



An Investigation of the Role of Knowledge Brokers during Service Encounters: The context of Jordanian Commercial Banks

A thesis submitted for the degree of Doctor of Philosophy

By

Nayel Al Hawamdeh

Brunel Business School

Brunel University London

April, 2018

Abstract

Obtaining customer knowledge represents a key task across all firms given its importance for potential competitive advantage, improving service quality and achieving long-term relationships with agents. However, despite the fact that the interaction between customers and frontline employees during service encounters is considered a valuable source of customer knowledge, our understanding of the role of frontline employees as brokers in this respect remains embryonic. The purpose and motivation of this research are to explore the factors—namely, enablers and barriers—that influence frontline employees’ motivation to serve as knowledge brokers. The process through which knowledge brokers transfer customer knowledge during service encounters is also considered important. This study further contributes to the theory of knowledge management by formulating a valid conceptual framework that illustrates the process of knowledge-brokering during these service encounters.

This thesis adopted a qualitative research approach using an in-depth multiple case study analysis. In total, 30 semi-structured interviews with different informants (i.e. managers and employees) from three top commercial banks in Jordan were undertaken. In addition, other data sources, including documents and observations, were also informed the primary data collection. Contextually, Jordan’s service-oriented economy combined with its developing nature provided a rich research environment for exploring these issues.

The study reveals that frontline employees engage in knowledge-brokering during service encounters transfer through three types of customer knowledge, namely, knowledge *about* customers, knowledge *for* customers, and knowledge *from* customers. Furthermore, the main findings demonstrate four critical sets of factors facilitating or impeding knowledge-brokering during these events, i.e.; *organisational-level* factors (e.g. organisational culture, organisational structure, and organisational support), *individual-level* factors (e.g. job experience, prior customer knowledge, ability to understand customer knowledge, self-efficacy, and workload), *technological-level* factors (e.g. bank information system and a lack of a customer-relationship management system) and *knowledge-level* factors (e.g. tacit or explicit). It was also found that the process of knowledge-brokering during service encounters

is accomplished in two ways: knowledge-brokering for the customer and knowledge-brokering for the organisation.

This study also reports a set of managerial implications that provide a better understanding of the influential factors inherent in establishing and seeking to succeed in knowledge-brokering during the course of frontline bank employees' interactions during service encounters.

Keywords: *knowledge-brokering, frontline employees, customer knowledge, service encounters.*

Dedication

I dedicate this work

To my father's Soul,

Aish Al Hawamdeh

To my dear mother,

Subhieh Al Hawamdeh

To my loving Wife,

Rogayah Almahaireh

&

To my gorgeous children,

Sara, Joman, and Omar

Acknowledgements

First and foremost, all praise to Allah, the Almighty, the beneficent, without whose desire this research would not have come to completion.

On this auspicious occasion, I would like to express my sincere gratitude to my principal supervisor, Professor Raymond Hackney, for his guidance and untiring patience. Indeed, his constant guidance and advice played a vital role in making the execution of the research possible. His suggestions were crucial in making this research as flawless as possible; thank you very much, Ray, for all of your support during this journey. I am also grateful to my second supervisor, Dr Muhammad Kamal, for his valuable suggestions, insightful comments, and constructive feedback.

Special thanks must also go to my dear wife, Rogayah Almahaireh, and my three children, Sara, Joman and Omar, for their endless support and their patience with me during this demanding period.

I am also very grateful to my primary source of my strength, my family back home. I would like to express my sincere gratitude to my mother, brothers and sisters, who supported me in completing this research. This would not have been possible without the generous love and support that they consistently provided.

Additionally, I would like to thank my office mates, Mohammad Alghababsheh and Amjad Al-Amad, who encouraged me through sharing their knowledge during our research journey; I learned a great deal from both of you.

Furthermore, I would like to thank my friends, Malek Aledenat, Ibrahim Al-Bawwat, Anas Alkasasbeh, Ahmad Alsaraireh, Huthaifa Alqaralleh, Mazen Al-Kheetan and Awon Almajali, for their support and kindness.

Last, but not least, my acknowledgements would be incomplete if I did not thank my two sponsors, the Ministry of Higher Education and Scientific Research, the Hashemite Kingdom of Jordan and Tafila Technical University, the Hashemite Kingdom of Jordan, for providing me an opportunity to pursue my PhD studies and the funding required to do so.

Declaration

I hereby declare that the thesis is based on my original work, except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Brunel University or other institutions.

Nayel Al Hawamdeh

List of publications

The following journal and conference papers are outputs based on the research conducted during my PhD study:

Al Hawamdeh, N. and Hackney, R. (2018) An Investigation of Knowledge Brokering during Service Encounters. *Online Journal of Applied Knowledge Management*.

Al Hawamdeh, Nayel Aish (2016) An Investigation of the Role of Frontline Bank Employee in internal knowledge brokering and knowledge sharing. In: *BAM 2016 - British Academy of Management Conference, 6th - 8th September 2016, Newcastle-upon-Tyne, UK* (Developmental Papers).

Table of Contents

Abstract.....	I
Dedication.....	III
Acknowledgements.....	IV
Declaration.....	V
List of publications	VI
List of Tables	XII
List of Figures.....	XIII
List of abbreviations	XV
Chapter 1 : Introduction.....	1
1.1 Introduction.....	1
1.2 Research Background	1
1.3 Research Problem	3
1.4 Research Questions.....	5
1.5 Research Aim and Objectives.....	6
1.6 Overview of Jordan.....	7
1.6.1 Jordan Banking Sector	8
1.6.2 Rationale for the Selection of Context and the Industry.....	9
1.7 Research Methodology and Design	10
1.8 Summary of this Study’s Contributions.....	13
1.9 Structure of this Thesis	14
1.10 Chapter Summary	15
Chapter 2 : Literature Review.....	16
2.1 Introduction.....	16
2.2 Knowledge in an Organisational Context	17
2.2.1 Knowledge Dimensions	19
2.2.2 Knowledge Creation	20

