and coding, which includes conceptual and relational analysis. Lastly, the informants were asked to check for confirmation on the analysis that had been done, interpreted and described by the researcher, and provide insight on whether any amendment is required. This is the most crucial part of validation, to avoid misinterpretation of data.

3.4 Pretest

A pretest is defined by Alreck and Settle (1995, as cited in Boudreau, Gefen, & Straub, 2001), as “a preliminary trial of some or all aspects of the instrument to ensure that there are no unanticipated difficulties” (p. 4). To ensure the prepared instrument is valid and

reliable, the employment of inter-coder is needed. Preliminary findings were examined by the experts, which includes supervisors and the linguists as well as using peers to provide additional feedback for instrument improvement. Other than that, the researcher also tested the instrument on one executive and a manager. The informants were requested to answer the questions in the questionnaire and provided comments wherever necessary. Amendments were done according to their comment and answers, for instance, on the wording of intra- and inter-organization, were changed to within and between organizations as these have caused confusion. The pretest not only helped the researcher to improve the questionnaire, but also helped to ensure the robustness of the instrument in terms of understandability, clarity and relevancy.

3.5 Ethical Considerations

Originated from the Greek's word, "ethos" (Rogelberg, 2002), ethics is generally defined by Merriam-Webster (2013) as the principles that governs the conduct of an individual or a group. In the context of research, ethics is concerned with the ethical issues that arise from the intervention of researchers, which might potentially affect those who participated in the research. As a result, some important steps need to be taken to secure the human subject from any harm, if necessary (Schnell & Heinritz, 2006, as cited in Flick, 2011).

Hence, to prevent any unethical conducts of research, Diener and Crandall (1978, as cited in Bryman & Bell, 2003), has provided four ethical principles. First, the researcher has to ensure that the research inflict no harm to the participants, be it physically or psychologically. Second, the participants must be fully informed about the purpose of the research and how the data is going to be used. In addition, the researcher must maintain the

privacy of participants by assuring their confidentiality and anonymity. Lastly, it is important for the researcher to circumvent any deceptions at all stages of research.

In this study, the researcher has acknowledged the following criteria to achieve good research conduct. Hence, a consent letter was used as a medium to convey the message (see appendix B). The informants were required to read and understand the terms and conditions of the research before they sign or agree to participate. This initial stage of interview is essential because the informants need to be informed about the research process and how their data and profile will be used afterwards.

3.6 Data Collection Techniques

Data could be collected in many ways. Gillham (2000) describes this raw material as evidence, in which later, need to be made sense of. In this study, data was collected mainly using a standardized open-ended questionnaire. The literature review method was also used as another source of evidence in this study.

3.6.1 Standardized Open-Ended Survey Questionnaire and Follow-up Interview

The informants' views on issues related to knowledge sharing were based on a standardized open-ended survey questionnaire followed by several interview sessions, whenever required. This technique is crucial because it acts as the primary source of data that provides the bulk information in this research. The written survey questionnaire was used as the main technique of data collection in accord with informants' preference. Most of them prefer the written option over verbal or face-to-face interview sessions because it is more convenient, where they can fill-in or answer the questionnaire during their free time. The questions given were in open-ended structure so that they can respond better and have more freedom to explain their opinion on the topic of interest. Correspondingly, follow-up interviews were used in this study when the responses from informants required further

clarification. The structured interview method is chosen because it is highly focused and ensured standardization during the process of data collection, in which each informant has the same set of questions asked in the same sequence. It is also helpful at a later stage of data analysis, where the researcher could easily locate, organize and make comparison on individual's response according to the research question (Patton, 2002).

3.6.2 Literature Review Method

Other than collecting data from the primary subjects, it is also important for this study to seek out evidence from other sources as well. Hence, secondary data from the published literatures were used to obtain data that does not come directly from the informants. Literature review method is defined as a study that uses other studies as its data, in which it identifies, analyzes and synthesizes available relevant research to a particular set of research question or topic (Kitchenham, 2004). Gillham (2000) described this type of material as written evidence existing in the form of published evidence, defined as data that have been done or found by other researchers, or related government or other official publications. In this study, journals, books and online articles mainly related to the topic of knowledge sharing become the interest of the researcher. Keywords of each objective of the study such as “barriers”, “factors”, “types of knowledge” were also included in the library database search. This secondary data is beneficial in this study as supplement to the primary data and to obtain additional information. Learning from other researchers' works or findings are important components that help strengthened findings of this study (Gillham, 2000).

3.6.3 Personality Test

Personality test was used in this study to collect data related to informants' personality. There are many types of personality test such as the Myers-Brigg Type Indicator and the Eysenck Personality Inventory (Feist & Feist, 2009). Nevertheless, this study adopted

the Big Five Inventory or Five-Factor Personality Test because it is most widely used in many personality-related studies across various cultures (Wang & Yang, 2007). Adopted from John (1992, as cited in John & Srivastava, 1999), this test consist of 44 items of short phrases describing one's description of personality and it was used in this study as an added informational background from the informants, which significant to examine the relationship between demographic factors and knowledge sharing variable. Their answers were then evaluated according to the given scoring instruction and overall score for each trait of the Big Five that is openness, conscientiousness, extraversion, agreeableness and neuroticism are shown in the appendix. However, the use of this personality test is limited in finding out the personality types of knowledge sharer and it only contributes to the demographic variables of the informants.

3.7 Actual Data Collection and Analysis

3.7.1 Research Population, Sample and Sampling

Only nine companies from different service industries in Malaysia are selected in this study. The industries involved are the utilities, construction and engineering, property and construction, specialty finance, airlines or aviation, chemicals, oil and palm, oil and energy, and automotive. The companies chosen for this study are very diverse and these companies are from Kuala Lumpur, Selangor and Sarawak. The facts that the companies are diverse in nature and from different location in Malaysia justify the reason for choosing only nine companies. The selection of these companies from diverse background increases the probability of getting diverse informants' perspectives representing the population since they came from different background and experience as well. Review implicates that there were not many studies done in various companies in the private sector, thus, it is important to explore and to obtain useful data related to knowledge sharing practices in these industries.

Thus, findings from this study can contribute towards the diversity and richness of data, as each company has its own unique culture and ways of practices. The unit of analysis was on individual people instead of a group. Hence, the emphasis was placed on what is the experience of the individuals in the context of knowledge sharing and how these individuals are affected by knowledge sharing (Patton, 2002).

In terms of the population sample, twenty-three informants were involved. The sample size was determined when a new informant is no longer required because no new information could be gathered from the informant, in which reaching saturation point. Lincoln and Guba (1985, as cited in Patton, 2002) suggested that the sampling can be discontinued if it reaches to the point of redundancy or when data is saturated. Purposive sampling, defined as “a nonprobability sampling method in which elements are selected for a purpose, because of their unique position” (Chambliss & Schutt, 2010, p. 123) was employed. They were selected from the list of managers, in which comprise of executives and managers. Choosing informants who could provide greater and richer information are useful for this study. They were the ones who are involved in a company’s planning and execution of projects, as well as are accountable to the management and teams. Thus, they are aware of the different issues and factors related to knowledge sharing. The informants involved also need to possess different demographics variables in terms of age, gender, level of education and working experiences. This is important to ensure that the research samples engaged provide information needed to meet the objectives of the study, especially to find out the relationship between the demographics variable and knowledge sharing variables.

3.7.2 Data Collection Procedures

Before proceeding to data collection, the researcher has obtained permission from the company’s management where the study was conducted. After that, the instrument was first

reviewed by the management if the instrument contravenes with the company's confidentiality or not. After getting approval, the researcher requested the help to identify potential informants who possesses different demographics in terms of age, gender, level of education and working experiences, to satisfy the need of the research. Next, the informants were required to read and understand as well as acknowledge their participation, by signing the consent form. After the questionnaires have been distributed, the informants were given two weeks to complete the questionnaire before it is collected by the researcher.

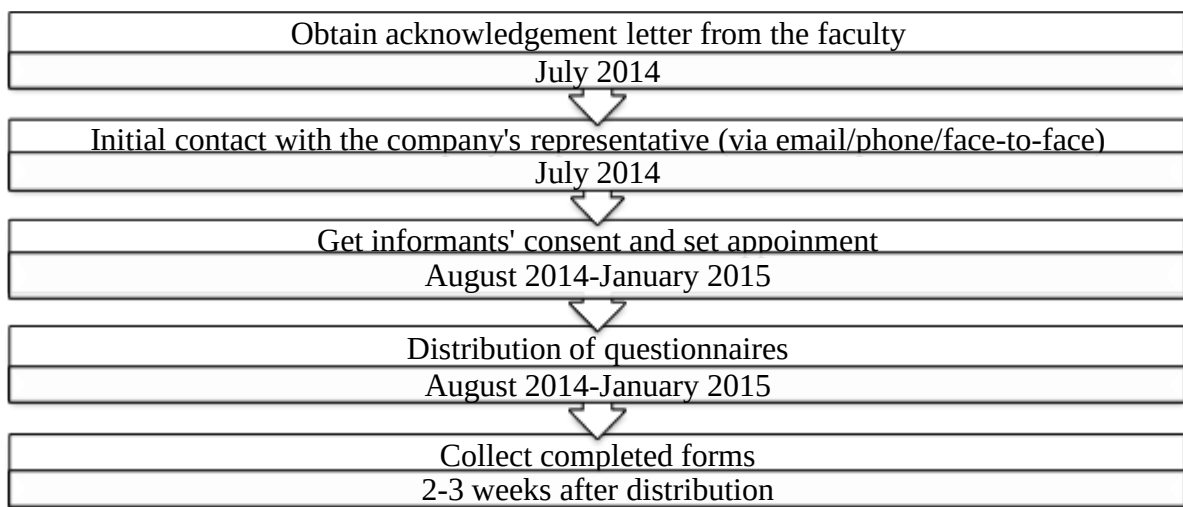


Figure 3.1: Data collection procedure

3.7.3 Data Analysis Procedures

The following figure depicts how the analysis process was performed:

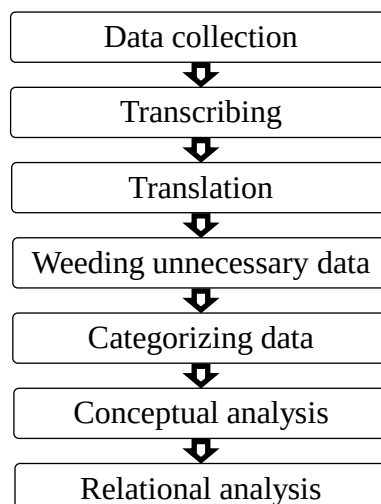


Figure 3.2: Analysis of framework
Source: Shahren (2009)

3.7.3.1 Data Transcription

Once the data is collected, transcription took place. Data gathered from the face-to-face interview, which had been recorded, were transcribed word-by-word by the researcher.

3.7.3.2 Data Translation

Data needs to be translated into the researcher's language preference in report writing. Although the research instrument was in English, informants were not restricted to answering in English. They could use the language of preference, such as the national language of Malaysia. In most of the responses, informants used English to convey their viewpoint. However, there were also informants who used both English and Malay interchangeably during the interview. Example of translation done is shown next in Table 3.2.

Table 3.2: An example of data translation

Question	Answer	Translation
What is/are the barrier(s) towards knowledge sharing?	Attitude-not willing to share/absorb information, seperti katak di bawah tempurung, rasa diri mereka pandai...	1. Like frog underneath coconut shell (proverb) 2. Think he/she knows it all

3.7.3.3 Weeding Unnecessary Data

After the data have been transcribed and translated, the next step is to remove the unnecessary words or data. In other words, the actual lengthy answers were scrutinized, summarized and synthesized, to ensure that only the relevant data related to the research objectives are chosen. Example of the process is shown below:

Table 3.3: An example of data weeding

Question	Answer	Weeding
Types of knowledge willing to share	Well, like the company values, mission and vision...we must to share with them. They must know our culture, employees' terms and condition, we must share with them. Otherwise, they do not know things like what is our working hours, what are the kind of attire/ dress code...It will create uneasiness amongst other staffs. Things like if our working hours is 8.30a.m., and then they come late, if we do not share with them	(Sharing of) the company values, mission and vision...//They must know our culture, employees' terms and condition... like what is our working hours, what are the kind of attire/ dress code...//other things like company's background...// the

Table 3.3 continued

how you could monitor their attendance to the office. There are some other things like the company's background; we also have to share with them (trainee), parts of HR things etc. But other things like the procedures of other departments we share a little bit to them...since they are interns, we do not have that much time to explain everything...I believe those interns would want to know those information...only when they ask we will disseminate the information to them.	procedures of other departments we share a little bit to them
--	---

3.7.3.4 Categorization

Before the actual analysis is performed, the researcher needs to categorize the gathered data appropriately. This is done by relocating all answers of every informant into a single document, according to the research objectives. This is shown in the appendix D.

3.7.4 Data Analysis Techniques

As this research is based on the qualitative method, the analysis of data was taken inductively. The two main activities in analyzing data by using content analysis are conceptual analysis and relational analysis.

3.7.4.1 Content Analysis

Content analysis is a systematic technique used to assign meaning to certain words, group of words, texts, concepts within texts or sets of texts or illustrations or even pictures and sets of pictures (Shahren, 2009). It involves a process of condensing raw data into categories and themes drawn from valid inferences and interpretation (Zhang & Wildemuth, 2009). This technique necessitates the need “to work with data, to organize it, to separate it into manageable units, to synthesize it, to look for patterns, to uncover what is significant and what is to be learnt as well as to determine what to be shared” (Bogdan & Biklen, 1982, as cited in Westbrook, 1994, p. 245).

Primarily, content analysis is based on the understanding that the whole text or information gained from the informant could be shortened into a piece of text with a shared meaning as the former one. The goal of this technique is not merely to focus on developing a new theory, but intends to bring out concept, patent, and themes; a relationship between variables; a model; a new procedure of doing things; a proposition; a hypothesis; and an improvement of existing theory (Shahren, 2009). In order to execute the analysis, two levels of content analysis are involved, both conceptual analysis and relational analysis (Shahren, 2009).

(a) Conceptual Analysis

Conceptual analysis is the primary level of the content analysis technique. It is also known as thematic analysis. At this level, the researcher is looking for the occurrence of selected terms within a text or texts, which can be interpreted directly or indirectly (Busch et al., 2012). It involves a process of reduction from full text into a simplified yet focused term, which indicate important messages are being conveyed by the participants.

Essentially, the data gathered from the interview were categorized according to research questions and objectives. After that, all the transcribed form of data need to undergo the process of inference, deduction, judgment, interpretation and making a conclusion to give meaning to specific words, group of words, or texts. Intentionally, the goal of this level is to identify the concepts for terms as well as coding text into manageable categories. An example of a question asked in the interview is, “Have you ever encountered a situation where you are not willing to share your knowledge with others? Please explain.” Based on the research question, the researcher analyzed the text or data to look for the element that hinders someone from sharing his or her knowledge with others. For instance, the informant answered, “Yes. When the person is acting like he or she knows everything.” This answer showed an

explanation that Informant X did not share his knowledge to someone who “know-it-all”, in which coded as “know-it all” and was put under the category of negative attitude. Other codes used for that category includes care less, liar, selfish and so forth. The negative attitude was then clustered as the individual barrier to knowledge sharing. As the process of coding can be problematic, a good dictionary with thesaurus was used and expert opinions were also sought after to help interpret the data and to achieve mutual decisions on a concept (Shahren, 2009).

(b) Relational Analysis

In accordance with conceptual analysis, the next step, relational analysis will further elaborate the content analysis process. Also known as semantic analysis (Palmquist, Carley, & Dale, 1997, as cited in Busch et al., 2012), this method attempts to look at the relationship between the variables and reveal the pattern between them. Nevertheless, relational analysis does not necessarily look upon the exploration of the relationship among variables. Rather, it might also look for semantic or meaningful relationships of the variables. It is because the meaning could only be seen when there is more than one variable that exists in a text (Shahren, 2009). As the end-product of analysis, the identified relationships will be represented in a graphic display or in a mapping form. The five steps required in doing relational analysis is shown next, in Figure 3.3.

The first step requires the researcher to identify the research question to be conducted. In this study, the analysis involved each of the objectives being studied on the “what”, “why” and “how” questions. For instance, in finding the relationship between demographic factors and why knowledge is being shared, the informants’ response on the question “What are the reasons for your willingness to share knowledge with other employees?” were analyzed. The concept was identified, for instance, knowledge is being shared because it is perceived as a sense of responsibility. The demographic variables of the informants whose answer under the

same concept were examined, whether the same pattern or characteristic occurred. Some commonalities in term of gender, marital status, role, personality and service period were found. Male informants, married, holding a position of senior manager, having been working for more than six years in the organization and characterized as conscientious and emotionally stable, are more driven to share knowledge because of the feeling of responsibility.

In defining a relationship, three types of concept can be used which are strength, sign or direction (Shahren, 2009; Busch et al., 2012). The direction of relationship was used in this study in which implied the type of relationship categories display such as “variable X implies variable Y” (Shahren, 2009; Busch et al., 2012). The arrows signified the type of relationship, showing the directions between the demographic variables and knowledge sharing variable. Lastly, the finding is represented in a graphical form to depict the relationships between the concepts, as shown in Section 4.3.8.

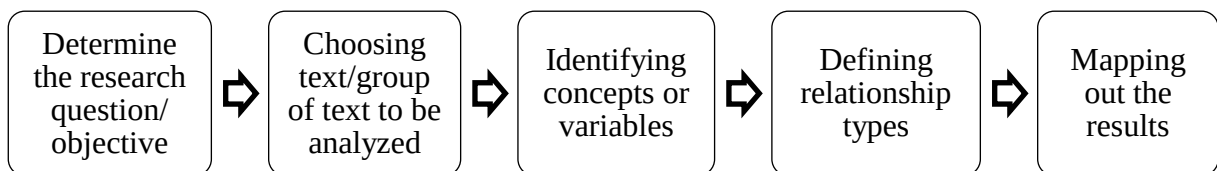


Figure 3.3: Relational analysis process
Source: Shahren (2009)

3.8 Summary

This chapter had discussed about the methodology used in this study. The discussion included elements such as research design, research sample, research instrument, ethical consideration, data collection procedures and technique, data analysis procedures, as well as the reliability and validity of the study. The next chapter will discuss the findings of the study.

CHAPTER 4

RESEARCH FINDINGS AND ANALYSIS

4.0 Introduction

Generally, this chapter contains the results of the data. It starts with the informants' demographic background in Section 4.1, and a brief introduction of their profile in Section 4.2. The following Section 4.3 provides the research findings that illustrate answers or insights from the informants for each research question. Several findings that are not found in the previous literatures and could be new findings of the study are presented in Section 4.4. The chapter ends with a summary.

4.1 Informants' Demographic Background (Descriptive)

Overall, there were twenty-three employees who took part in this study. The informants' descriptive demographic background are stated next, in Table 4.1.

Table 4.1: Informants' demographic background

INFORMANT	AGE	GENDER	RELIGION	RACE/ETHNICITY	MARITAL STATUS	JOB POSITION	HIGHEST EDUCATION	SERVICE PERIOD (YEARS)	DEPARTMENT	PRIVATE ORGANIZATIONS
1	45	M	Islam	Malay	M	Senior Exec.	Degree	1.4	Land & Survey	Utilities
2	57	M	Islam	Malay	M	Senior Man.	Degree	33	People & Leader- ship Dev.	Utilities

Acronym:

M/F=Male/Female; M/S=Married/Single; Exec.=Executive; Man.=Manager; Dev.=Development; Mth=Month

Table 4.1 continued

INFORMANT	AGE	GENDER	RELIGION	RACE/ETHNICITY	MARITAL STATUS	JOB POSITION	HIGHEST EDUCATION	SERVICE PERIOD (YEARS)	DEPARTMENT	PRIVATE ORGANIZATIONS
3	26	F	Islam	Kenyah	M	Exec.	Degree	1	Corp. Shared Service	Utilities
4	31	F	Islam	Malay	M	Exec.	Masters	8	People & Leadership Dev.	Utilities
5	30	F	Buddhist	Chinese	S	Exec.	Degree	5	HR	Utilities
6	40+	F	Islam	Malay	M	Man.	Degree	17	HR	Construction and Engineering
7	35	M	Christian	Bidayuh	S	Senior Exec.	Degree	7	HR	Property and Construction
8	51	M	Islam	Melanau	M	Man.	Degree	4 Mth.	HRD	Specialty Finance
9	29	M	Islam	Malay	S	Man.	Masters	5.5	Sales	Airlines/Aviation
10	54	F	Christian	Chinese	S	Senior Man.	Degree	2	Purchasing	Chemicals
11	30+	F	Buddhist	Chinese	S	Exec.	Advanced Diploma	2-3	Sales	Chemicals
12	36	M	Christian	Caucasian	M	Senior Man.	Degree	13	Eng.	Chemicals
13	41	M	Buddhist	Chinese	S	Man.	Diploma	8	Sales	Chemicals
14	56+	M	Islam	Malay	M	Man.	Degree	3	COO	Oil palm
15	41	M	Christian	Melanau	M	Man.	Degree	15	Finance	Oil palm
16	46	M	Christian	Bidayuh	M	Senior Exec.	Diploma	1.5	Internal Audit	Oil palm
17	48	M	Christian	Kelabit	M	Senior Man.	Masters	23	Health, Safety & Quality	Oil and Energy
18	26	M	Hindu	Indian	S	Exec.	Degree	2	HR	Oil and Energy
19	28	F	Christian	Chinese	S	Exec.	Degree	2	HR	Oil and Energy

Acronym:

M/F= Male/Female; M/S=Married/Single; Exec. =Executive; Man. =Manager; Dev. =Development; HR=Human Resource; HRD=Human Resource Development; Mth. =Month; Corp. =Corporate; COO=Chief Operating Officer; ESH=Environment, Safety and Health

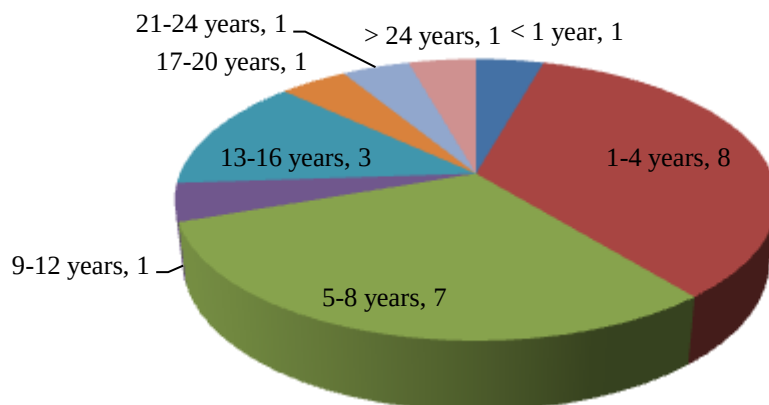
Table 4.1 continued

INFORMANT	AGE	GENDER	RELIGION	RACE/ETHNICITY	MARITAL STATUS	JOB POSITION	HIGHEST EDUCATION	SERVICE PERIOD (YEARS)	DEPARTMENT	PRIVATE ORGANIZATIONS
20	40	F	Christian	Chinese	M	Senior Man.	Degree	9	ESH	Automotive
21	43	M	Islam	Malay	M	Senior Man.	Master	7+	HR	Automotive
22	35	M	Islam	Malay	S	Senior Exec.	Degree	8	HR	Automotive
23	28	F	Islam	Malay	S	Exec.	Degree	2	Production, Logistic & Distribution	Automotive

Acronym:

M/F= Male/Female; M/S=Married/Single; Exec. =Executive; Man. =Manager; Dev. =Development; HR=Human Resource; HRD=Human Resource Development; Mth. =Month; Corp. =Corporate; COO=Chief Operating Officer; ESH=Environment, Safety and Health

Based on the above table, the informants' age ranges from 26 to 57 years old and from the executives to senior manager positions. Most of the employees who participated in this study are in their first to four years and five to eight years of working service. There is also an employee who was in his fourth month in the company. The longest service period is 33 years. This shown in Figure 4.1.

**Figure 4.1:** Number of informants according to service period

In addition, there were fourteen male informants and nine female informants who participated in the study. As shown in Figure 4.2, male informants were more than the females.

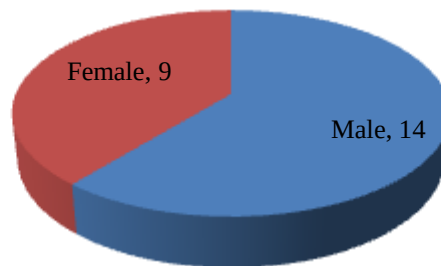


Figure 4.2: Number of informants according to gender

In terms of ethnicity, as shown in Figure 4.3, majority of the informants were Malay. There were also Chinese, Indian and an expatriate that participated in this study. Other bumiputras includes other non-malay indigenous groups such as Iban, Kenyah, Kelabit, Melanau, Bidayuh and others.

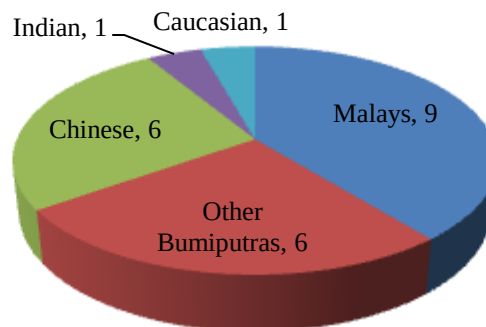


Figure 4.3: Number of informants according to ethnicity

As for the educational level shown in Figure 4.4, majority of the informants were bachelor's degree graduates. However, the highest level of education of participants that participated in this study was a master's degree, which was acquired by four informants.

Besides that, two of the informants were diploma holders and one having advanced diploma. The demographic profile of informant can be summarized in the following figures.

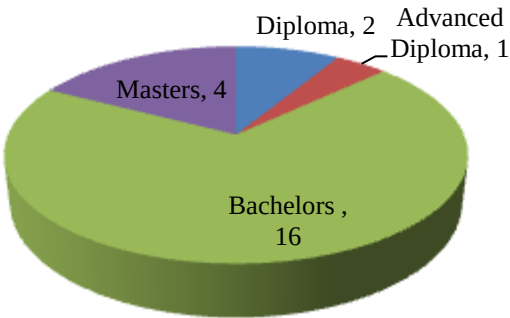


Figure 4.4: Number of informants according to educational level

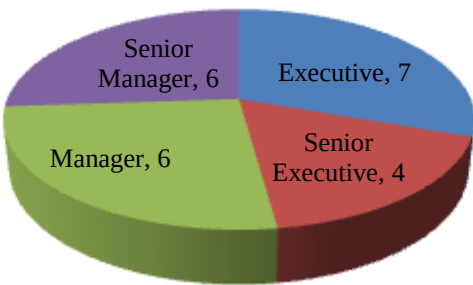


Figure 4.5: Number of informants according to job position

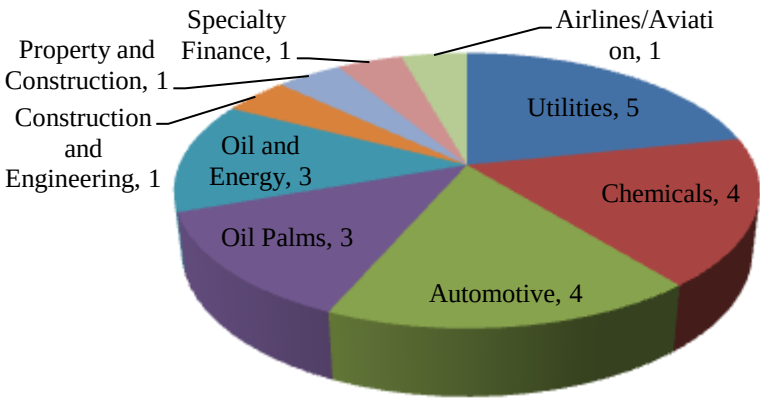


Figure 4.6: Number of informants according to industry

4.2 Informants' Profile Report

4.2.1 Informant 1

Informant 1 is a senior executive from the Land and Survey Department. He has several years of experience, before he joined the organization for the last one year and five months. He is an expert in land administration and valuation and is responsible in monitoring and controlling all projects in the company. He is a Muslim, Malay, married and holds a bachelor's degree. Most of the gained skills and expertise comes from on-the-job. In terms of personality, he scores a moderate range for all five dimensions of the Big Five.

4.2.2 Informant 2

Informant 2 is a senior manager of Human Resource Services in the department of People and Leadership Development. He is a Malay, Muslim and married. He has been providing his service to the organization for thirty-three years, in which his involvement is largely in the recruitment, benefits administration and implementing Information Governance Information Security and Management System. He is a bachelor's degree holder, and is an expert in Quality Management System and Human Resource Services and skillful in managing people. He acquired most of the skills and expertise from his training and work experience. In term of personality, he scores high in conscientiousness and agreeableness, and a middle range for the other three dimensions.

4.2.3 Informant 3

The third informant is an executive from the Corporate Shared Service Department, who has joined the company for a year. She is a Kenyah, Muslim and married. She is a bachelor's degree holder, and her expertise is in the area of land management. In her current job, she is responsible for the arrangement of tower base compensation. Although she is new

to the organization, she is skillful in communicating with the customers and knows how to handle people during meetings. In terms of personality, she has an average score for all of the Big Five dimensions, which are openness, conscientiousness, extraversion, agreeableness and neuroticism.

4.2.4 Informant 4

Informant 4 is a Human Resource executive, who is responsible in overseeing the staff's upgrading and promotion, recruitment and advising them on any human resource related matter. She is a Malay, Muslim, married and has joined the organization for eight years. She is a master's degree holder, and is an expert in employee relations and human resource. Other than that, she is also knowledgeable in Sarawak Labor Ordinance, Industrial Relations Act 1967, Human Resource Management Information System, and skillful at interviewing and negotiating. Based on the personality test, she is high in agreeableness, and moderate in openness, conscientiousness, extraversion and neuroticism.

4.2.5 Informant 5

Informant 5 is a Chinese, Buddhist and single women. She is a bachelor's degree holder, who has joined the organization for five years, as an executive in the Human Resource Department. She is responsible in handling human resource function, mainly for training. Apart from having an expertise in the human resource field, she also found herself as having knowledge and skills in managing, leading, pro-active to follow up and time management on priority work. Her personality test has revealed that she is very open and conscientious, and good in emotional control. She also scores an average for extraversion and agreeableness.

4.2.6 Informant 6

Informant 6 is a Malay, Muslim and married women, who holds a bachelor's degree. She has served the organization for seventeen years. Her area of expertise is in the Human Resource field, where her role ranges from everything related to the field, be it in recruitment, planning, training, benefits, payroll, administration and others. Other than that, she also possesses good communication and interpersonal skills, thus, helping her when dealing with people. The description of the Big Five personality characterized her as conscientious and agreeable kind of person.

4.2.7 Informant 7

Informant 7 is a senior executive, who has been working in the organization for seven years. He is a Bidayuh, Christian and single. He holds a bachelor's degree in the field of Human Resource, similar to what he is doing at work. In his current job, he is in charge of recruitment and selection of personnel as well as performing other human resource functions. Apart from recruitment and selection, his area of expertise also includes training development, and is skilled at communicating and negotiating with people. Most of his expertise and knowledge come from on the job and actual practice of HR functions. Based on the personality test, he scores high in agreeableness yet average in the other four dimensions, which are openness, conscientiousness, extraversion, and neuroticism.

4.2.8 Informant 8

Informant 8 is from Human Resource Development Department and has only been working for four months as a manager in the organization. However, he has nineteen years of work experience elsewhere. He is a Melanau, Muslim and married, who holds a bachelor's degree. Apart from having an expertise in human resource, he also has communication skills that he found useful in his role. Most of his skills and expertise were acquired from human

interaction and training. On the other hand, he scores high in most dimension of Big Five personality, which are openness, conscientiousness, agreeableness and neuroticism (i.e. emotionally stable). He is also neither extrovert nor introvert.

4.2.9 Informant 9

Informant 9 is a marketing manager of Sales Department. He is a Malay, Muslim and single. He is a graduate, and currently pursuing his master's degree and two diplomas. His main job is in sales and marketing but he also supports reservation, ticketing, sales admin, government relations and supervises his agent in Brunei in all aspects including legal, accounts, sales and marketing. His area of expertise is in airline management and his skills include communication, negotiation and managerial. According to him, the acquired knowledge comes from his personal experiences, books and videos on the internet. Based on the personality assessment, he scores high in four set of factors and low for the negative one. Meaning to say, he is open, conscientious, extrovert, agreeable and emotionally stable.

4.2.10 Informant 10

Informant 10 is a senior manager of the Purchasing Department. She has been with the organization for two years. She is a Catholic, Chinese, single and bachelor's degree holder. Her current role is to manage her team to support various departments in the company, to source, purchase and follow through with deliveries. She is also acting as a bridge between the company and suppliers. She is an expert in purchasing but also found analytical, thorough communication, negotiation and presentation as her other knowledge and skills. She acquired knowledge and skills mostly from the job (on-the-job training), attending conferences and meetings with other plants in the same company. In the personality test, she scores high in these dimensions, which are conscientiousness, agreeableness and neuroticism (i.e. emotionally stable). However, she is in a middle range of score for openness and extraversion.

4.2.11 Informant 11

Informant 11 is a sales executive who has been working in the organization for two to three years. She is a Chinese, Buddhist, and single. She is an advanced diploma holder and is an expert in general administration, event management and sales coordination. Her current role in the organization is to coordinate internal sales, which include tasks such as compiling report and statistic, preparing contracts and documents related to sales activities, preparing meeting presentation, organizing sales meetings, conferences, exhibitions and customer visits. Other than that, her previous work experience has provided her with skills in dealing with people from diverse culture and working environment. Most of the skills and expertise that she has been using in her job comes from in-house training, by seeking advice from her superior, co-worker or colleague as well as self-study through intranet when needed. She owns the characteristics of conscientious, agreeable and emotionally stable individuals. Nevertheless, she is neither closed nor open and neither introvert nor extrovert.

4.2.12 Informant 12

Informant 12 is the only expatriate who participated in this study. He is a senior manager of engineering and maintenance. He is a Canadian, Caucasian race, Christian and married. He is a bachelor's degree holder and an expert in engineering and continuous improvement. His other capabilities include problem-solving skills. His current job portfolio is to lead, direct and coordinates all engineering, maintenance and automation activities directed towards meeting plant targets as well as improving the plant. According to him, most of the skills and expertise were gained from on the job experience. In terms of personality, he is very conscientious and less neurotic individual. Nevertheless, he is moderately open, extrovert and agreeable.

4.2.13 Informant 13

Informant 13 is a Manager from the Sales Department. He is a Chinese, Buddhist, single and a Diploma holder. He has served the company for eight years. He is mainly involved in technical sales and his area of expertise includes managing sales and mentoring people. The results of his personality assessment revealed that he scored high in four dimensions of the Big Five and low in one dimension. Meaning, he is a very open, conscientious, extrovert, agreeable and emotionally stable kind of person.

4.2.14 Informant 14

Informant 14 is a manager from Chief Operating Officer Department, who is accountable for monitoring his company's performance in term of its productivity (daily, weekly, monthly, yearly), related to fresh fruit bunch (FFB) production. He is a Malay, Muslim and married. He has double degree, and is an expert in industrial relations. He is the only informant who is in a contract position. He acquired most of the knowledge and skills through discussions with superior, peers and subordinates as well as relevant articles/documents/reference books. He has a positive character in the four sets of the Big Five, classifying him as an open, conscientious, agreeable and an emotionally stable kind of person. Nevertheless, he scored a moderate range for the extraversion factor. Hence, he is neither extrovert nor introvert.

4.2.15 Informant 15

Informant 15 has been working in the organization for fifteen years. He is a Melanau, Christian, married, and holds a bachelor's degree. He is a Finance Manager, in which he is required to carry out tasks such as reporting financial performances to the Board of Management, budgeting control and monitoring, preparing the annual budget and management information system (MIS). He is an expert in accounting technical, enterprise

resource planning (ERP) system, management reporting, business intelligence tools, as well as in financial or business models. He is also knowledgeable with basic principles and concepts, technical skills, creativity, communication skills. Most of his skills and expertise were gained from hands-on experience, reading, internet, seminars and workshops as well as through experimentation. Similar to Informant 9 and 13, his results on the five dimensions of the Big Five personality test are positive. His high scores on the four factors marked him as an open, conscientious, extrovert and agreeable kind of individual. While, scoring low for neuroticism signified emotional stability.

4.2.16 Informant 16

Informant 16 is a male Bidayuh, Roman Catholic and married. He is a diploma holder who has been with the organization for eighteen months, and is an expert in oil palm plantation management. He is also knowledgeable in good agriculture practices. As a senior executive of the Internal Audit Department, his primary responsibilities are to perform the Operational Field Audit program, to assess and evaluate the adequacy of establishment of Good Agriculture Practices (GAPs) and internal controls for any inherent risks, and to assist the organization to meet its objectives. He mentioned that most of his knowledge and expertise were acquired during his university years, in agricultural science as well as from his seventeen and a half years of experience in oil and palm cultivation and estate management. In terms of personality, most of his scores fall on the average scale. However, he scores high in the agreeableness dimension.

4.2.17 Informant 17

Informant 17 is a senior manager of Quality Management System. He has been working in the organization for twenty-three years, and is an expert in system assurance provider. He is a Kelabit, Christian, married and holds a master's degree. Currently, he is

responsible in overseeing and coordinating the implementation of the company's Quality and Site Management System. As there is minimal supervision expected for his current position, he acquired most of knowledge and skills from hands-on experience. As for personality, he scores an average for most of the dimensions. He is neither closed nor open, lack of direction nor conscientious, introvert nor extrovert and emotionally stable nor neurotic. Nevertheless, he scores high in the agreeableness dimension.

4.2.18 Informant 18

Informant 18 is a Human Resource Executive who has been working for two years in the company. He is single and the only Indian and Hindu respondent in this study. He also holds a bachelor's degree. His current job responsibility is to manage the policies and processes to handle expatriate population in Asia Pacific region. He is also required to advise employees on HR policies, payments, immigration process and so on. Other than being an expert in HR, he is also skillful in event management, public speaking and time management. He is characterized as an extrovert, agreeable and emotionally stable. In terms of openness and conscientiousness, he scores an average scale. Hence, he is neither too open nor too closed and neither has lack of direction nor is conscientious.