2.3	Customer Knowledge (CK)	22
2.4	KM, CRM, and CKM	26
2.4.1	Knowledge Management (KM)	26
2.4.2	Customer-Relationship Management (CRM)	27
2.4.3	Customer-Knowledge Management (CKM).....	29
2.5	Knowledge- Brokering (KB)	32
2.5.1	External and Internal KB	41
2.5.2	Frontline Service Employees (FLSEs) as Knowledge Brokers	42
2.6	Knowledge-Sharing (KS) and Knowledge-Brokering (KB).....	48
2.6.1	Factors Impacting Knowledge-Sharing (KS).....	50
2.6.2	Knowledge-Sharing (KS) Barriers.....	52
2.7	Literature Gaps and Potential Research Contributions	53
2.8	Chapter Summary	54
 Chapter 3 : Conceptual Framework for Knowledge-Brokering (KB) during Service Encounters.....		
		56
3.1	Introduction.....	56
3.2	Theoretical Foundations.....	57
3.2.1	Organisational Knowledge Creation Theory	57
3.2.2	Absorptive Capacity Theory	60
3.3	Development of the Conceptual framework	62
3.4	Proposed Factors that Influence Knowledge –brokering (KB) during Service Encounters.....	65
3.4.1	Organisational-Level Factors	65
3.4.2	Individual-Level Factors	70
3.4.3	Technological-Level Factors.....	71
3.5	Chapter Summary	73
 Chapter 4 : Research Methodology.....		
		74
4.1	Introduction.....	74

4.2	Research Philosophy	74
4.2.1	Ontology Stance	75
4.2.2	Epistemology Stance	76
4.2.3	Axiology Stance	76
4.3	Research Paradigm	77
4.3.1	Positivism Paradigm	77
4.3.2	Interpretivism Paradigm	78
4.3.3	Justifications for the Use of the Interpretivism Paradigm in the Current Research	80
4.4	Research Approach	81
4.5	Research Methods	82
4.5.1	Quantitative Methods	83
4.5.2	Qualitative Research Methods	84
4.5.3	Justifications for Choosing the Qualitative Research Method	86
4.6	Research Strategy	87
4.6.1	Case Study	87
4.6.2	Types of Case Study	89
4.6.3	Purposeful Sampling	91
4.6.4	Number of Case Studies in a Multiple Case Study	93
4.6.5	Justifications for the Use of a Case Study Strategy in the Present Work	93
4.6.6	Case Study Protocol	94
4.7	Data Collection	95
4.7.1	Interviews	97
4.7.2	Observation	100
4.7.3	Documentation	101
4.8	Data Analysis	102
4.8.1	Unit of Analysis	103

4.8.2	Qualitative Content Analysis	104
4.8.3	The Process of Qualitative Content Analysis.....	105
4.8.4	Qualitative Data Analysis Software	108
4.8.5	Using NVivo 11	108
4.8.6	Quality of the Research.....	109
4.9	Ethical Considerations	114
4.10	Chapter Summary	115
Chapter 5 : Multiple Case Studies: Analysis and Findings.....		117
5.1	Introduction.....	117
5.2	Case Studies Analysis	117
5.2.1	Case Study 1: X Bank	119
5.2.2	Case Study 2: Y Bank	152
5.2.3	Case Study 3: Z Bank.....	183
5.3	Chapter Summary	210
Chapter 6 : Cross-Case Syntheses and Discussions.....		212
6.1:	Introduction.....	212
6.2	Knowledge-brokering (KB) during the Service Encounters.....	213
6.3	Factors Affecting Knowledge-Brokering (KB) during Service Encounters	215
6.3.1	Organisational -Level Factors	219
6.3.2	Individual-Level Factors	226
6.3.3	Knowledge-Level Factors	230
6.3.4	Technology-Level Factors	231
6.4	A Revised Conceptual Framework	233
6.5	Chapter Summary	236
Chapter 7 : Conclusion.....		237
7.1	Introduction.....	237
7.2	Overview of the Study	237

7.3	The Achievement of the Research Aim and Objectives	239
7.4	Major Findings of the Study	241
7.5	Research Contributions and Implications	243
7.5.1	Contribution to Theory.....	243
7.5.2	Contributions to Methodology	245
7.5.3	Contributions to Practice.....	246
7.6	Limitations and Directions for Future Research	248
7.7	Chapter Summary	249
	References.....	251
	Appendices.....	275
	Appendix (I) Ethical approval letter	275
	Appendix (II) Invitation letter.....	276
	Appendix (III) Interview Protocol	277
	Appendix (IV) Consent Form	282
	Appendix (V) Example from the open coding stage (NVivo (11) screenshot).....	283

List of Tables

Table 2-1: Distinctions to be made between tacit and explicit knowledge	20
Table 2-2: Main differences between KM, CRM, and CKM	31
Table 2-3: A spectrum of KB strategies.....	38
Table 2-4: Selected definitions of ‘knowledge broker’ and ‘knowledge-brokering ’	40
Table 2-5: Select studies that discussed the role of frontline employees in transferring CK. 47	
Table 4-1 : Assumption of the main paradigms	79
Table 4-2 : Comparison between the deductive and inductive approaches	82
Table 4-3: Comparison between the Quantitative research and Qualitative research.....	85
Table 5-1: Case analysis format.....	118
Table 5-2: Interviewees and other sources of evidence (X bank).....	121
Table 5-3: interviewees and other sources of evidence (Y Bank)	154
Table 5-4: Interviewees and other sources of evidence (Z bank)	185
Table 6-1: KB during service encounters	214
Table 6-2: Factors impacting knowledge-brokering (KB) during service encounters.....	218

List of Figures

Figure 1-1: The research design.....	12
Figure 2-1: Data, information and knowledge	18
Figure 2-2: Modes of knowledge creation	22
Figure 2-3: Three types of customer-related knowledge	24
Figure 2-4: Internal knowledge broker	42
Figure 3-1: Customer-KB through frontline employees during the service encounters	63
Figure 5-1: Net profit for X bank in the last 10 years.....	120
Figure 5-2: KB during service encounters at X bank.....	124
Figure 5-3: Organisational-level factors that impact KB during service encounters at X bank	129
Figure 5-4: Summary of the sources of evidence that identified the organisational-level factors that affect KB during service encounters at X bank.....	137
Figure 5-5: Individual-level factors that impact KB during service encounters at X bank..	139
Figure 5-6: Summary of the sources of evidence that identified the individual-level factors that impact KB during service encounters at X bank.....	144
Figure 5-7: Technology-level factors that impact KB during service encounters at X bank	145
Figure 5-8: Summary of the sources of evidence that identified the technology-level factors that impact KB during service encounters at X bank.....	147
Figure 5-9: Knowledge-level factors that impact KB during service encounters at X bank	148
Figure 5-10: Sources of evidence that identified the knowledge-level factors that impact KB during service encounters at X bank	150
Figure 5-11 : Net profit for Y bank in the last 10 years.....	153
Figure 5-12: KB during service encounters at Y bank.....	159
Figure 5-13: Organisational-level factors that impact KB during service encounters at Y bank.....	163
Figure 5-14: Summary of the sources of evidence that identified the organisational-level factors that affect KB during service encounters at Y bank.....	169
Figure 5-15: Individual-level factors that impact KB during service encounters at Y bank.	170