4.2.19 Informant 19

The next informant is also an HR executive. She is a Chinese, Christian and single woman who has been working for two years in the company. She also holds a bachelor's degree. As an HR Analyst, her role includes analyzing manpower trends, create reports and storyline of slide packs in a corporate company. Other than being an HR generalist, her area of expertise also comprises of recruitment, and strategic business partnering. She further mentioned that, her previous work experience has taught her the importance of understanding the business and its current needs. Only by doing so, could she advise the business on

manpower strategies in moving forward. In terms of personality, she gets a high score for extraversion and average for the other four dimensions (openness, conscientiousness, agreeableness and neuroticism).

4.2.20 Informant 20

Informant 20 is a female, senior manager of Environment, Safety and Health, who has been working for nine years at the company. She is a Chinese, Christian, married and holds a bachelor's degree. Generally, the job requires her to manage the occupational safety and health issues of the company and to address any accidents with appropriate counter measures and prevention programs. Other than specializing in Occupational Safety, Health and Environment area, she is also skillful in communication, presentation and auditing. Most of her knowledge were gained through reading, training programs, site visits and communicating with the operations' people. Her personality test revealed that she scores high in conscientiousness and agreeableness, and scores average in openness, extraversion and neuroticism.

4.2.21 Informant 21

Informant 21 is a senior manager of the Human Resource Department. He is a Muslim, Malay, married and has been working for about seven years in the company. He also holds a master's degree. He is an expert in Human Resource Planning (HRP), strategic planning, event management, training and development, communication, presentation and public speaking. Other than HRP, that looks at developing future leaders, his role also covers employee relations that addresses the employees work-life balance; and environments, safety and health that looks at environment and safety issues at the workplace. Apart from that, he is also knowledgeable in financial management and is good at analytical thinking. He acquires all of those skills from on-the-job experience, reading and training sessions. Based on the

personality test, he obtains a similar result as Informant 9, 13 and 15. He scored high for four dimensions of the Big Five (openness, conscientiousness, extraversion and agreeableness) and low for one dimension (neuroticism). Hence, he has very positive characteristics that are open, conscientious, extrovert, agreeable and emotionally stable.

4.2.22 Informant 22

Informant 22 is a Malay, Muslim and a single man, who holds a bachelor's degree. He has served the organization for eight years as a senior executive. His area of expertise is in the Human Resource field, where he is responsible for the execution of performance management development system such as emergency communication network and succession planning. Other than that, he also possesses good communication and presentation skills, analysis and data crunching. Under the Big Five dimensions of personality, he is characterized as an agreeable kind of person. He scores an average for the other four dimensions. Therefore, he is neither opened nor closed, lack of direction nor conscientious, introvert nor extrovert, and emotionally stable nor neurotic.

4.2.23 Informant 23

The last informant is an executive of the Production Logistic and Distribution. She has joined the organization for two years. She is a Malay, Muslim, single and a bachelor's degree holder. Her main role is in the administrative area. She possesses good reporting skills and is skillful in managing conflict as well as team control. She acquired knowledge and skills mostly from observation, on-the-job experience and through reading. Her results of the personality test revealed that she is the only informant in this study who scores high in neuroticism. Nevertheless, she scores an average for openness, conscientiousness, extraversion and agreeableness.

4.3 Research Findings

This section presents the findings from the data collected from the twenty-three informants. It is presented accordingly based on the research objectives of the study, as stated in the first chapter of this report.

4.3.1 Research Objective 1: To identify what types of work-related knowledge employees are willing to share

In this part, findings were obtained from the questions asking about types of knowledge informants are willing to share with people within and across the organization. Three types of knowledge are identified in this study, mainly known as tacit and explicit knowledge as well as the most basic know-what.

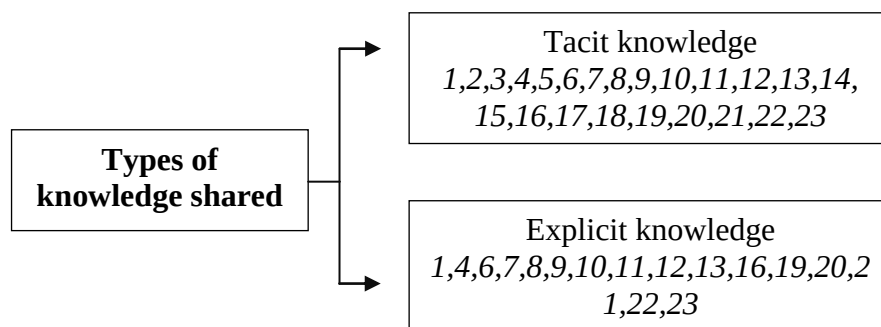


Figure 4.7: Types of knowledge shared

4.3.1.1 Tacit knowledge

The first type of knowledge is concerned with the personal knowledge that is closely related to and is owned by the holders themselves. It is tacit in nature and is being shared verbally, from either a formal or informal conversation or approach. This verbal sharing ranges from the work-related knowledge of individual role, experiences, skills and culture.

In simple terms, this kind of knowledge is resided in and is in good grasp of an individual's mind, as what Informant 3 has implied:

"I just explain to him/her (superiors) about what is in my mind because it might be the best solution."

Informant 18, on the other hand, explained that distinctive kind of knowledge is shared with people from the top management. He mentioned:

"Highest level of knowledge will be shared (to the top management)."

Individuals who have this kind of knowledge possess the ability to explain deliberately about a particular topic. Informant 21 mentioned that by giving explanations about the company's policies and procedures, it would help others to understand better about issues that affect them personally and professionally. This type of knowledge also appeared in Informant 20's answer. She stated:

"Why certain action/decisions are made, clarity of final outcomes of program."

The tacit dimension of knowledge can also be found when informants indicated the sharing of their personal opinions and suggestions throughout the discussion. Informant 1 stated:

"I share my opinion so that we can get the best results."

Substantially, the sharing of personal opinion is also triggered by others' need or request. Informant 6 implied:

"The top management asks for my opinion relating to company's compensation and benefits."

Informant 11 stated:

"Know the kinds of information that helps them best in making a decision. Bosses don't want to see problems without a recommend solution."

Other examples of tacit knowledge are found through the indication of sharing the know-how and knowledge from experiences. Examples are as below.

Informant 8 said:

“If what I share with them had worked with me or effective from my experience, that should be okay. If it is not effective, I can always share with them...just to inform them that it is a bad decision.”

Informant 8 also draws attention towards how his superior shares this kind of knowledge with him:

“I will learn from him from time to time especially on the presentation skills, because most of time he is the one who present seat during board meeting or executive committee meeting.”

Informants 19 commented:

“Showing my subordinate how a certain work needs to be done and ensure expectations are clear.”

Apart from that, this type of knowledge also entails about the individual's knowledge on the managerial part. Informant 17, for instance, who is very skillful at team management, presentations and leadership, is willing to share those skills with others. Indeed, he also devoted his time for a dedicated presentation workshop. This was echoed by Informant 21 who commented:

“Leadership related tips, project management skills, communication skills, analytical and strategic thinking.”

The tacitness of knowledge is not only found in individuals' personal brain, but also embedded in the organizational routines and practices.

Informant 6 mentioned:

“We change ideas for the benefits of all parties. For instance, on the topic of sexual harassment-we discuss how we deal about it.”

Informant 9 mentioned:

“Perhaps it could be a case study for them and their knowledge could be our case study, as long as we know which info is not confidential.”

Informant 21 asserted:

“Sharing of the company’s best practice on some non-sensitive/confidential areas.”

However, knowledge about the organization is not limited to its routines and practices. This social knowledge also concerns the social group affiliations, organizational culture and shared values. Informant 5, for instance is willing to share her knowledge about who is in charge of their projects, accounts and so on. Another example is as below.

Informant 8 mentioned:

“Well...like the company values, mission and vision. We have to share with them. They must know our culture, employees’ terms and conditions, our working hours, what are the kinds of attire/ dress code etc.”

4.3.1.2 Explicit knowledge

This study also investigated the sharing of knowledge that has been documented or is in explicit format. The knowledge holder may convey or spread his or her knowledge via email or by presenting it on paper. It also includes the knowledge specifically embedded in the company’s technologies or database systems, manuals and procedures, which can be accessed and used by the organizational members. Examples of this kind of knowledge include reports, paperwork, company profile, rules and regulations, presentation materials, quarterly bulletin, news/articles from newspapers, new contracts and new decisions on operations or instructions that are spread via email, hardcopy or phone (text).

Informant 1 stated:

“Sharing knowledge through Executive Management Committee (or Board) paper. It is necessary when there are new ideas to settle problems.”

Informant 6 said:

“Every month they (top management) requested for the payroll report.”

Informant 11 stated:

“Provide document for future reference. For them to keep their own record.”

Informant 19 stated:

“Showing the analysis from the working file. It will then allow my supervisor to open up and share his or her knowledge with me.”

Informant 19 also stated:

“In order to get the data that I need, I have to exchange knowledge with them (colleagues from different department).”

In this study, general and information-like knowledge are also being shared by the informants. Informants 6, 7 and 8, for instance, share their common knowledge about the company, such as its background. Besides, Informant 12 also shares any updates of projects with his superior from time to time. For Informant 4, any new decisions for operations would be shared with others during briefings.

Informant 7 asserted:

“Mostly on the company profile. Things like the company background, numbers of employees, the profile of our top management.”

Informant 8 said:

“...what types of word/language that you should avoid (when communicate).”

Informant 21 asserted:

“Info from management on any issues affecting colleagues.”

4.3.2 Research Objective 2: To identify with whom people are willing to share knowledge with

For this objective, informants were being asked about people they are willing to share their knowledge with. The people listed in the question include those who work within the

organization such as the superiors, subordinates, inter-department, intra-department, colleagues of the same level as well as people from other organizations. They were also being asked whether they had any preferences on people they are willing to share knowledge with.

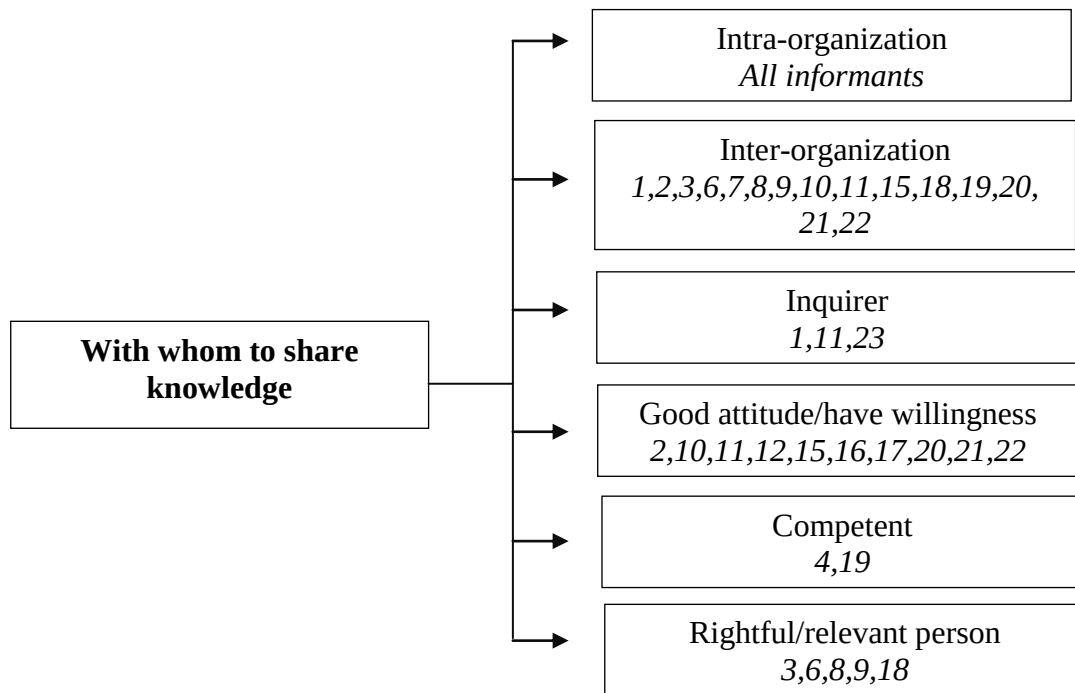


Figure 4.8: With whom people are willing to share knowledge

4.3.2.1 People within organization

Generally, most of the informants are willing to share their knowledge with people who work in the same organization. It was pointed out by their answers on types of knowledge they are willing to share with different kinds of people, listed in the question.

Informant 6, a manager, stated:

“I don't hold back any knowledge if it is beneficial to my staff or subordinate.”

On the contrary, Informant 7 indicated his superior willingness to share:

“Generally, I don't really share (skill and knowledge), normally he (superior) will (share more).”

Informant 22 stated:

“All KSE (knowledge, skills and experience) of mine shall be shared and re-shared with others, regardless what level of it.”

4.3.2.2 People from other organization

Quite a few informants indicated their willingness to share knowledge with people from other organizations. Informant 1, for example, is willing to share knowledge, but limited to general knowledge.

Informant 7 also shared his willingness to share knowledge related to his area of expertise:

“Yes, but not all (knowledge)...but I won't go into detail.”

Likewise, Informant 9 also does not mind sharing his knowledge and experience with people from other companies. He further added:

“...as long as we know which info is not confidential.”

In other instances, Informant 6 mentioned a formal network that already exists has aided her in sharing knowledge with other companies:

“Somehow, when they ask for opinion, they will call...we have our network (HR practitioner)...they ask for shift worker, how we do about shift worker. If it is not confidential, if will give them my opinion. E.g. the topic on sexual harassment-we discuss how we deal about it.”

4.3.2.3 Inquirer

Informant 1 and 23 have shared their thoughts on people who would be a focus for the sharing of knowledge. They pointed out that they would not hesitate to share if people seek for their opinions.

Informant 1 described:

“Everyone is the same, as long as they ask for it.”

Informant 11 described:

“Generally will share the knowledge with all as long as the questions/information required is not confidential. The level of knowledge being shared will sometimes be based on requester need and their willingness to learn.”

Informant 23 described:

“(To) those who request assistance and urged to know, I will try to share as details as I can.”

4.3.2.4 Good attitude/have willingness

Individuals with good attitude attract the sharers’ willingness and motivation to share. Most of the informants prefer these kinds of people to receive their knowledge which include individuals who are listeners, enthusiasts, positive and those with the willingness to learn and share.

Informant 2 described:

“A good listener. As the knowledge must be useful to the recipient.”

Informant 10 described:

“The person should be sharing and open mind. The person needs to be cooperative and not wasting my time.”

Informant 12 asserted:

“Yes. The person needs to be willing to use knowledge/not lazy.”

Informant 15 described:

“As long as the recipient shows their interest and preferably active respond as this could enhance our perspective.”

Informant 20 asserted:

“As long as they are willing to listen/learn/share information.”

Informant 22 described:

“Those who have passion and hunger to knowledge, is more preferable.”

Informant 17 described:

“Preferably, avoid cheaters and arrogant people as it’s a waste of time and energy dealing with them.”

Informant 21 described:

“People who have a positive attitude towards acquiring new knowledge and skills and willing to make required changes to improve their skills and their work.”

4.3.2.5 Competent

In other cases, the sharer feels that competent people are those who are worth to be included in the sharing process.

Informant 4 described his opinion below:

“Those who understand about their job and understand the impact or importance and able to relate the knowledge to their work.”

Informant 19 emphasized about her preferences:

“Unless it is a transfer of knowledge of more than 3 times of the exact same task, then I think it has got something to do with the recipient’s capacity/competence.”

4.3.2.6 Rightful/relevant person

The sharer may have his or her own perspectives before the decision to share knowledge is made. Those who are perceived as irrelevant to have that particular knowledge would not acquire it.

Informant 3 described:

“With the wrong person, the knowledge is not valuable to them.”

The informants also believed that certain people are their priority when it comes to sharing knowledge. Hence, they are perceived as the rightful person to receive his or her knowledge.

Informant 6, a manager, described:

“It is because of the rank. For executive, I will impart my knowledge more because they will impart their knowledge to their assistant.”

Informant 8, a manager, described:

“My subordinates. They could/might become my successor one day.”

Informant 9, a manager, described:

“Team members because I believe that as a team, you are only as strong as your weakest link.”

Informant 18, an executive, described:

“I will share my knowledge with important stakeholders like immediate line manager, team mates, team leads etc.”

4.3.3 Research Objective 3: To find out how the organization promotes knowledge sharing among employees

In this section, informants were asked about how knowledge is being disseminated and shared in the organization. Figure 4.9 shows the various activities of knowledge sharing promoted in the organization, which include via written documentation, verbal communication, information technologies (IT) tools or applications and other events or practices.

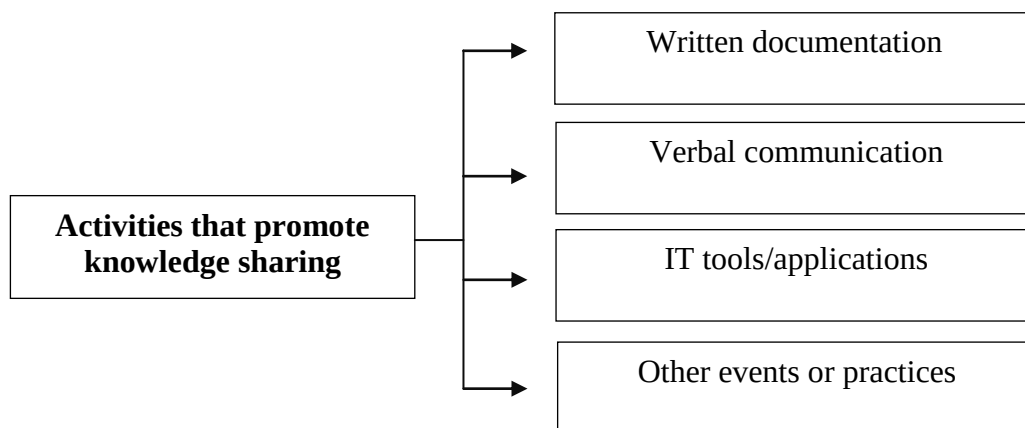


Figure 4.9: The various ways of implementing knowledge sharing

4.3.3.1 Written documentation

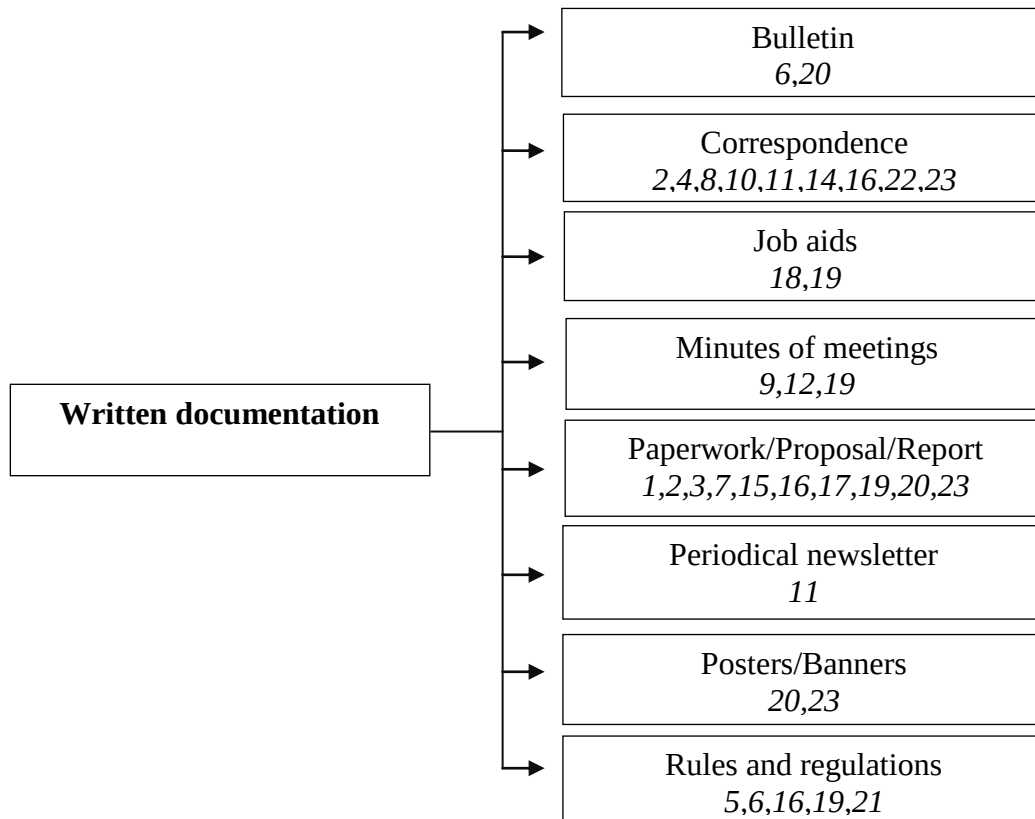


Figure 4.10: Written documentation activities that promote knowledge sharing

Written documentation includes any information or knowledge documented for organizational records, references or for sharing purposes. Figure 4.10 show examples of activities in this category, which include reports, minutes of meeting, bulletin, memorandum, posters or banners, periodical newsletters, job aids and rules and regulations which may include the Standard Operating Procedures (SOP) and International Organization for Standardization (ISO).

Informant 15 described:

“Communicate across and describe the case for reference, usually involved structured process and authority.”

4.3.3.2 Verbal communication

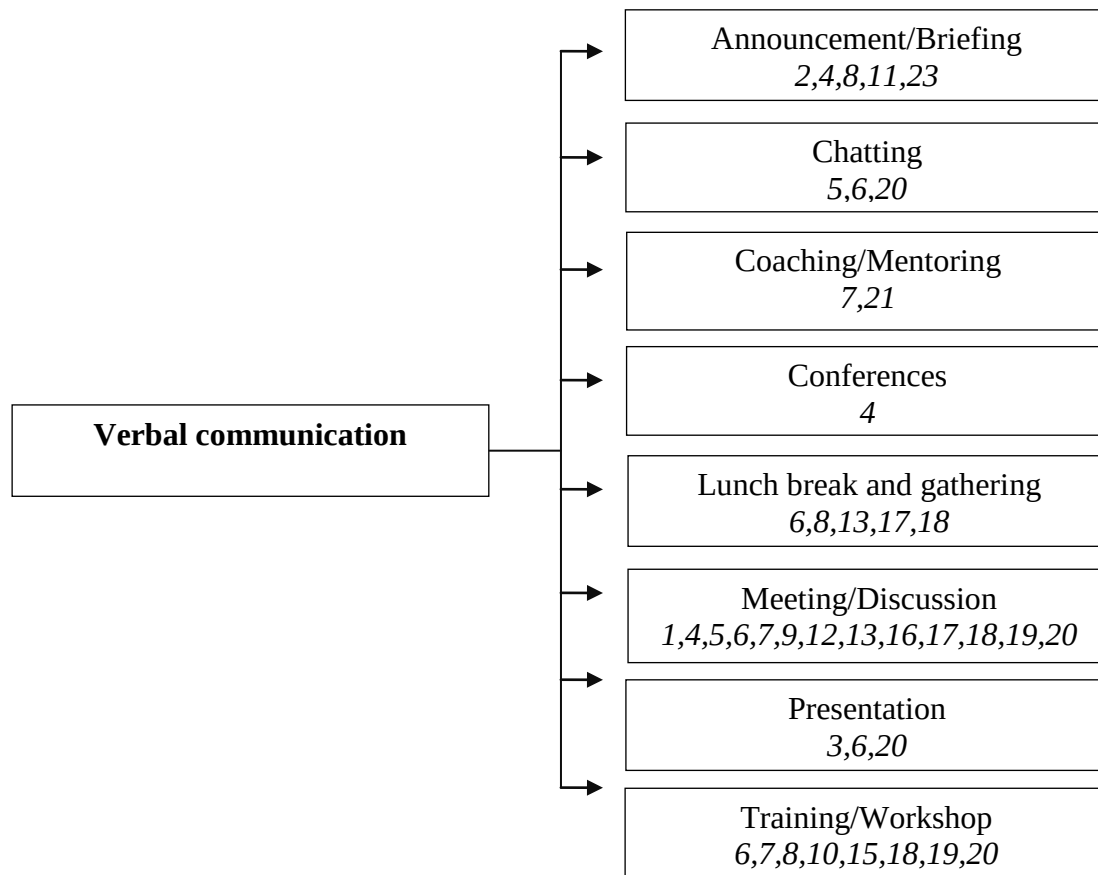


Figure 4.11: Verbal communication activities that promote knowledge sharing

Knowledge sharing can be shared effectively through verbal communication, as shown in Figure 4.11. This type of communication requires both the sharer's and seeker's presence during the process, mainly through a face-to-face discussion. It also ranges from formal discussion to informal (lunch break), as well as from a small number of participants (mentoring, coaching) to a large number of attendees (town hall meeting and conference).

Informant 1 said:

“Up to our Senior Vice President (for instance), we always talk, share opinion even if we meet at the lift (informal way).”

Informant 15 described:

“A simple form of instruction and justification/explanation.”

Informant 16 explained:

“Field visit and discussion where practical solutions can be discussed, agreed upon and immediately implemented.”

4.3.3.3 Information technologies (IT) tools or applications

The era of information technologies has given companies an opportunity to make full use of it. Its emergence provides good tools for companies to deliver messages and helping connect the employees altogether. There are two types of IT tools maximized by companies for the sharing of knowledge, ideas and skills widely, which are the internet and telecommunication, as shown in Figure 4.12.

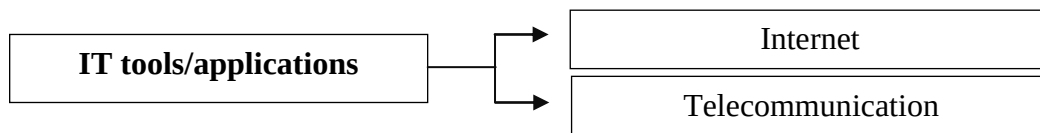


Figure 4.12: IT tools/applications that promote knowledge sharing

4.3.3.3a Internet

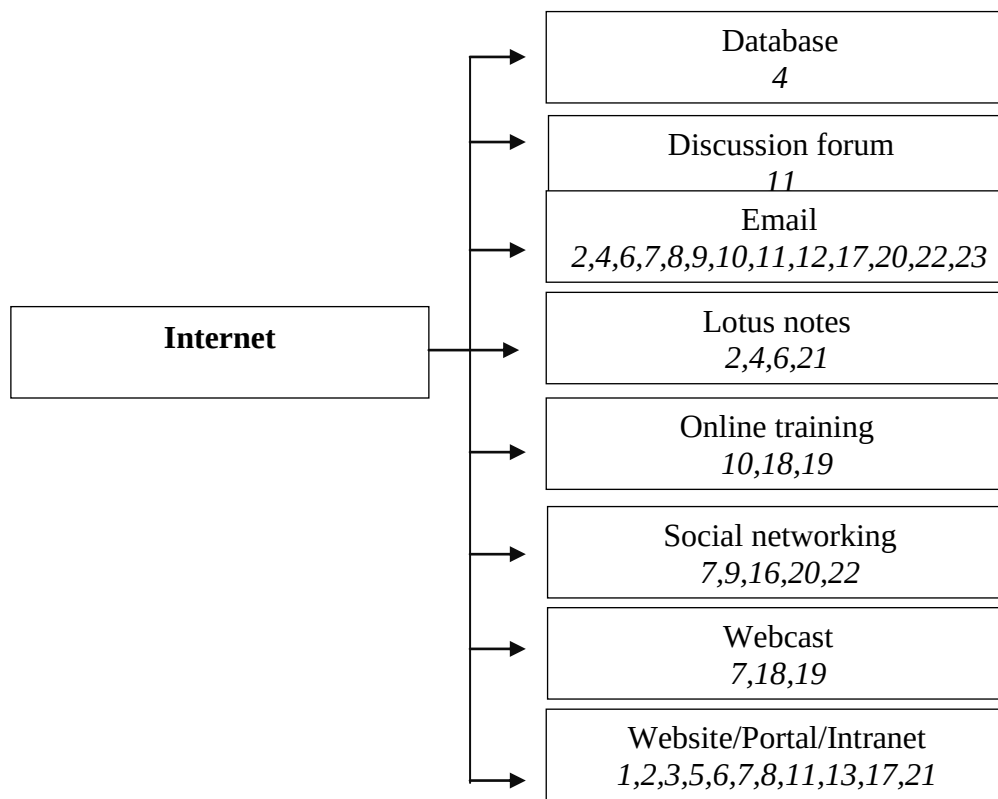


Figure 4.13: Internet as IT tools/applications to promote knowledge sharing

The internet plays an important role in today's work. It is a network of networks, which cover an array of computer networks that use Internet Protocol (IP). In this study, the services provided by the internet includes databases, discussion forums, emails, lotus notes, online training, webcast, and websites, portals and the intranet, as indicated in Figure 4.13. Among others, emails and websites have gathered the most response from the informants. There were also informants who used social media such as Facebook (Informants 9, 22) and Whatsapp (Informants 7, 9, 16, 20, 22) as platforms to share knowledge.

Informant 3 stated:

"It is through presentation and posting any essay at the company portal."

Informant 7 shared:

"We have a Google system where we can share files. All the updates of the recruitment staff I will share to the relevant person."

Informant 13 added:

"Apart from face to face and emails, now, we have Whatsapp."

4.3.3.3b Telecommunication

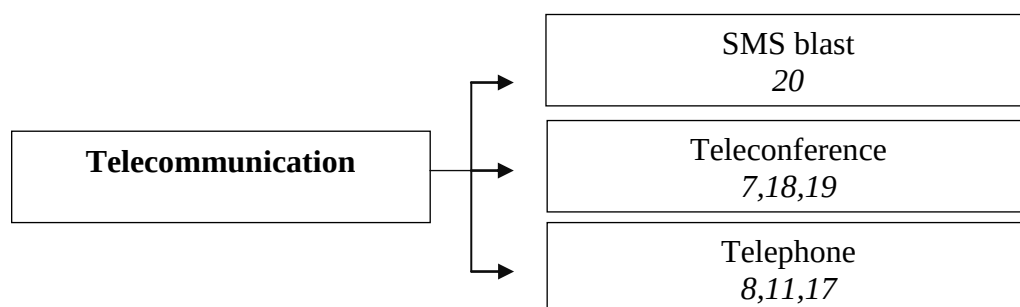


Figure 4.14: Telecommunication as IT tools/applications to promote knowledge sharing

Along with the advancement of technology, a large number of smart devices have been introduced, and certainly, there is an increasing use of them. In this study, the applications employed include telephone, teleconference and SMS blast, as shown in Figure 4.14.

4.3.3.4 Other events or practices

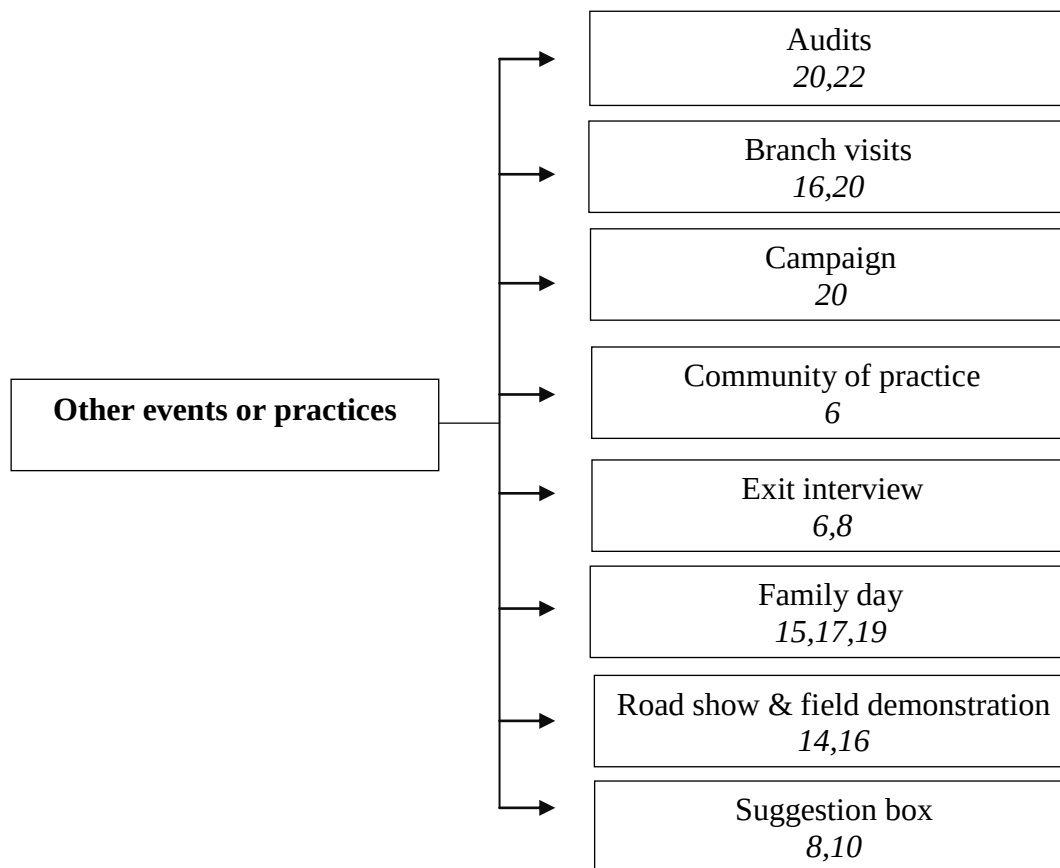


Figure 4.15: Other events/practices that promote knowledge sharing

Knowledge sharing can also be embedded in the organizational culture. Organizations may have their own activities that are being conducted and practiced regularly. It may involve practices or events such as field visits and demonstrations, audits, community of practice, exit interviews, campaigns, and suggestion boxes. Figure 4.15 shows other events or practices that promote knowledge sharing.

Informant 6 asserted:

“Actually, we have our network (HR)...we meet once in a few months. We change ideas...they ask about shift worker, how we do about it.”

Informant 8 said:

“We ask and try to tap as much knowledge/ information from the person who is leaving. We do not want the person just to leave like that...get something back from him.”

Informant 10 stated:

“Suggestion box. Where we give reward on good ideas or implemented ideas.”

Informant 15 described:

“Companies activities such as team building, family day etc.”

4.3.4 Research Objective 4: To identify factors that contribute towards knowledge sharing in the organization

In this section, informants were asked about reasons for their willingness to share as well as the other enabling factors that help to promote knowledge sharing. Figure 4.16 show the factors that contribute towards knowledge sharing in the organization.

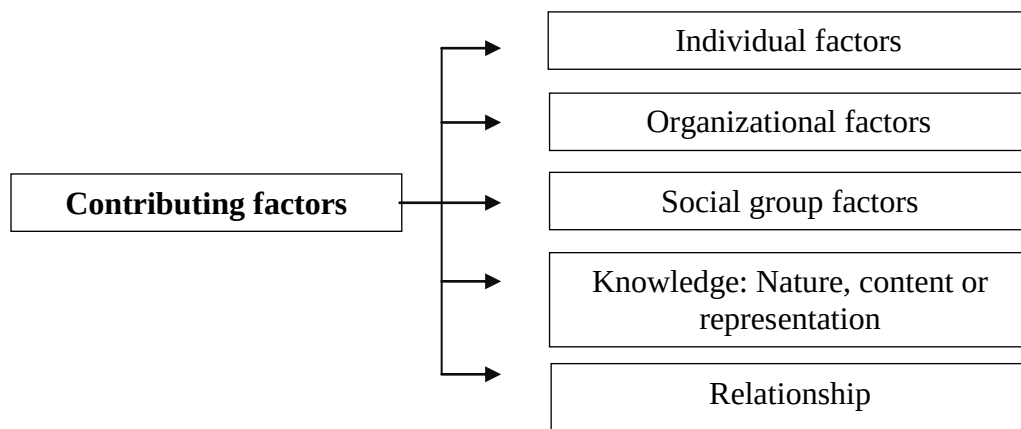


Figure 4.16: Contributing factors of knowledge sharing

4.3.4.1 Individual factors

Individual factors are an aspect that comes from a person, derived by his or her personal feelings, attitudes and perceptions before performing knowledge sharing behavior. It includes the sense of responsibility, self-motivation, personality, a positive attitude and organizational commitment. This is indicated next, in Figure 4.17.

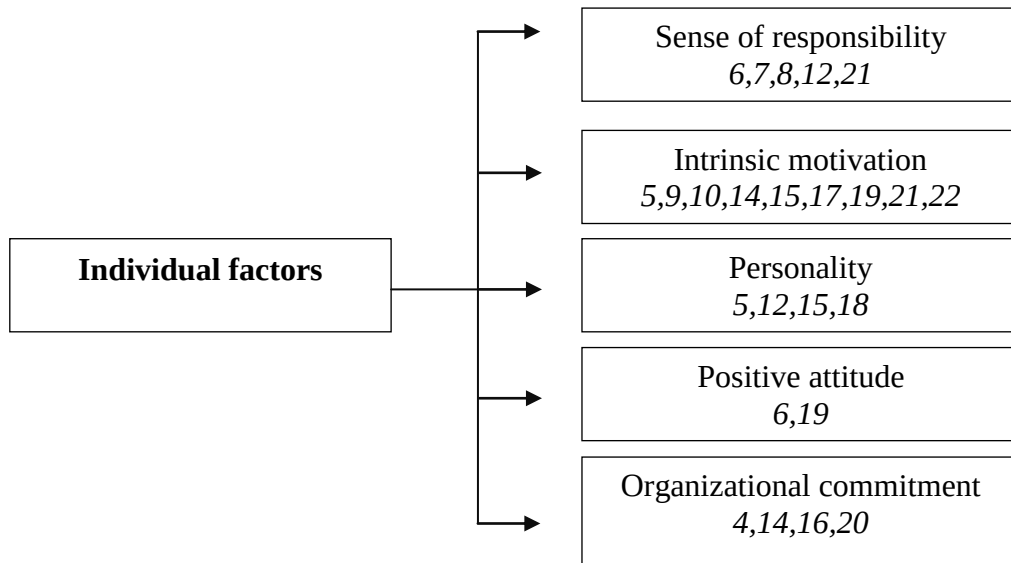


Figure 4.17: Individual factors that help knowledge sharing

(a) Sense of responsibility

Informants 6, 7, 8, 12 and 21 have similar reasons about their willingness to share knowledge with others. They perceived it as their obligation and feels it is included within their work or job scope.