Figure 5-16: Summary of the sources of evidence that identified Individual-level factors that impact KB during service encounters at Y bank.....	175
Figure 5-17: Technology-level factors that impact KB during service encounters at Y bank.	176
Figure 5-18: Summary of the sources of evidence that identified technology -level factors that impact KB during service encounters at Y bank.....	178
Figure 5-19: Knowledge-level factors that impact KB during service encounters at Y bank.	179
Figure 5-20: Summary of the sources of evidence that identified knowledge -level factors that impact KB during service encounters at Y bank.....	181
Figure 5-21: Net profit for Z bank in the last 10 years	184
Figure 5-22:KB during service encounters at Z bank	187
Figure 5-23: Individual-level factors that impact KB during service encounters at Z bank	190
Figure 5-24: Summary of the sources of evidence that identified individual-level factors that impact KB during service encounters at Z bank	195
Figure 5-25:Organisational-level factors that impact KB during service encounters at Z bank	196
Figure 5-26: Summary of the sources of evidence that identified Organisational-level factors that impact KB during service encounters at Z bank	201
Figure 5-27: Technology-level factors that impact KB during service encounters at Z bank	203
Figure 5-28: Summary of the sources of evidence that identified technology -level factors that impact KB during service encounters at Z bank	206
Figure 5-29: Knowledge-level factors that impact KB during service encounters at Z bank	207
Figure 5-30: Summary of the sources of evidence that identified Knowledge -level factors that impact KB during service encounters at Z bank	209
Figure 6-1:Revised conceptual framework for knowledge brokering (KB) through frontline employees during service encounters.	233

List of abbreviations

CK: Customer-Knowledge

CRM: Customer Relationship Management

CRMs: Customer Relationship Management systems

KM: Knowledge Management

CKM: Customer Knowledge Management

KS: Knowledge-Sharing

KB: Knowledge-Brokering

FLSEs: Frontline Service Employees

AC: Absorptive Capacity Theory

OKC: Organisational Knowledge Creation theory

KFC: Knowledge from the Customers

KAC: Knowledge about the Customers

KFRC: Knowledge for the Customers

KBFO: Knowledge-Brokering for the Organisation

KBFC: Knowledge-Brokering for the Customers

BSQ: Bank Service Quality

Chapter 1 : Introduction

1.1 Introduction

This chapter presents the background and primary focus of this research. In addition, it discusses the significance of this research and the central issue that it seeks to address. It also presents the research questions, aim, objectives, and context of this research. Furthermore, it provides a brief outline of the research methodology employed and describes the research design. Finally, this chapter provides a summary of the contributions made by this study.

1.2 Research Background

External knowledge derived from customers, competitors, and suppliers helps to improve service quality (Tseng, 2012). In particular, customer knowledge (CK) has become one of the key driving forces behind achieving sustained competitive advantages (Garcia-Murillo and Annabi, 2002; Campbell, 2003; Gebert *et al.*, 2003; Khodakarami and Chan, 2014) and improved service quality (Van der Heijden *et al.*, 2013; Tseng and Wu, 2014; Soltani and Navimipour, 2016). Customer knowledge is a mixture of experience, value, and information created, and absorbed during transactions and exchanges between an organisation and its customers (Gebert *et al.*, 2002). Besides, CK also provides a valuable opportunity for organisations to make progress in the contemporary business environment by integrating into the knowledge revolution. However, the obvious gap between those who ‘have’ CK and those who do not is steadily increasing. Therefore, bridging the CK gap—the difference between the existing CK that is actually possessed by an organisation and the CK that that organisation is assumed to possess—is a high priority for organisations (Tseng, 2016).

Contemporary service organisations adopt different mechanisms and channels to obtain CK. While some organisations take advantage of the wide coverage and rapid access provided by Web 2.0 and social media platforms such as Facebook and Twitter to obtain CK (Chua and Banerjee, 2013; Taherparvar *et al.*, 2014), others have shifted from the relationship-marketing (RM) strategy to customer-relationship

management (CRM), with the aim of developing long-term relationships with existing customers while simultaneously attracting new ones (Rahimi and Kozak, 2016). In this strategy, face-to-face direct interaction between a customer and an organisation (i.e. an employee) during a service interaction has been hailed as an important source of not only explicit but also tacit knowledge (Melton and Hartline, 2010; Taherparvar *et al.*, 2014; Coelho *et al.*, 2016). Therefore, frontline employees are considered knowledge brokers in terms of filling the structural gap that may exist between an organisation and its customers (Van der Heijden *et al.*, 2013). Given that frontline employees are positioned between an organisation and its customers, they are uniquely suited to gather knowledge, particularly during service encounters (Santos-Vijande *et al.*, 2016).

In knowledge-intensive organisations such as service industry, frontline employees play a crucial role in gaining and sharing CK (Malhotra *et al.*, 2013). Furthermore, frontline employees also play a critical role in capturing and sharing customer feedback, as customers consider frontline employees to be representative of the organisations that employ them (Hu *et al.*, 2016). Although the frontline employees of service organisations are recognised as the first and final point of contact between customers and organisations, little is known concerning the role of these employees as knowledge brokers between companies and their customers. In addition, the literature related to knowledge sharing (KS) indicates that these employees are often unwilling to share CK within their organisations because, it is argued, sharing knowledge is not within the scope of their responsibilities (Teh and Sun, 2012).

Indeed, most service organisations today face challenges in taking advantage of the CK provided through frontline employees based on their interactions with customers during service encounters (Engen and Magnusson, 2015). Furthermore, Ma and Qi (2009) noted that the majority of knowledge about customers is explicit, whereas knowledge for and from the customer can be considered tacit. Moreover, ensuring effective CK brokering is still considered a challenge for organisations because most CK is naturally tacit (Grimpe and Sofka, 2009; Ye *et al.*, 2012; Wang, 2015), and capturing and sharing tacit knowledge is highly difficult for employees (Berg *et al.*, 2014).

Despite the significance of customer feedback, whether positive or negative, with regard to improving service quality or product improvement, the literature has paid little attention this subject (Celuch *et al.*, 2015). In addition, KS continues to be a problem for many organisations, as employees are still not participating to a satisfactory degree in the process of sharing knowledge (Ford *et al.*, 2015).

Customer-relationship management systems help organisations to gain knowledge ‘about’ and ‘for’ a customer, while personal interactions with customers remain the primary source of knowledge ‘from’ customers (Salojärvi *et al.*, 2010; Zhan, 2011). More specifically, frontline service employees (FLSEs) are considered the primary or sole channel for sharing knowledge obtained during service interactions (Ye *et al.*, 2012; Lages and Piercy, 2012; Engen and Magnusson, 2015). Frontline employees’ role as knowledge brokers therefore helps organisations to share the knowledge gained during service encounters; this, in turn, helps to improve an organisation’s service and products (Rapp *et al.*, 2014; Berg *et al.*, 2014).