Informant 7 answered:

“Nothing drives me. It is my job, my responsibility.”

Informant 8 answered:

“Because I am an HR person and also a Head of Department.”

(b) Intrinsic motivation

Quite a few informants responded that the sharing of knowledge is derived from their own intrinsic motivation. Informants 5, 9, 10, 14, 15, 17, 19, 21 and 22 shared similar views on this influence.

Informant 17 stated:

“The personal thirst of individuals to share a common business can help spur this knowledge sharing.”

Informant 22 stated:

“Passion towards knowledge and believe knowledge must be shared to all.”

At the highest form, intrinsic motivation was reflected as personal satisfaction. As stated by Informant 21:

“Personal satisfaction...the more you give, the more you will get (satisfied).”

The informants’ answers also touched upon the general and deepest inner concept: personal beliefs or principles and deeply-rooted values (i.e. faith) correspondingly. Informants 5, 9, 10, 14 and 22 have given similar opinions that relates to personal belief or principle.

Informant 5 shared:

“Personality and thought to be not selfish. Believe that the more I can share (except P&C matter) the more I can learn.”

Informant 9 mentioned:

“I believe that knowledge is very important and we do not lose anything by sharing it.”

Informant 10 responded:

“A teacher is better than a student. Once you teach, the knowledge get deepen in your mind.”

Other than that, the religious perspective towards knowledge also plays an important role in heartening individuals to contribute in knowledge sharing.

Informant 14 asserted:

“To educate them for the betterment of company, apart from "Ibadah" (the obedience, submission, and devotion to Allah (God)).”

(c) Personality

Informants 5, 12 and 18 shared the same view on the importance of one’s personality in knowledge sharing activities. Informant 12 mentioned that the reason for his willingness to share knowledge relates to his personality. He asserted that such behavior is derived from his improvement-driven personality.

Informant 18 mentioned:

“Friendly, calm, humble and have a bit sense of humor.”

(d) Positive attitude

Having a positive attitude is also a contributing factor towards knowledge sharing and was implied by Informants 6 and 19.

Informant 19 shared:

“Positive attitude will definitely help. Enterprise first the behavior as well, when people think of the company as their own business, they will do whatever it takes to retain knowledge and ensure transfer of knowledge happens.”

(e) Organizational commitment

Informants 4, 14, 16 and 20 have shared similar answers about what influences them to share knowledge. The reason behind their behavior was for the betterment of organization as a whole.

Informant 4 mentioned:

“Everyone deserves to know the most updated information as we are part of the company.”

Informant 20 mentioned:

“On OSH (Occupational Safety and Health), the more knowledgeable employees are, the better for them and the company as a whole”.

4.3.4.2 Institutional factors

(a) Organizational factors

Several organizational-related factors that contribute towards knowledge sharing include leadership, culture, rewards and recognition and opportunities to share, as shown in Figure 4.18.

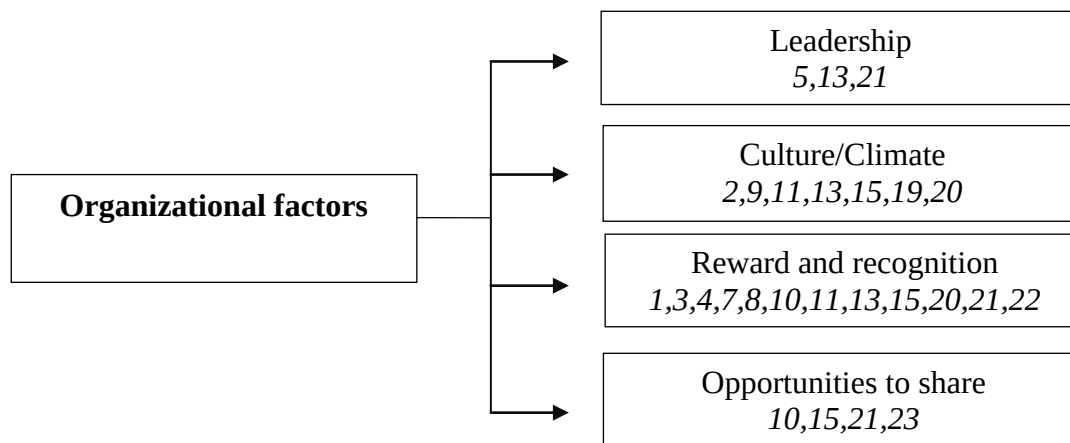


Figure 4.18: Organizational factors that help knowledge sharing

Leadership

Good leadership is perceived by Informants 5, 13 and 21 as an important factor that can foster knowledge sharing in the organization.

Informant 5 specified:

“Must have a leader who can lead well and willing to be the initiator to start sharing his/her knowledge first. Encourage from the leader and openness to accept different opinions.”

Informant 13 stated:

“Leadership and nothing else. If your leader is timid and secretive, how do you expect others to follow?”

Informant 21 shared:

“Constant promotion of knowledge sharing by leaders and managers in the organization, promoting the importance and benefits of knowledge sharing.”

Culture and working climate

Organizational culture is also one of the important factors perceived by the informants that help to promote knowledge sharing. Having a good work environment, which is guided by the philosophy and core values, was suggested by Informants 2, 9, 13, 15, 19 and 20.

Informant 2 stated:

“... because of the core values of the organization; courage, unity, respect, integrity and accountability.”

Informant 9 stated:

“The other enabling factor is the physical structure, where we sit in cubicles rather than in personal rooms.”

Informant 11 mentioned:

“Learn from experiences. After the completion of every project have a briefing of what went right and what could be improved.”

Informant 19 shared:

“I think a healthy organization might help. An environment of honesty, integrity and respect while working.”

Informant 20 shared:

“The culture of the organization must be one of the continuously improving and looking out for new ways of doing something.”

Employee rewards and recognition

Providing rewards and recognition to the employees can also encourage them to share knowledge. Informants 1, 3, 4, 7, 8, 10, 11, 13, 15, 20, 21 and 22 have shared similar opinions on it.

Informant 7 said:

“Rewards can encourage us to do anything. It is like a payback reward with their effort. Anything is worth doing and they will work hard on it.”

Informant 20 mentioned:

“(Reward) Up to certain extent, yes. But if a person does not believe in sharing information, ultimately there will always be gaps in the knowledge.”

Opportunities to share

Infrastructure is among the fundamental features for an organization. Its presence helps to provide the platform for knowledge sharing activities in the organization. It may include facilities such as building and system-based platforms, which is information technology (IT). Apart from that, opportunities to share knowledge is enabled by giving employees the chance to learn through exposure to other countries, as described by Informant 10 and also through good practices of documentation.

Informant 14 specified this as a characteristic for effective knowledge sharing:

“Through discussion, meetings, but must be documented for reference.”

Informant 21 mentioned about IT:

“...by having a systematic info infrastructure, i.e. use of IT”.

Informant 23 shared about good support in terms of facilities in enabling knowledge sharing:

“The power of resource centre. People love to stay there during lunch time”.

(b) Social group factors

Social group is a factor relating to a group of people who work together, tied up by unit, department, or organization as a whole. This is as shown in Figure 4.19.

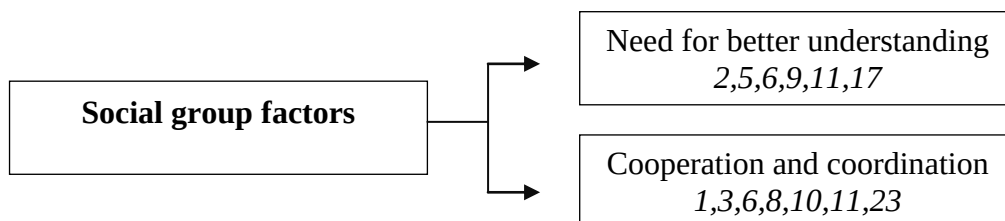


Figure 4.19: Social group factors that help knowledge sharing

Need for better understanding

The other reason for willingness to share knowledge is to ensure other employees are aware of and understand the current situation or practices in the organization. Informant 2, 5, 6, 9, 11 and 17 shared similar opinion on it.

Informant 2 shared:

“To ensure that all employees are aware of the process and moving in one direction.”

Informant 9 stated:

“Because whether or not the info is relevant to them, at least they can understand our department and get along better with us.”

Informant 11 pointed out:

“They will have more understanding to your job scope and responsibilities. Thus, easier to communicate and cooperate between each other.”

Informant 17 shared:

“This is to ensure that every team members having a common awareness level of what is going around in the company.”

Coordination and cooperation

Informants 1, 3, 6, 8, 10 and 23 asserted that their willingness to share is because it would ease them in operating their work as well as in building teamwork spirit.

Informant 3 asserted:

“So that the work become easier and can be finished on time”.

Informant 6 shared:

“Team building, so that the staff can be united and willing to share freely.”

Informant 10 shared:

“Team cooperation...that is the policy of ‘we’, not ‘I’.”

Informant 23 asserted:

“To ease working, be it in a daily routine or in ad hoc situations.”

4.3.4.3 Knowledge: Nature, content or representation

Knowledge: Nature, content or representation 4,6,9,15,16,21,23

Figure 4.20: Knowledge as a contributing factor to knowledge sharing

The knowledge itself appeared to be an important element in the process of knowledge sharing. The informants have raised their views on the nature of the knowledge, its source and promptness when they were asked about the other enabling factors of knowledge sharing.

Informant 9 asserted:

“It relates to the content of knowledge too: relevant to work, using jargons or simple words, explained with photos or case studies or just fully in words.”

Informant 15 shared:

“It has to be clear, concise, presentable, layman and informal.”

Informant 21 pointed out:

“Accuracy of information shared, choice of the most effective medium of communication, design and structure of content (based on target audience).”

4.3.4.4 Relationship

Relationship 1,2,3,6,7,8,10,11,12,13,15,16,18,19,21,23

Figure 4.21: Relationship as a contributing factor to knowledge sharing

Prior relationship in the workplace is also important for knowledge sharing to occur. Most of the informants seem to agree to this claim by relating it to the feeling of comfort or easiness, trust, closeness, reciprocity, networking and possible biasness.

Informant 10 described:

“First of all, we share info to trustworthy person. Just compare a stranger and someone we have worked closely with for the last 3 years especially those we have gone through good and bad times.”

Informant 13 implied:

“Relationship is important but nobody could share everything. Therefore, you have to go out of the box to get what you want.”

Informant 16 described:

“A strong relationship would mean the other person is of a better position to reciprocate the knowledge shared and that a detailed content in terms of quality and quantity are required.”

Informant 18 stated:

“The stronger the relationship the knowledge transfer will be easier. More quality information can be transferred and more information as well.”

Informant 19 pointed out:

“Probably. We are all human being. So, I guess there’s a certain biasness going around. But I believe in not being selfish so I will normally share as much as I can.”

Informant 21 asserted:

“The closer you are to another person, the more you will want to share knowledge with the person. This applies to both quality and quantity of information/knowledge.”

4.3.5 Research Objective 5: To identify factors that inhibit knowledge sharing among employees

For this objective, informants were asked whether they have encountered any situation where they were unwilling to share knowledge, as well as the challenges or barriers of knowledge sharing in the organizations. Figure 4.22 shows factors that inhibit knowledge sharing.

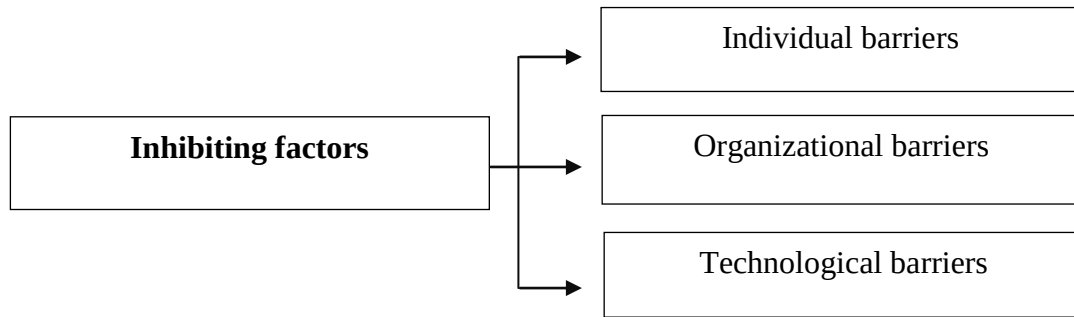


Figure 4.22: Inhibiting factors of knowledge sharing

4.3.5.1 Individual barrier

There are five individual-related factors that hinder knowledge sharing activities in the organization. They are negative attitudes, poor learning abilities, low trustworthiness, sense of worth and different personalities.

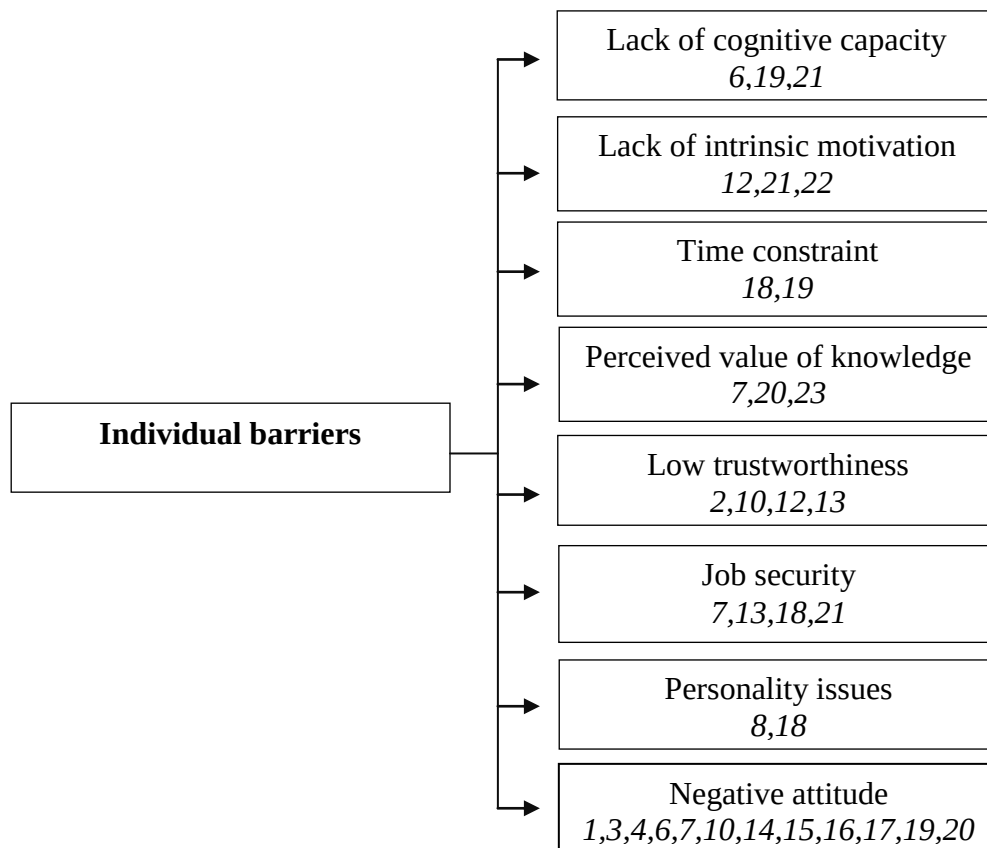


Figure 4.23: Individual barriers toward knowledge sharing

(a) Lack of cognitive capacity

The cognitive side of individuals, which includes having prior knowledge along with the ability to understand, learn and comprehend the knowledge is of necessity. Informants 6, 19 and 21 shared their concerns on this matter.

Informant 19 pinpointed that being in such situation discourage her:

“When the exact same topic/knowledge is being asked of me for more than three times. I would want the recipients to learn and understand the knowledge that I have transfer after three times...I think it has got something to do with the recipient’s capacity/competence”

Informant 21 mentioned:

“Employee who has a poor grasp of sufficient matter could be a challenge for me to share (knowledge).”

(b) Lack of intrinsic motivation

Some informants perceived that they are not driven to share their knowledge when the recipients show no effort to improve themselves.

Informant 12 stated:

“When people are not interested in improving their own skills.”

Informant 22 shared:

“When people are not eager to learn new knowledge.”

(c) Time constraint

The availability of employees to partake in knowledge sharing activities is important for knowledge sharing to occur. Their absence or overwhelming workload has caused dilemma for sharers to share knowledge, and for seekers to seek the sharers.

Informant 18 stated:

“Time constrain as everyone is busy with their own work.”

Informant 19 has described how supportive her leader is, in encouraging knowledge sharing at work. However, she further added that:

“...but sometimes it is a time factor. We can't always get access to our leaders for decision every time.”

(d) Perceived irrelevance of knowledge

For some reasons, the perception of knowledge holders on the knowledge itself, whether it is worth to share or not can also become a restriction.

Informant 7 clarified:

“It doesn't make sense for me to share to him...why bother to share when they are more skillful than me.”

Informant 20 asserted:

“Irrelevant information...It is of no value to the company...or no benefit to staff if not requested for.”

Informant 23 mentioned:

“When I feel it is not useful for others to have (the knowledge).”

(e) Low trustworthiness

Low trustworthiness is another impediment to knowledge sharing. Informants 10, 12 and 13 shared the same opinion on it.

Informant 10 stated:

“...employees who do not trust their (superior) supervision.”

Informant 13 implied:

“Yes (unwilling). (But) Only applies to people with ulterior motive.”

(f) Job security

Another underlying cause restricting knowledge sharing is because people want to be secured of their job. The protection of a particular knowledge from others is manifested due to either their own mindfulness of career advancement or to guard against any misconduct.

Informant 7 shared his discernment on his colleagues of the same level or department:

“...they compete with each other. They are afraid and do not want their position to be threatened.”

Informant 18 openly revealed his unwillingness to share his unique knowledge with his colleagues of the same department:

“...to become the expertise of a particular topic or area.”

(g) Personality issues

Individuals whose character or behavior is different from others could also pose a challenge towards knowledge sharing activities.

Informant 8 stated:

“When people are too reserve.”

Informant 18 indicated:

“Noisy and egoistic personality.”

(h) Negative attitude

Most of the informants seem to be of the same opinion that negative attitudes become the main factor that hinder the practice of knowledge sharing. The negative attitudes include arrogance, carelessness, selfishness, dishonesty, egocentric, ignorance and lack of interest.

Informant 1 asserted:

“When the person is acting like he or she knows everything”

Informant 3 described:

“Because certain people don’t want to accept other people suggestion (It is more to ego problem).”

Informant 4 described:

“Selfish team members, who keeps information to himself for his benefits only.”

Informant 6 described:

“Attitude-not willing to share or absorb information, like frog underneath coconut shell, think he knows-it-all, unwilling to listen to other people opinion, ignoring.”

Informant 10 specified:

“Individualistic people who do not giving credit back to where it should belong.”

Informant 17 described the situation he is unwilling to share knowledge:

“Particularly to individuals known to be liars and having care less attitudes.”

Informant 19 signified:

“In a bigger department, there are some individual’s behavior who do not allow knowledge sharing...where staff are selfish in behavior.”

4.3.5.2 Institutional barriers

(a) Organizational barrier

On the organizational part, the barriers towards knowledge sharing comprises of an unsupportive culture, communication issues, bureaucratic culture, poor leadership, lack of resources, lack of policies and lack of reward systems, as indicated in Figure 4.24.

Unsupportive culture

The overall working culture and unpleasant working environment restraints people from contributing and participating in the knowledge sharing processes. Informants 2, 9, 13, 17, 19 and 21 have similar views on the negative influences of culture.

Informant 9 viewed:

“A company that focuses on individual performance rather than team achievement”

Informant 13 asserted:

“Working in a secretive, fear culture as well as with strong politics.”

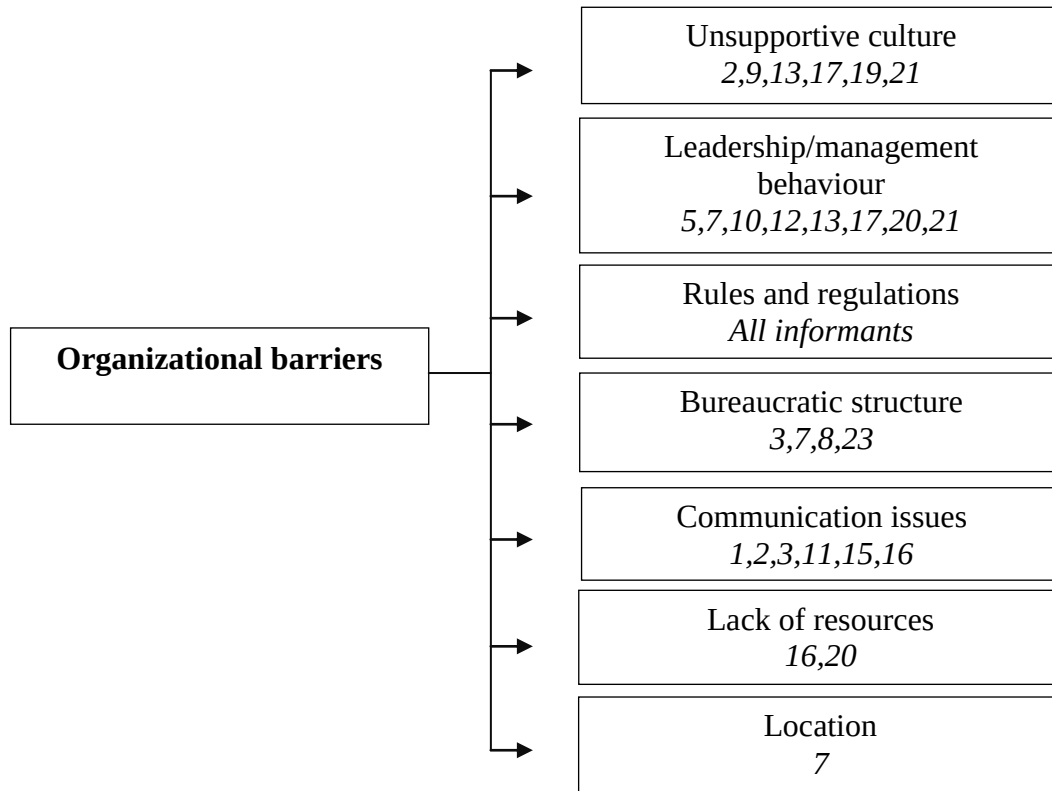


Figure 4.24: Organizational barriers toward knowledge sharing

Leadership or management behavior

Informants 5, 7, 10, 12, 13, 17, 20 and 21 have similar responses on this issue.

Unsupportive leaders or those with poor leadership style discourages knowledge sharing.

Informant 7 described the selfish type of management behavior that focuses on the outcome:

“Focus on the end-result. They don't see the importance of sharing (e.g. when they suppose to teach/guide the trainee)...they think- if I spend 10 minutes to teach you, there goes my project (delay)...and they (construction people) don't have the management skill, soft skill.”

Informant 17 described:

“A totalitarian and iron-fisted leadership style tend to silence the masses, thus discourages opinion sharing.”

Informant 20 described:

“When leaders themselves do not share and discourage knowledge sharing.”

Rules and regulations

Rules and regulations are another concern for employees as they guide the way employees should or should not behave. All of the informants perceive their job policies related to privacy and confidentiality hinders them to from sharing knowledge.

Informant 1 shared:

“Status on land matters/disputes. Knowledge on the status made known to the claimants can jeopardize the company’s counter-claim.”

Informant 5 shared:

“When it is my profession that I shall not share due to the secrecy of private and confidential related issues.”

Informant 9 shared:

“Sometimes there are knowledge that are confidential or sensitive. We must know that sharing also has its limit and condition.”

Other than confidentiality issues, Informant 19 shared another view of rules and regulations as a barrier: She mentioned:

“Policy created to reflect a wrong way for knowledge transfer.”

Bureaucratic structure

Bureaucratic structure is another inhibitor of knowledge sharing. Informants 7 and 23 perceived the hierarchical structure of an organization and the management control are a hassle for knowledge sharing with the management.

Informant 3 asserted:

“Unwilling (to share to the top management). Because I have superior and boss above me. It's a hierarchy.”

Informant 8 also finds bureaucracy to negatively influence knowledge sharing. He stated:

“I seldom speak/interact to them (top management), only on meeting-share new ideas.../// Not much sharing after the board meeting.”

Communication issues

Communication issues also makes it difficult for effective knowledge sharing. The problems may arise from the restricted communication channels, ways of deliverance, language as well as the lack of freedom of speech.

Informant 11 shared:

“Lack of freedom to speak, whereby the team members might afraid to voice out their ideas or opinions because they might get caught in bad consequences.”

Lack of resources

Lack of resource can also be a constraint faced by the organization in promoting knowledge sharing. According to Informant 16, the shortage of resources can be in terms of financial status of the company.

Informant 20, on the other hand, viewed:

“Lack of resource, competent people in sharing the information or skill.”

Location

Location also posed a problem to knowledge sharing and has been raised by Informant 7. The distance between the office site and management office creates a barrier in which information could not be transferred in a prompt manner. Added with the lack of infrastructure, it makes the sharing process even worse. He said:

“Physical location between us (management and site). Plus, site people do not have computers or an access to email system.”

(b) Social group barrier

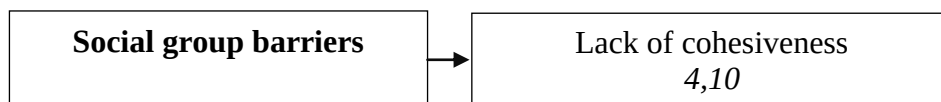


Figure 4.25: Social group barriers toward knowledge sharing

Lack of cohesiveness

One of the informants have indicated that the lack of cohesiveness is one of the obstacles to successful knowledge sharing. She mentioned that poor cooperation between departments would not allow and support the process.

4.3.5.3 Technological barrier

Technology is another aspect that can inhibit knowledge sharing. The issues associated with technology include reliability, accessibility and end user's reluctance.

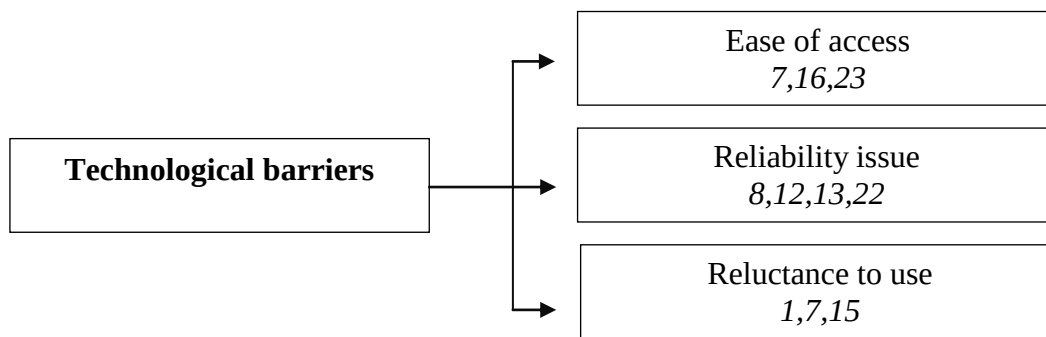


Figure 4.26: Technological barriers of knowledge sharing

(a) Accessibility issues

The ease of access is another important aspect for a well-executed IT-based system. Its failure can cause ineffective knowledge sharing in the organization.

Informant 16 mentioned:

“Medium ranged usefulness. Connectivity is an issue.”

Informant 23 stated:

“Limited access. No use.”

(b) Reliability issue

Reliability is also an issue perceived by Informants 8, 12, 13 and 22. Limitations of the IT usage include misinterpretation when conveying thoughts, disturbances and reliance.

Informant 8 said:

“...things you would like to share to other staff are limited, in a sense that you cannot express what you want to say....If I cannot get the message properly, in my email, those people who is going to receive or read it would not understand.”

Informant 13 stated:

“No. Somehow you can’t learn through IT video.”

Informant 22 stated:

“...faster but not 100% reliable. Too many scam and sedition...should exercise more on IT Act”

(c) Reluctance to use

Reluctance to use technology is another problem faced by the organization. This technological challenge lies within individuals whom referred by Informant 15, as technophobic.

Informant 1 said:

“Our older generations, some of them, they are reluctant to make use of the technology. So, sometimes you really have to coach.”

Informant 7 said:

“I don't really like IT...”

4.3.6 Research Objective 6: To identify the benefits of knowledge sharing in the organization

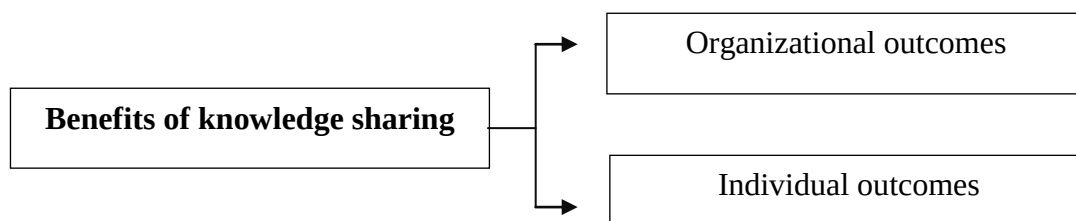


Figure 4.27: The benefits of knowledge sharing

4.3.6.1 Organizational outcome

Organizational outcomes are the benefits gained by the organization when putting knowledge sharing into practice. It includes having a strong organizational culture and achieving the desirable organizational results.

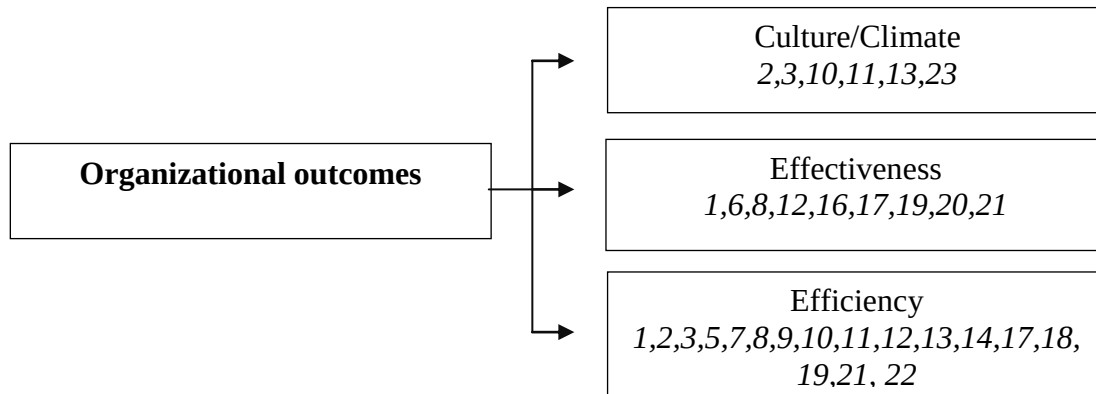


Figure 4.28: The organizational benefits of knowledge sharing

(a) Strong organizational culture/climate

Knowledge sharing, at the organizational level, can positively build a strong culture and climate. Informants 3, 10, 11, 13 and 23 believed it would lead towards a better, friendly working environment.

Informant 13 stated:

“It promotes loyalty and happy culture.”

Informant 11 viewed:

“Harmonize working environment where both company and employees can grow together.”

(b) Organizational effectiveness

Organizational effectiveness is another benefit knowledge sharing can bring to the organization. It refers to the accomplishment of a particular target set beforehand. Informants 1, 6, 8 and 17 for instance, believed that knowledge sharing helps the organizations to achieve the Key Performance Indicators (KPI), improve their productivity and profitability. In addition, Informants 16, 20 and 21 shared their thoughts on achievement of goals.

Informant 16 shared:

“Certain knowledge that is “applicable on all employees is required for cohesiveness in efforts to achieve the company's objectives.”

Informant 19 asserted:

“Organization is able to deliver for business and earn money.”

Informant 20 shared:

“The more staff knows what the direction and goal of the company is, with the necessary knowledge to achieve the goals that is critical to move the whole company in the right direction.”

(c) Improve operational efficiency

Efficiency outcomes are benefits related to the current progress, performance or situation of a program before heading to success. It includes the enhancement of communication and improves task performance.

Knowledge sharing enhances the process of communication by means of employees having mutual understanding, becoming more tolerant, and being updated with the current issues. Furthermore, it can also increase collaboration and teamwork. Informants 2, 5, 10, 14, 21, 22 conveyed this as the benefit gained from knowledge sharing.

Informant 14 stated:

“One will be more knowledgeable with other people's responsibilities/works and tend to be more tolerance as to appreciate the difficulties of others”

Informant 21 stated:

“Knowledge sharing especially among department members is crucial to promote better understanding, achieving common goals and results.”

Informant 22 stated:

“It can lead the knowledge still in the flow of people communication.”

Other than that, knowledge sharing makes work efficient by improving job processes, reducing effort, cost and time in both solving problems and in the learning cycle. Informants 1, 3, 7, 8, 11, 12, 17, 18, 19 have the same views on it.

Informant 8 viewed:

“It (knowledge sharing) avoids additional cost in term of what you have to spend on training.”

Informant 11 mentioned:

“Ability to acquire knowledge faster and understand the working procedures/company direction correctly.”

Informant 12 mentioned:

“It helps to improve job processes, and do it less costly.”

Informant 18 shared:

“Can perform the work efficiently, employees will become more knowledgeable in their work, team members can be more competent when doing the work.”

4.3.6.2 Individual outcome

There are a few aspects that knowledge sharing can bring to an individual. It can positively support an individual’s personal development, gaining an intrinsic reward and building relationships with others.

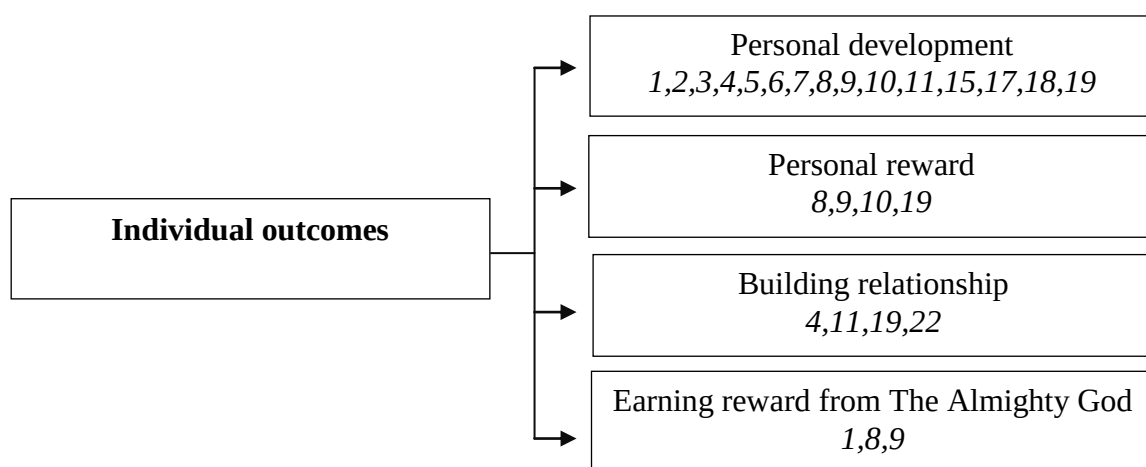


Figure 4.29: The individual benefits of knowledge sharing

(a) Personal development

Most of the informants asserted that knowledge sharing is beneficial and acts as a self-development platform for themselves and for others. It helps to develop one's potential or strength, increases job competency, builds confidence, increases knowledge as well as provides an opportunity for individuals to keep learning new things.

Informant 10 stated:

"Enhance my outlook, improve and increase my confidence on decision-making."

Informant 11 mentioned:

"Employees will enhance their knowledge and skills and be very competent both in their own job scope and will be ready for new challenges."

Informant 15 mentioned:

"To be able to learn new things, new ideas and see things differently."

(b) Personal reward

Knowledge sharing is valuable for individuals intrinsically. Personal rewards represent a self-accomplishment in building identity that is important to be recognized by the superiors or top management.

Informant 19 narrated two different sides of personal gain:

"... (by sharing knowledge to superior) I could also earn my credibility by being able to portray my knowledge."

"Because I want my subordinate to succeed. When they look successful, I look successful."

(c) Building relationship

For some informants, knowledge sharing allows them to build or strengthen relationships as well as help them in networking with others.

Informant 11 asserted:

“Employees have more opportunity to deal and work with each other. More understanding and supportive when you build the relationship.”

Informant 19 clarified:

“The more people share, the more relationships they build. There’s this weird bond that will happen, so I guess to some extent it also strengthen relationship.”

(d) Earning rewards from the Almighty God

At the highest point, some informants believed that sharing knowledge with other people would make them be rewarded by God. This religious belief was shared by Informants 1, 8 and 9.

Informant 1 perceived:

“For me, being a Muslim, whatever I know I’ll share with my colleagues. I perceive whatever I share to them is my amalan sedekah jariah (good deeds)...that is how I always think.”

Informant 8 viewed:

“After all, I believe that the more knowledge that I give to others, if it is beneficial to them, I will get some pahala (God’s reward) from Allah.”

Informant 9 mentioned:

“Pahala (God’s reward) for myself. (Also) Personally I believe that, when I share knowledge and ease others burden, Allah will ease my burden.”

4.3.7 Research Objective 7: To identify the characteristics of the knowledge sharer

Figure 4.30 shows the characteristic of the knowledge sharer. There are five personalities of knowledge sharer identified. They are openness, extraversion, agreeableness and conscientiousness.

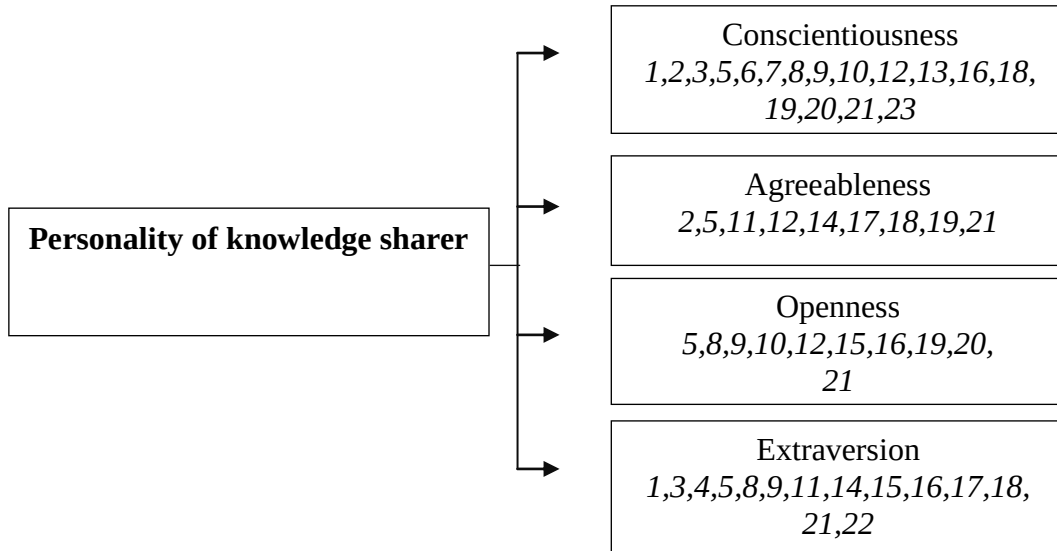


Figure 4.30: The personality of knowledge sharer

4.3.7.1 Conscientiousness

Based on the findings, conscientiousness is the most common trait of a knowledge sharer perceived by the informants. This type of personality gathered sixteen responses from the overall twenty-three informants in this study. Conscientious knowledge sharers are individuals who have more experience, are knowledgeable, professional, intelligent, responsible, capable, possesses good communication skills, focused on objectivity, have rational thinking, deliberate, highly motivated, improvement driven and are ethical.

Informant 7 shared:

“They usually be responsible, proactive- they will find way to educate people.”

Informant 9 shared:

“...thinks rationally rather than emotionally and focused on objectivity.”

Informant 13 shared:

“Kung fu types of teacher. They are usually older and very knowledgeable on his area of expertise, focused and have high discipline.”

Informant 19 stated:

“A person who is clear in doing the right thing.”

4.3.7.2 Agreeableness

Findings also showed that agreeableness is part of the knowledge sharers' character. Ten informants have shared their opinion related to this personality. Knowledge sharers, from their point of view, are good listeners, kind, willing to help, sincere, accommodative, caring, calm and unselfish.

Informant 14 stated:

“It is hard to define the characteristic of knowledge sharer, but one must be approachable and accommodative.”

Informant 17 shared:

“Generally, someone who is passionate about life, a good listener and caring about others.”

4.3.7.3 Openness

Openness is another personality found in knowledge sharers. Often, the informants view them as open-minded individuals. Other than that, they are also inquisitive and willing to learn new things. Ten informants relate their answers to this.

Informant 19 stated:

“A person that could accept other people's idea and share his/her own and make the idea better.”

4.3.7.4 Extraversion

Knowledge sharers are also regarded as someone who has an extraverted personality. People who fall into this dimension are those perceived by the informants as talkative, friendly and a good team player. They are also approachable, active, cheerful, positive and confident. Eleven responses have been gathered from this criterion.

Informant 8 stated:

“Talkative person normally will share more with other staff.”

4.3.8 Research Objective 8: To identify the relationship between demographic factors and knowledge sharing variables

The findings for the eight objective of this study are achieved through the second level of content analysis known as relational analysis. The relationship between the demographic factors and knowledge sharing variables are found as below.

4.3.8.1 Relationship between gender, marital status, job position, years of service and personality on willingness to share knowledge

In relational analysis, several demographic patterns related to sense of responsibility were found influencing individuals’ willingness to share knowledge. They are gender, marital status, job position, years of service and personality.

Demographic characteristics

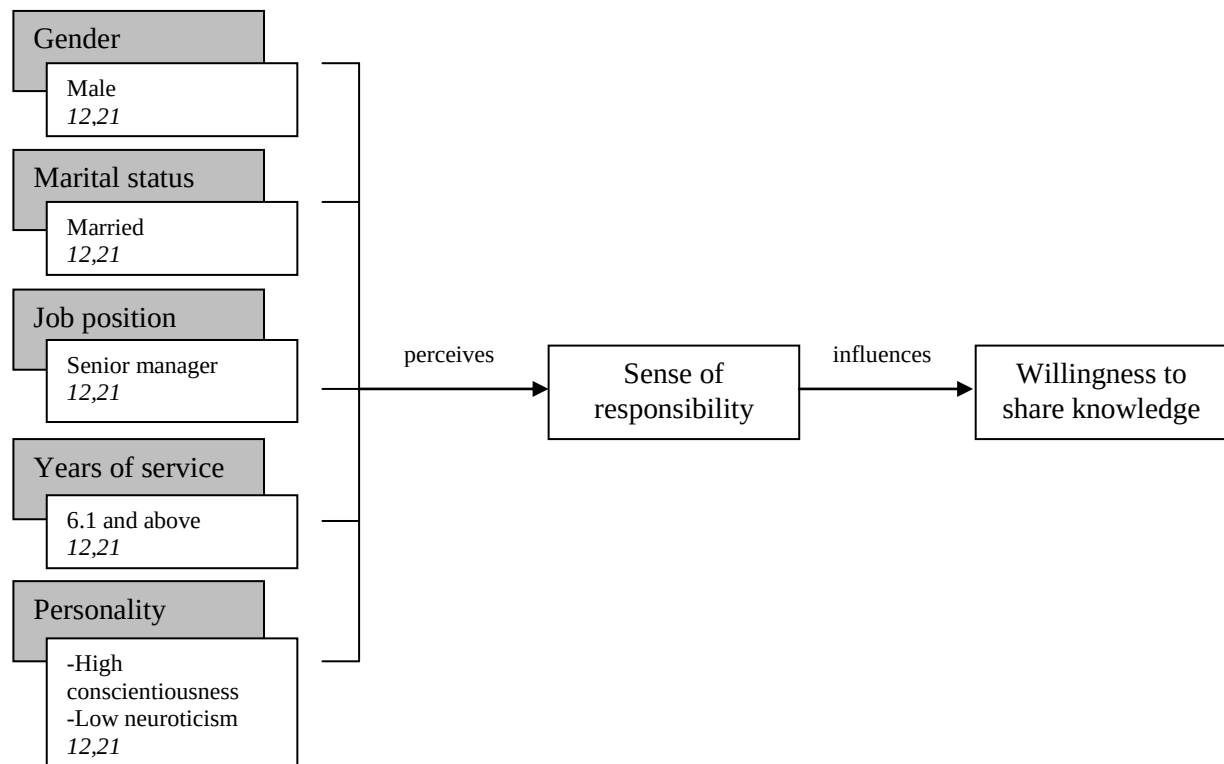


Figure 4.31: Relationship between demographic variables on willingness to share knowledge as a sense of responsibility

Based on the findings, male informants, married, holding a position of senior manager, having been working for more than six years in the organization and characterized as conscientious and emotionally stable, are driven to share knowledge because they feel more accountable to do so.

Generally, individuals in a higher-up position are those who are able to lead and have good knowledge in their field of work. Consequentially, it does not only make them an important figure in the organization, but also with more responsibilities towards subordinates' development and as an essential source of knowledge. Indeed, working in the organization for a long period of time increases their commitment as well. Male and married employees also tend to have higher accountability to share knowledge with others.

However, it is also important to note that, male informants as part of the relations may be caused by the fact that senior manager's position are mostly held by males as opposed to females. Besides, this position also implies that most of them are married. In this study, only two out of six senior managers involved are female informants and only one is still unmarried. In terms of personality, high conscientiousness is characterized as being highly dutiful, while low neuroticism as having stable emotions (Costa & McCrae, 1995). Therefore, these two types of personalities are positively related to the willingness to share, as part of their responsibility.

4.3.8.2 Relationship between marital status and personality on willingness to share knowledge

The second relationship found in this study is the willingness to share because of a strong feeling of loyalty with the organization. A correlation between demographic factors and organizational commitment was found in a study conducted by Vigoda and Cohen (2003). By using age, level of education and marital status as the control variables on performance, it

was revealed that married employees exhibit a high organizational commitment compared to the unmarried. Hence, this study offers further linkage evidence for marital status and organizational commitment on the perspective of knowledge sharing behavior.

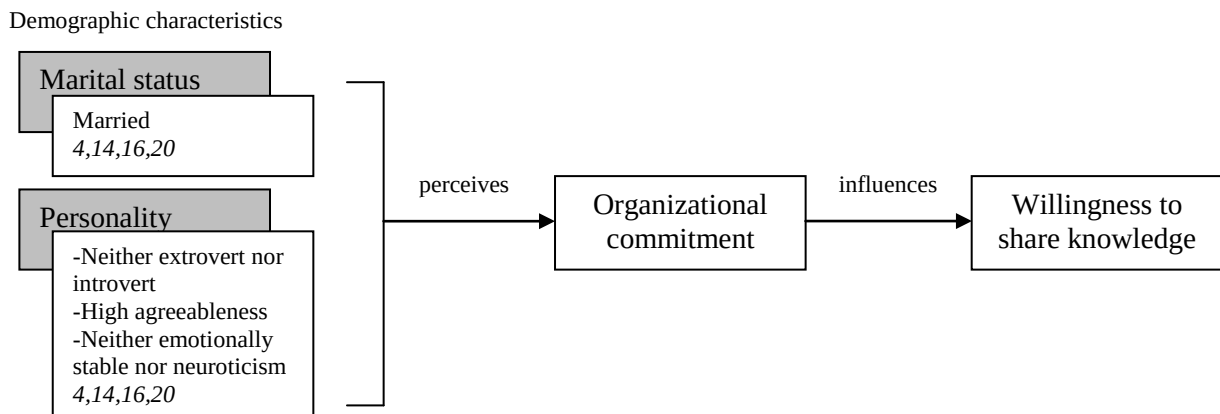


Figure 4.32: Relationship between demographic variables on willingness to share knowledge as an organizational commitment

In addition, individuals ranked as high agreeableness also possess a high level of organizational commitment. According to Goldberg (1992), this type of personality characterizes people as supportive and cooperative. Hence, it is expected that the individuals will act accordingly as it entails them to adhere and entrust the organization's philosophy and values. Nevertheless, the individuals are neither an extrovert nor introvert and not extremely neurotic.

4.3.8.3 Relationship between gender, department and personality on unwillingness to share knowledge

In another case, the unwillingness to share knowledge was due to the lack of cognitive capacity of the recipient. When correlating such negative behavior with the demographic background- employees' gender, department, educational level and personality, a similar pattern was revealed.

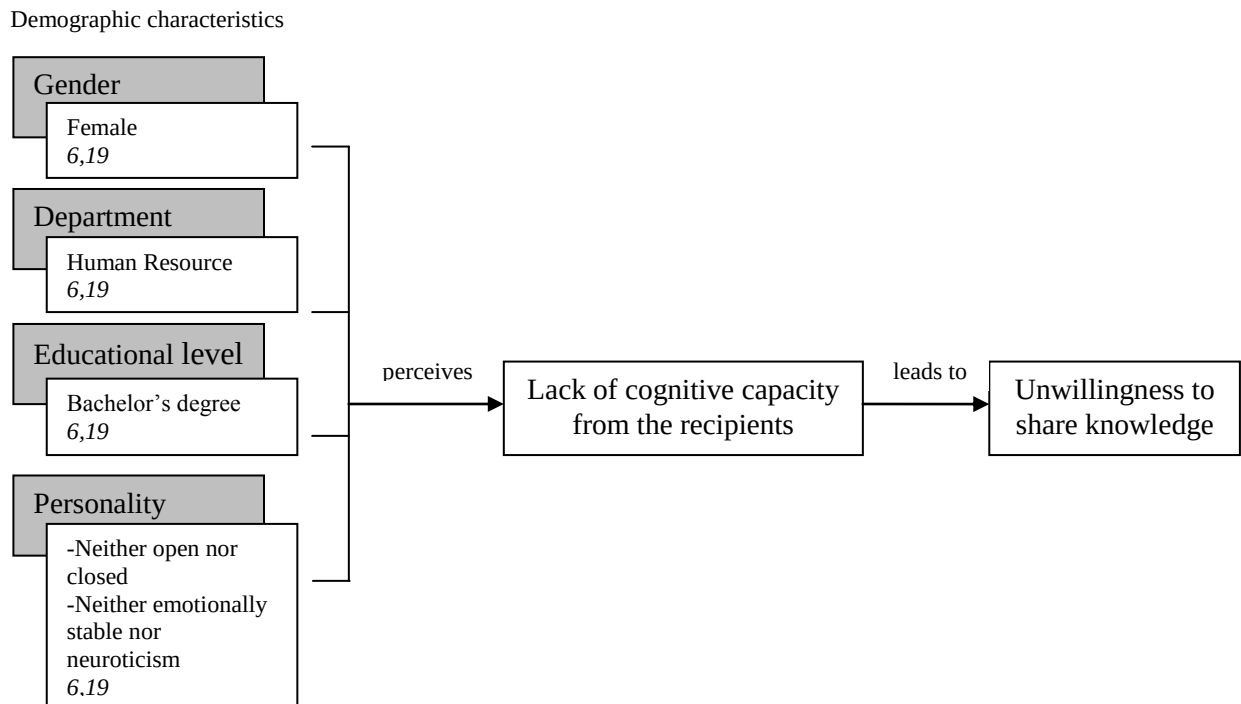


Figure 4.33: Relationship between demographic variables on unwillingness to share knowledge relating to recipient's cognitive capacity issue

As opposed to male employees, female employees are more concerned towards recipients' cognition. It is more likely that they will feel discouraged to share their knowledge if they perceive others to possess such incapacity. Besides that, working as an HR professional, they may have formed a presumption or a set of criteria that he or she perceives as a competent employee. Other than that, employees with a bachelor's degree are labeled as neither open nor closed and neither emotionally stable nor neurotic personality show a relationship with this factor.

4.3.8.4 Relationship between gender and religion on earning rewards from the Almighty

God as the benefit of knowledge sharing

In terms of the perceived benefits of knowledge sharing, male employees and Muslims highly believed that they would get a reward from the Almighty God when they share knowledge with others.

Demographic characteristics

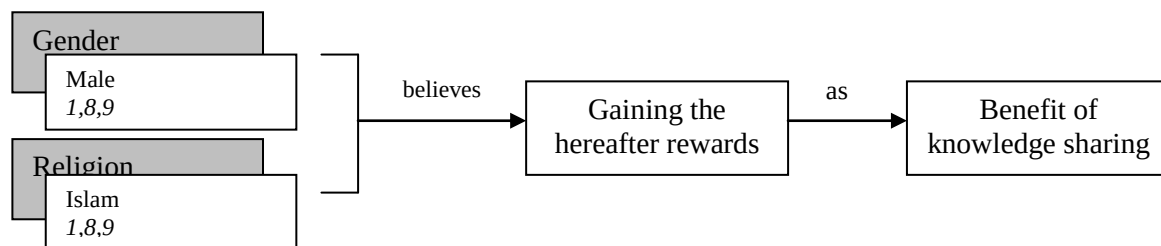


Figure 4.34: Relationship between demographic variables on the benefit of knowledge sharing

In general, all Muslims are aware of the importance of acquiring and spreading good knowledge. Indeed, the first word from the revelation of the Holy Quran was Iqra', which means, "Read" (Al- Alaq: 96:3). It is also promised by their Lord that they will get an everlasting reward. Among the examples of the hadith are: "The best things that a man can leave behind are three: A righteous son who will pray for him, ongoing charity whose reward will reach him, and knowledge which is acted upon after his death" (narrated by 'Abdullah bin Abu Qatadah, in Sunan Ibn Majah, Hadith no. 241) and "Whoever teaches some knowledge will have the reward of the one who acts upon it, without that detracting from his reward in the slightest" (narrated by Sahl bin Mu'adh bin Anas, in Sunan Ibn Majah, Hadith no. 240).

4.3.9 Research Objective 9: To develop a model of knowledge sharing

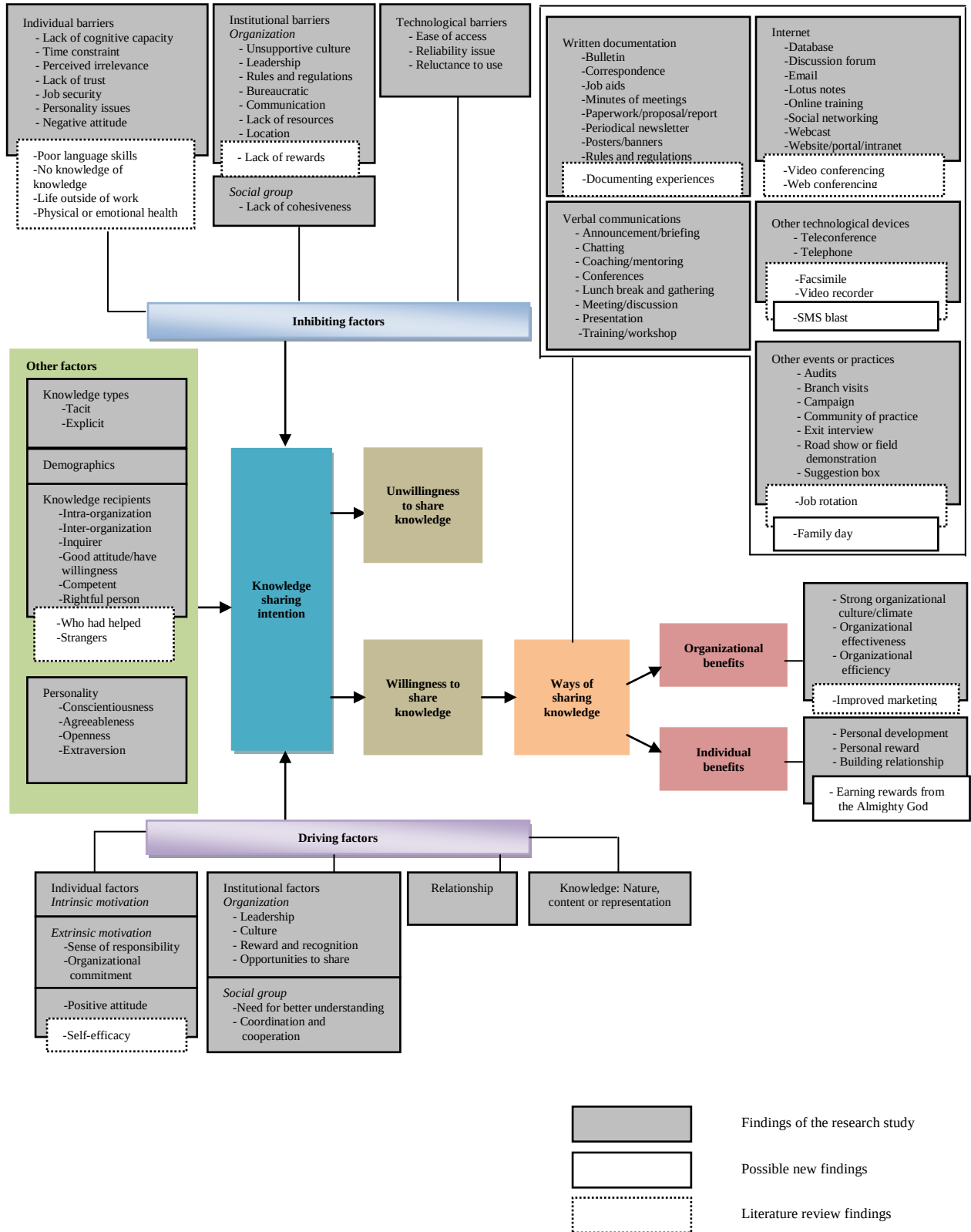


Figure 4.35: A model of knowledge sharing

Based on the study findings, a model on knowledge sharing is proposed. The model consists of elements that relate to the objective of the study which are, driving factors, inhibiting factors, ways of sharing knowledge, benefits, and types of knowledge to share, with whom to share knowledge and demographic factors. In order to facilitate knowledge sharing intention of an individual and then increase behavior towards knowledge sharing, factors related to individual, institution, relationship and knowledge: nature, content and representation are identified as imperative enablers. On the other hand, factors that can inhibit an individual's knowledge sharing intention emerged from the individual, institution and technologies. Other variables of knowledge sharing that also have an influence towards a person's intention to share knowledge are types of knowledge, demographic factors, recipients of knowledge and personality.

Generally, if any of these antecedents can help make an individual willing to contribute knowledge, the individual will find ways to share his or her knowledge. Hence, he or she could use any of the channels in the organization ranging from written documentation, verbal communication, internet and events or practices. As a result, both individual and organizations can get various benefits from the participation in knowledge sharing activities. Nevertheless, if any of the antecedents fail to positively regulate the intention to share knowledge of an individual, he or she would be reluctant to share knowledge with the other colleagues. Hence, any channels or activities that are introduced or organized by the organization would be of no use for knowledge sharing. Consequently, both individual and organization will be less likely to get the benefits of knowledge sharing.

4.4 Possible New Findings

Several findings that could possibly be new findings are found in the third and sixth objective, which are how knowledge sharing is promoted in the organization and the benefits of knowledge sharing.

4.4.1 Possible new finding on how is knowledge sharing being promoted in the organization

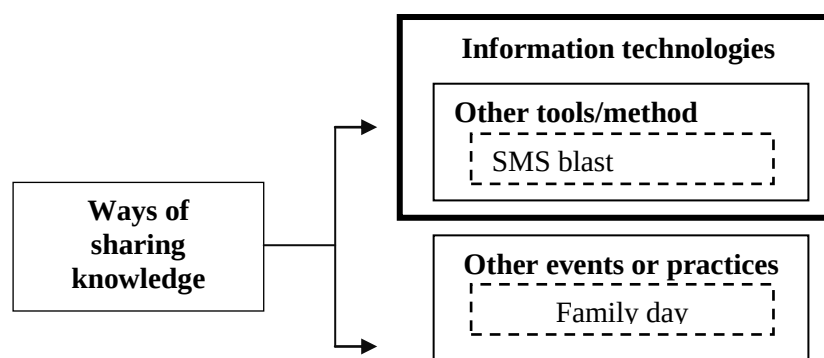


Figure 4.36: Possible new finding on how is knowledge sharing being promoted in the organization

In this study, several activities could possibly be new findings in the field of knowledge sharing, which are SMS blast and family day. Organizing such outdoor event provides a joyful and stress-free environment for the organizational members. Essentially, it will help enhance the relationship among the organizational members as a whole and indirectly allowing them to share their knowledge more freely. Other new findings include the usage of SMS blast- a kind of system that works for the dissemination of text messages to a large number of people (BulkSMS, 2003).

4.4.2 Possible new finding on the benefits of knowledge sharing

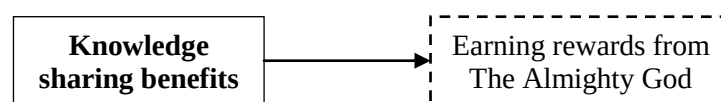


Figure 4.37: Possible new finding on the benefits of knowledge sharing

Other than that, this study also found an interesting feature of individual reward, from the viewpoint of religious belief. From the perspective of Islam, the informants believe that the sharing behavior is an act of kindness and worship to God, thus, it is highly commendable to be part of it. There were quotes or verses of the Quran and hadith that put high value on knowledge and knowledge sharing. In fact, the first word of the revelation of Quran or command was *Iqra'* or read. Allah, the Most High commands: *"Read! In the Name of your Lord Who has created (all that exists). He has created man from a clot (a piece of thick coagulated blood). Read! And your Lord is the Most Generous. Who has taught (the writing) by the pen. He has taught man that which he knew not"* (Quran, 96: 1-5).

Moreover, in a hadith narrated by Muslim said: The Prophet Muhammad (s.a.w) said *"When a man dies, all his deeds come to an end except for three — an ongoing charity, beneficial knowledge or a righteous child who will pray for him."* Hence, the religious belief of gaining the hereafter rewards from knowledge that has been shared, that is beneficial to others, seemed to have a strong hold on its followers.

4.5 Summary

This chapter attempted to explain the data findings of the research. For each of the objectives, the categorization of data was shown in the form of figures, followed by a statement or verbatim from related informants. The next chapter will discuss in detail on the data findings in conjunction with supporting studies that have been done or have been found by previous researchers.

CHAPTER 5

DISCUSSION, IMPLICATION, RECOMMENDATION AND CONCLUSION

5.0 Introduction

This chapter presents the general study and discusses the major findings. It gives an overall picture of the research that had been conducted and includes a summary of every chapter. The first seven sections cover the discussion over findings and the relevant supports from previous studies, illustrated in a framework style. Subsequently, Section 5.8 elaborates the propositional model on knowledge sharing. Lastly, the researcher provides the limitations of the study as well as recommendations for practitioners, organization, and future research. A brief conclusion is also provided.

5.1 Discussion: Research Objective 1

The result of this study managed to gather a variety of knowledge shared by individuals in and across the organization. Generally, two main dimensions of knowledge known as tacit and explicit knowledge exist throughout the participation of employees in the sharing process. Tacit knowledge refers to knowledge that is personal, ingrained in action and experiences, reflecting a manifestation of individuals' technique and cognitive capacity (Nonaka, 1994). On the other hand, explicit knowledge is the opposite of tacit knowledge, by which it is shared in a documented form like data, manuals, formulae or specifications.

In this study, the examples of explicit knowledge include reports, paperwork, company profiles, rules and regulations, presentation materials, quarterly bulletins, news/articles from newspapers, new contracts and new decisions on operation or instructions, spread via email, hardcopy or phone (text). Besides that, it is also embedded in the company's technologies or database systems, manuals and procedures that can be accessed and used by

the organizational members. On the other hand, further analysis on the tacit knowledge has revealed several forms of knowledge related to this dimension such as an individual's personal opinion, suggestion, experiences and know-how. Besides that, employees also possess and share knowledge about the organizational practices, routines or procedures, culture and social relationships.

In Hara and Hew (2007) study, knowledge of individuals' opinions, suggestions and institutional practices depict their practical knowledge. The two types of knowledge become a part of tacit knowledge as they represent the individuals' belief, advice and unique ideas that may be beneficial for problem solving and for the learning party's understanding. Meanwhile, the latter type indicates the organizational knowledge particularly on what is currently practiced or has been practiced before. Apart from that, knowledge derived from an individual's experiences found in this study is supported by Millar et al. (1997, as cited in Blumentritt & Johnston, 1999) description of experiential knowledge. However, it is important to note that both personal suggestion and experiential knowledge are somewhat identical, in which an individual's suggestion on what can be done to solve a particular problem may signify his or her experiences.

Furthermore, the tacit part of knowledge is also marked by the individuals' capabilities or skills, identified as know-how by Lundvall (2006). This kind of knowledge is best and easy to share and make explicit through demonstrations, by which the learning parties can observe and grasp the meaning instantly. Nevertheless, the know-how is a form of procedural knowledge. Based on the findings, it correlates to what Musgrave (1993, as cited in Blumentritt & Johnston, 1999) proposed as knowing how to do things and what Millar et al. (1997, as cited in Blumentritt & Johnston, 1999) proposed on process knowledge. These two types of knowledge were found in Blumentritt and Johnston (1999) study, placed under

the classification of common knowledge. However, depending on the content, they argue that these two concepts may interrelate with embodied knowledge, that is the knowledge of experiences and skills (know-how). Likewise, the researcher has the same opinion on it. Even though the origin of know-how is specific to knowledge of an action, the researcher found that it can also be in a declarative form, but not on the same level as know-how that is highly personal and is hard to communicate or express with speech. It also supports Hara's (2007) assertion that part of practical knowledge is also in the explicit form. Yet, Nonaka et al. (2000) implied that the know-how in executing daily tasks is an example of a routine knowledge asset.

Significantly, tacit knowledge is also a built-in part of an organizational culture besides the individual employee's intelligence. The result has pointed out that employees share collective knowledge such as institutional practice (Hara & Hew, 2007) and embedded knowledge (Blackler, 1995). Knowledge of these types reflects the current or former practice of the organization and the knowledge that resides in systemic routine, which depends on the interchange between relationships and material resources, respectively. In particular, the latter type may be related with technologies, roles, formal procedures, and emergent routines.

In another view, Blumentritt and Johnston (1999) have clustered knowledge about culture and its people as a social knowledge. In this study, the encultured knowledge is being shared mostly to the new members such as trainees. Since the norms and culture are highly tacit, the sharing of this knowledge is of relevance for new colleagues that need to adapt and have an understanding of the do's and don'ts of the social groups.

The findings on explicit knowledge also reveals the sharing of know-what that is knowledge about facts, closely related to information that can be separated into pieces (Lundvall, 2006). Among the examples indicated in this study are work or training updates,

feedbacks, new decisions on operations, targets and plans. Besides that, knowledge of this kind is easy to be made public and is ready to be shared during question and answer sessions. It also reflects an indistinctive, common knowledge that does not reflect one's uniqueness. In summary, Table 5.1 shows the different kinds of knowledge to share with supporting studies.

Table 5.1: Different types of knowledge to share with supporting studies

Tacit knowledge (Nonaka, 1994)	Personal suggestion (Hara & Hew, 2007)
	Personal opinion (Hara & Hew, 2007)
	Experiential knowledge (Millar et al., 1997, as cited in Blumentritt & Johnston, 1999)
	Institutional practice (Hara & Hew, 2007)
	Embedded knowledge (Blackler, 1995)
	Social knowledge (Blumentritt & Johnston, 1999)
Explicit knowledge (Nonaka, 1994)	Know-how (Lundvall, 2006)
	Know of how to do things (Musgrave. 1993, as cited in Blumentritt & Johnston, 1999)
	Process knowledge (Millar et al., 1997, as cited in Blumentritt & Johnston, 1999)
	Know-what (Lundvall, 2006)

5.2 Discussion: Research Objective 2

In general, employees are willing to share their knowledge to people both from within and outside the organization. This study has identified that internal knowledge sharing takes place at different levels and between different people, which includes between individuals and their superior or their subordinates, intra-department, inter-department, colleagues of the same level, top management and also trainees. Han and Anantatmula (2007) supported the results by indicating that an above-average percentage of individuals were willing to share knowledge with their fellow workers and that the leaders were encouraging the sharing process as well. In this study, the managers and executives explained that they share knowledge with each other, as both of them needed some input about what they know.

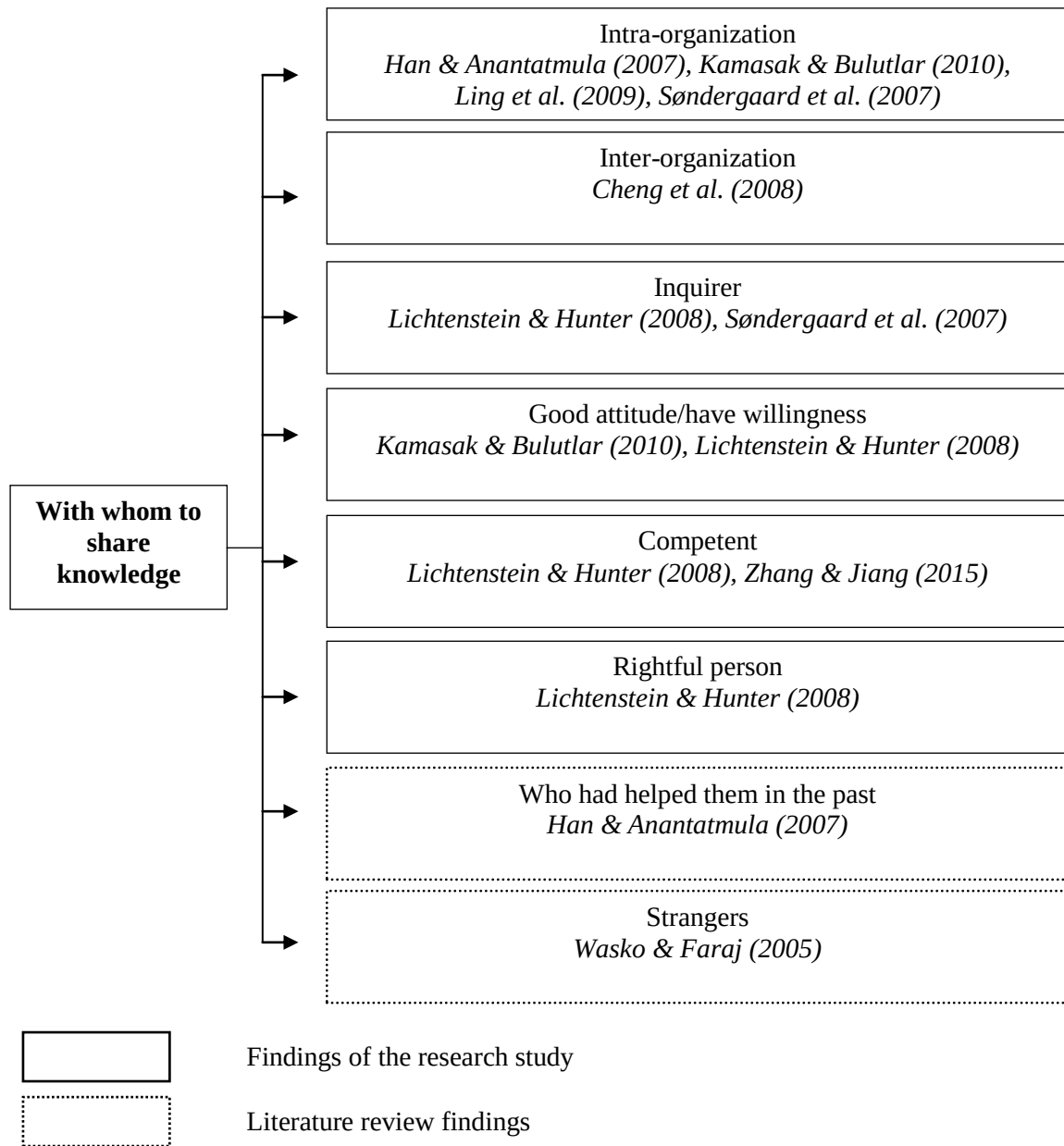


Figure 5.1: With whom to share knowledge with supporting studies

Usually, managers have a lot of experience and are experts in certain areas, which makes them important in guiding their subordinates in doing things the right way (Han & Anantatmula, 2007). On the other hand, executives are knowledgeable about the current happenings, hence, their input and ideas are very valuable too. Nonetheless, managers are the ones who participate more in the sharing process while subordinates are involved more in the

seeking of knowledge. In another case, knowledge sharing can be helpful when other departments have the necessary resources to answer a particular question (Søndergaard et al., 2007).

Individuals' willingness to share knowledge across the organization was also identified in this study. It is affirmed by Cheng et al. (2008) that organizations still opt to share their knowledge with other organizations despite the coexistence of rivalry and collaborations. Several factors were identified to have an effect on trust, which ultimately helps to further inter-organizational knowledge sharing. H. F. Lin (2007) has raised another concern for knowledge sharing at this inter-organizational level, which is the involvement of customers and suppliers in the process. In this study, the supplier was listed as one of valuable sources of knowledge. This is because communicating with them permits individuals to get access to other people who might have the necessary knowledge they seek to know.

Significantly, individuals share knowledge with both people in and out of their line of group, presuming that a single company or an individual alone is not capable enough to generate all the knowledge that is important for innovation and to remain competitive in the industry. However, the issues of distrust still prevail among those perceived to have less identification with their group (Ardichvili et al., 2006). Hence, certain knowledge or topics that are considered as sensitive are usually withheld to avoid losing any advantages over outsiders.

This study sought to further explicate whether there are any specific individuals that were willing to share knowledge with and perceived as worthy to be given the knowledge. It was found that employees have no rejection for individuals who seek their opinions, ideas or expertise. Besides that, it is best that the receivers of knowledge are good listeners, positive and enthusiastic. Several studies have supported the findings of this study. Lichtenstein and

Hunter (2008) recognized that the sharers have their expectations about the receivers before deciding to share knowledge. Several of their expectations were emphasized in this study, which includes, indications of a need-to-know, inquisitiveness, cognitively capable and showing of interest on the receiver's part. Kamasak and Bulutlar (2010) also specified that donating knowledge require receivers to have a mutual interest and attention so that it can contribute towards a positive impact on innovation and ambidexterity.

It is known that people with an expertise are willing to contribute in knowledge sharing (Ling et al., 2009). However, it is noteworthy to mention that the sharer also desire those who are going to acquire their knowledge to be professionally competent (Zhang & Jiang, 2015). Essentially, the receivers of knowledge are not meant to be true experts but at the least, possess basic understanding and knowledge of their own work. It is in accordance with Lichtenstein and Hunter's (2008) previously mentioned assertion on good cognitive skills, which involve the person's ability and capacity in learning, memorizing and thinking. Individuals with strong cognitive skills would accelerate the learning process and make knowledge sharing go smooth. Moreover, the sharers prefer the receivers to have a willingness to learn and listen, along with an appropriate attitude. These two highlights were important influences for responsive and proactive knowledge sharing, respectively.

5.3 Discussion: Research Objective 3

Various ways can be used by the organizations to expand and utilize knowledge. They can be in the forms of documentations, social interactions, technologies and practices.

5.3.1 Written documentation

The importance of documentation as a part of knowledge sharing activities is also affirmed in this study. The traditional ways of storing and sharing embedded knowledge are not being ignored, albeit technology being universal. The examples of documented materials

in this study, that were found in the previous literatures include correspondences (Wang & Noe, 2010), bulletin (Chigada & Ngulube, 2015), periodical newsletters (Parirokh et al., 2008; Tsui et al., 2006), meeting minutes (Ardichvili et al., 2003), job reports or proposals (Parirokh et al., 2008) and internal advertisements (McDermott & O'Dell, 2001) via posters and banners. Other efforts of sharing knowledge are through job aids (Søndergaard et al., 2007), which include an effective usage of flow charts as well as through rules and regulations presented or published in manuals, organizational policies or international procedures and guidelines (Alavi & Leidner, 1999; Christensen, 2007; Parirokh et al., 2008).