1.3 Research Problem

Many benefits accrue from the knowledge obtained during service encounters between FLSEs and customers, including assisting a service organisation to become more innovative (Engen and Magnusson, 2015), maintain its relationships with customers and enhance its service quality (Tseng and Wu, 2014). Unfortunately, the CK gap remains a serious challenge for most service organisations (Salojärvi *et al.*, 2010; Taherparvar *et al.*, 2014; Wang, 2015; Zhang *et al.* 2015; Lam *et al.*, 2017). Organisations need to bridge this gap by gathering knowledge from, for and about customers in order to maintain their relationships with them (Tseng, 2016).

Organisations frequently ignore the contributions of frontline employees to their knowledge (Melton and Hartline, 2010; Tjan, 2012; Engen and Magnusson, 2015). Ye *et al.* (2012) argued that service organisations increasingly need FSLEs’ knowledge to respond to the rapid changes that occur in customer needs and preferences. Furthermore, organisations are all too often unaware of the CK held by frontline employees (Engen and Magnusson, 2015), leaving such knowledge with those employees who interact with customers (Rowley, 2002).

According to the customer-knowledge management (CKM) literature, CK is divided into three types: knowledge about the customer, knowledge for the customer and knowledge from the customer. In many cases, the focus of CRM systems has been on knowledge ‘about’ or ‘for’ the customer; thus, obtaining knowledge ‘from’ the customer remains a challenge for organisations. To address this, there is a need for such entities to recognise every interaction with their customers as a potential source of new CK (Garcia-Murillo and Annabi, 2002).

Customer knowledge can be explicit or tacit, and the best approach to gaining tacit CK is typically through direct interaction with customers, which is essential for developing long-term relationships with them (Nätti *et al.*, 2006). Moreover, tacit CK is associated with customers’ experiences with products or services (Helkkula and Pihlström, 2010). Therefore, obtaining tacit CK remains challenging for most service organisations (Wang, 2015).

However, some organisations have adopted new technologies to assist with extracting tacit CK during service encounter interactions, such as systems that monitor customers’ voices or body language. However, capturing and transferring the CK generated during face-to-face service interactions remains a significant challenge (Lam *et al.*, 2017). Moreover, in many cases, the knowledge generated at the frontline level is lost due to a lack of a process intended to articulate such knowledge (Ye *et al.*, 2012).

In many cases, the CK gathered through a CRM system will not provide service management with the full picture of customers’ needs. Hence, the relationships between customers and service employees remain the best channel of obtaining critical knowledge from customers (Hansen, 2003; Zhang, 2011).

The majority of service organisations still face challenges when it comes to tapping into their CRM systems, with several researchers having argued that such organisations continue to fail in this regard (Garrido-Moreno and Padilla-Meléndez, 2011; Bhat and Darzi, 2016; Soltani and Navimipour, 2016). It is possible that most CRM systems are designed to gather, manage, and share explicit CK (knowledge about the customer), whereas most CK (such as that from and for the customer) is

tacit (Taherparvar *et al.*, 2014; Wang, 2015). In other words, the knowledge generated during interactions between frontline employees and customers remains untapped by such systems. Additionally, a CRM system's ability to obtain all of the necessary CK remains a significant challenge, as most such systems are exclusively used to manage CK within an organisation; without the support of its employees, an organisation cannot take full advantage of the customer feedback provided through CRM systems (Campbell, 2003; Nätti *et al.*, 2006).

1.4 Research Questions

As the service sector has become increasingly dependent on knowledge, CK has become a vital driving force, as it supports sustaining competitive advantages, improving service quality, and managing customer relationships (Soltani and Navimipour 2016; Khodakarami and Chan 2014; Tseng and Wu 2014; Van der Heijden *et al.*, 2013). Despite the fact that service organisations are able to obtain CK from various sources, including social media and CRMs, frontline service employees who are involved in service encounters remain a valuable source of such knowledge (Coelho *et al.*, 2016; Lages and Piercy, 2012). Gradually, the role of FLSEs has shifted from focusing on the traditional duties associated with 'customer contact' or 'service provider' positions to one that is more effective for both organisations and customers alike (Slåtten *et al.*, 2011).

Therefore, the roles of these employees have been extended to involve more complex duties, as they may now also function as innovators (i.e. as sources of new ideas for services innovation), enablers (i.e. assisting customers and technology to play their roles in co-production and value creation), differentiators (as technology is not able to entirely replace the human touch in the service encounters) (Bowen, 2016; Coelho *et al.*, 2016; Larivière *et al.*, 2017; Motamarri *et al.*, 2017), idea collectors (Woisetschläger *et al.*, 2016), and/or knowledge brokers (Berg *et al.*, 2014).

Although a growing number of studies have examined role played by frontline employees as knowledge brokers (e.g. Verbeke *et al.*, 2011; Wong and McKercher, 2011; Berg *et al.*, 2014; Rapp *et al.*, 2014), the role played by frontline employees as knowledge brokers remains relatively underexplored (Ye *et al.*, 2012; Jang and

Nemeh, 2017). This is understandable given the fact that the concept of knowledge-brokering (KB) is, to some extent, relatively novel, and a comprehensive body of literature has not yet been developed (Haas, 2015). Moreover, a comprehensive understanding of the process through which knowledge is exchanged between customers and organisations during service encounters and the factors that affect this process is lacking (Van der Heijden *et al.*, 2013; Korhonen- Sande and Sande, 2016). Therefore, this study addresses this gap by investigating the role played by the frontline employees as knowledge brokers and the factors that affect the process through which knowledge is exchanged between customers and organisations during service encounters. In light of the research gaps identified and discussed above, this research strives to answer the following research questions:

RQ1. How do frontline employees serve as knowledge brokers between customers and organisations during service encounters, and how do they transfer the three types of CK?

RQ2. What are the main factors that influence the brokering of CK by frontline employees during service encounters?

1.5 Research Aim and Objectives

This research aims to investigate the role played by frontline employees as knowledge brokers between customers and organisations during service encounters, as well as to identify the critical factors that influence this role.

To answer the above research questions, this study seeks to achieve the following objectives:

- Reviewing the literature on KB, KS, CKM, and absorptive capacity in order to examine the role played by FLSEs as knowledge brokers during service encounters.
- Proposing a conceptual framework based on the existing literature in order to obtain insights into the role played by FLSEs as knowledge brokers between customers and organisations during service encounters.

- Empirically validating the proposed conceptual framework in the context of the Jordanian banking sector.
- Revising the proposed conceptual framework based on the collected case study evidence, which will help service organisations to tap into their FLSEs access to CK.

1.6 Overview of Jordan

Compared to its neighbours, Jordan is a young country. In 1921, after the end of the First World War, the Emirate of Transjordan was established as a British protectorate; it had previously been part of the Ottoman Empire. Thereafter, the Emirate of Transjordan received its independence in 1946, and, in 1949, its name was changed to ‘the Hashemite Kingdom of Jordan’ (Jordan), by which it is known today.

Jordan is located in the heart of the Middle East; it is a small country, covering an area of 89,213 square kilometres, with limited natural resources. Jordan’s location is critical, as its neighbours include Iraq to the north-east, Syria to the north, Saudi Arabia to the east and south, and Palestine and Israel to the west; the Red Sea lies to the south (UNDP, 2017). Jordan is a developing country, and it possesses no oil of its own, meaning that its economy relies heavily on services, tourism, and foreign aid, of which the US is the primary provider (BBC, 2017).

According to Jordan’s Department of Statistics (2017), the country has more than 9 million people, the majority of which are under 30 years of age. Jordan’s illiteracy rate is 9.1%, the lowest in both the Arab world and the region (Jordan times, 2016). While Jordan has no natural resources, its government's focus on investing in human capital affords it a comparative advantage in both the Middle East and in the world at large (The Jordan times, 2015). The Jordan currency is called the Jordanian dinar (JOD); the value of the Jordanian dinar is fixed at 0.709 US dollars.

Jordan’s economy is among the smallest in the Middle East, and it is highly service oriented. Services account for more than 75% of its jobs (UNDP, 2017), and the

contribution of the service sector to the GDP was 66.2% in 2016 (Global Finance, 2017).

1.6.1 Jordan Banking Sector

Banks first appeared in Jordan in 1925, when the Ottoman Bank opened a branch in Jordan, while, in 1934, the Arab Bank, as the first Jordanian bank, was opened in Amman. Over the years, the Jordanian banking sector has continued to grow; in 1960, there were eight banks, but there are now 25 (Al-abadallat, 2017).

According to Jordan's Central Bank (2017), the Jordanian banking sector consists of 25 banks, 21 of which are commercial (13 local and eight foreign banks) and four of which are Islamic (three local and one foreign bank). The number of employees in the Jordanian banking sector in 2015 was reported as 20,095 (Association of Banks in Jordan, 2017).

The Jordanian banking sector is considered to be one of the main pillars of Jordan's economy (Al-abadallat, 2017). In addition, the Jordanian bank sector is one of the most important parts of the country's private sector, and it makes primary contributions to the Jordanian economy as a whole (Al-Tamimi, 2017). Furthermore, banks are considered to be among the largest employers in the private sector (Association of Banks in Jordan, 2017).

The role of the Jordanian bank sector in Jordan's economy is crucial. However, Jordanian banks also face challenges in the form of foreign banks that became eligible to enter the Jordan market after Jordan became the 136th WTO Member on 11 April 2000 (Al-Zyadat, 2017). Furthermore, Jordan's economy is considered one of the most open in the Middle East (United nation, 2017).

The banking sector in Jordan plays a critical role by contributing to the Jordanian economy, and it is considered one of the most active and rapidly growing sectors in Jordan. In addition, Jordanian banks also spend a great deal of money and effort on training and developing their employees in order to ensure that they will provide a high level of service quality to their customers compared to other Jordanian organisations (Altarawneh, 2009).

Jordan's bank sector continues to play a pioneering role in serving the national economy, which has demonstrated strong resilience in the face of the region's political and security challenges, as well as the economic implications of those challenges. The impact of Syrian asylum-seekers on the economy is on-going, and the cost of hosting the many refugees who have sought asylum has increased (World finance, 2015).

1.6.2 Rationale for the Selection of Context and the Industry

Jordan's service-oriented economy, combined with its developing nature, represents an excellent research environment for exploring the phenomenon of KB through frontline employees. Furthermore, the majority of studies of this nature have been carried out in developed countries, resulting in a lack of research conducted in the context of developing countries such as Jordan.

Hence, this study is expected to contribute to the knowledge management literature and, in particular, the literature concerning the Jordanian context, as there is an urgent need for more research to be conducted in such a country (Al-jazzazi and Sultan, 2017).

With regard to the Jordanian banking sector, there are a number of relevant points that prompted author to conduct this research in this sector specifically. These points are as follows:

1- Banking organisations are used as the context of this research because they are knowledge- intensive (Motamarri *et al.*, 2017). Also, the responsibilities of frontline bank employees involve fewer routine duties, and they have opportunities to be creative (Sousa & Coelho, 2011).

2- Banks are considered to be high-contact service organisations, with frontline bank employees engaging with many customers through highly personal interactions (Motamarri *et al.*, 2017). Moreover, frontline bank employees have to possess adequate knowledge concerning services, products, and their organisations in order to provide information concerning the technical aspects of services (Pattni *et al.*, 2007).

3- There is a lack of studies investigating CK brokering in banking sectors, as the majority of research into KB has been conducted in the organisational context of healthcare (e.g. Gerrish *et al.*, 2011; Currie and White, 2012; Burgess and Currie, 2013; Waring *et al.*, 2013).

4- Jordanian banks are among the country's best organisations when it comes to tapping into KM, and they use KM processes and activities in their daily practices (Bourini *et al.*, 2013). Moreover, the Jordanian banking sector is also facing intense competition; therefore, these banks are focussing on improving their long-term relationships with their customers in order to retain them, and they are seeking to gain CK using the CRM strategy (Alhawari, 2014;Azzam, 2014; Awwad and Al-adaileh, 2012). Furthermore, the management of CK in Jordanian banks requires further research and empirical investigation (Al-Azzam,2015), as obtaining CK is imperative for these banks to retain their customers given the open competition between them and Islamic banks, as well as with foreign banks operating in Jordan (Al-jazzazi and Sultan, 2017).

5- Frontline employees in the Jordanian banking sector remain the first source of knowledge from the customer during service encounters due to the fact that the majority of Jordanian bank customers prefer to receive bank services through face-to-face interactions (Al-Azzam, 2015). Despite the fact that Jordanian banks have invested a great deal of money in adopting Internet banking services, only a low percentage of their customers utilise these services (Alnsour and Al-Hyari, 2011; AlKailani,2016). However, Jordan's mobile and telecommunication sectors are considered to be among the more rapidly growing in the Middle East, but the rates of adoption when it comes to telebanking and mobile banking by Jordanian bank customers are still very low compared to the development of the Jordanian telecom sector (Alalwan *et al.*, 2017).