5.3.2 Verbal communication

In another form, knowledge sharing requires both the sharer and receiver to be present at the doings. Significantly, face-to-face interaction is an effective way to convey ideas, thoughts, knowledge and experience to others. In this study, meetings or discussion (Christensen, 2007; Parirokh et al., 2008) has gathered the most response from the informants, as it is something they have been doing frequently. It is also noticeable that training and workshops are a worthy investment by the organizations in encouraging knowledge sharing amongst employees (Alavi & Leidner, 1999; Ling et al., 2009; Parirokh et al., 2008). This program is being enforced in every organization as part of the employees' personal development, learning and knowledge enrichment, so that employees can provide better service to the stakeholders. Other formal activities found in this study includes in-depth sharing through mentoring and coaching (Alavi & Leidner, 1999) and simple briefings or announcements by the management (Plessis, 2007; Smith, 2001).

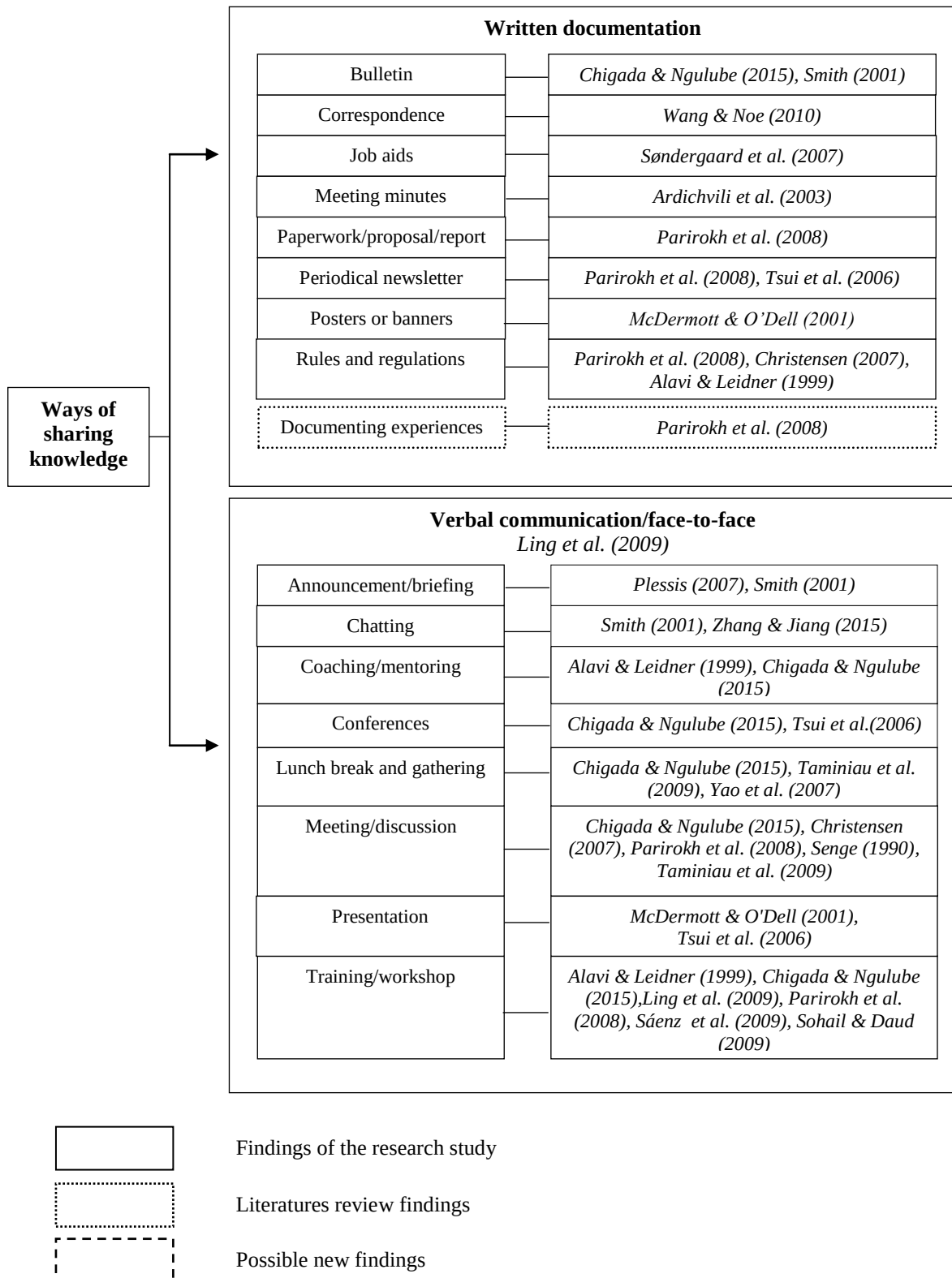


Figure 5.2: Ways to promote knowledge sharing with supporting studies

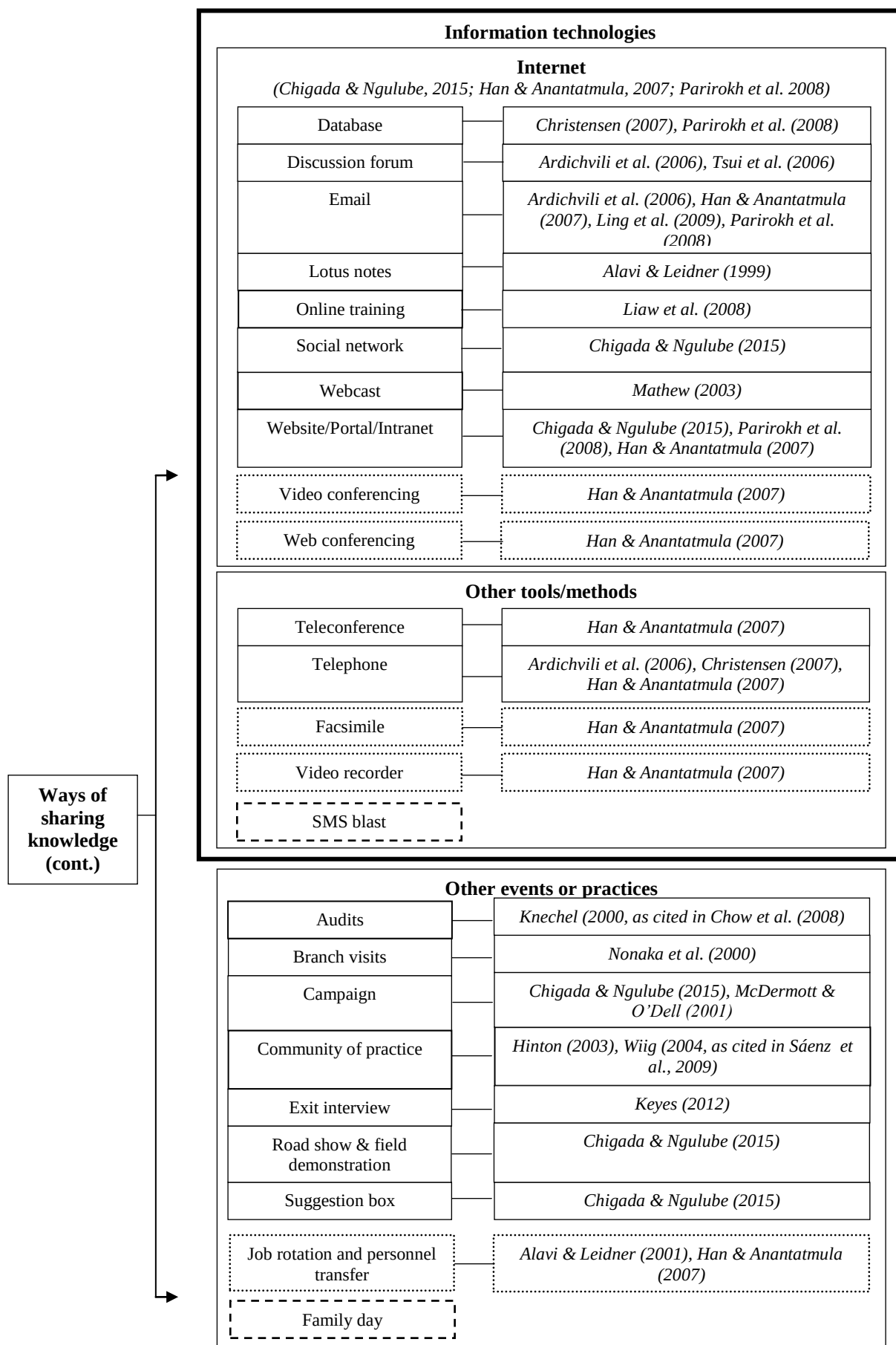


Figure 5.2 continued

Apart from that, this study also found that sharing of knowledge occur in an informal situation whereby individuals may have consultations outside the office, that is during the lunch break (Taminiau et al., 2009) or just through friendly chatting (Smith, 2001; Zhang & Jiang, 2015) with others in the office or even through short meetings in the lift.

5.3.3 Information technologies (IT) tools or applications

In a study by Alavi and Leidner (1999), some important technologies related to knowledge management were described. Amongst them, internet, intranet and Lotus Notes are the common types found in this study. Other than that, email has been becoming a necessity in the workplace as a tool for spreading information and knowledge. Indeed, in a cross cultural study, Ardichvili et al. (2006) asserted that codified information is more preferable in individualistic cultures. The knowledge can also be embedded in the database system of the company. It allows employees to share any knowledge or experience by updating them into the system for others' benefit, thus, enhancing learning among the organizational members (Parirokh et al., 2008). This embedded knowledge appeared to be less costly than personal or group meetings, as it only required rules, regulations and manuals as the mechanism (Christensen, 2007). However, only a few respondents indicated a database as one of the ways to promote knowledge sharing, similar to Parirokh et al. (2008) result.

Through IT-related channels, the informants have suggested online training as a platform for knowledge sharing in the organization. In many instances, training was done in a physical context, as what has been reported in this study's findings. Nevertheless, through the increase usage of internet, online training is becoming more practical and interactive for learning and knowledge sharing purposes. This web-based learning system was found useful for knowledge sharing function (Liaw, Chen, & Huang, 2008). In another study, Han and Anantatmula (2007) also revealed the availability of technologies such as telephone, video

conference, teleconference and facsimile for knowledge sharing purposes. Nevertheless, the web conference was found to be the type of technology that is less employed by the employees. Besides that, the internet has made it possible for the company to live-stream the important contents or messages (audio or visual) to a broad number of employees. Hence, webcast gives opportunity for question-and-answer sessions between the presenter and audiences, in real time (Matthew, 2003), presenting knowledge sharing to the next level.

Lastly, the emergence of social networking sites has made them become a greater influence in connecting people around the globe. Previous studies found that organizations have recognized social networking as one of the social tools and technologies to elevate performance, leverage processes and disseminate knowledge (Bughin & Chui, 2011) as well as to promote creativity (Sigala & Chalkiti, 2015). In fact, Leonardi (2015) believes knowledge sharing via these tools does not only benefit the involved partners, but also the other members as well. Two of the social networking tools found in this study includes Facebook and Whatsapp. Nevertheless, the latter, which is a mobile messaging app, has gathered the most response from the informants.

Along with the growth of the telecommunication industry, a better network and coverage allows people to utilize the internet on a daily basis. Besides that, the evolution of the smartphone in the market has lead towards its usage too. Many developers have come up with interesting yet functional applications, and Whatsapp is among the new applications that are being widely installed by users to communicate and share information and knowledge (Annie Dayani & Syamimi, 2014). Its usage is trending in today's world, even though there are many similar applications that can be chosen.

5.3.4 Other events or practices

Additionally, this study has found that knowledge sharing can also take place in the practices or functions organized by the organization itself. Exit interviews, for instance, is not merely a procedure to discover the reasons for leaving the company and thoughts for organizational improvement. However, it is also a strategic way to retain the leavers' tacit knowledge about techniques and customers (Keyes, 2012). A community of practice also appeared to be a useful way to share knowledge. In this study, a network with people from other companies exist. Hence, allowing an easy exchange of ideas and knowledge of the same field whenever they gather.

In other cases, an audit can also stimulate knowledge sharing between the people involved. In fact, Knechel (2000, as cited in Chow, Ho, & Vera-Muñoz, 2008) claimed that an auditor has a lot of knowledge about their clients, which include the knowledge of the people, processes and business plans. Therefore, sharing these kinds of knowledge with the client could enhance the effectiveness of the audit process and the organizational members can improve any weaknesses found.

Nevertheless, organizations can also opt for suggestion boxes (Chigada & Ngulube, 2015), which is an inexpensive yet traditional way to gather recommendations or ideas from customers and employees, or opt for a wider scale of audience which includes using campaigns (Chigada & Ngulube, 2015; McDermott & O'Dell, 2001) and road shows (Chigada & Ngulube, 2015). Lastly, the findings also revealed branch visit as one of the ways to share knowledge with others. This kind of gathering of new knowledge from employees or customers through a casual or formal visit is somewhat similar to what Nonaka et al. (2000) claimed as "Walking Around Employees".

5.4 Discussion: Research Objective 4

In this objective, there are four categories identified from the findings. The four contributing factors of knowledge sharing includes the individual, the institution (which includes organization and social group), the knowledge and the relationship. There are also several variables covered in the categories of individual and institution.

5.4.1 Individual factors

The first contributing factor explains that knowledge sharing is driven by personal accountability, intrinsic motivation, positive attitude, personality and organizational commitment.

(a) Sense of responsibility

Sense of responsibility appeared to be one of the personal dimensions that has a notable effect on an individual's willingness to share. There was a lack of discussion on the influence of this factor in knowledge sharing literature. However, based on Herzberg (1987) motivation-hygiene theory, he has suggested responsibility as a motivator influencing job attitudes. In facing the issue of social dilemma, Cabrera and Cabrera (2002) have proposed the importance of a sense of accountability and group identification as a means to elevate cooperation. Cabrera et al. (2006), on the other hand, have reported a significant yet indirect relationship of job autonomy on an individual's willingness to partake in knowledge sharing. Hence, this study verifies their initial proposition that the possible cause of knowledge sharing relates to the intensity of responsibility perceived by the individuals.

(b) Intrinsic motivation

By taking a full and partial knowledge sharing into focus, Ford and Staples (2010) had identified that the propensity to share knowledge has a significant relationship with the

intention for full knowledge sharing. Individuals with high propensity to share will exert more effort because they believe the importance of knowledge sharing and because it is free to share. Besides, one might select himself/herself and be involved in the sharing process or activities because of their own desire (Hara & Hew, 2007).

For some, the motivational influence of personal satisfaction or growth as compared to extrinsic rewards also affect their decision to share knowledge. Ma et al. (2014) supports this proposition through their findings on the impact of being intrinsically-oriented towards knowledge sharing. They also found that there was a positive influence of altruism on knowledge sharing as well. Another interesting point that helps develop an individual's motivation naturally is his or her own personal beliefs concerning the act of sharing as well as on knowledge itself. The fundamental part of this was formed under the intention and attitude framework in Witherspoon et al. (2013) study.

(c) Personality

The importance of personality in affecting an individual's willingness to share knowledge was discussed in previous studies. Cabrera et al. (2006) found that there was a positive influence of openness to experience on knowledge sharing behavior and a negative influence was found with conscientiousness.

In other empirical studies, Matzler et al. (2008) reported a significant association between agreeableness, conscientiousness, and openness on knowledge sharing. A similar finding was also indicated in Chu et al. (2014) study of communities of practice. The three types of personalities, which are agreeableness, conscientiousness and openness, were found to have a positive linkage to each of the proposed business strategies- responsiveness, efficiency, competence and innovation.

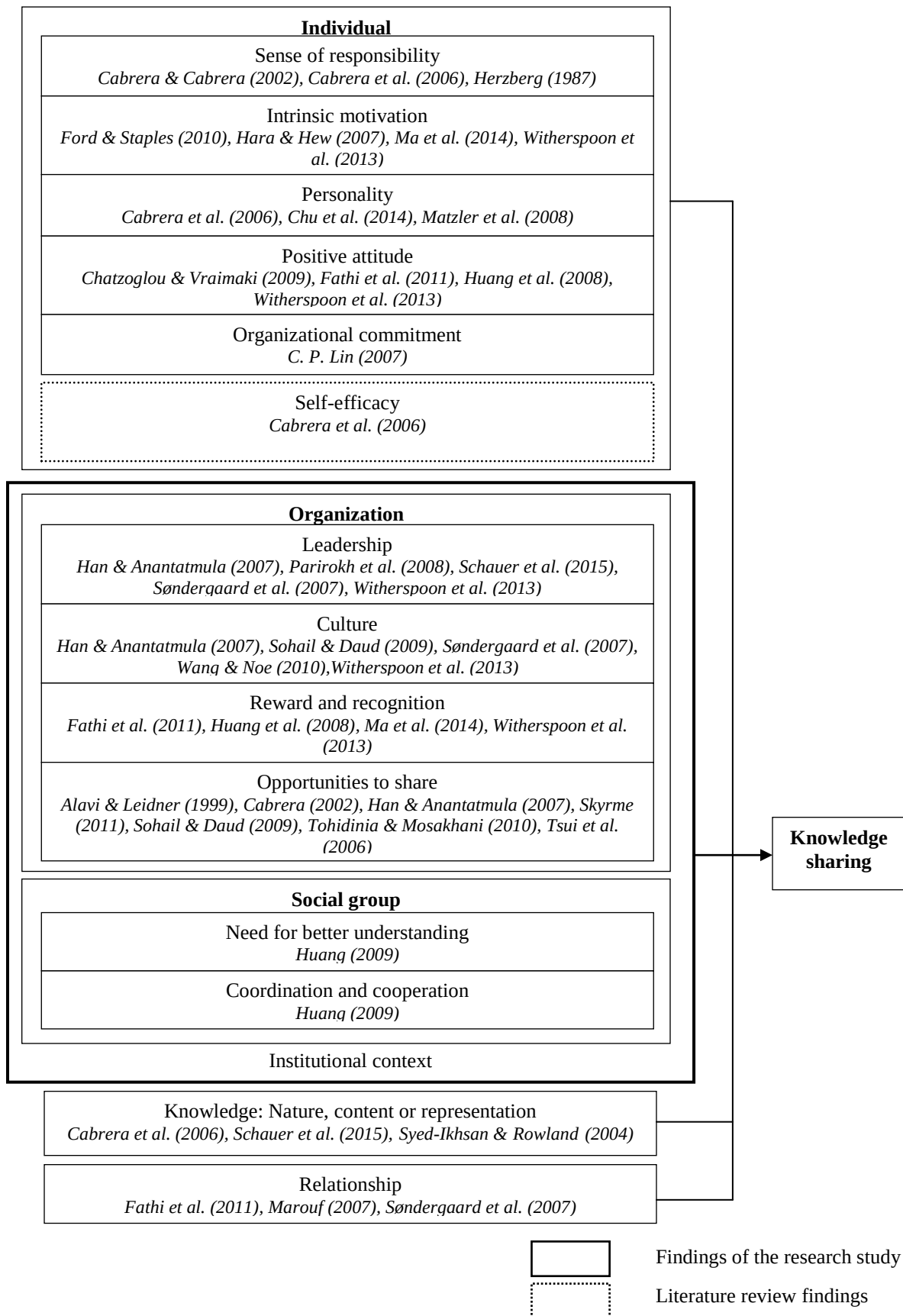


Figure 5.3: Contributing factors to knowledge sharing with supporting studies

(d) Positive attitude

The influence of attitude is certainly important for effective knowledge sharing. However, it is not easy to predict whether the individuals with positive attitude will actually perform the behavior. Indeed, previous studies often examine the influence of attitude towards an individual's intention to share knowledge. Witherspoon et al. (2013), Fathi et al. (2011), Chatzoglou and Vraimaki (2009) and Huang et al. (2008), for instance, have significantly found attitude as an influencing factor for individual's intention to share knowledge. In addition, it is the strongest influence on knowledge sharing intention as opposed to the other antecedents studied (Chatzoglou & Vraimaki, 2009; Witherspoon et al., 2013).

(e) Organizational commitment

This study found that organizational commitment helps to influence knowledge sharing behavior. This finding supports C. P. Lin (2007) study on the positive influence of organizational commitment towards knowledge sharing, given the fact that it excludes the mediating effects of exchange ideology. In contrast, a study by Ma et al. (2014) indicated a negative relationship between goal commitment and knowledge sharing. Whereby, Cabrera et al. (2006) could not conclude the effect of organizational commitment in their study. Hence, this shows the opposite results compared with these previous studies.

5.4.2 Institutional factors

In this second category, institutional context includes the organization as a whole and the social groups that exists within it.

(a) Organizational factors

There are four organizational-related factors that can encourage knowledge sharing. They are leadership, culture, reward and recognition as well as opportunities to share.

Leadership

Leaders have an important role in the organization. They are the central point for knowledge as well as the ones who provide guidance for success. The leadership factor was found to have an encouraging effect towards knowledge sharing in this study. Previous studies done by Han and Anantatmula (2007), Parirokh et al. (2008), Schauer et al. (2015), and Witherspoon et al. (2013), for instance, were also on the same side. Indeed, it is an important pre-requisite for an organization to create a knowledge sharing culture, which sequentially could promote individual behavior (Søndergaard et al., 2007).

Culture and working climate

The strong effect of organizational culture and working climate on knowledge sharing is of no doubt. Sohail and Daud (2009), who studied the factors and barriers of knowledge sharing in both public and private universities in Malaysia, has disclosed the important influence of culture in improving knowledge sharing among the teaching staff. Moreover, one of Han and Anantatmula (2007) knowledge management dimensions, which is the organizational dimension, has considerable influence towards employees' willingness to share knowledge. The organizational dimension in their study comprises factors concerning the culture and trust.

Søndergaard et al. (2007) also concluded that knowledge sharing culture can positively influence individuals to engage in sharing behavior. Even though the individual has finally performed the actual behavior of knowledge sharing, it will cycle back and continue enhancing the culture. Witherspoon et al. (2013), on the other hand, has found significant impact of all related variables of organizational culture on knowledge sharing behavior and intent. Besides that, discussion done by Wang and Noe (2010) in their review also put an

emphasis on organizational culture and climate as an important determinant in knowledge sharing. The described culture includes trust, competition, innovation and learning.

In addition, De Long and Fahey (2000) had indicated several linkages between culture and knowledge. One of the points discussed identified the relation of culture and social dimensions- culture helps build the environment for social interaction. The aspect of the interaction was then further assessed, and it was suggested that elements such as interactivity, collaborative efforts and dealing with mistakes are important in developing such context.

Reward and recognition

An empirical study done in a collectivist culture unfolds the important effect of extrinsic rewards in influencing employees' decision to share. In fact, its driving force is stronger than that of intrinsic rewards (Ma et al., 2014). Besides, Witherspoon et al. (2013) contended that the impact of rewards in terms of pay increases and promotions, and reputation building encourages an individual's knowledge sharing behavior. Moreover, Fathi et al. (2011) found that incentive systems have an effect on the employees' attitudes towards knowledge sharing. A study by Huang et al. (2008), who adopted the cost and benefits factor in their quantitative study also generated similar results. They revealed that anticipating extrinsic rewards help develop good attitudes towards knowledge sharing. Through an analysis, this study also generates similar results to the previous literatures. The indication of rewards as important to knowledge sharing gained the most agreement from the informants.

Despite the fact that rewards and recognition show a positive gain, further view of informants also highlighted that the act of this factor is rather short term and one-off. Hence, somewhat supporting the previous studies on the unimportance of the contribution of rewards in knowledge sharing. Tohidinia and Mosakhani (2010), who studied the predictors of knowledge sharing behavior, found an insignificant relationship between extrinsic reward and

attitude towards knowledge sharing. Likewise, H. F. Lin (2007) study validated that the organizational reward has no consequences on knowledge sharing processes. Based on the study, informants may seem to have mixed views on this factor. In essence, the researchers are in an opinion that the degree of importance and emphasis is what makes this factor complex. Therefore, rewards and recognitions are essential only in facilitating the process of knowledge sharing and in inciting employees' motivation to perform the behavior, acting as an alternative for a temporary period and in the right time.

Opportunities to share

Organizations that wish to promote knowledge management and knowledge sharing should provide opportunities for employees to get involved in the process. Sohail and Daud (2009) had verified the relevance of such efforts on knowledge sharing. The opportunities to share their knowledge include offering and allocating employees resources to get involved in a variety of programs or activities as well as through better infrastructures. The importance of placing appropriate technology and information infrastructure has appeared frequently in knowledge sharing-related studies (Alavi & Leidner, 1999; Han & Anantatmula, 2007; Sohail & Daud, 2009; Tohidinia & Mosakhani, 2010).

Tsui et al. (2006) argue that promoting social interaction among the organizational members is also crucial, as it will not only elevate the knowledge sharing opportunities but also the comprehension between them too. Additionally, Cabrera and Cabrera (2002) addressed the significance of conducting group meeting in enhancing communication, which in turn helps develop self-responsibility. Apart from that, it is crucial for organizations to encourage and challenge employees to develop their potential by providing opportunities to learn across the organizational frontier. Investing in people's knowledge is an important lever of knowledge management because the higher performers are an organizational asset of the

future (Skyrme, 2011). Besides that, the job enrichment helps to increase self-efficacy to engage in knowledge sharing (Cabrera et al., 2006).

(b) Social group factors

Need for better understanding; coordination and cooperation

The findings of this study affirmed Wang and Noe (2010) and C. P. Lin (2007) study. An individual's willingness to share is related to their concern on social group context. The perception of employees about concerted efforts and interdependency of task makes them realize the importance of assisting others. As the interaction between people is the nature of working in an organization, knowledge has to be shared in ensuring awareness, better understanding and the building of teamwork spirit.

5.4.3 Knowledge: Nature, content or representation

The knowledge context also plays a significant role in effective knowledge sharing. In this study, the representation of knowledge is similar to the perspective offered by Syed-Ikhsan and Rowland (2004) on knowledge transfer performance. It is crucial for individuals to represent the knowledge in appropriate ways that is comprehensible by others. Schauer et al. (2015), has acknowledged this determinant in their study, which pertain to the nature of knowledge. It also takes into consideration the source of knowledge and its promptness. Besides that, Cabrera et al. (2006) investigation on elements that can help people to engage in knowledge sharing, also supports this point. Within the system-related variables, it was discovered that the perceived quality of content is critical if organizations want to encourage people to use it. In this study, the aspect of the knowledge content was found significant to knowledge sharing processes. The way knowledge is presented is crucial to help receivers grasp the knowledge effortlessly. For instance, the content has to be in details, provided with

additional supports of diagrams, pictures or case studies. Besides that, one must avoid using jargons or special words that may seem unfamiliar for others to understand and it has to come from a reliable source.

5.4.4 Relationship

This study supports the assertion that a relationship between the sender and the receiver must be established before the sharing process takes place. The importance of relationships on knowledge sharing was mentioned in several studies (Fathi et al., 2011; Huang, 2009; Ipe, 2003; Marouf, 2007). Marouf's (2007) study on different ties in the organization suggested that the strength of tie can be measured in terms of its frequency or closeness. Although this study could not specifically capture the presence of the frequency element, however, the informants indicated that the closeness of the relationships between the individuals and the recipients would make it easier to control the knowledge sharing processes. Besides that, it also influences the atmosphere of knowledge sharing itself as individuals do not want to feel awkward with someone they are not acquainted with. Furthermore, the individuals' concern on relationships is also based upon the feeling of trust. The issue of trustworthiness was perceived as important because the individuals would not have to face any inter-conflicting issues of sharing or not sharing a particular knowledge. Ipe (2003) contended that trust and power as the critical elements behind the establishment of relationship between the individuals. In this study, the informants also believe that having good relationships would allow them to get more valuable knowledge. Aside from trust, this act may be due to the interpersonal cohesiveness. A supportive relationship among the group members is not only important to team performance (Huang, 2009), it is also central to knowledge sharing.

5.5 Discussion: Research Objective 5

5.5.1 Individual barriers

(a) Lack of cognitive capacity

The cognitive dimension of an individual has a role to play for an effective knowledge sharing process. Consequently, the absence of this capability may limit the transfer of knowledge between the actors involved. This study supports the finding of Szulanski's (1996) on the barrier affecting the transfer of best practice within the organization. It appeared to be an important characteristic for the recipients to tackle, because some of the knowledge holders preferred sharing their knowledge with less effort and difficulty. This issue was also found relevant in Lichtenstein and Hunter's (2008) case study, as an influencing factor in shaping the sharer's belief and behavior. Lacking of prior knowledge and understanding of the basic knowledge are problematic, hence, will deter the sharer's intention to share knowledge. Besides that, the transfer of knowledge is also incomplete if the individuals fail to absorb it (Davenport & Prusak, 1998).

(b) Lack of intrinsic motivation

Another challenging issue for knowledge sharing is individuals themselves having less driving force within them. Santos et al. (2012) concurred this as a "laziness" syndrome where the individuals put less initiative in doing a particular project. The absence of intrinsic motivation is distressing because any efforts done by the organization, such as placing proper facilities or investments in technologies seem pointless. It is because an effective, long-term participation in knowledge sharing activities require an individual to have his or her own personal motivation, which may include passion, enjoyment, beliefs and satisfaction. This barrier was also found in a qualitative study done by Søndergaard et al. (2007).

(c) Time constraint

In most situations, time limit has avoided individuals to interact and participate in knowledge sharing activities. Taminiau et al. (2009) have verified that, time is an issue for consultants to innovate and codify their knowledge; because of their hectic schedule and work routine that requires verbal communication. Moreover, Khalil and Shea (2012) pointed out that individuals are bound by their own capacity, by which there are too many students to supervise. It consequently leads to the insufficient time and effort to share knowledge with others within or outside the department. In contrast to Yeşil and Hirlak (2013) findings, lack of time is indicated as a relevant issue that can affect knowledge sharing in this study.

Another study by Santos et al. (2012) has identified that the time issue is related to the codification process, matching approaches and obsolete tools. In fact, Sveiby (2007) found that it was also related to the management behavior; in which the supervisor is unwilling to invest their time in the sharing of experiences. Other studies that touched upon this obstacle, hence, supporting this research finding includes Ling et al. (2009), Riege (2005) and Davenport and Prusak (1998).

(d) Perceived irrelevance/unusefulness of knowledge

In some situations, the perception of an individual towards the worthiness of his or her knowledge to others also inhibits knowledge sharing. Ford and Staples (2010) have indicated that knowledge tends to be useful if the sharer and receiver are in the same field of work. However, the knowledge will be shared partially as the value increases. In this study, the knowledge is not viewed as something powerful, something that may decrease one's competitive advantage as what Ford and Staples (2010) suggested. Rather, the informants formed his or her own assumption that a particular kind knowledge is not important or valuable for others to know. This issue appeared to be an important support to Ardichvili et al.

(2003) findings that employees' unwillingness to share knowledge was affected by the negative feeling or incorrect belief on its impact to others. Hence, it has nothing to do with the negative attitude of selfishness.

(e) Low trustworthiness

Many studies have indicated the effect of having lack of trust on knowledge sharing (Ling et al., 2009; Riege, 2005). Ford and Staples (2010) concurred that, interpersonal distrust leads a person to become selective in determining what knowledge he/she should share with others. Subsequently, it inhibits individuals from performing full knowledge sharing. Connelly et al. (2012) also concluded mistrust as an important cause for each construct of knowledge hiding; known as playing dumb, evasive hiding, and rationalized hiding. The negative management behavior also has an impact in disabling knowledge sharing.

(f) Job security

Some individuals are highly concerned about their job and career advancement, which brings about the issue of knowledge protection. One may also regard knowledge as a source of power. McLure and Faraj (2000, as cited in Ardichvili et al., 2003, p. 69) state that some people avoid participating in knowledge sharing because they hold a mentality known as "information hoarding", or "knowledge as an individual's personal asset and competitive advantage". In this study, an issue relating to job security was described by the informants as either a reflection of their own job or observation or on other colleagues'. It is undeniable that an executive level employee realizes about the power of knowledge or knowledge as a source of competitiveness advantage, similar to what Ardichvili et al. (2006), had revealed. Hence, in a non-competitive environment, there would be minimal risk for sharing the knowledge freely (Hara & Hew, 2007).

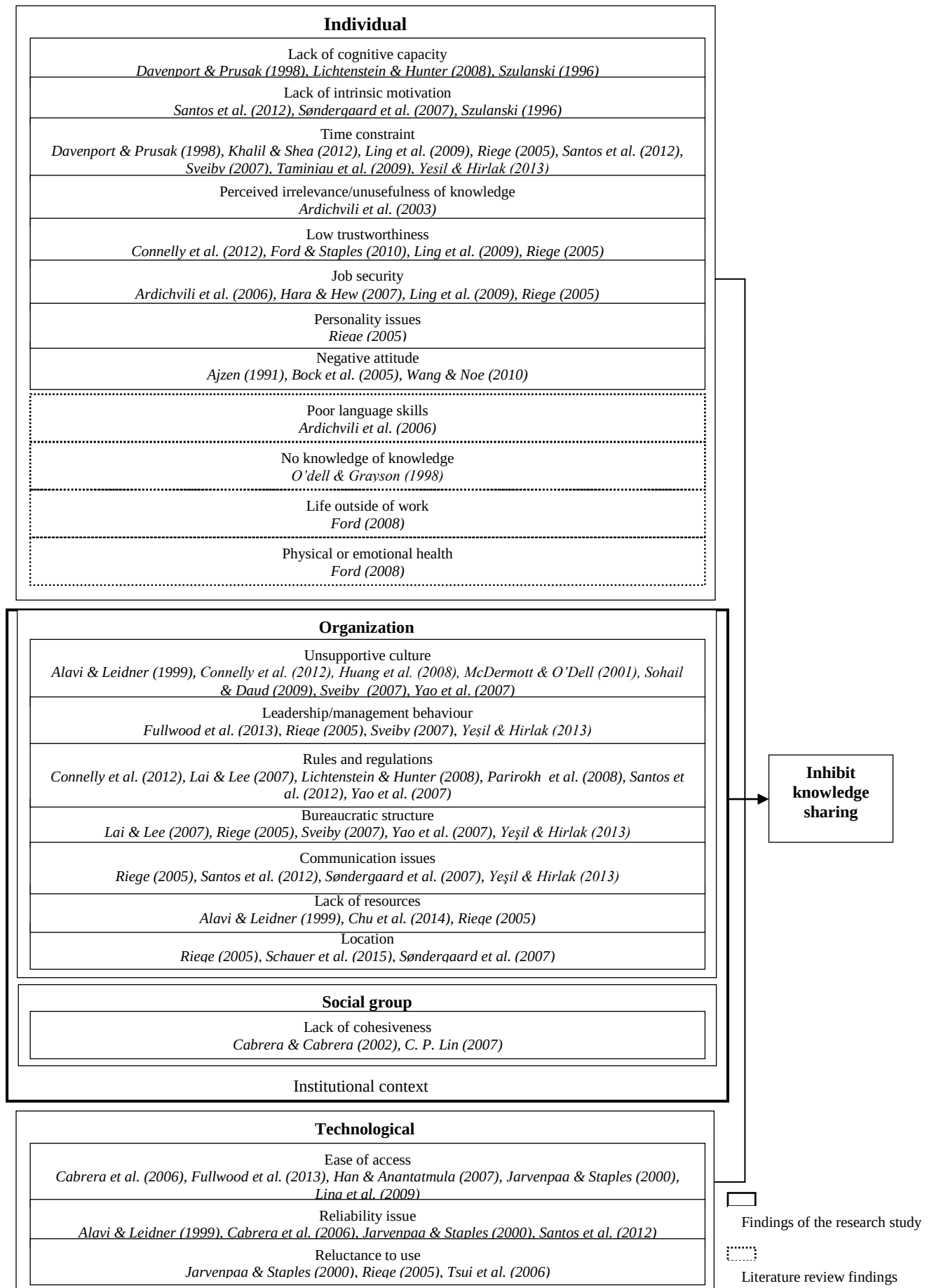


Figure 5.4: Inhibiting factors to knowledge sharing with supporting studies

Nevertheless, the manager level employee also perceived it as an issue but relates it towards the potential impact he and others might be receiving (Ling et al., 2009; Riege, 2005), should bad or negative feedbacks be shared. Unfortunately, this study did not support Han and Anantatmula (2007) interesting findings on the insignificance of job security on the unwillingness to share knowledge. According to them, the reason might be due to a high-trust culture and good social interaction between organizational members.

(g) Personality issues

Individual personality can also pose a challenge to knowledge sharing. There were not many studies on knowledge sharing barriers that have specifically investigated or found issues related to personality in their study (De Long & Fahey, 2000; Khalil & Shea, 2012; Ling et al., 2009; Santos et al., 2012; Szulanski, 1996; Yao et al., 2007; Yeşil & Hirlak, 2013). This study found the issue to be related with two dimensions of the Big Five; extraversion and agreeableness. Individuals with low extraversion and low agreeableness constitute a problem for the willingness and intention to share knowledge. In essence, introverts, or people who are characterized as reserved, creates a wall for interaction. On the other hand, low agreeableness people, characterized as liars and egocentric, may harm the context of knowledge sharing, as they tend to put less care for others and pursue their own interests over others.

(h) Negative attitude

Attitude can have a positive or negative impact on an individual's behavioral intention to share (Brock et al., 2005). Ajzen (1991) has proposed that attitude towards behavior, subjective norm and perceived behavioral control are important influences for the intention to share. Although attitude appeared to be the only aspect relevant in this study, it supports Ajzen (1991) justification that the influence of all of three aspects may apply differently in various studies. This issue was not discovered directly as a knowledge sharing barrier in

previous studies. However, it is highly associated with motivational factors, a key in predicting individuals' behavior to share or not to share (Wang & Noe, 2010). In a substantial way, negative or poor attitudes make it difficult for knowledge sharing to take place.

5.5.2 Institutional barriers

(a) Organizational barriers

Unsupportive culture

The influence of organizational culture on employees' conduct is undisputable (Sohail & Daud, 2009; Sveiby, 2007). Thus, if the working environment appears to be discouraging, it will indirectly affect the desirability of employees to perform any kind of activity including knowledge sharing. Alavi and Leidner (1999) pointed out three important challenges to knowledge management: culture, information and management. The underlying concerns of organization culture include the resistance to change as well as getting people together and convincing them to share knowledge (Alavi & Leidner, 1999; McDermott & O'Dell, 2001).