1.7 Research Methodology and Design

In order to fulfil the research aim and objectives, this study adopts a qualitative research approach. A case study approach to research is considered to an appropriate strategy when investigating a contemporary phenomenon in its real-world setting

(Yin, 2014). As such, an in-depth multiple case study approach is adopted in this study.

Voss et al. (2002) suggested that one approach to increasing the depth of observation is to study a small number of cases. Initially, this study identified three case studies, namely three organisations from the Jordanian banking sector. It was decided that multiple case studies would provide the basis for increasing the analytical generalisability of this study's findings (Yin, 2014). Multiple data collection methods are employed in this study. The primary data collection method is semi-structured interviews; however, other data sources, such as documents and observations, are also used. The triangulation of sources is believed to improve the overall validity and reliability of a study; as such, this approach is adopted in this research (Yin, 2014). Notably, a qualitative case study is considered to be a valuable research method when attempting to ensure an in-depth and holistic understanding of a research phenomenon (Creswell, 2009). Moreover, a qualitative content analysis is employed in this work to investigate the role played by frontline employees as knowledge brokers between customers and organisations during service encounters, as well as to identify the critical factors that influence this role.

Finally, qualitative content analysis is used to gain a more in-depth understanding of the qualitative data and to validate the proposed conceptual framework (Maylor and Blackmon, 2005).

This research was carried out in three main stages: the design stage, the data collection stage, and the analysis stage, with each stage having further sub-stages (see Figure 1-1). The design stage involved reviewing the literature in order to identify the research gap before formulating the research problem and questions. Thereafter, the conceptual framework was developed so as to inform the research and define the scope of this study. Multiple case studies were used to gather evidence relating to the KB phenomenon within the banking sector. In the data collection stage, the researcher conducted a pilot study in order to pre-test the interview schedules and to make modifications to the main study based on the pilot study's results. The main case study was conducted after identifying the case study

organisations, with the third case study allowing the researcher to reach theoretical saturation. In the final stage, the analysis of the collected data was completed. The analysis phase was divided into two steps, namely the within-case analysis and a cross-cases report. Based on this analysis, the conceptual framework was revised, and the theoretical and practical implications were reported.

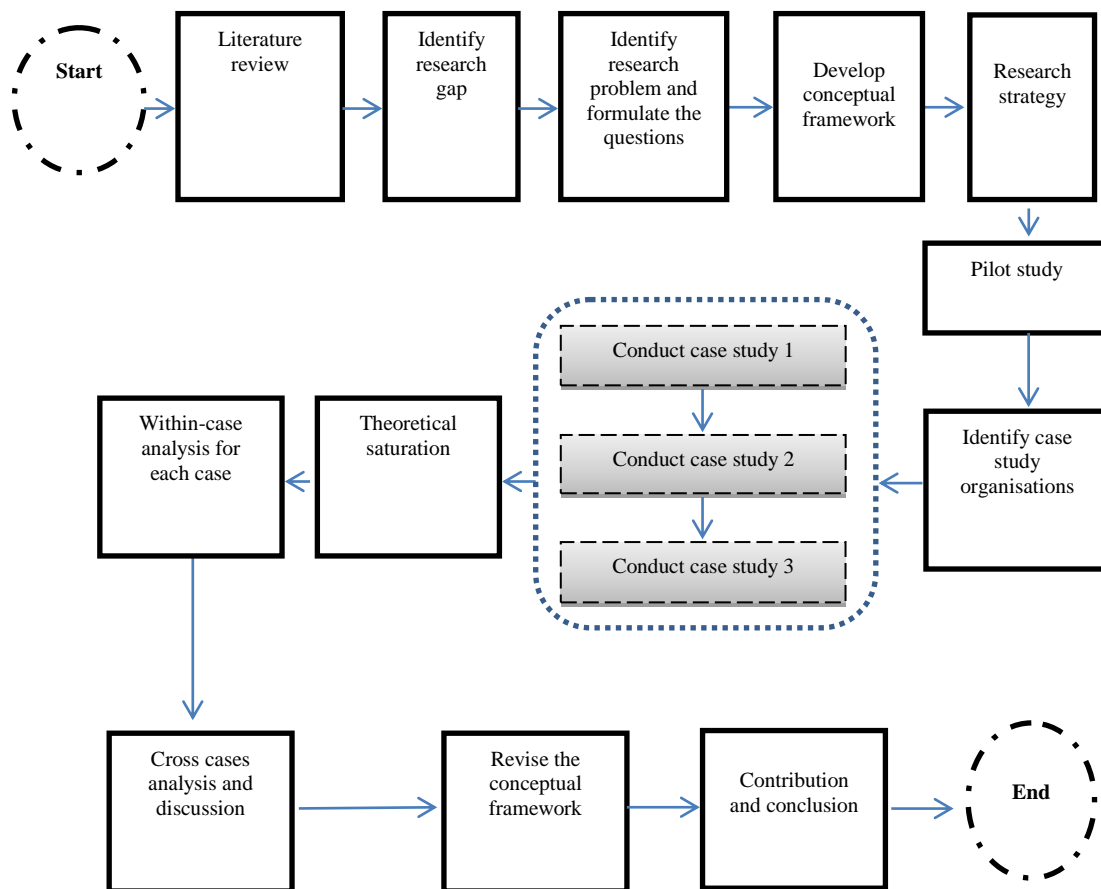


Figure 1-1: The research design

1.8 Summary of this Study's Contributions

This research contributes to the growing literature on KB, CKM, and KM in several ways: First, this study contributes to the theory of knowledge management by providing a novel comprehensive framework that provides insight into the role played by frontline employees as knowledge brokers between customers and organizations during service encounters, and it identifies the critical factors that influence this role. Also, this framework empirically is validated based on cross-case findings.

Second, this research contributes to the literature of CKM by using the lens of CKM dimensions (knowledge about, for, and from customers), with the intention of explain the role played by frontline employees as knowledge brokers between organisations and customers during service encounters.

Third, this research contributes to the literature by empirically validating the conceptual framework in a developing country, Jordan, in particular the Jordanian banking sector; in contrast, the majority of previous studies were conducted in developed countries and specific healthcare sector.

Fourth, this research contributes to practitioners' understanding by helping them to promote the role played by frontline employees in creating and sharing CK between organisations and customers in order to improve an organisation's services and products. Furthermore, the revised conceptual framework of this research provides a roadmap for Jordanian bank managers who seek to develop their frontline employees' role as knowledge brokers during service encounters by gaining an understanding the main factors that influence KB by these employees during service encounters. Also, this research can help service organisations to take full advantage of the CK that is generated during service encounters through shedding light on the main barriers that impede the ability of frontline employees to act as knowledge brokers.