On the other hand, Connelly et al. (2012) found that the working climate has a detrimental effect towards people's behavior, which was to partake in evasive knowledge hiding. Additionally, working in a fast-paced environment leads employees to ignore and care less about knowledge transfer; weakening the culture of knowledge sharing in the organization (Yao et al., 2007). If no effort is being made, such norm and practice will not be visibly seen and employees will perceive it as not an obligation (Huang et al., 2008). Although the responses about climate were generally indicated as neutral, aspect of structure, for instance, was viewed as negative in which it promotes individualistic behavior (Fullwood et al., 2013; Khalil & Shea, 2012).

Leadership/management behavior

Poor leadership styles and poor directives by the management can also present an impediment for knowledge sharing, at the organizational facet (Riege, 2005; Yeşil & Hirlak, 2013). Fullwood et al. (2013) suggested that the negative views of employees on leadership involve biasness, poor communication or unclear direction and disregard of their ideas. The other disappointments include insufficient support, unfairness and risk aversion behavior. Sveiby (2007) advocates that apathetic managers, who provide insufficient means for context-building will gain less trust from the employees. In this study, one of the informants agreed that some managers only concern about the profits and not interested in other issues including knowledge sharing.

Rules and regulations

Predominantly, employees are unwilling to share knowledge because they are bound by the company's rules and regulations. Indeed, Lai and Lee (2007) proposed such culture as punctilious, in which employees need to act according to the rules, before proceeding with any innovative ideas. In fact, issues of confidentiality serve as a common ground for employees in restricting the sharing process (Connelly et al., 2012; Lichtenstein & Hunter, 2008). Syed-Ikhsan and Rowland (2004) also suggested that confidential information/knowledge are only meant to be disclosed to particular levels of employee, but it did not appear to be significant in their study. On the other hand, several studies implicated that some organizations lack policies and procedures that can assist the process of knowledge sharing and transfer (Parirokh et al., 2008; Yao et al., 2007). This, in turn, adversely affects the effectiveness knowledge sharing and leads to the underutilization of knowledge (Yao et al., 2007). Alternatively, policies imposed by the management might be too rigid to adhere,

such as prohibiting the usage of communication channels; causing difficulties in interacting with people from other organizations (Santos et al., 2012).

Bureaucratic structure

Restriction to knowledge sharing is also influenced by the way an organization functions. This is because the type of structure adopted by an organization can obliquely articulate about its core values and guide its organizational members' anticipation (McDermott & O'Dell, 2001). Thus, organizations with a traditional hierarchy structure exhibit a weakness to knowledge sharing practices, as it is governed by the complex multi-layer procedures and strong adherence to internal regulations (Riege, 2005; Sveiby, 2007; Yeşil & Hirlak, 2013). Indeed, this burden leads toward employees' work dissatisfaction and frustration, hence, their refusal to participate in any knowledge management activity (Yao et al., 2007). Lai and Lee (2005) also view this issue to be related with an authority culture, which is characterized by control and power. It was found that such culture has a negative impact towards achieving knowledge sharing in the organization.

Communication issues

It is of no doubt that communication is at the core of transferring, sharing or conveying information and knowledge. Without effective communication, which is getting important messages across the organization, it will be problematic to have every employee be aligned with the company's strategy (Søndergaard et al., 2007). Riege (2005) and Yeşil and Hirlak (2013) also puts a concern on restricted communication and knowledge flow as an obstacle that needs to be addressed at the organizational level. In a language-related issue, Santos et al. (2012) asserted that each party working together in a project needs to make clear the usage of technical language, so that it comes out as explicable to others. Given a fact that there are many tools and approaches available for the communication purpose, choosing an

appropriate tool or approach should be a concern. Ardichvili et al. (2006) signified this importance in their study of different branches of the same company. It was found that e-mail was the preference in Russia and Brazil, whilst in China, the employees are more oriented towards face-to-face communication.

Lack of resources

Lack of resources appeared to be a limitation for organizations that wish to undertake knowledge sharing activities. Riege (2005) found this as part of the organizational issue, which is a failure to offer an adequate amount of opportunities for knowledge sharing practices. Chu et al. (2014) also stated the importance of human resources, and their shortage which can adversely affect the process and lessen the benefits to the communities. This study has found that the financial status of the company also constrains the feasibility of knowledge sharing projects. Alavi and Leidner (1999) pointed out that this perspective was affirmed by managers as one of the necessities required for the implementation of knowledge management.

Location

Another factor that can impede knowledge sharing is the dispersed location of organizational members. In their qualitative study, Schauer et al. (2015) and Søndergaard et al. (2007) found that location has made it difficult for employees to establish rapport and interact well with others. In his review, Riege (2005) also emphasized this as an issue, indicating that it is not only disrupting communication, but also affects trust, which can only be made possible through a face-to-face interaction. Indeed, in this study, the location issue is made worse when the employees imply that those at the working site do not have appropriate infrastructure for communication. Without computers and not having access to email systems,

the communication and knowledge sharing between the headquarters and site offices seem unrealistic.

(b) Social group barriers

Lack of cohesiveness

Working in the organization does not only require individuals to work independently but also necessitate cooperation between individuals, departments or organizations. The importance of cooperative behavior was indicated by the received task interdependency variable in C. P. Lin (2007) study. The variable was found to be important in influencing knowledge sharing, by which the accomplishment of task comes from a concerted effort of others. Cabrera and Cabrera (2002) also raised the effect of lack of cooperation on knowledge sharing dilemma. Hence, ways of elevating cooperation must be addressed, by which there is a need to promote group identity and encourage self-responsibility.

5.5.3 Technological barriers

(a) Ease of access

In today's working environment, technology act as important tools for storing, communicating and sharing knowledge effectively. However, there were several concerns when utilizing the tools: accessibility, reliability and reluctance. Ling et al. (2009) found that the technology issues was ranked amongst the top, in which there was an absence of systems to locate whom the knowledge needs to be shared with or made available to. On the other hand, Fullwood et al. (2013) have identified that employees view the system as unfriendly and ineffective in connecting people together. Besides that, Han and Anantatmula (2007) revealed that most employees were not being provided much training on technologies and the processes, an obstacle that needs to be addressed by the organization. Indeed, in this study,

employees perceived the accessibility issue as a failure of system connection and allocation. These issues of availability relate to what Cabrera et al. (2006) described as not only related to its existence, but also to the systems efficiency of communication and purpose, adequate training, usability or friendliness of interfaces and connectivity. Jarvenpaa and Staples (2000) also support it, indicating the perceived easiness to acquire data strongly support the usage of collaborative electronic media for information sharing.

(b) Reliability

Another limitation associated with information technology (IT) is reliability. For instance, the challenge of deliverance is associated with the codification issue that is constructing the content in a manner that the knowledge holder intends to convey. Santos et al. (2012) found this as an ambiguity issue in their study, by which it is not certain whether the receivers get the meaning or not. The quality of content also affects a person's involvement in IT, especially in knowledge seeking (Cabrera et al., 2006). The poor content found on the internet, for instance, require individuals to obtain knowledge from the experts. Indeed, individuals have already formed an assumption that IT can bring them accurate, new and updated knowledge (Jarvenpaa & Staples, 2000). Despite these perceptions, it is essential to know that it does not support heavy and vague content, leading to difficulties in searching for the right one (Santos et al., 2012). Besides that, some people are wary on the informality of IT in communicating information and knowledge. Hence, it is important to confirm and get the information right from a valid source. Other than that, IT also violates an individual's privacy, as there are too many scams and hoaxes on the internet. That is why keeping the data secure on the internet was perceived as challenging by the managers (Alavi & Leidner, 1999).

(c) Reluctance to use

In another case, making information technology available may be insignificant because its effective usage relies heavily on the individuals themselves, as the end users. Riege (2005) has listed it amongst the possible technological obstacles to knowledge sharing by which individuals may be reluctant to use it due to unfamiliarity and lack of knowledge. Tsui et al. (2006) claim that people have different levels of comfort when using information technology tools for knowledge sharing. Its importance was supported by Jarvenpaa and Staples (2000), indicating that the feeling of pleasure and having a positive attitude towards computers will increase people's inclination to use it for information sharing.

Based on this study, it is noteworthy to mention about the influence of an individual's background on the attitude toward technologies. The challenge lies greatly within the older generations as they appeared to be disinclined to engage in any activity related to computers, as opposed to the younger generations who are technophiles. The traditional way of face-to-face knowledge sharing seems to be the preference because of its effectiveness. Besides that, an age concern should be placed on the cognitive ability as well, as it might associate to frustration and lengthy processes to absorb new knowledge.

5.6 Discussion: Research Objective 6

5.6.1 Organizational outcome

5.6.1.1 Strong organizational culture/climate

Knowledge sharing benefits the organization by helping build a strong and positive culture. Previously, there were many literatures denoting the linkage between knowledge or knowledge sharing and culture. However, those studies were focused on culture as one of the antecedents or variables that can have considerable impact on knowledge sharing behavior

(Han & Anantatmula, 2007; Witherspoon et al., 2013; Yao et al., 2007) knowledge transfer performance (Syed-Ikhsan & Rowland, 2004), or on the usage of information technologies (Jarvenpaa & Staples, 2000).

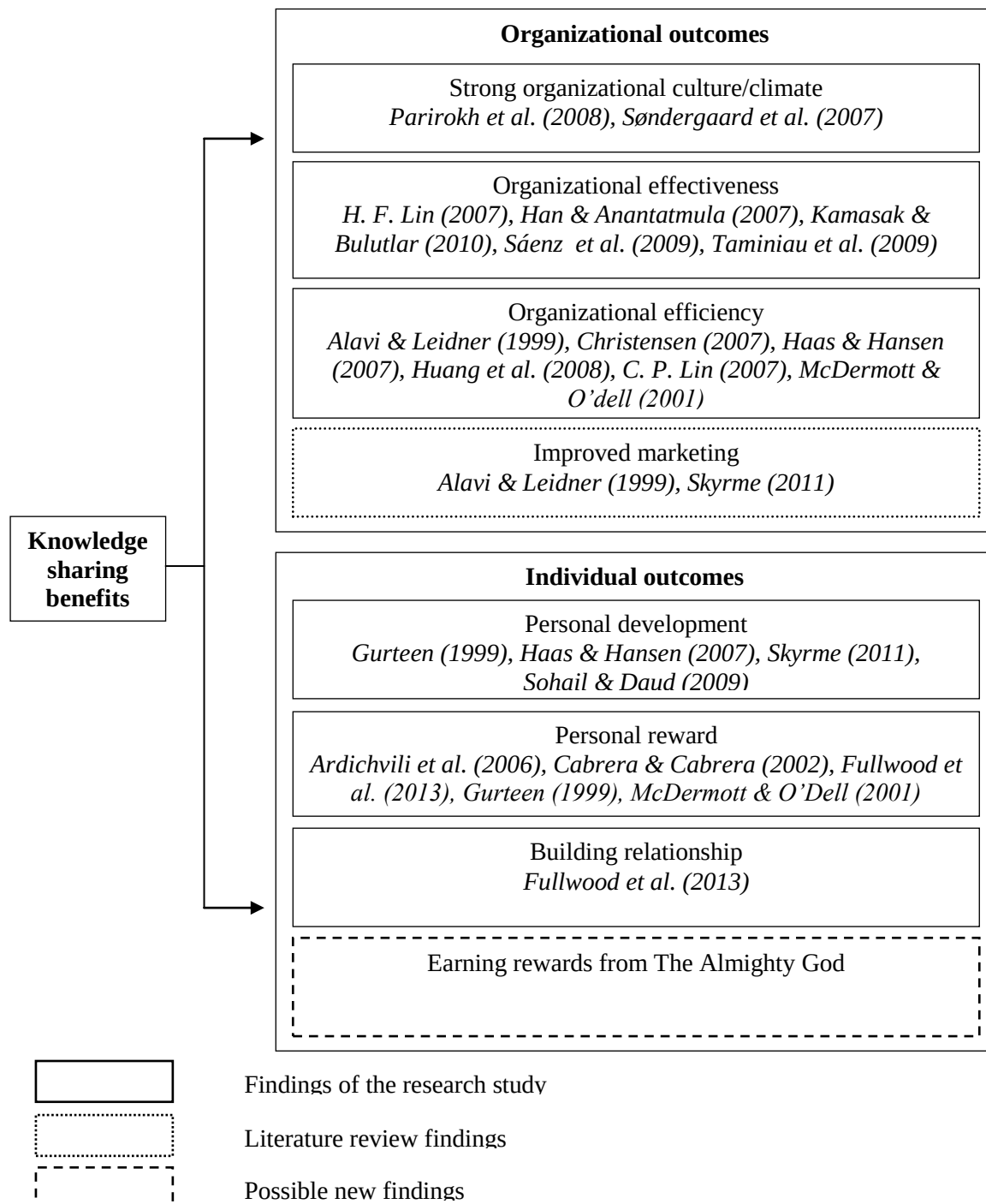


Figure 5.5: The benefits of knowledge sharing with supporting studies

On the other hand, in a case study done at a multinational engineering company in the United Kingdom, Søndergaard et al. (2007) has indicated the cycle between culture and an individual's behavior. The factors of individual, leadership and organization were found supporting the culture of knowledge sharing, that is by acting as a powerful influence towards an individual's behavior. Nevertheless, the flow did not stop at that particular point. Indeed, the knowledge sharing behavior routes back into the organizational culture, signifying its continuous benefit. This continuous flow of benefit is very significant for organizations because positive behavior, in a large scale will create a harmonious working environment and culture that can only be made possible with a collective effort and in a continuous time frame. It is also important to note that knowledge sharing enhances the culture of learning as well. A previous research done by Yang (2007) found that knowledge sharing helps to transform the knowledge of each individual into an organizational knowledge. This transformation, in turn helps an organization to establish its identity as a learning organization (Parirokh et al., 2008).

5.6.1.2 Organizational effectiveness

Knowledge sharing also has a significant contribution towards the effectiveness of organizations. In previous studies, innovation has appeared as an important gain for an organization that implements knowledge sharing. H. F. Lin (2007) advocates that the integration of knowledge sharing elements will significantly improve the knowledge sharing processes. It was found that both processes; knowledge collecting and donating leads toward an increase in the innovative capability of an organization (H. F. Lin, 2007; Sáenz et al., 2009). Kamasak and Bulutlar (2010) took innovation in a deep manner, by studying the three dimensions: exploitative, exploratory and ambidextrous. They found that knowledge collecting critically affects any kind of innovation while knowledge donating within departments only affects the exploitative and ambidextrous dimensions.

Taminiau et al. (2009) also mentioned the importance of innovation in their study. They indicated that active participation and informal knowledge sharing will enhance the creation of new knowledge and lead to the generation of creative ideas. This, in turn, contributes toward an increase in overall organizational performance and sustains the competitiveness (Han & Anantatmula, 2007). Apart from that, high encouragement to share knowledge can also be through effective use of financial resources. Alavi and Leidner (1999) indicated that organizations can gain more profit, intensify their selling and minimize the cost of certain activities (Chu et al., 2014) such as training investment.

5.6.1.3 Organizational efficiencies

The benefits of knowledge sharing on efficiency can be reflected in the way of enhanced communication and increased efficiency in performing tasks. Alavi and Leidner (1999) have indicated several communication-related benefits of a knowledge management system, which includes an effective and immediate communication, increase involvement of employees and ability to get transparent feedback from them. Christensen (2007) also accentuates the importance of the process of achieving an intended output. Furthermore, he elucidates that knowledge sharing can close the gap to organizational interdependencies, allowing for a concerted effort among employees.

In terms of task performance, the impact of efficiency can be seen when organizations are able to minimize the use of resources, specifically of time and effort. Knowledge sharing helps to reduce the waste of time on experimentation (C. P. Lin, 2007) as well as in the product development cycle. Besides that, efforts to document or share explicit knowledge helps to prevent others from making any mistakes (Huang et al., 2008). Ultimately, these benefits circumvent organizations from reinventing the wheel (Christensen, 2007; McDermott & O'Dell, 2001), that is to excavate and retrieve again the details and knowledge of similar

problems if they repeatedly occur in the future. In studying different approaches of knowledge sharing on task performance, Haas and Hansen (2007) have identified that sharing of knowledge via electronic tools saves time while personal sharing improves the quality of work of the sales team. Alavi and Leidner (1999) also indicated the benefits relating to the efficiency dimension. Aside from speeding up the job process, it also shortens the time to solve problems and in decision making (McDermott & O'Dell, 2001), increases the capability to gain faster end-results and delivery to the market. Nevertheless, the finding of this study that suggests that knowledge sharing contributes towards team performance contradicts to Huang's (2009) findings.

5.6.2 Individual outcome

5.6.2.1 Personal development

Knowledge sharing does not only contribute towards the organization's overall performance, but it also aids in an individual's personal development (Gurteen, 1999). It helps people to develop or signalize new competencies (Haas & Hansen, 2007; Sohail & Daud, 2009) in which they become more knowledgeable in doing their tasks. In addition, knowledge sharing provides an avenue for individuals to access new thinking and up-to-date knowledge (Skyrme, 2011).

5.6.2.2 Personal reward

In spite of the perception that sharing knowledge would cause individuals to lose their knowledge uniqueness or undermine their job security (Riege, 2005), this study stipulates the opposite result. Instead, it actually provides an avenue for individuals to develop a sense of identity that is substantial in increasing the chances of being selected for best projects (McDermott & O'Dell, 2001). Besides that, individuals can also stand out from the crowd and

show their capabilities and competence, thus, enhancing career growth (Ardichvili et al., 2006; Fullwood et al., 2013; Gurteen, 1999). Furthermore, they also become prominent in their area of expertise and might get public recognition by the top management (Cabrera & Cabrera, 2002; Gurteen, 1999).

5.6.2.3 Building relationship

Another highlight of the social benefits is on the relationship aspect. Individuals also perceived that knowledge sharing allows them to become more attached to each other, acknowledgment by new employees, build strong connections with people who have mutual interests as well as expand their networking of associates (Fullwood et al., 2013). This could increase the likelihood to establish informal relationships with others

5.7 Discussion: Research Question 7

In this study, four of the Big Five dimensions are found reflecting the characteristics of the knowledge sharer. They are conscientiousness, agreeableness, extraversion and openness to experience. However, the other dimension known as neuroticism was irrelevantly associated with the character of knowledge sharer, supporting the findings and an extrapolation of previous studies (Cabrera et al., 2006; Matzler et al., 2008; Wang & Yang, 2007). Neurotics have negative features such as anxiety, hostility, susceptibility and moodiness (Costa & McCrae, 1995), thus, an impossible trait for supportive knowledge sharing behavior.

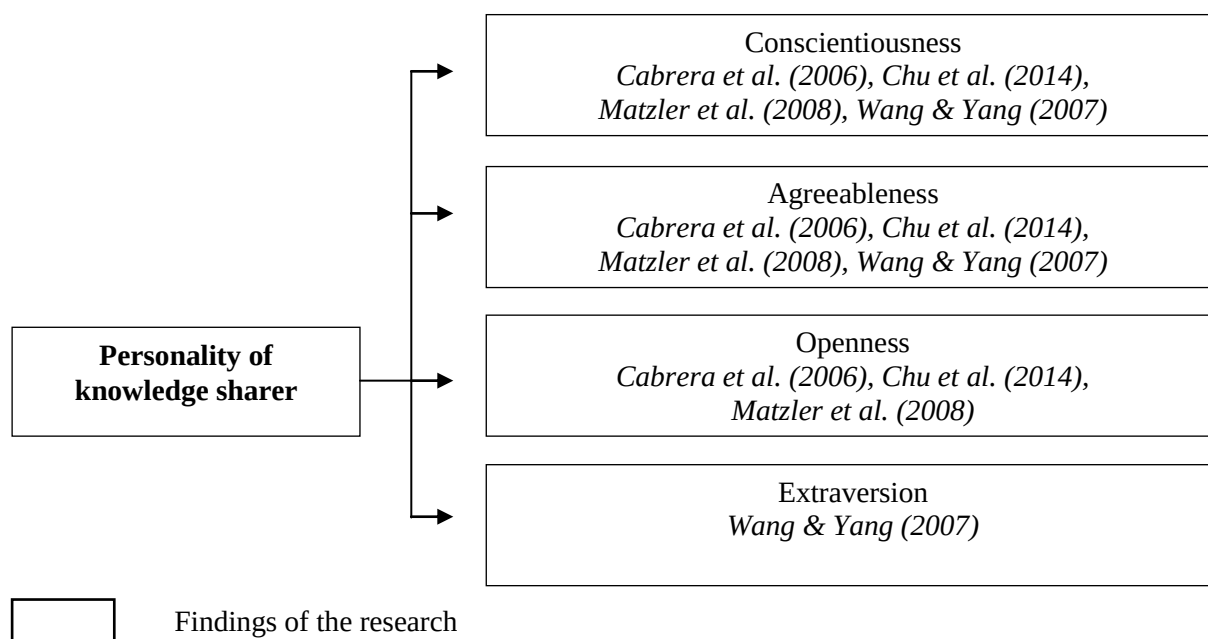


Figure 5.6: Knowledge sharer's personality with supporting studies

As mentioned before, conscientiousness and agreeableness are important characters of the knowledge sharer. People in the conscientiousness dimension are very efficient, skillful, discipline and have a high desire for success (Costa & McCrae, 1995). They are very devoted toward their work and could be a workaholic. On the other hand, those with an agreeableness personality are generally altruistic, trusting and sympathetic (Costa & McCrae, 1995). Previous studies on personality and knowledge sharing have signified a positive relation between these two dimensions (Cabrera et al., 2006; Chu et al., 2014; Matzler et al., 2008; Wang & Yang, 2007).

The third dimension of personality possessed by the knowledge sharer is openness to experience. Associated with intellectuality, open-mindedness and thinking (Goldberg, 1992), it appeared to be consistent with the results of previous studies (Cabrera et al., 2006; Chu et al., 2014; Matzler et al., 2008). However, dissimilarity in findings still exists. For example, based on Wang and Yang (2007) study, the statistical analysis failed to generate a positive correlation between openness and knowledge sharing intention. Apart from that, the grounded

data has disclosed that the extroverts also play a role in knowledge sharing. Characterized as individuals who are sociable, active and expressive (Costa & McCrae, 1995), the likeliness of them being a knowledge sharer is affirmed in this study. This is because of their ability to carry out a conversation and their ease in getting closer to others create a comfortable situation for free expression of thoughts, ideas and experiences. This finding is equivalent to Wang and Yang (2007) hypothesis that extraversion personality has an influence towards intention to share knowledge.

5.8 A Proposition Model on Knowledge Sharing

The proposition model illustrates that an individual's intention to share knowledge can be affected by diverse aspects. When these aspects have succeeded in enabling an individual's willingness to share, such undertakings will then be supported by various knowledge sharing approaches, with the final outcomes of the willingness to share knowledge benefiting the organization and the individual.

The earlier section of this chapter has illustrated several variables that help contribute towards knowledge sharing. The quality derived from a person, unconditional supports from the organization, good social relationships and the narrow aspect of the artifact-that is knowledge, have a role to play in inciting the intention to share knowledge. Amongst the four driving forces, the researcher would like to highlight the important force of the individual's motivation. Deci and Ryan (2000) have conveyed a good perspective on the role of intrinsic and extrinsic motivation towards an individual's behavior. Indeed, in their viewpoint, these motivations differ in the way they regulate and the extent to which an individual behaves. In this study, the exertion of the person's inner side that displays a free-flowing will has made knowledge sharing seem effortless. The employees described the underlying aims for such behavior entails an activation of emotions toward a particular activity, indicating a state of

pleasure. Nevertheless, it is difficult to detect this natural tendency, as it is merely within the knowledge of that particular individual and not visible to others.

On the other hand, the extrinsically motivated behaviors were indicated through sense of responsibility, personal belief and organizational commitment. Having awareness on the importance of one's job and values are something internal to an individual. Nevertheless, Deci and Ryan (2000) contended such issues are extrinsic because they are still acquired and developed through an influence of supplementary factors that is not devoted towards the activity itself. In this case, the employees are mechanized by their commitment for the job and the organization, as well as by the value of undertaking or acknowledging something. Therefore, they are highly associated with identification to one's job or values as opposed to a mere enjoyment, which is a characteristic for an intrinsic motivation.

In uplifting an individual's desire to participate in knowledge sharing activities, the institutional context also has powerful control over it by offering a proper stimulus. For instance, they can boost the employees' inner energy through an exemplary leadership that encourages the freedom of speech among the organizational members or through a conducive working culture. At infrequent intervals, organizations could make an allocation of tangible rewards or incentive to those who are actively involved in knowledge sharing, as a kind of appreciation.

Other than that, an individual's knowledge sharing intention also impinges upon the recipient of the knowledge. For knowledge sharing to occur, the sharer does not only form a presumption about the situation but also on the individual eligible for his or her knowledge. For instance, the sharer favor those who possess a good grasp of knowledge, competence, passion, and those with willingness to learn, listen and enquire. Besides that, the recipient is the one who is perceived as relevant and important in the sharer's view. Although this may

seem like the sharer is biased, however, the proposition is more inclined towards the dominant quality of the recipient that could accelerate the individual's decision to share knowledge.

Nevertheless, the other important component of this model lies in an individual innate ability. This component encompasses individuals' demographic background, personality and intellectuality. Through the relational analysis, the researcher has found a possible relationship between demographic factors and personality on knowledge sharing. For instance, gender, marital status, job position, service period, department and religion have an influence towards different variables such as individuals' willingness, unwillingness and perceived benefit. On the other hand, individuals' intellectuality covers knowledge of different types, which are tacit and explicit. In this study, these types of knowledge were found to be willingly shared by the employees with others within and across organization. Each of the knowledge may differ in terms of level of richness and characteristic, and the ways they are being processed are very complex and cognitive. Yet, as they reside in the human mind, it becomes a valuable asset for those who have it, making them the ultimate person to decide to share or not. Hence, organizations should have high regards for the individual's implicit features because identifying those who can bring a positive impact towards the knowledge sharing culture is imperative for the long-term success.

As a result of the influence of the various factors, in a positive case, employees who have developed a strong intention to share knowledge will be more willing to share their knowledge to others. In due course, that particular employee may adopt an approach of his or her interest to manifest such action. Individuals could select using face-to-face interaction, documentations or technologies devices that either make use of the internet or not. In addition, they can also get involved in any organizing of events or practices that connect themselves with the community.

The participation of individuals in knowledge sharing activities, in turn, is benefiting both the individual and the organization. It helps in the development of an individual by means of increased knowledge, competency and confidence. Besides that, an individual could also establish a sense of credibility and satisfaction. In terms of the social aspect, it helps to build and strengthen the relationship with other organizational members as well as expand the network. As for the organization, encouraging knowledge sharing contributes towards a strong, positive culture. Moreover, it also improves the operational efficiency by aiding in the execution of tasks and learning as well as reducing the time, effort and costs in solving problems. Indeed, it also enhances the communication processes, indicated by employees having mutual understanding, tolerance, being well informed about current issues and good teamwork. As for the final result, the organization is able to achieve the intended goals or targets, be it in gaining more profits or increase in overall performances.

As aforementioned, the positive intention will lead towards one's willingness to share knowledge with others. On the contrary, several factors may block an individual's intention to share knowledge, hence, disinclined to share it. Furthermore, this act prevents the individuals from taking any effort to participate in any knowledge sharing activity that would give them more benefit than what he or she anticipates.

5.9 Limitations of the Study

It is important to acknowledge a few limitations that could affect the interpretation of results. This research attempts to explore knowledge sharing issues of private organizations from different industries. Nonetheless, for each of the industries, the participation of informants is limited to a single organization. Hence, the findings do not represent that entire industry. Moreover, this study is done in the Malaysian context by which cultural influences should be taken into account. Besides that, the informants are purposely selected from the

executive and manager level. Therefore, the representation of findings is restricted to those levels. Furthermore, qualitative data that is based on interviews only provide responses to particular questions. Presumably, the informants' actual behavior in sharing knowledge and whether it is done regularly or not is debatable. As for the interpretation of knowledge, this study focuses only on the work-related kind of knowledge, which includes knowledge of experiences, techniques and documents. Hence, the researcher does not study anything beyond that boundary where the informants may share their view on life-related or spiritual knowledge.

5.10 Recommendations for Future Research

It is recommended for future research to increase the number of participating informants and companies. Involvement of other organizations or other industries could enrich the outcome of this study and might provide additional findings, especially in the Malaysian context. Given that the current study has indicated knowledge sharing issues based on the executives and managers' perspectives, it is significant to explore the non-executives' opinions on this issue as well. If exploring differences become an interest, future research can also acquire and explore knowledge sharing issues between employees in two different industries.

Besides that, other studies may employ the use of a quantitative type of methodology to get a greater population of respondents which is more diversified. Indeed, the frameworks established from the obtained data need to be tested and explored for validation and enhancement. The researcher also believes that individuals' personal beliefs, values and upbringings have a major role to play in influencing them to share knowledge. It is hopeful that a highlight on this part can unearth more about their knowledge sharing behavior. Since

knowledge sharing relates to an individual's reaction or behavior, future studies might want to consider putting an observation in the methodology to support the interpretation of findings.

5.11 Conclusion

Mainly, this study was done to explore knowledge sharing practices in the organization. Seven objectives were identified, which include the kinds of knowledge willing to be shared by the employees, with whom they are willing to share knowledge with, how knowledge sharing is promoted in the organization, the driving factors and the impediments of knowledge sharing, the advantages of knowledge sharing as well as the characteristic of the knowledge sharer.

For the first objective, there were two types of knowledge willing to be shared by the employees with others, which are tacit and explicit. As mentioned in chapter two, there were many categorizations of knowledge that have been adopted and used in previous research studies. Hence, it can be somewhat complicated to code the gather data of this part. In this study, the researcher took the common known knowledge types: tacit and explicit. Tacit knowledge refers to knowledge that is personal, ingrained in action and experiences, reflecting a manifestation of individuals' technique and cognitive capacity (Nonaka, 1994). On the other hand, explicit knowledge possesses the opposite side of tacit knowledge by which it is shared in a documented form like data, manuals, formulae or specifications. Mainly, these two types of knowledge serves as an umbrella format for the other types of knowledge. Tacit knowledge covered knowledge such as personal suggestion, personal opinion and institutional practice (Hara & Hew, 2007), experiential knowledge (Millar et al., 1997, as cited in Blumentritt & Johnston, 1999), embedded knowledge (Blackler, 1995), social knowledge (Blumentritt & Johnston, 1999) and know-how (Lundvall, 2006). As for explicit knowledge, the documented knowledge includes the suggestion offered by Musgrave

(1993, as cited in Blumentritt & Johnston, 1999) that is knowledge of how to do things and Millar et al.'s (1997, as cited in Blumentritt & Johnston, 1999) process knowledge. Supporting Hara's (2007) assertion, the know-how (Lundvall, 2006) can also be in the explicit form. Lastly, the finding also reveals the sharing of the know-what that is knowledge about facts, closely related to information that can be separated into pieces (Lundvall, 2006).

The second objective aimed to understand with whom employees are willing to share knowledge. It was revealed that employees are willing to share knowledge intra and inter-organizationally. Besides that, they are delightful to share knowledge with those who asks for their opinion, those with good attitude and those perceived as relevant. They also found it is important for the recipient to be competent and to have good cognition. In promoting knowledge sharing, there were several ways indicated by the informants, ranging from written documentations, verbal communication, information technologies tools or applications and other events or practices. Along with the increased coverage of network and smartphones, it is interesting to find that employees also use social networks like Facebook and Whatsapp as part of the knowledge sharing channels.

The fourth objective has disclosed various factors that can drive employees' decision to share knowledge. They include the individual, institutional context, knowledge and relationship. In the individual context, it is important to note that most of the informants were willing to share knowledge because they were driven by their inner motivation. Indeed, the important concept of rewards and recognition were found to have gained the most agreement from the informants as well. Nevertheless, further views indicated that such factors could be somewhat impractical and should not be exercised regularly, as the genuine act should come from the individuals themselves. Previously, there were mixed results on the impact of extrinsic rewards on knowledge sharing. Among the studies that have indicated the

insignificant impact of rewards were H. F. Lin (2007) and Tohidinia and Mosakhani (2010). However, this study did not regard rewards as unimportant in knowledge sharing, rather, highlighting this factor as a catalyst to increase individuals' participation or effort in knowledge sharing.

On the other hand, the barriers to knowledge sharing lie in the aspects of individual, institution and technology. Among the concepts found in the individual factor, negative attitude has been viewed most by the informants as what makes knowledge sharing difficult to happen. The examples of this attitude include arrogance, carelessness, selfishness, dishonesty, egocentric and ignorance. Other individual-related barriers found were poor learning ability, lack of self-motivation, time constraints, low trustworthiness, perceived value of knowledge, job security and personality issues. For the institutional context, the barriers could come from the unsupportive culture, poor leadership, bureaucracy, poor communication, lack of resources and location. In fact, all informants were in an agreement that they are bound by the job policy related to privacy and confidentiality matters. Hence, restraining them from sharing knowledge freely with others. Although technology can help elevate the knowledge sharing process, it can also pose a challenge too. Several concerns in utilizing the tools described by the informants were its accessibility, reliability and reluctance.

In terms of the benefits, knowledge sharing brings toward success for both individual and organization. It helps strengthen the culture of the organization, improve the operational efficiency and bring towards the accomplishment of goals. Besides that, it supports the individual's development, enriches their personal reward and facilitates positive relationships with others. In conjunction with the Big Five personality traits, four of its dimensions were found to be containing the characteristics of the knowledge sharer. They are the conscientiousness, agreeableness, extraversion and openness to experience.

Based on the discussion, most of the concepts or findings in this study corroborated the previous studies on knowledge sharing. As mentioned earlier, the concepts and categories identified were the result of the primary analysis. Further analysis has revealed several patterns between the informants' demographic background and the coded data. The first and second patterns relate with the fourth objective of the study, which is the willingness to share knowledge. It was determined that male, married, holding a position of senior manager, having been working for more than six years in the organization and characterized as conscientious and emotionally stable, are driven to share knowledge because they feel accountable to do so. The second pattern found in this study indicated that married employees and ranked as high agreeableness in personality were more willing to share knowledge due to having strong feelings of loyalty to the organization. Meanwhile, gender, department, educational level and personality showed a correlation with the fifth objective. Female employees, working as an HR professional, holding a bachelor's degree and marked as neither open nor close and neither emotionally stable nor neurotic personality were disinclined to share knowledge if they perceived the recipients of knowledge as cognitively incapable. As described by Szulanski (1996), this issue is concerned with the person's ability to value, assimilate and utilize the new knowledge in his or her learning area. Furthermore, in terms of the perceived benefits of knowledge sharing, male employees and Muslims highly believed that they would get a reward from the Almighty God when they share knowledge with others.

Aside from the correlations, some of the findings of this study could probably be new in the knowledge sharing literatures. For instance, in discovering with whom employees are willing to share knowledge, those who were perceived as important received more attention. Besides that, several knowledge sharing activities, which are online training, webcast, SMS

blast, audit and family day, could also be new findings in the field of knowledge sharing. It was known that there was a correlation between the individual's demographic background and earning rewards from The Almighty God as the benefit of knowledge sharing. Indeed, this category could also serve as a new finding involving the feature of individual reward, from the viewpoint of religious beliefs.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Alavi, M., & Leidner, D. E. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, 25(1), 107–136.
- Alavi, M., & Leidner, D. E. (1999). Knowledge management systems: Issues, challenges, and benefits. *Communications of the AIS*, 1(7), 2-36.
- All KM. (2011). Knowledge creating process, SECI model. *allkm.com*. Retrieved from <http://www.allkm.com/km-basics/knowledge-process.php>
- Amlus, I., Hirun Azaman, I., Susita, A., & Mohd Radzai, S. (2006). *Knowledge management as strategy for k-economy: Looking at Malaysia environment*. Paper presented at the Knowledge Management International Conference and Exhibition 2006 (KMICE 2006), Kuala Lumpur, Malaysia.
- Annie Dayani, A., & Syamimi, M. A. L. (2014). Convenience or nuisance? The “whatsapp” dilemma. *Procedia-Social and Behavioral Sciences*, 155(October), 189–196.
- Ardichvili, A., Maurer, M., Li, W., Wentling, T., & Stuedemann, R. (2006). Cultural influences on knowledge sharing through online communities of practice. *Journal of Knowledge Management*, 10(1), 94-107.
- Ardichvili, A., Page, V., & Wentling, T. (2003). Motivation and barriers to participation in virtual knowledge-sharing communities of practice. *Journal of Knowledge Management*, 7(1), 64-77.
- Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C. (2009). *Introduction to research in education*. Belmont, CA: Wadsworth Publishing Company.
- Bakker, M., Leenders, R. T. A., Gabbay, S. M., Kratzer, J., & Van Engelen, J. M. (2006). Is trust really social capital? Knowledge sharing in product development projects. *The Learning Organization*, 13(6), 594-605.

- Balbastre, F., Oltra, V., Martinez, J. F., & Moreno, M. (2003). Individual, group and organizational learning levels and their interactions: An integrative framework. *Management Research*, 1(3), 253–267.
- Bartol, K. M., & Srivastava, A. (2002). Encouraging knowledge sharing: The role of organizational reward systems. *Journal of Leadership and Organizational Studies*, 9(1), 64-76.
- Bednar, C. (1999). Effective ways to capture knowledge: How to extract information through different interview techniques. *Knowledge Management Review*. Retrieved from http://www.bain.com/Images/KMR_Effective_ways_capture_knowledge.pdf
- Bierly III, P. E., Kessler, E. H., & Christensen, E. W. (2000). Organizational learning, knowledge and wisdom. *Journal of Organizational Change Management*, 13(6), 595-618.
- Blackler, F. (1995). Knowledge, knowledge work and organizations: An overview and interpretation. *Organization Studies*, 16(6), 1021-1046
- Blumentritt, R., & Johnston, R. (1999). Towards a strategy for knowledge management. *Technology Analysis & Strategic Management*, 11(3), 287- 300.
- Boateng, H., Dzandu, M. D., & Agyemang, F. G. (2015). The effects of demographic variables on knowledge sharing Article information. *Library Review*, 64(3), 216–228.
- Bock, G. W., Zmud, R. W., Kim, Y. G., & Lee, J. N. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social–psychological forces, and organizational climate. *MIS Quarterly*, 29(1), 87–111.
- Bock, G. W., & Kim, Y. G. (2002). Breaking the myths of rewards: An exploratory study of attitudes about knowledge sharing. *Information Resources Management Journal*, 15(2), 14-21.
- Bogdan, R. C., & Biklen, S. K. (2003). *Qualitative research for education: An introduction to theory and methods*. Boston, MA: Allyn and Bacon.
- Boudreau, M. C., Gefen, D., & Straub, D. W. (2001). Validation in information systems research: A state-of-the-art assessment. *MIS Quarterly*, 25(1), 1-16.
- Brantlinger, E., Jimenez, R., Klingner, J., Pugach, M., & Richardson, V. (2005). Qualitative studies in special education. *Exceptional Children*, 71(2), 195-207.

- Brown, J. S., & Duguid, P. (1998). Organizing knowledge. *California Management Review*, 40(3), 90-111.
- Bryman, A., & Bell, E. (2003). *Business research methods*. [Books24x7 version]. Retrieved from <http://common.books24x7.com.ezlib.unimas.my/toc.aspx?bookid=12878>.
- BulkSMS (2003). *SMS blasting to Malaysia*. Retrieved from <http://www.bulksms.my/why.html>
- Bughin, J., & Chui, M. (2011). *How social technologies are extending the organization*. Retrieved from <http://www.mckinsey.com/industries/high-tech/our-insights/how-social-technologies-are-extending-the-organization>
- Busch, C., De Maret, P. S., Flynn, T., Kellum, R., Le, S., Meyers, B., Saunders, M., White, R., ...Palmquist, M. (2013). *Content analysis*. Retrieved from <http://writing.colostate.edu/guides/guide.cfm?guideid=61>
- Cabrera, A., & Cabrera, E. F. (2002). Knowledge-sharing dilemmas. *Organization Studies*, 23(5), 687-710.
- Cabrera, Á., Collins, W. C., & Salgado, J. F. (2006). Determinants of individual engagement in knowledge sharing. *International Journal of Human Resource Management*, 17(2), 245–264.
- Cavusgil, S. T., Calantone, R. J., & Zhao, Y. (2003). Tacit knowledge transfer and firm innovation capability. *Journal of Business & Industrial Marketing*, 18(1), 6-21.
- Chambliss, D. F., & Schutt, R. K. (2010). *Making sense of the social world: Methods of investigation* (3rd ed.). Thousand Oaks, CA: Pine Forge Press.
- Chatzoglou, P. D., & Vraimaki, E. (2009). Knowledge-sharing behaviour of bank employees in Greece. *Business Process Management Journal*, 15(2), 245-266.
- Che Rusuli, M. S., & Tasmin, R. (2010). *Knowledge sharing practice in organization*. Paper presented at the International Conference on Ethics and Professionalism (ICEP 2010), Putrajaya, Malaysia.
- Cheng, J. H., Yeh, C. H., & Tu, C. W. (2008). Trust and knowledge sharing in green supply chains. *Supply Chain Management: An International Journal*, 13(4), 283–295.

- Chigada, J., & Ngulube, P. (2015). Knowledge management practices at selected banks in South Africa. *South African Journal of Information Management*, 17(1), 1–10.
- Chiu, C. M., Hsu, M. H., & Wang, E. T. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decision Support Systems*, 42(3), 1872-1888.
- Chow, C. W., Ho, J. L., & Vera-Munoz, S. C. (2008). Exploring the extent and determinants of knowledge sharing in audit engagements. *Asia-Pacific Journal of Accounting & Economics*, 15(2), 141-160
- Christensen, P. H. (2007). Knowledge sharing: Moving away from the obsession with best practices. *Journal of Knowledge Management*, 11(1), 36-47.
- Chu, M. T., Krishnakumar, P., & Khosla, R. (2014). Mapping knowledge sharing traits to business strategy in knowledge based organisation. *Journal of Intelligent Manufacturing*, 25(1), 1-11.
- Connelly, C. E., Zweig, D., Webster, J., & Trougakos, J. P. (2012). Knowledge hiding in organizations. *Journal of Organizational Behavior*, 33(1), 64-88.
- Cooper, C. (2010). *Individual differences and personality* (3rd ed.). London, England: Hodder Education.
- Costa, P. T., & McCrae, R. R. (1995). Domains and facets: Hierarchical personality assessment using the revised NEO personality inventory. *Journal of Personality Assessment*, 64(1), 21–50.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Los Angeles, CA: Sage Publications.
- Cross, R., Parker, A., & Borgatti, S. (2002). *A bird's eye view: Using social network analysis to improve knowledge creation and sharing*. Retrieved from <http://www.ibm.com/us/>
- Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Boston, MA: Harvard Business School Press.
- De Long, D. W., & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *Academy of Management Executive*, 14(4), 113–127.

- Deci E. L. (2013). An interview with Dr. Edward L. Deci, codeveloper of self-determination theory. *American Journal of Health Promotion*, 27(6), TAHP2-7.
- Deci, E. L., & Ryan, R. M. (2000). The “ what ” and “ why ” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
- Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1991). Motivation and education: The self-determination perspective. *Educational Psychologist*, 26(3 & 4), 325–346.
- Denzin, N. K., & Lincoln, Y. S. (2011). *The SAGE handbook of qualitative research* (4th ed.). Thousand Oaks, CA: Sage Publications.
- Denzin, N. K., & Lincoln, Y. S. (2003). *The landscape of qualitative research: Theories and issues* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Eisenberger, R., Pierce, W. D., & Cameron, J. (1999). Effects of reward on intrinsic motivation-negative, neutral, and positive: Comment on Deci, Koestner, and Ryan. *Psychological Bulletin*. 125(6), 677–691.
- Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology*, 2, 335-362.
- Fathi, N. M., Eze, U. C., & Goh, G. G. G. (2011). Key determinants of knowledge sharing in an electronics manufacturing firm in Malaysia. *Library Review*, 60(1), 53–67.
- Feist, J., & Feist, G. J. (2009). *Theories of personality* (7th ed.). Boston, MA: McGraw-Hill Higher Education.
- Flick, U. (2011). *Introducing research methodology: A beginner's guide to doing a research project*. London, England: Sage Publications.
- Flick, U. (2009). *An introduction to qualitative research* (4th ed.). London, England: Sage Publications.
- Ford, D. P. (2008). *Disengagement from knowledge sharing: The alternative explanation for why people are not sharing*. Paper presented at the Administrative Sciences Association of Canada Annual Conference, Halifax, Nova Scotia, Canada.
- Ford, D. P., & Staples, S. (2010). Are full and partial knowledge sharing the same? *Journal of Knowledge Management* , 14(3), 394-409.

- Friedman, H. S., & Schustack, M. W. (2012). *Personality: Classic theories and modern research* (5th ed.). Boston, MA: Allyn & Bacon.
- Frost, A. (2010). *Introducing organizational knowledge*. Retrieved from <http://www.knowledge-management-tools.net/introducing-organizational-knowledge.html>
- Fullwood, R., Rowley, J., & Delbridge, R. (2013). Knowledge sharing amongst academics in UK universities. *Journal of Knowledge Management*, 17(1), 123–136.
- Gillham, B. (2000). *Case study research methods*. London, England: Continuum.
- Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment*, 4(1), 26–42.
- Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360–1380.
- Gurteen, D. (1999). Creating a knowledge sharing culture. *Knowledge Management Magazine*, 2(5), 1–4.
- Haas, M. R., & Hansen, M. T. (2007). Different knowledge, different benefits: Toward a productivity perspective on knowledge sharing in organizations. *Strategic Management Journal*, 28(11), 1133–1153.
- Han, B. M., & Anantatmula, V. S. (2007). Knowledge sharing in large IT organizations: A case study. *The Journal of Information and Knowledge Management Systems*, 37(4), 421–439.
- Hara, N. (2007). Information technology support for communities of practice: How public defenders learn about winning and losing in court. *Journal of the American Society for Information Science and Technology*, 58(1), 76–87.
- Hara, N., & Hew, K. F. (2007). Knowledge-sharing in an online community of health-care professionals. *Information Technology & People*, 20(3), 235–261.
- Heisig, P. (2009). Harmonisation of knowledge management – comparing 160 KM frameworks around the globe. *Journal of Knowledge Management*, 13(4), 4–31.
- Hendriks, P. (1999). Why share knowledge? The influence of ICT on the motivation for knowledge sharing. *Knowledge and Process Management*, 6(2), 91–100.

- Henson, R. (2009, April). *21st century human capital management: Adapting to the demands of change*. Retrieved from <http://www.oracle.com/us/products/applications/ebusiness/21-century-hcm-row-henson-396487.pdf>
- Herzberg, F. (1987). One more time: How do you motivate employees? *Harvard Business Review*, 65(5), 109–120.
- Hinton, B. (2003). Knowledge management and communities of practice: An experience from Rabobank Australia and New Zealand. *International Food and Agribusiness Management Review*, 5(3).
- Hornby, A. S., Turnbull, J., Lea, D., Parkinson, D., Phillips, P., & Ashby, M. (2010). *Oxford advanced learner's dictionary of current English* (8th ed.). Oxford, England: Oxford University Press.
- Huang, C. C. (2009). Knowledge sharing and group cohesiveness on performance: An empirical study of technology R&D teams in Taiwan. *Technovation*, 29(11), 786–797.
- Huang, Q., Davison, R. M., & Gu, J. (2008). Impact of personal and cultural factors on knowledge sharing in China. *Asia Pacific Journal of Management*, 25(3), 451-471.
- Huang, N. T., Wei, C. C., & Chang, W. K. (2007). Knowledge management: Modeling the knowledge diffusion in community of practice. *Kybernetes*, 36(5), 607-621.
- Ichijo, K., & Nonaka, I. (2006). *Knowledge creation and management: New challenges for managers*. New York, NY: Oxford University Press.
- Investopedia (2017). *Private sector*. Retrieved from <http://www.investopedia.com/terms/p/private-sector.asp>
- Ipe, M. (2003). Knowledge sharing in organizations: A conceptual framework. *Human Resource Development Review*, 2(4), 337-359.
- Ismail, M. B. & Yusof, M. Z. (2010). The impact of individual factors on knowledge sharing quality. *Journal of Organizational Knowledge Management*, 2010, 1-12.

- Jarvenpaa, S., & Staples, D. (2000). The use of collaborative electronic media for information sharing: An exploratory study of determinants. *The Journal of Strategic Information Systems*, 9(2-3), 129–154.
- John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. . In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 102-138). New York, NY: Guilford Press.
- Kamasak, R., & Bulutlar, F. (2010). The influence of knowledge sharing on innovation. *European Business Review*, 22(3), 306-317.
- Kankanhalli, A., Tan, B. C., & Wei, K. K. (2005). Contributing knowledge to electronic knowledge repositories: An empirical investigation. *MIS Quarterly*, 29(1), 113-143.
- Kathiravelu, S. R., Mansor, N. N. A., Ramayah, T., & Idris, N. (2014). Why organisational culture drives knowledge sharing? *Procedia - Social and Behavioral Sciences*, 129, 119–126.
- Keyes, J. (2012). *Social software engineering: Development and collaboration with social networking*. Boca Raton, FL: CRS Press.
- Khalil, O. E. M., & Shea, T. (2012). Knowledge sharing barriers and effectiveness at a higher education institution. *International Journal of Knowledge Management*, 8(2), 43–64.
- Kharabsheh, R. A. (2007). A model of antecedents of knowledge sharing. *The Electronic Journal of Knowledge Management*, 5(4), 419 – 426
- Kim, S., & Ju, B. (2008). An analysis of faculty perceptions: Attitudes toward knowledge sharing and collaboration in an academic institution. *Library and Information Science Research*, 30(4), 282–290.
- King, W. R., Marks Jr, P. V., & McCoy, S. (2002). The most important issues in knowledge management. *Communications of the ACM*, 45(9), 93-97.
- Kitchenham, B. (2004). *Procedures for undertaking systematic reviews*. Joint Technical Report Software Engineering Group, Department of Computer Science, Keele University, United Kingdom and Empirical Software Engineering National ICT Australia Ltd., Australia.

- Krebs, V. (2011). *Social network analysis, a brief introduction*. Retrieved from <http://www.orgnet.com/sna.html>
- Lai, M. F., & Lee, G.G. (2007). Risk-avoiding cultures toward achievement of knowledge sharing. *Business Process Management Journal*, 13(4), 522-537.
- Leonardi, P. M. (2015). Ambient awareness and knowledge acquisition: Using social media to learn “who knows what” and “who knows whom.” *MIS Quarterly*, 39(4), 747–762.
- Liang, T. P., Liu, C. C., & Wu, C. H. (2008, January). *Can social exchange theory explain individual knowledge-sharing behavior? A meta-analysis*. Paper presented at the International Conference on Information Systems (ICIS), Paris, France.
- Liaw, S. S., Chen, G. D., & Huang, H. M. (2008). Users’ attitudes toward web-based collaborative learning systems for knowledge management. *Computers and Education*, 50(3), 950–961.
- Lichtenstein, S., & Hunter, A. (2008). Toward a receiver-based theory of knowledge sharing. In M. E. Jennex (Ed.), *Current issues in knowledge management* (pp. 86-103). Hershey, PA: Information Science Reference
- Lin, C. P. (2007). To share or not to share: Modeling knowledge sharing using exchange ideology as a moderator. *Personnel Review*, 36(3), 457-475.
- Lin, H. F. (2007). Knowledge sharing and firm innovation capability: An empirical study. *International Journal of Manpower*, 28(3), 315-332.
- Lin, H. F., & Lee, G. G. (2004). Perceptions of senior managers toward knowledge-sharing behaviour. *Management Decision*, 42(1), 108-125.
- Ling, C. W., Sandhu, M. S., & Jain, K. K. (2009). Knowledge sharing in an American multinational company based in Malaysia. *Journal of Workplace Learning*, 21(2), 125-142.
- Lundvall, B.-Å. (2006). Knowledge management in the learning economy. *Danish Research Unit for Industrial Dynamics Working Paper Working Paper*, (06-6).
- Ma, Z., Huang, Y., Wu, J., Dong, W., & Qi, L. (2014). What matters for knowledge sharing in collectivistic cultures? Empirical evidence from China. *Journal of Knowledge Management*, 18(4), 1004 – 1019.

- Malaysian Communication and Multimedia Commission (2016). *Regulatory approach to spam: Will Malaysia be enacting new laws to make spam illegal?* Retrieved from <http://www.skmm.gov.my/FAQs/SPAM/Regulatory-Approach-to-Spam/Will-Malaysia-be-enacting-new-laws-to-make-Spam-il.aspx>
- Marouf, L. N. (2007). Social networks and knowledge sharing in organizations: A case study. *Journal of Knowledge Management*, 11(6), 110-125.
- Martensson, M. (2000). A critical review of knowledge management as a management tool. *Journal of Knowledge Management*, 4(3), 204-216.
- Mathew, T. (2003). KM at i-flex: From quizzes and surveys to knowledge repositories and webcasts. In M. Rao, *Leading with knowledge: Knowledge management practice in global infotech companies (KM chronicles, Travelogue 1)* (pp. 231-244). New Delhi, India: Tata McGraw-Hill.
- Matzler, K., Renzl, B., Müller, J., Herting, S., & Mooradian, T. A. (2008). Personality traits and knowledge sharing. *Journal of Economic Psychology*, 29(3), 301–313.
- McDermott, R., & O'Dell, C. (2001). Overcoming cultural barriers to sharing knowledge. *Journal of Knowledge Management*, 5(1), 76-85.
- McShane, S. L., & Glinow, M. A. (2004). *Organizational behavior: Emerging for the workplace revolution*. New York, NY: McGraw Hill.
- Merriam, S.B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.
- Merriam-Webster. (2013). *Dictionary*. Retrieved from <http://www.merriam-webster.com>
- Miles, M., & Huberman, A. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage Publications.
- Mooradian, T., Renzl, B., & Matzler, K. (2006). Who trusts? Personality, trust and knowledge sharing. *Management Learning*, 37(4), 523–540.
- Morse, J. M., & Richards, L. (2002). *Readme first for a user's guide to qualitative methods*. Thousand Oaks, CA: Sage Publications.

- Morville, P. (2002, February 21). *Social network analysis*. Retrieved from semanticstudios.com/social_network_analysis/
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14(2), 224–247.
- Myers, P. S. (1996). *Knowledge management and organizational design*. Boston, MA: Butterworth-Heinemann.
- Nonaka, I. (1991). The knowledge-creating company. *Harvard Business Review*, 69(6), 96–104.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Studies*, 15(1), 14–37.
- Nonaka, I., & Konno, N. (1998). The concept of “Ba”: Building a foundation for knowledge creation. *California Management Review*, 40(3), 40–54.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. New York, NY: Oxford University Press.
- Nonaka, I., Toyama, R., & Konno, N. (2000). SECI, ba and leadership: A unified model of dynamic knowledge creation. *Long Range Planning*, 33(1), 5–34.
- Noor Asilah, N., Normala, D., & Wan Ummy Kalsom, M. O. (2012). Knowledge sharing behaviour among academic staff at a public higher education institution in Malaysia. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 6(12), 3415–3420.
- Parirokh, M., Daneshgar, F., & Fattahi, R. (2008). Identifying knowledge sharing requirements in academic libraries. *Library Review*, 57(2), 107–122.
- Patrick, K., & Dotsika, F. (2007). Knowledge sharing: Developing from within. *The Learning Organization*, 14(5), 395–406.
- Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Peariasamy, T. (2006). To share or not to share? A study on the influence of performance reward on knowledge sharing: Factors, barriers and recommendations. *Jurnal Kemanusiaan*, 7, 125–142.

- Plessis, M. d. (2007). The role of knowledge management in innovation. *The Journal of Knowledge Management*, 11(4), 20-29.
- Prell, C. (2012). *Social network analysis*. London, England: Sage Publications.
- Psarras, J. (2006). Education and training in the knowledge-based economy. *The Journal of Information and Knowledge Management Systems*, 36(1), 85-96.
- Rice, J. L., & Rice, B. S. (2005). The applicability of the SECI model to multi-organisational endeavours: An integrative review. *International Journal of Organisational Behaviour*, 9(8), 671-682.
- Riege, A. (2005). Three-dozen knowledge-sharing barriers managers must consider. *Journal of Knowledge Management*, 9(3), 18-35.
- Rogelberg, S. G. (2002). *Handbook of research methods in industrial and organizational psychology*. Oxford, England: Blackwell.
- Rusli, A., & Hasbee U. (2011). *Conducting research in social sciences, humanities, economics and management studies: A practical guide*. Kuching, Malaysia: RS Group Publishing House.
- Sáenz, J., Aramburu, N., & Rivera, O. (2009). Knowledge sharing and innovation performance: A comparison between high-tech and low-tech companies. *Journal of Intellectual Capital*, 10(1), 22-36.
- Sandhu, M. S., Jain, K. K., & Ahmad, U. K. (2011). Knowledge sharing among public sector employees: Evidence from Malaysia. *International Journal of Public Sector Management*, 24(3), 206–226.
- Santos, V. R., Soares, A. L., & Carvalho, J. Á. (2012). Knowledge sharing barriers in complex research and development projects: An exploratory study on the perceptions of project managers. *Knowledge and Process Management*, 19(1), 27–38.
- Schauer, A., Vasconcelos, A. C., & Sen, B. (2015). The ShaRInK framework: A holistic perspective on key categories of influences shaping individual perceptions of knowledge sharing. *Journal of Knowledge Management*, 19(4), 770–790.

- Seidler-de Alwis, R., & Hartmann, E. (2008). The use of tacit knowledge within innovative companies: Knowledge management in innovative enterprises. *Journal of Knowledge Management*, 12(1), 133-147.
- Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Currency Doubleday.
- Shahren A. Z. A. (2009). Content analysis. In F. Norsiah (Ed.), *Introduction to qualitative research methods* (pp. 145). Shah Alam, Malaysia: Arah Publications.
- Sharratt, M., & Usoro, A. (2003). Understanding knowledge-sharing in online communities of practice. *Electronic Journal on Knowledge Management*, 1(2), 187-196.
- Siemens, G. (2006). *Knowing knowledge*. Retrieved from www.elearnspace.org/KnowingKnowledge_LowRes.pdf
- Sigala, M., & Chalkiti, K. (2015). Knowledge management, social media and employee creativity. *International Journal of Hospitality Management*, 45, 44–58.
- Skyrme, D. J. (2011). *Knowledge management: Why manage knowledge?* Retrieved from <http://www.skyrme.com/kmv5.htm>
- Smith, E. A. (2001). The role of tacit and explicit knowledge in the workplace. *Journal of Knowledge Management*, 5(4), 311–321.
- Sohail, M. S., & Daud, S. (2009). Knowledge sharing in higher education institutions: Perspectives from Malaysia. *The Journal of Information and Knowledge Management Systems*, 39(2), 125-142.
- Søndergaard, S., Kerr, M., & Clegg, C. (2007). Sharing knowledge: Contextualising socio-technical thinking and practice. *The Learning Organization*, 14(5), 423-435.
- Squicciarini, M., & Loikkanen, T. (2008). *Going global: The challenges for knowledge-based economies*. Retrieved from <http://mpra.ub.uni-muenchen.de/id/eprint/9663>
- Stoner, J. B. (2010). Qualitative research in education: Other methods of seeking knowledge. In F. E. Obiakor, J. P. Bakken, & A. F. Rotatori (Eds.), *Current issues and trends in special education:*

- Research, technology, and teacher preparation* (pp. 19-39). Bingley, England: Emerald Group Publishing Limited.
- Syed-Ikhsan, S. O. S., & Rowland, F. (2004). Knowledge management in a public organization: A case study on the relationship between organizational elements and the performance of knowledge transfer. *Journal of Knowledge Management*, 8(2), 95-111.
- Sveiby, K. E. (2007). Disabling the context for knowledge work: The role of managers' behaviours. *Management Decision*, 45(10), 1-26.
- Szulanski, G. (1996). Exploring internal stickiness: Impediments to the transfer of best practice within the firm. *Strategic Management Journal*, 17(Winter Special Issue), 27-43.
- Taminiau, Y., Smit, W., & Lange, A. d. (2009). Innovation in management consulting firms through informal knowledge sharing. *Journal of Knowledge Management*, 13(1), 42-55.
- The Hofstede Centre (2012). *Strategy-culture-change*. Retrieved from <http://geert-hofstede.com/countries.html>
- Tohidinia, Z., & Mosakhani, M. (2010). Knowledge sharing behaviour and its predictors. *Industrial Management & Data Systems*, 110(4), 611-631.
- Tsai, M. T., Chang, H. C., Cheng, N. C., & Lien, C. C. (2012). Understanding IT professionals' knowledge sharing intention through KMS: A social exchange perspective. *Quality & Quantity*, 47(5), 2739-2753.
- Tsai, M. T., Chen, K. S., & Chien, J. L. (2012). The factors impact of knowledge sharing intentions: The theory of reasoned action perspective. *Quality & Quantity*, 46(5), 1479-1491.
- Tsui, A. S., & Gutek, B. A. (1999). *Demographic differences in organizations: Current research and future directions*. Oxford, England: Lexington Books.
- Tsui, L., Chapman, S. A., Schnirer, L., & Stewart, S. (2006). *A handbook on knowledge sharing: Strategies and recommendations for researchers, policy makers and service providers*. Retrieved from <https://new.jhuccp.org/sites/default/files/Knowledge%20Sharing%20Handbook.pdf>

- Vigoda, E., & Cohen, A. (2003). Work congruence and excellence in human resource management: Empirical evidence from the Israeli nonprofit sector. *Review of Public Personnel Administration*, 23(3), 192–216.
- Wade, M. (2005, September 9). *Theories used in IS research: Social network theory*. Retrieved from <http://www.istheory.yorku.ca/socialnetworktheory.htm>
- Wah, M. K. (n.d.). *Transforming for the knowledge-based economy: Through the practice of knowledge management*. Retrieved from www.kmtalk.net/POKM%20Article.pdf
- Wang, S., & Noe, R. A. (2010). Knowledge sharing: A review and directions for future research. *Human Resource Management Review*, 20(2), 115-131.
- Wang, C., & Yang, Y. (2007). Personality and intention to share knowledge : An empirical study of scientists in an R & D laboratory. *Social Behavior and Personality*, 35(10), 1427–1436.
- Wasko, M. M., & Faraj, S. (2005). Why should I share? Examining social capital and knowledge contribution in electronic networks of practice. *MIS Quarterly*, 29(1), 35-57.
- Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications*. New York, NY: Cambridge University Press.
- Westbrook, L. (1994). Qualitative research methods: A review of major stages, data analysis techniques, and quality controls. *Library & Information Science Research*, 16(3), 241–254.
- Witherspoon, C. L., Bergner, J., Cockrell, C., & Stone, D. N. (2013). Antecedents of organizational knowledge sharing: A meta-analysis and critique. *Journal of Knowledge Management*, 17(2), 250–277.
- Wright, P. M., Dunford, B. B., & Snell, S. A. (2001). Human resources and the resource based view of the firm. *Journal of Management*, 27, 701–721
- Yahya, S., & Goh, W.-K. (2002). Managing human resources toward achieving knowledge management. *Journal of Knowledge Management*, 6(5), 457–468.
- Yang, J. T. (2007). The impact of knowledge sharing on organizational learning and effectiveness. *Journal of Knowledge Management*, 11(2), 83-90.

- Yao, L. J., Kam, T. H. Y., & Chan, S. H. (2007). Knowledge sharing in Asian public administration sector: The case of Hong Kong. *Journal of Enterprise Information Management*, 20(1), 51–69.
- Yeşil, S., & Hirlak, B. (2013). An empirical investigation into the influence of knowledge sharing barriers on knowledge sharing and individual innovation behaviour. *International Journal of Knowledge Management*, 9(2), 38–61.
- Yin, R. (2003). *Case study research: Design and methods*. Thousand Oaks, CA: Sage Publications.
- Zhang, X., & Jiang, J. Y. (2015). With whom shall I share my knowledge? A recipient perspective of knowledge sharing. *Journal of Knowledge Management*, 19(2), 277–295.
- Zhang, Y., & Wildemuth, B. M. (2009). Qualitative analysis of content. In B. M. Wildemuth (Ed.), *Applications of social research methods to questions in information and library science* (pp. 308-319). Westport, CT: Libraries Unlimited.

APPENDICES

Appendix A: Permission to Conduct Research

Fakulti Sains Kognitif dan Pembangunan Manusia
Faculty of Cognitive Sciences and Human Development

UNIMAS/NC-16.02/04-05 (47)

10 Oktober 2014

*The name of the organization remains confidential

Dear Sir / Madam

Permission to Conduct Research in the Fulfillment of Postgraduate Degree

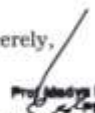
With reference to the above matter, I would like to request permission for the following student from the Faculty of Cognitive Sciences and Human Development, Universiti Malaysia Sarawak, to conduct a survey and a series of interviews at the state ministries, departments, statutory agencies, local authorities, district and resident offices.

Student name	:	Khaddraa Rajuli
Telephone	:	017-3241142
Program	:	PhD by Research (Human Resource Development)
Research title	:	Knowledge Sharing Practices in the Organization
Research phases	:	Distribution Questionnaires
Principle supervisor	:	Assoc. Prof Dr Hasbee Haji Usop
Telephone	:	082-581554
Fax	:	082-581579
Email	:	uhasbee@fcs.my

Her research is purely for academic purpose and all information will be kept secure and treated as strictly confidential. The support and cooperation given by your organization for the success of this research is highly appreciated.

Thank you.

Sincerely,


Prof. Dr. Hasbee H. Usop
Fakulti Sains Kognitif dan Pembangunan Manusia
Universiti Malaysia Sarawak
Assoc. Prof Dr Hasbee Haji Usop
Supervisor

 MSC-Status

94300 Kota Samarahan, Sarawak, MALAYSIA | Tel + 60 82 581 578 | Faks + 60 82 581 579



www.unimas.my

Appendix B: Research Instrument



RESEARCH INSTRUMENT

TITLE:
**KNOWLEDGE SHARING PRACTICES ON WORK-RELATED ISSUES
AMONG MANAGERIAL GROUP IN PRIVATE ORGANIZATIONS**

This research instrument consists of a consent letter, personality test and research survey questionnaire.

Please take your time to read and understand, before proceeding.

The questionnaire will be collected in two (2) weeks.



CONSENT LETTER

I, _____, agree to participate in the research entitled **“Knowledge Sharing Practices on Work-Related Issues among Managerial Group in Private Organizations”** conducted by Khaddraa Binti Rajuli (12010047), a postgraduate student from the Faculty of Cognitive Sciences and Human Development of Universiti Malaysia Sarawak (UNIMAS).

(A) Procedures

- The written survey may take 45 minutes of my time.
- I am also informed that there may be follow-up interview sessions, if needed.
- The follow-up interview session may require me to answer the questions verbally or in written form to help the researcher further understand the subject matter and the information given.

(B) Risks/Discomforts

- I understand that there are minimal risks for participating in this study. I am also aware that I may feel emotional discomfort when answering questions about personal experiences.

(C) Confidentiality

- I understand that all information provided will remain confidential and will only be reported as individual data with no identifying information to preserve my anonymity.
- I am also aware that all data, including interview records will be kept confidential and only those directly involved with the research will have access to them.
- My other colleagues will neither be present nor have access to the questionnaire, raw notes or transcripts. This precaution will prevent my individual comments from having any negative repercussions.

(D) Participation

- I am aware that participation in this research study is voluntary. Therefore, I have the right to withdraw at anytime or refuse to participate entirely as a result of the inconvenience or disturbance that the research may cause. I may do so by informing the researcher. This withdrawal will not affect my relationship with UNIMAS in any way.

(E) Inquiries

- I understand that if I have further inquiries relating to this research, I may contact Khaddraa Binti Rajuli at +60173241142 or rajuli.khadra@gmail.com

(F) Reference

- I understand that the researcher is supervised by a lecturer, Associate Professor Dr. Shahren Ahmad Zaidi Adruce (Phone: +6082581566; Email: azshahren@unimas.my)

This states that I have read, understood, and received a copy of the above consent and desire of my own free will to participate in this study. My signature below indicates that I agree to participate in this study as an informant.

Signature of the Informant

Date:

Contact no. and/or Email (For follow-up purpose):

PERSONALITY TEST

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please tick the rating scale below to indicate the extent to which you agree or disagree with that statement. There is no right or wrong answer. Please read each statement carefully.

I see Myself as Someone Who...	Disagree strongly 1	Disagree a little 2	Neither agree nor disagree 3	Agree a little 4	Agree strongly 5
1. Is talkative					
2. Tends to find fault with others					
3. Does a thorough job					
4. Is depressed, blue					
5. Is original, comes up with new ideas					
6. Is reserved					
7. Is helpful and unselfish with others					
8. Can be somewhat careless					
9. Is relaxed, handles stress well					
10. Is curious about many different things					
11. Is full of energy					
12. Starts quarrels with others					
13. Is a reliable worker					
14. Can be tense					
15. Is ingenious, a deep thinker					
16. Generates a lot of enthusiasm					
17. Has a forgiving nature					
18. Tends to be disorganized					
19. Worries a lot					
20. Has an active imagination					
21. Tends to be quiet					
22. Is generally trusting					
23. Tends to be lazy					
24. Is emotionally stable, not easily upset					
25. Is inventive					
26. Has an assertive personality					
27. Can be cold and aloof					
28. Perseveres until the task is finished					
29. Can be moody					
30. Values artistic, aesthetic experiences					
31. Is sometimes shy, inhibited					
32. Is considerate and kind to almost everyone					
33. Does things efficiently					
34. Remains calm in tense situations					
35. Prefers work that is routine					
36. Is outgoing, sociable					
37. Is sometimes rude to others					
38. Makes plans and follows through with them					
39. Gets nervous easily					
40. Likes to reflect, play with ideas					
41. Has few artistic interests					
42. Likes to cooperate with others					
43. Is easily distracted					
44. Is sophisticated in art, music, or literature					

RESEARCH SURVEY QUESTIONNAIRE

Thank you for your participation.

- For this, **please think of the knowledge in your work-related or professional context. It could be knowledge of your expertise, skills, experience, education, know-how, know-who, ideas, knowledge from books/manuals, or understanding in a tacit (in human mind) or explicit (documented) format etc.).**
- The first part of the questionnaire (Part 1) will situate you towards the topic of interest (knowledge and knowledge sharing), i.e., knowledge that you hold. It could help you for the next part.
- Please be kind enough to provide truthful answers upon the questions. Your cooperation is highly appreciated.

Part 1: Situating Questions

1. Can you please describe your current job responsibility in the company?
2. What is/are your area(s) of expertise?
3. Based on your previous work experience (if any), what are the useful knowledge and skills that you can apply in your current work?
4. How did you acquire most of the skills/knowledge/expertise that you have been using in your job over the past 6 months?

Part 2: Interview Questions

Objective 1: To identify what types of work-related knowledge employees are willing to;

Objective 2: To identify with whom people are willing to share knowledge with

1. Please have a look at the different kinds of people listed below before answering. Are you willing to share your knowledge with your (With Whom)? What kind of knowledge do you share and what kind of knowledge do you withhold? Please explain.

With Whom	Willing To Share	Unwilling To Share
1. Superior	Types of knowledge/skills/expertise: Why: How:	Types of knowledge/skills/expertise: Why: How:
2. Subordinate	Types of knowledge/skills/expertise: Why: How:	Types of knowledge/skills/expertise: Why: How:
3. Top management		
4. Colleague of the same level/position		
5. Colleague from the same department		
6. Colleague from a different department		
7. People from other companies		
8. Others (trainee, supplier, customer, etc.) Please specify:		

Objective 2: To identify with whom people are willing to share knowledge with (cont.)

2. Do you have any set of preferences on the kind of people that you perceive as worthy to be the recipient of your valuable knowledge? Please explain.

Objective 3: To find out how the organization promotes knowledge sharing among employees

1. How is knowledge created, captured, shared and used in your company? Please explain briefly and give examples based on the following categories:

	Examples of activities
Written form	
Verbal form	
Information technologies (IT) platform or applications	
Others (events, processes or practices)	

2. How do you perceive the usefulness or usage of the company IT facilities in knowledge sharing? Please explain.

Objective 4: To identify factors that contribute towards knowledge sharing in the organization

1. What are the reasons for your willingness to share knowledge with other employees?

2. Do you think rewards can encourage you to share knowledge with others? Please explain your answer.

3. In your opinion, what are the other enabling conditions that help to promote knowledge sharing in your organization?

4. Based on your various connections with others, do you think the difference in the strength of the relationship has any influences on the content of knowledge being shared (e.g. quality and/or quantity)? Please explain.

Objective 5: To identify factors that inhibit knowledge sharing in the organization

1. Have you ever encountered a situation where you are not willing to share your knowledge with others? Please explain.

2. In your opinion, what are the other potential barriers, issues or challenges to effective knowledge sharing?

Objective 6: To identify the benefits of knowledge sharing in the organization

1. Are you aware of the importance and impact of knowledge sharing towards (i) you and/or (ii) your company? Please explain.