1.9 Structure of this Thesis

This thesis is structured into seven chapters, following the design suggested by Phillips and Pugh (2015), which includes four main components: background theory, focal theory, data theory, and novel contribution. Therefore, in this thesis, the introduction and literature review chapters cover the background theory, while the conceptual framework chapter covers focal theory. The chapters devoted to the research methodology and the multiple case studies address the data theory, while the cross-case synthesis and conclusion chapters cover the novel contribution.

Chapter One: Introduction. This chapter provides a brief overview of the research background, research problem, research context, research aim and objectives, research methodology and research design of this thesis.

Chapter Two: Literature Review. This chapter provides a theoretical background of the research and a critical review of the existing literature on KB, KS, CKM, and CRM. This chapter also sheds light on the importance of the role played by frontline employees as knowledge brokers in service organisations, in addition to discussing the most common definitions of the terms knowledge broker and KB. Finally, the chapter concludes by identifying a gap in the literature and presenting this study's research contributions.

Chapter Three: Conceptual Framework. This chapter develops a proposed conceptual framework for the KB process during service encounters. Furthermore, the proposed conceptual framework highlights the individual, organisational, and technological factors that encourage or inhibit frontline employees when it comes to sharing CK between customers and organisations.

Chapter Four: Research Methodology. This chapter presents the research methodology used and provides a rationale for its adoption in the current study. Specifically, the chapter outlines various research paradigms and reasoning approaches and justifies the selection of the interpretivism paradigm and the indicative approach. The chapter also addresses the research strategy, approaches to data collection and analysis, and ethical considerations.

Chapter Five: Findings. This chapter reports the main findings of the empirical investigations of the multiple case studies. In doing so, this chapter analyses each individual case separately within the case study analysis.

Chapter Six: Cross-case syntheses and discussion. This chapter presents the main findings from the cross-case analysis. It also provides an in-depth interpretation of the main findings and positions it in the context of previous literature. Based on this, the chapter presents the revised conceptual framework.

Chapter Seven: Conclusion. This chapter constitutes the final chapter of this thesis; it provides the conclusion of this study and its contributions as well as the theoretical and managerial implications of its findings. It concludes by discussing the limitations of the current study and suggesting future research directions.

1.10 Chapter Summary

This chapter provided an introduction to the research background, problem, aim, and questions of this thesis. Furthermore, this chapter provided a brief outline of the research methodology, which is discussed in further detail in Chapter Four of this thesis. In addition, the research design was presented, and the structure of the thesis was discussed.

The following chapter focuses on the existing literature in the fields of knowledge management (KM), KS, KB, CRM, and CKM. Furthermore, the discussion in the next chapter focuses on the gaps in the literature on KB, KS, CK, and the role played by frontline employees as knowledge brokers.

Chapter 2 : Literature Review

2.1 Introduction

This chapter aims to review the literature on knowledge-brokering (KB), knowledge-sharing (KS), and customer knowledge (CK) in order to shed light on the gap in this subject. Furthermore, this chapter attempts to highlight the main factors affecting KB through frontline service employees (FLSEs) as knowledge brokers. This chapter is divided into eight main sections. Section 2.2, which follows this section, defines the main concepts forming the foundation of this research, namely, knowledge, knowledge dimensions, and knowledge creation. Section 2.3 provides an introduction to the term ‘customer knowledge’. This is followed by Section 2.4, which presents a comparison between three approaches to CK (KM, CKM, and CRM). Section 2.5 provides the background of KB in literature in addition to presenting the published literature related the role of frontline employees as knowledge brokers. Section 2.6 discusses the importance of sharing knowledge for the success of KB. Section 2.7 highlights the gaps in the literature and presents the research contribution. Finally, Section 2.8 provides a summary of this chapter.

The first step in this research is to review the related literature, as mentioned in the first chapter. To this end, the ranked relevant journals in the field of management have been reviewed in order to understand the key concepts in the research and to identify the gap in the literature.

Based on the literature review in this chapter, the next chapter (Chapter Three) proposes the conceptual framework of KB through frontline employees during service encounters, and it illustrates the main factors that influence KB during service encounters.

Indeed, before reviewing the literature on KB through frontline employees, certain fundamental terms must be defined, including knowledge, CK, KB, KS, frontline employees, and service encounters. This will help to provide a theoretical background to develop a proposed conceptual framework for understanding the phenomenon of KB through frontline employees during service encounters.

2.2 Knowledge in an Organisational Context

Knowledge is recognised as the most valuable resource for organisations (Drucker, 1959), and it represents a particularly critical asset for organisations in today's economy (Nonaka and Toyama, 2005).

Knowledge is also considered a significant resource for obtaining sustainable competitive advantages in an organisation (Nonaka and Takeuchi, 1995). Knowledge is embedded within and created by many resources, including the organisation, routine, system, documents, and individual employees (Alavi and Leidner, 2001). Nowadays, most organisations are changing from traditional style of knowledge to a more intensive style, and it is recognised that their priority for recruitment has changed to minds rather than hands (Gomezelj Omerzel and Antoncic, 2008).

Based on the literature, numerous researchers and practitioners have highlighted that it is fundamental to distinguish between three common concepts, namely, data, information, and knowledge, and these are considered the best ways of understanding knowledge; however, many scholars have arranged these terms in a hierarchy (e.g. Chaffey and Wood 2005; Hawryszkiewicz, 2009), as illustrated in Figure 2-1. However, the relationship between these terms not always clear. For instance, the term 'data' is defined as raw numbers, facts, or symbols that exist without any organisation in mind, while the output of organising and processing data in certain ways is defined as 'information'. In contrast, knowledge is more difficult to define than data and information. Furthermore, knowledge is concerned with identifying how information can be interpreted to create new insights into new problems, while knowledge can be measured as actionable information in mind of making better decisions (Spek and Spijkervet, 1997; Alavi and Leidner, 2001; Jashapara, 2004; Hawryszkiewicz, 2009).

Some authors have argued that information becomes knowledge after it is interpreted and given context, meaning that knowledge depends on both context and time. In other words, without human process, context, and interpretation, information will not transform into knowledge (Nonaka *et al.*, 2000).

Nonaka (1994, p. 16) summarised the difference between information and knowledge as follows: ‘Information is a flow of messages, while knowledge is created and organised by the very flow of information, anchored on the commitment and beliefs of its holder’. Moreover, Beesley and Chalip (2011, p. 328) defined knowledge as ‘information with meaning that exists within the individual’. Furthermore, knowledge differs from information because it is not easy to process knowledge in the same way as information (Swan *et al.*, 1999).