Objective 7: To identify the characteristics of the knowledge sharer

1. From your experience, what are the characteristics of the knowledge sharer?

Part 3: Demographic Background

- i. Age : _____
- ii. Gender : _____
- iii. Religion : _____
- iv. Race/Ethnicity : _____
- v. Marital Status : _____
- vi. Department : _____
- vii. Job Position : _____
- viii. Year of Service : _____ (*Contract/Permanent)
- ix. Level of Education : _____
- x. Place of Origin : _____
- xi. Nationality : _____

* Please cancel whichever is NOT applicable

End of Questionnaire

Appendix C: Personality Test Results

OPENNESS			CONSCIENTIOUSNESS			EXTRAVERSION			AGREEABLENESS			NEUROTICISM		
ID	Score	Range	ID	Score	Range	ID	Score	Range	ID	Score	Range	ID	Score	Range
9	46	3	9	42	3	9	36	3	14	44	3	23	30	3
5	41	3	5	40	3	21	36	3	21	44	3	3	29	2
13	40	3	12	40	3	13	32	3	9	43	3	22	26	2
8	39	3	8	39	3	19	32	3	8	40	3	7	24	2
14	39	3	10	37	3	15	31	3	13	40	3	20	23	2
15	39	3	13	37	3	18	31	3	18	39	3	4	22	2
21	38	3	15	37	3	17	29	2	2	37	3	1	21	2
2	37	2	20	37	3	7	28	2	4	37	3	16	21	2
18	37	2	11	36	3	8	28	2	10	36	3	17	21	2
19	37	2	14	34	3	14	28	2	11	36	3	19	21	2
20	37	2	2	33	3	22	28	2	15	36	3	6	20	2
22	37	2	6	33	3	1	27	2	17	36	3	14	20	2
17	36	2	21	33	3	6	26	2	6	35	3	2	19	2
4	35	2	16	32	2	2	24	2	7	34	3	10	18	1
12	35	2	17	32	2	16	24	2	20	34	3	11	18	1
1	34	2	19	31	2	11	23	2	22	34	3	18	18	1
7	33	2	1	30	2	4	22	2	16	33	3	5	17	1
16	33	2	4	30	2	5	22	2	3	32	2	13	17	1
23	33	2	23	27	2	10	22	2	5	32	2	12	16	1
3	31	2	7	26	2	12	22	2	1	31	2	15	16	1
6	29	2	18	26	2	23	22	2	19	31	2	21	15	1
11	28	2	22	26	2	3	20	2	12	28	2	8	13	1
10	27	2	3	24	2	20	20	2	23	24	2	9	8	1

Range:

- 1 10 to 23 Closed
- 2 24 to 37 Neither
- 3 38 to 51 Openness

Range:

- 1 9 to 20 Lack of direction
- 2 21 to 32 Neither
- 3 33 to 44 Conscientious

Range:

- 1 8 to 18 Introvert
- 2 19 to 29 Neither
- 3 30 to 40 Extrovert

Range:

- 1 9 to 20 Antagonism
- 2 21 to 32 Neither
- 3 33 to 44 Agreeable

Range:

- 1 8 to 18 Emotional stability
- 2 19 to 29 Neither
- 3 30 to 40 Neuroticism

Appendix D: Data Transcript

ID	Objective 1: To explore what kind of knowledge employees are willing to share	Objective 2: To understand with whom people are willing to share knowledge with	Objective 3: To find out how the organization promotes knowledge sharing among employees	Objective 4: To explore factors contributing towards knowledge sharing in the organization	Objective 5: To explore factors that inhibits knowledge sharing in the organization	Objective 6: To explore the benefits of knowledge sharing in the organization	Objective 7: To explore the characteristics of the knowledge sharer
1	Superior: Tell the outcome; what, why, how, when, who is applied (5S) Subordinate: Share opinion Intra-department: Tell the experience and the result Inter-department: Give the result; To overcome the problem Same level: Share opinion through brainstorming Top management: EMC (Board) paper. It is necessary when there are new ideas to settle problem Trainee: Q&A session Other companies: Limited to land matters, general but not specific	No. Everyone is the same, as long as they ask for it.	EMC paper, *** portal, meeting	So that all the things going smoothly -Yes. But, it does not relates only to the material rewards...when your staff do a good work, you give them the pat at the back thank you this is an excellent work that is a reward....way you compliment -Yes. Comfortable.	Yes. When the person is acting like he/she knows everything. Way of delivery information-How you disseminate the information. The tools that you use. Some people they are comfortable with the hardcopy -Our older generations, some of them, they are reluctant to make use of the technology. So, sometimes you really have to coach. I have one older staff (50+ years old). He has a limitation in using the technology so this is where we (if my service is not available) as a group together with the other exec, the younger one...we have to assist him...we give him ideas on how to do it...	Gain knowledge and add information, Organization-achieve KPI - For me being a Muslim whatever I know I share with my colleague I perceive whatever I share to them is my amalan sedekah jariah...that is how I always think.	Talkative, have more experience in the industry

2	Superior: Recruitment, benefits; through discussion Subordinate: Recruitment, benefits; through discussion Intra-department: Recruitment, benefits; through discussion. Unwilling: Salary & Confidentiality Inter-department: Recruitment, benefits; through discussion. Unwilling: Salary & Confidentiality Same level: Recruitment, benefits; through discussion Top management: Upgrading and promotion, meeting Trainee: Recruitment, benefits; through discussion. Unwilling: Salary & Confidentiality Other companies: Recruitment, benefits; through discussion. Unwilling: Salary & Confidentiality	A good listener. The knowledge must be useful to the recipient.	Correspondences, email, reports, briefing, lotus notes application, *** portal, notices	To ensure that all employees are aware of the process and moving in one direction. -No. Information sharing should be a culture in the organization. -Yes. We need to have trust in people when sharing information. -The core values of the organization; courage, unity, respect, integrity and accountability	Yes. We cannot share information on personal data without consent of the person under PDPA Act -Hostile environment. -No communication channel; no policy/ procedures/guideline on information sharing -Trust-misuse of information Trademark-marketing strategy	Well-informed about latest development, learning new things Organization-Become dynamic, learning organization	Good listener, good in communication skills
3	Superior: Just explain to him/her about what is in my mind; because it might be the best solution Subordinate: Explain to him/her what going to do, what the best way to overcome it Intra-department: Share experiences and let them know the latest issues about the "same situation" Inter-department: Tell the experiences Same level: Tell the experience and share knowledge Top management: Unwilling Trainee: Ask them some work which is related; So that they can feel the work culture Other companies: Tell the experience, but not all of the knowledge	Yes. With the wrong person, the knowledge is not valuable to them.	Through *** portal (for essay to be posted in the website), report, presentation (during EMC board paper)	So that, the work become easier and can be finished on time. -Yes. With reward, you feel encouraging, boost your spirit and you will be happy. -Yes. It is all about comfortability.	Yes. This is because certain people do not want to accept other people suggestion (It is more to ego problem. -There is no two-way communication	Improve confident level, communication skill, writing skill, add more knowledge Organization-Problem settled, create more friendly environment	Friendly, have a lot of working experiences
4	Superior: New decision for operation; by email+ hardcopy + discussion Subordinate: email, hardcopy, briefing Intra-department: email, hardcopy Inter-department: email	Yes. Those who understand about their job & understand the impact or importance & able	Email, memo, briefings, meetings, shared server, shared database, lotus notes applications,	Everyone deserves to know the most updated information as we are part of the *** company	Selfish team members who keeps information to himself for his benefits only.	Enhance knowledge, strengthen relationship	Team player, people person

	Same level: email Top management: as per requested Trainee: Briefing; to train and give exposure Other companies: Confidentiality	to relate the knowledge to their work	department monthly meeting, leadership conference	-Not really. I am naturally likes to share.	-No teamwork		
5	Superior: Through discussion Subordinate: NIL Intra-department: through discussion Inter-department: P&C matters Same level: Depends on situation Top management: Depends on situation Trainee: NA Other companies: P&C matters	No. I think it is based on what is the things first/important opinion that I want to talk because when discuss with different kind of people we will share different kind of things. I think it always depend on what of situation, what is the matters	Rules and regulations, policies, discussion, intranet, chatting	To have better understanding, mutual agreement and better workplace. Personality and thought to be not selfish. Believe that the more I can share (except P&C matter) the more I can learn. -Must have a leader who can lead well and willing to be the initiator to start sharing his/her knowledge first. Encourage from the leader and openness to accept different opinions.	Yes. When it is my profession that I shall not share due to the secrecy of private and confidential related issues. -Disencouragement from management staff	Learn new things, new ideas, see things differently Organization-Keep up-to-date with current issue	Open- minded, an intelligent and capable people. Someone who is kind and willing to help
6	Superior: Like on training, appraisal...we have to teach them (again) (the HOD) on how to appraise their staff , how do we do about appraising our staff etc. set the target; through discussion, meeting Subordinate: I share everything. They are doing my job anyway, I just plan for what they are supposed to do, so they will do it...the target etc. (other department) I don't kacau...let their superior handle them. Intra-department: HR updates by labor department Inter-department: It depends. It is selective information. Not all can be shared with them. E.g share-labor ordinance, EPF, news or articles from newspaper	It depends on your rank, for executive, I will impart my knowledge more because they will impart their knowledge to their assistant	SOP, discussion, usually information is disseminated through email, intranet, bulletin, training (team building), group discussion, exit interview, lotus notes, lunch break, chat, meeting, presentation	So that they gain the expertise. -I think yes. Because if org ya rapat dgn kita, if they ask question then we are willing to share. Some people they are shy..it inhibits us to talk with them. ...It depend on what they ask (or talk about), mun banyak kelakar byk la cerita. If we banyak kelakar means we are closer to the person. If sik byk kelakar, there is	Some staff they don't understand why we are doing this and that -Attitude-not willing to share/absorb information-katak di bawah tempurung, rasa diri pandei, unwilling to listen to other people opinion, ignoring	Be independent Organization-Improve the productivity	Intelligent

	Same level: I don't hold back any knowledge if it is beneficial to my staff/subordinate Top management: I share everything. Usually they ask for it, they requested it. They ask for opinion on company pun compensation and benefits. Every month they requested for payroll report Trainee: Compiling training courses, filing, (at the site) we have our engineering trainee-doing paperwork...how do we do filing system, (because) our staff have had a training on filing, so they will tell them on how to do it. Unwilling: Salary, annual leaves, expenses on medical benefits ada-I will tell them the entitlement Other companies: Somehow when they ask for opinion, they will call...actually, we have our network (HR practitioner), we meet once in a few months. They ask about shift worker, how we do about shift worker. If it is not confidential, if will give them my opinion. e.g. the topic on sexual harassment-we discuss how we deal about it. Other companies share about their Budget of training. Unwilling-salary like how much do you offer for your fresh graduates-I cannot reveal that one.			nothing much to share -Awareness, positive attitudes, team building, so that the staff can be united and willing to share freely			
7	Superior: Normally he will share (skill and knowledge). I share more on the updates. E.g. knowledge that I get from training. Unwilling? No such thing unless my grievance etc. or personal matter. Subordinate: I am willing to share everything. If not they cannot complete the task...any HR knowledge Unwilling P&C Intra-department: Any HR knowledge Inter-department: How certain procedures is being done. Unwilling? P&C, salary	No. I will share if I feel it is necessary to share. Anyone, without any preferences.	Report, discussion, monthly meeting, portal, intranet where we can get all the relevant form, email, teleconference, web conference, we have system-Google system where we can share files (all the updates of the recruitment staff I will share to the	Nothing drives me (to share). It is my job, my responsibility -Yes. Rewards can encourage us to do anything. It is like a payback reward with their effort. Anything you do is not sia-sia and they will work hard on it. E.g. send them for training..if you fulfill our	I never confront any. But people at the construction site-yes (unsupportive). They focus on the end result. They don't see the importance of sharing (e.g. when they suppose to teach/guide the trainee)...it's very hard (to share). They think if I spend 10	Ease your work and added new knowledge	They usually be responsible, proactive-they will find way to educate people

	and personnel information Same level: Any HR knowledge. But I notice there is a factor...they compete with each other. They are afraid and do not want their position to be threaten. Top management: I can't say anything on this...unless they give instruction for me to provide something Trainee: More into skills Other companies: Yes but not all (knowledge)...Skill-yes. Other companies ask for company's profile. How to do recruitment...but I won't go into detail. Unwilling? P&C		relevant person. Handover period- compulsory. Whatsapp, training/team building, coaching, mentoring (for management trainee), orientation, OTJ training. Informal- lunch break -We used to have this knowledge sharing session where we select senior management position to give one-hour talk. The objective is to give motivation to the staff because they're successful but at the end of the day, the boss malas and it stop...	training hour-it can maintain your KPI (means you get bonus). -Yes. Depends on level of staff, depending on my relationship. More on quantity...this particular person only (share) a brief...some all knowledge and skills. Quality will be the same.	minutes to teach you, there goes my project. They don't have the management skill, soft skill. -Attitude, hierarchy (structure). Physical location...(between office site) and site people don't have computer or access to email system -I don't really like IT...but I think it is good enough		
8	Superior: learn from him from time to time especially on the presentation skills. I give him some feedback in case he need some additional info. He shares a lot of tips on how to tackle the BOD and committee members Subordinate: mostly on the work-related things e.g.: tax calculation (income tax); keep updated on the tax regulation/amendments. Others-EPF, statutory regulations (SOCISO, IR Act), relevant cases like what we read from the newspaper-current issues-how to relate those issues to the acts-regulatory Intra-department: I would like to have free interaction, free sharing of knowledge and experiences Inter-department: preparation of payments for HR related matters. E.g.	My subordinates. They could/might become my successor one day.	Memo, circular, staff gathering, phone, announcement, internal and external email, team building, exit interview. Exit interview - we do ask /try to tap as much knowledge/ information from the person who is leaving. It is quite beneficial to the company as well...We do not want the person just to leave like that...get something back from him	I am a HR person & also a Head of Department. -It does not work all the time. We must share it whenever we want you don't have to wait for rewards. It is more to my passion...passion on my job and things I want to share. Rewards up to a certain extent it can encourage...If I think the things that I want to share is very important or to help for self improvement	Yes. Matter concerning salary/compensation. We have the policy on secrecy. Meaning they cannot just divulge anything to outside, we have to really jaga on the risk of the information. Things like what is our trade secret, marketing plans because that is our strategy. -When people are too reserve. -Intranet - things you would like to share to	Self-development, productivity, teamwork, help to create creativity and innovation, reduce the learning cycle, avoid additional cost in term of you have to spend more on training. After all, I believe that the more knowledge that I give to others, if it is beneficial to them, I will get some pahala (God's reward) from Allah.	Talkative person normally will share more with other staff, open- minded, good communication skills

training fees-it comes from the account department-we have to communicate with them and request for their assistance Others: Name of the vendor/supplier, costing, background of the suppliers. How to standardized the paper/proposal. Unwilling-payroll cannot be shared with everyone except to the BOD, cannot share to inter-department, manager of the same level, staff background (disciplinary) Same level: office-related matters, telling them how best to tackle or to speak to other people, what types of word/language that you should avoid. If it is lower rank, I have to screen...I cannot divulge too open, I cannot divulge all the things. I can only tell things openly to my immediate boss (superior) even to other bosses of other department, I cannot divulge or tell them everything. It depends on the nature of things I discuss with them. If it is (too personal) or related to things about the integrity of staff, if it effect the staff future, I will say to much about it. Top management: I seldom speak/interact to them, only on meeting-share new ideas. Opportunity for us to tell them your idea-on how to improve the company Trainee: Well, like the company values, mission and vision...we have to share with them. They must know our culture, employees' terms and condition, we must share with them. Otherwise, they do not know (terms and conditions) like what is our working hour, what are the kinds of attire/ dress code. It will create uneasiness amongst other staffs. Things like if our working hours is 8.30a.m., and then they come late, if we do not share with them how you could monitor their attendance to the office. There are some other things like the company's background, we also		Gathering (occasionally), through memo, announcements advertisement. Intranet, Internet, phone Suggestion box...those who can contribute good suggestion, ideas, we will reward them. Some kind of token of appreciation be it monetary or non - monetary, to encourage them to speak to the management	or self development of the other parties I will share with them. I don't have to wait for rewards. I love my job, i love what I'm doing so I want to share anything important in my line of job with others. -Yes. The type and content of information that can be shared depend on who/which category of staff I am talking to. -Team building spirit.	other staff is limited, in a sense that you cannot express what you want to say. E.g. I want to write a memo/ instruction- it depends so much on how best I can construct the instruction. If I cannot get the message properly, in my email (intranet), those people who is going to receive or read it would not understand.		
---	--	---	---	---	--	--

	have to share with them (trainee), parts of HR things etc. But other things like the procedures of other departments we share a little bit to them...since they are an interns, we do not have that much time to explain everything...I believe those interns would want to know those information...only when they ask we will disseminate the information to them. Other companies: Company's profile. E.g. ***'s (company) background, numbers of employees, top management profile. Any other things like how many CCTV that we have-we cannot share....things that touches on security, money. Other things that touches image-we share...Who is in charge of our project, account. Sharing expertise knowledge in HR? Yes. Share with them how our company tackle the staff problem. What I share with them had worked with me or effective from my experience, that should be okay to share with them. If it is not effective, I can always share with them...just to inform them						
9	Superior: through email Subordinate: Through hands on teaching and email Intra-department: through email Inter-department: through email Same level: through email Top management: Through email (c/c) Trainee: Through verbal sharing and hands on Other companies: through verbal sharing; because when we share, perhaps it could be a case study for them and their knowledge could be our case study	Team members because I believe that as a team, you are only as strong as your weakest link.	Minutes of meetings, discussion notes, discussion, meetings, email, Whatsapp, Facebook, organizing events and workshops	I believe that knowledge is very important and we do not lose anything by sharing it -No. Because personally I believe that when I share knowledge and ease others burden, Allah will ease my burden. -No for both. Relationship is more on personal whereas work knowledge is more on professional basis. I would share same amount of	Yes. Sometimes there are knowledge that are confidential or sensitive. We must know that sharing also has its limit and conditions. -A company that focuses on individual performance rather than team achievement - Confidentiality of information due to competing in the same industry. E.g. sales results, sales plan, marketing	Pahala, a strong team with good relationship & job knowledge, improve job knowledge thus increase job competency	Open to criticism, extrovert, thinks rationally rather than emotionally, focused on objectivity

				knowledge to my colleagues regardless of strength of relationship -Physical-we sit in cubicles rather than personal rooms. Content of the knowledge (relevant to work, using jargons or simple words, explained with photos/case studies or just fully in words)	strategy...more to financial matters and business strategies		
10	Superior: New contract, management meetings Through report, presentation, email-short description Subordinate: Data compilation, presentation of problem and solutions, team building; Face-to-face discussion, coaching Intra-department: Relevant training, communication of data, teamwork; through discussions, emails, chat over cup of coffee Inter-department: Relevant training, communication of data, teamwork; through discussions, emails, chat over cup of coffee Same level: Relevant training, communication of data, teamwork; through discussions, emails, chat over cup of coffee Top management: New contract, management meetings; Report, presentation, email-short description Trainee: Data compilation, presentation of problem and solutions, team building; Face-to-face discussion, coaching (Unwilling) (Why) Pending on trainee ability and willingness to learn and contribute	Yes. The person should be sharing and open mind. The person needs to be cooperative and not wasting my time.	Suggestion box, reward on good ideas or implemented ideas, circular, monthly letter, training, team building, slogan competition	A teacher is better than a student. Once you teach, the knowledge get deepen in your mind -Physical rewards in certain level. For higher level, it has to be "self-satisfaction" -Yes. First of all, we share info to trustworthy person. Just compare a stranger and someone we have worked closely with for the last 3 years especially those we have gone through good and bad times. - Exposure to other countries, team cooperation, gives credit to those who contribute, the policy of "we", not "I".	Only when it is confidential or not reliable Individualistic- not giving credit back to where it should belongs. Superiors who do not encourage their subordinate to excel -Employees who do not trust their supervision, poor cooperation within departments	Gain knowledge, improve, a better equipped person, confidence, add value to organization Harmony, may advance, better control, better working environment, team spirit	Open, wise, always looking for improvement

	Other companies: Data compilation, presentation; Meeting, emails, phone calls, examples						
11	Superior: (How) Minimize interruptions by bunch up questions (Why) To cut down on number of interruptions with superior who has limited resource. Subordinate: NA Intra-department: Providing sample document for their reference Inter-department: Provide document for future reference. For them to keep their own record Same level: Encourage productive feedback among members. To share better way of doing things with others and to learn from others as well Top management: Know what information helps them best make a decision. Bosses don't want to see problems without a recommend solution. Trainee: Provide training, slides, hands-on - training. To let them have a picture on how things are done, day-to-day tasks Other companies: Provide data in the right volume and format. Some people want to see just a few summary numbers. Only provide relevant information.	Generally will share the knowledge with all as long as the questions/information required is not confidential. The level of knowledge being shared will sometimes be based on requester need and their willingness to learn.	Email, announcement, periodical newsletter Personal approach, phone conversation Intranet, internal group chat room Handouts, pamphlets	They will have more understanding to your job scope and responsibilities. Easier to communicate and cooperate between each other -Not really. This should be a person own initiative. -Yes. I think if you have good relationship with others, you will be getting more knowledge/information in terms of quantity. The quality of the information is considered achieved if you had the answer of what you want to know. -Learn from experiences. After the completion of every project have a briefing of what went right and what could be improved	No. If yes, it will be due to confidentiality issue Restricted communication. -Lack of freedom to speak. The team members might be afraid to voice out their ideas or opinions because they might get caught in bad consequences.	Ability to acquire knowledge faster and understand the working procedure/company direction correctly. Harmonize working environment for employees to work in. Increased in work competency, both company and employee can grow together. Employees will enhance their knowledge and skills and be very competent both in their own job scope and will be ready for new challenges. Employees have more opportunity to deal and work with each other. More understanding and supportive when you build the relationship.	Outgoing, helpful, sincere
12	Superior: Project updates/solutions brought forward; Informal communication; Usually only way to get back feedback Subordinate: Instruction on how to proceed with problem; Instructions verbally or via email/text messages Intra-department: Instruction on how to proceed with problem; Instructions	Yes. The person needs to be willing to use knowledge/not lazy	Meeting minutes distributed, town hall meetings, emails from corporate office	Obligations, work/job scope, improvement driven personality -Yes. Relationships are defined by "What's In It For Me" concept.	People not interested in improving skills -Leadership style-blocking innovative idea/never follow upon status, questions asked, trust, I.P. protection - (IT) No. Always	Improving job results, improving job processes, less costly	Openness, willing to help, improvement driven mindset

	verbally or via email/text messages Inter-department: Instruction on how to proceed with problem; Instructions verbally or via email/text messages Same level: Instruction on how to proceed with problem; Instructions verbally or via email/text messages Top management: Instruction on how to proceed with problem; Instructions verbally or via email/text messages Trainee: Instruction on how to proceed with problem; Instructions verbally or via email/text messages Other companies: I.P. protection				have to deal only with what the responsible is willing to share officially		
13	Superior: Be informative and listen. So that he could make intelligent decision Subordinate: Through hands on teaching and email; because I work better if my subordinates have good job knowledge and I will feel more comfortable & trust them Intra-department: Be informative and provide guidance and listen Inter-department: Be informative and provide guidance and listen Same level: Be informative and provide guidance and listen Top management: Be informative and provide guidance and listen Trainee: Listen, share experiences, guidance, educate. Open them up and motivate them Other companies: Listen, observation, take notes, humble and attentive. Because you never know who they really are.	NIL	Website, informal meetings, SAP, RS 5(technical reposting), lunch and dinner.	Leadership, company philosophy in education and training -Have sincere attitude and appreciation, give recognition and credit to the "master" -Yes. Relationship is important but nobody could share everything. Therefore, you have to go out of the box to get what you want. -Leadership and nothing else. If your leader is timid and secretive, how do you expect others to follow.	Yes. Only applies to people with ulterior motive Secretive, fear culture, weak leadership, strong politics, job security -No. Somehow you can't learn through IT or video. Go face-to-face	Make things easier, promote loyalty and happy culture	Kung fu types of teacher. They are usually older and very knowledgeable on his area of expertise, focused and have high discipline and wise in their action i.e. give critiques when necessary.
14	Superior: Two heads are better than one; discussion (formal-informal) Subordinate: To share and seek their views; discussion (formal-informal) Intra-department: Two heads are better than one; to seek second opinion; discussion (formal-informal), personal approach	No. Sharing of knowledge is part of "ibadah"	Via memo, circular, road show presentation, relevant website or appropriate subject matter	To educate them for betterment of company, apart from "Ibadah" -I have shared my knowledge all these while without rewards or thinking to	Personnel with the attitude of egoistic and selfish Govern by individual company's policy and "Official secrecy Act"	One will be more knowledgeable with other people's responsibilities/work, and tend to be more tolerance as to appreciate the difficulties of others	It is hard to define the characteristic of knowledge sharer but one must be approachable and

	Inter-department: Only when it is relevant and necessary; personal approach Same level: Two heads are better than one; to seek second opinion; discussion (formal-informal), personal approach Top management: To seek for the directive/advise; see them personally Trainee: Only on FFB production; personal tutor Other companies: No. Company's policy			be rewarded. Like I have said it's "Ibadah" -No. One should not limit the content of knowledge to be shared, if it is for the betterment of the company in term of quality and quantity. -The principle of "What goes around comes around"		(if any)	accommodative
15	Superior: To understand better and appreciate the ideas; formal and informal Subordinate: Enhance them to perform their job effectively and efficiently; guide and walk-through Intra-department: Dispensable of works; formal and informal Inter-department: Easy exchange of info/knowledge, appreciate others roles; formal and informal Same level: Mutual. Formal and informal Top management: Easier to sell ideas; during meeting on presentation material Trainee: Guide and walk-through Other companies: Exchange info/knowledge but limited to non-sensitive info; informal	No. As long as the recipient shows their interest and preferably active respond as this could enhance our perspective.	Communicate across and describe the case for reference, usually involved structured process and authority A simple form of instruction and justification/explanation Usually involved logistic and timely ad visual aid Companies activities such as team building, family day etc.	Enrich other so they can perform better, sharing is caring that is delighting -Depends but not always. Most crucial is the environment, peers, and relationship. -Yes. Depending on the sensitivity of info/knowledge and also the behavior/characteristic of the recipients. -Clear and concise, presentable, layman, informal. The environment, relationship, facilities and philosophy	Communication/language, audience behavior/character, technophobia	Enrich participants to perform better, keep abreast with the changing environment, do things right.	Open, cheerful, friendly, active, positive
16	Superior: Plantation management & good agriculture practices; Meetings, discussions and reports Subordinate: Plantation management & good agriculture practices; Meetings, discussions and reports Intra-department: Plantation management & good agriculture practices; Meetings, discussions and reports	Yes. The knowledge that is to be shared needs to be reciprocated by the receiver to have a better impact.	Standard Operating Procedures (SOPs), Finance Department's Policies, Procedures and Guidelines, Financial Limit Of Authority (FLOA), internal memos Meetings-	For the betterment of the organization -No. Accountability and responsibility – its part and parcel of my job. -Yes. A strong relationship would mean the other person	Yes. Status on land matters/disputes. Knowledge on the status made known to the claimants can jeopardize the Company's counter-claim. Lack of effective	Yes. Certain knowledge that is "applicable" on all employees is required for cohesiveness in efforts to achieve the Company's objectives.	Knowledgeable in the subject matter, experienced, confident and passionate.

	Inter-department: None. Irrelevant. Same level: Plantation management & good agriculture practices; Meetings, discussions and reports Top management: Plantation management & good agriculture practices; Meetings, discussions and reports Trainee: - Other companies: None, unless authorized		Operational/Management, discussions, field visits, field demonstrations Estate Management System (EMS) Board Audit Committee Meeting, Company's Annual Report, official Whatsapp groups	is of a better position to reciprocate the knowledge shared and that a detailed content in terms of quality & quantity are required. A level of confidentiality is expected thereof. -Promptness and a reliable source.	communication, attitude to adapt to changes, financial status of the Company. -Medium ranged usefulness-connectivity is an issue.		
17	Superior: Team Management; Face-to-Face sharing Subordinate: Proper team management generally results in more conducive work-environment, thus, sense of belonging among team members; Face-to-Face sharing Intra-department: Presentation ; Presentation needs to be more interactive; Face-to-Face and dedicated presentation Workshop Inter-department: Presentation ; Presentation needs to be more interactive; Face-to-Face and dedicated Presentation Workshop Same level: Presentation; Presentation needs to be more interactive; Face-to-Face and dedicated presentation Workshop Top management: Leadership; Leaders re-energize and inspires team members; Face-to-Face sharing in ELT Forum Trainee: Process Operations; To ensure they get the right knowledge and understanding before they operate the plant that they are assigned to. Other companies: -NA- Never thought of it.	Preferably, avoid cheaters and arrogant people, as it's a waste of time and energy dealing with them.	Both in hard and soft copies Mainly through staff engagement sessions Captured in a common company portal Family Days and other community activities	This is to ensure that every team member having a common awareness level of what is going around in the company. -Personally, reward is not the driving force. It is solely the self-satisfaction obtained from sharing my thoughts/knowledge with others that drives me. -Not quite, as I believe in providing all relevant info required for a given need should be shared without prejudice (not unless the recipient perceives so). -The personal thirst of individuals to share a common business can help spur this knowledge sharing.	Yes and particularly to individuals known to be "liars and having care less attitudes". The overall working culture, added by individualism are sometimes the main culprits. -A totalitarian and iron-fisted leadership style tend to silence the masses, thus discourages opinion sharing.	It enhances limited individual knowledge and a knowledgeable company workforce enhance business efficiency and productivity.	Generally, someone who is passionate about life, a good listener and caring about others.
18	Superior: Understandings of policies and processes. Demonstrate the expertise while doing the job. To gain confidence	Yes. I will share my knowledge with important	Job aids for each work process, knowledge transfer	Friendly, calm, humble, have a bit sense of humor	Noisy, egoistic personality etc Time constrain as	Gain new knowledge, can perform the work efficiently,	Friendly, caring, responsible

	from team lead. Subordinate: NIL Intra-department: Common work understandings. Coach them, motivate, mentor-mentee etc. To enable a more knowledgeable working team. Unwilling: Detailed work processes and tricks. To become the expertise of a particular topic or area. Inter-department: Basic HR policies. Coffee talk, during lunch etc.; Just to give them an idea on the HR policies and their entitlement. Unwilling: Detailed HR data related information. Same level: Common work understandings. Coach them, motivate, mentor-mentee etc. To enable a more knowledgeable working team. Unwilling: Detailed work processes and tricks. To become the expertise of a particular topic or area. Top management: Highest level of knowledge will be shared. Meetings, ... etc. To show the expertise on a particular work area. Trainee: Basic knowledge in order for them to do the work. Coaching, lunch & learn etc.; To give them a more knowledge in order to do the work. Unwilling: Detailed knowledge like complex work tasks. Because they don't need complex knowledge to do their job. Other companies: General HR related processes. Coffee talk, dinner time etc. Just to give an idea on how things are being done. Unwilling: P&C items.	stakeholders like immediate line manager, team mates, team leads etc.	excel files for each country, trainings, lunch and learn session, online training, webcasts, teleconference, away day to a holiday spot to discuss about work etc.	-No. knowledge is suppose to be shared freely. -Yes. The stronger the relationship the knowledge transfer will be more easy. More quality information can be transferred and more information as well.	everyone is busy with their own work. Employees are bounded to ethics and compliance policy.	employees will become more knowledgeable in their work, team members can be more competent when doing the work.	
19	Superior: Face-to-face, via email, via phone. Showing the analysis from the working file. Definitely. As this gesture will then allow my supervisor to open-up and share his or her knowledge with me. Subordinate: Face-to-face, via phone,	No. I don't think so. Everybody deserves to receive and learn knowledge from others. Unless it is a transfer of knowledge of more than 3 times	Proposals, terms of references, meeting minutes, standard operating procedures, process flow charts. Face-to-face meetings, recorded	I think a healthy organization might help. An environment of honesty, integrity and respect while working. -No. By sharing	Yes. When the exact same topic/knowledge is being asked of me for more than 3 times. I would want the recipients to learn and	Gain more knowledge Organization is able to deliver for the business earn money Able to perform and deliver task required	A person who is clear in doing the right thing. A person that is not selfish. A person that could accept

	email Showing my subordinate how a certain work needs to be done and ensure expectations are clear. Because I want my subordinate to succeed. When they look successful, I look successful Intra-department: Face-to-face is the best way KS with colleagues is what we call "Collaboration" in the 21st century Inter-department: Face-to-face or email or via meetings In order to get the data that I need, I have to exchange knowledge with them Same level: Face-to-face is the best way KS with colleagues is what we call "Collaboration" in the 21st century Top management: Presentation/face-to-face I knowledgeshare with my stakeholders via presentations Trainee: On-the-job, email, face-to-face, phone Transferring knowledge asap to ensure my trainee gets on board fast and able to deliver the piece of work fast. Other companies: Presentation/face-to-face	of the exact same task then I think it has got something to do with the recipient's capacity/competence	webcasts Employee information site/email, training website Company events-family day, long service awards, workshops-building relationship with other departments	knowledge I'm satisfied already. -Probably. We are all human being. So, I guess there's a certain biasness going around. But I believe in not being selfish so I will normally share as much as I can. -Positive attitude will definitely help. Enterprise first the behavior as well, when people think of the company as their own business, they will do whatever it takes to retain knowledge and ensure transfer of knowledge happens.	understand the knowledge that I have transfer after 3 times. -A sick organization where staff are selfish in behavior. In a bigger department, there are some individual's behaviour who do not allow knowledge sharing. Policy created to reflect a wrong way for knowledge transfer. -Sometimes it is a time factor. We can't always get access to our leaders for decision everytime.	-The more people share, the more relationships they build. There's this weird bond that will happen, so I guess to some extent it strengthen relationship.	other people's idea and share his/her own and make the idea better.
20	Superior: Work-related info on OSH and others if requested; Face-to-face communication; To facilitate programs, obtain approvals, get better understanding for the betterment of the company Subordinate: Work-related info on OSH and others if requested; Face-to-face communication; For subordinate to understand why certain action/decisions are made, clarity of final outcomes of program Unwilling: Irrelevant information...No benefit to staff if not requested for Intra-department: Work-related info on OSH and others when requested/during	No. As long as they are willing to listen/learn/share information	Proposal papers, safety bulletin, monthly reports, presentation materials, posters/banners/bunnings Meetings, presentations, conversations Emails, whatsapp program, SMS blast etc. (Others) Branch visits, audits, training,	On OSH, the more knowledgeable employees are, the better for them and the company as a whole. -Up to certain extent, yes. But if a person does not believe in sharing information, ultimately there will always be gaps in the knowledge. -Sharing of knowledge is	Yes, after the n-th time of sharing and finding the specific person does not listen or take heed of the knowledge Lack of resource, competent people in sharing the information of the skill of sharing -When leaders themselves do not share and discourage knowledge sharing	The more staff know what the direction and goals of the company is, with the necessary knowledge to achieve the goals, that is critical to move the whole company in the right direction	Must be wise to know what, when and with whom to share, must be intentional on the purpose and method used

conversations; Conversations/meetings/emails; For better understanding of colleagues of OSH related matters Unwilling: Irrelevant info to the colleague...It is irrelevant Inter-department: Work-related info on OSH and others when requested/during conversations; Conversations/meetings/emails/quarterly bulletins; For better understanding of colleagues of OSH related matters Unwilling: Irrelevant info to the colleague...It is irrelevant Same level: Work-related info on OSH and others when requested/during conversations; Conversations/emails; For each others' benefits/knowledge on OSH matters Unwilling: Irrelevant info to the colleague...It is irrelevant Top management: Work-related info on OSH and others if requested; Meeting/presentations/proposal approval papers; To facilitate approval of programs, get better understanding/buy-in for the betterment of the company Unwilling: Irrelevant information...It is of no value to the company Trainee: Work-related info on OSH and others when requested/during conversations; Meetings/presentations/emails; Sharing of knowledge to others to improve OSH at the workplace Unwilling: Irrelevant info...No benefit to the person/company Other companies: Work-related info on OSH and others when requested/during conversations; Meetings/presentations/emails; Sharing of knowledge to others to improve OSH at the workplace		mock drills, health assessments or campaign	dependent on the time you have with the person as well as criticality of information. Need to share the most important info within the timeframe available at the workplace. -The culture of the organization must be one of the continuously improving and looking out for new ways of doing something.			
---	--	--	--	--	--	--

	Unwilling: Irrelevant info...No benefit to the person/company						
21	Superior: Information about staff's motivation levels, work environment issues or problems; Important for superior to know to address potentially difficult issues; Through casual interaction or after meetings. Avoid formal setting. Unwilling: Bad/negative feedback on superior that may be unfounded/not accurate/personal attack It may create negative working relationship and destroy trust among worker/superior Subordinate: Leadership related tips, project management skills, communication skills, analytical and strategic thinking; Important to develop subordinate to reach proficiency and high level of capability ; Coaching and mentoring, frequent feedback Unwilling: Same as above Intra-department: Info on productivity-related data; To encourage teamwork to address issues that can help improve overall productivity; Through email, presentation of data in slides/reports, etc. Unwilling: Feedback (especially negative) on the person that may not be accurate or sincere It may affect morale of staff Inter-department: Technical knowledge, company policy and procedures; For them to understand better on issues that affect them personally or professionally; Formal communication, emails, memo and personal communication Unwilling: Confidential company information that are not related to their function Reduce gossiping and speculation among staff Same level: Info from management on	People who have a positive attitude towards acquiring new knowledge and skills and willing to make required changes to improve their skills and their work	-ISO 14001- documentation system ISO 9000- documentation system Written SOP and policies -Coaching and mentoring session Discussion/meeting -Lotus notes shared folder via company LAN Lotus notes email Divisional portal-HR portal SAP-company enterprise wide systems	Personal satisfaction- "the more you give, the more you will get", give opportunity for people to learn and grow, my responsibility as leader -Yes. But it is not a pre-requisite. If the company culture is conducive, rewards is not important. -Yes. The closer you are to another person, the more you will want to share knowledge with the person. This applies to both quality and quantity of information/knowledge -Constant promotion of knowledge sharing by leaders and managers in the organization, promoting the importance and benefits of knowledge sharing. Having a systematic info infrastructure – use of IT Accuracy of information shared, choice of the most effective medium of communication, design and structure	Only when the other party does not show interest-waste of time Attitude-related issues, poor grasp of sufficient matter, laziness, complacency, lack of IT infrastructure systems/policies, poor leadership, lack of willingness by management, lack of common objectives	Yes. Knowledge sharing especially among department members is crucial to promote better understanding, achieving common goals and results	Positive minded, highly motivated, professional, inquisitive, willing to learn new things, humble

	any issues affecting colleagues; Important for them to address any issues that may affect their performance; Casual-one to one sessions-verbal discussion over related environment-lunch, breaks, etc. Unwilling: Sensitive info that can lead to speculation...We cannot share info that may encourage staff to speculate and gossip Top management: Knowledge on staff major concerns regarding the company and their work environment; Important to address issues that may affect morale, productivity etc.; Informal discussions, one-to-one sessions Trainee: Best practices on company processes/policies; To standardize our practices with suppliers, business partners, customers; Through project management, supplier campaigns, meetings, joint projects, quality audit etc. Unwilling: Company trade secrets ...Not to compromise company's competitive edge Other companies: Company's best practice on some non-sensitive/confidential areas; To improve company's brand image, to show leadership and promote/share best practices; Seminar, conference, in-house speaking arrangement, meetings Unwilling: Sensitive company data that relate to areas such as product info, profitability data and other trade secrets...It may compromise company competitiveness			of content (based on target audience)			
22	To all: All KSE of mine shall be shared and re-shared with others, regardless what level of its. Because it is a knowledge that must be shared and expanded; through discussion, knowledge sharing column, colloquium session etc.	Those who have passion and hunger to knowledge, is more preferable.	Email and notice board ex: Kaizen activities Info shared during meeting and discussion Email, whatsapp	Passion towards knowledge and believe knowledge must be shared to all. -Yes. Can but rewards to share knowledge shall not	When people not eager to new knowledge (IT) Such a useful tools nowadays. Faster but not 100% reliable (too many	Yes, aware. It can lead the knowledge still in the flow of people communication. It also builds my "networking"	Eager to share

			(group whatsapp), FB Others: Meetings, discussions, audit session, PMDS etc	be exercised because it encourage people to be “subsidized” to do good things. -No biasness. Knowledge sharing is open to all.	scam and “hasutan”)-should exercise more on IT Act.		
23	Superior: To ease working; Discussion, seeking advise Subordinate: To ease working; Consultation, one to one teaching method Intra-department: Knowledge sharing; Attend to assist upon request Inter-department: Knowledge sharing, help to ease burden; Help/assist doing task which difficult Same level: Knowledge sharing; Attend to assist upon request Top management: Career growth and to expose myself with management; Involve in manager’s meeting, preparing proposal paper Trainee: To ease working; Teaching method upon request Unwilling: suppliers/customer-tend to be competitors Other companies: No. (unwilling). Competitors	Yes. Those request assistance and urged to know, try to share as details as I can	IOC, posters New year president message, announcement Company website, email notification	To ease working (daily routine, ad hoc situations) -Yes. It differs based on recipient -The power of resource centre. People love to stay in RC during lunch time.	Yes. When I fell it is not useful for others to have Management control -Limited access. No use.	Yes. To have better working environment and work effectively	More knowledgeable