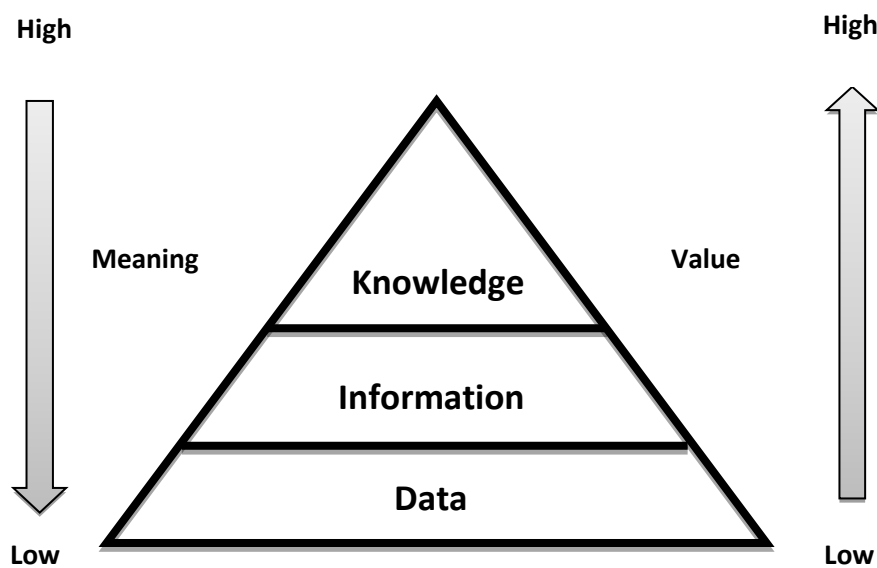


Figure 2-1: Data, information and knowledge

Source: Adopted from Chaffey and Wood (2005, p.224)

Various definitions of knowledge exist in the literature; thus, it can be said that knowledge is a multi-faceted and multi-layered concept (Nonaka, 1994). Indeed, there are various reasons for the multiplicity of views regarding the definition of knowledge. Some of these views recognise knowledge as process or an object, or even a state of mind (Alavi and Leidner, 2001; Yang *et al.*, 2010). In addition to this, the fields of research sometimes affect the view and definition of knowledge (Hicks *et al.*, 2002). For example, Nonaka (1994, p. 15) defined knowledge as ‘justified true belief’, and through this definition, he focussed on ‘justified’ more than ‘true’, whereas Hicks *et al.* (2002, p. 267), in the context of engineering, defined knowledge

as ‘the ability of the individual to understand information and describes the manner in which they handle, apply and use it in a given situation’.

2.2.1 Knowledge Dimensions

According to the KM literature, knowledge is composed of both tacit and explicit knowledge, and these two dimensions depend on the nature of knowledge. This classification of knowledge has been deemed the most common in KM literature so far (Alavi and Leidner, 2001; Hawryszkiewicz, 2009).

Polanyi (1966, p. 4) stated, ‘I shall reconsider human knowledge by starting from the fact that we can know more than we can tell’ through these words, we recognise that Polanyi is considering tacit knowledge. Notably, other authors have modified Polanyi’s definition to become the following: ‘We know more than we realise’ (Leonard and Sensiper, 1998, p.114)

Tacit knowledge is extremely personal and difficult to formalise, it resides in the human mind, and it is rooted in actions, routines, and experience more so than in words (Nonaka *et al.*, 2000). Moreover, tacit knowledge is difficult to define and codify, in addition to being contextual and sticky (Davenport and Prusak, 1998; Busch, 2008). Furthermore, tacit knowledge can only be transferred or shared through experience or social interactions (Nonaka, 1994; Hau *et al.*, 2013), as knowledge consists of habits and behaviours that we do not always realise (Kim, *et al.* 2011), and individuals often try to hoard tacit knowledge because it is valuable and significant from their view (Yang and Farn, 2009).

In contrast, explicit knowledge can be expressed through any language, writing, or means of communication, and it is found in books, documents, and databases (Goh, 2002). In addition, explicit knowledge is tangible, visible, formalised, and structured. Furthermore, explicit knowledge can be easy to share or transfer between individuals and organisations (Nonaka *et al.*, 2000).

In reality, tacit and explicit knowledge are not separate from one another, but rather are complementary, where explicit knowledge is linked with know-that while tacit knowledge is linked with know-how; in other words, explicit knowledge is more accessible than tacit knowledge. Therefore, because of the value of tacit knowledge,

scholars have paid far more attention to tacit knowledge than to explicit knowledge (Alavi and Leidner, 2001).

More importantly, tacit knowledge is highly difficult to communicate to others through words and symbols, whereas explicit knowledge can be codified (Nonaka, 1994). However, both tacit and explicit knowledge are crucial to the theory of organisational knowledge creation and to KS as a whole. Managing tacit knowledge in organisations is considered a significant challenge (Leonard and Sensiper, 1998)..

Hence, Table 2-1 below summarises the main differences between tacit and explicit knowledge.

Tacit knowledge	Explicit knowledge
Subjective Knowledge of experience (body) Simultaneous knowledge (here and now) Analog knowledge (practice)	Objective Knowledge of rationality (mind) Sequential knowledge (there and then) Digital knowledge (theory)

Table 2-1: Distinctions to be made between tacit and explicit knowledge

Source: Adopted from Kim *et al.* (2011)

2.2.2 Knowledge Creation

Knowledge creation is a human systemic process depending on the interaction between individuals and their peers or otherwise between individuals and their environment. Furthermore, according to Nonaka and Takeuchi (1995, p. 3), organisational knowledge creation represents ‘the capability of a company as a whole to create new knowledge, disseminate it throughout the organisational and embody it in products, services, and systems’. Notably, some authors have argued that new knowledge is the result of the continuous interaction between explicit and tacit knowledge, which is seen to reside in the human mind (Yang *et al.*, 2010). The SECI model explains the process of knowledge creation However, the spiral model refers to the way in which knowledge is created through constant interaction and dialogue between tacit and explicit knowledge in the ‘Ba’ context (Nonaka, 1994).

The concept of ‘Ba’ refers to the context of knowledge creation. However, ‘Ba’ can be any type of environment, whether physical or virtual (Nonaka *et al.*, 2000). The

interaction and conversion of tacit and explicit knowledge is demonstrated in the SECI model in Figure 2-2 below, which is composed of four different stages of knowledge conversion. The SECI model identifies four knowledge dimensions – socialisation, externalisation, combination, and internalisation – which collectively produce the acronym "SECI".

The SECI model explains how actors convert existing knowledge to new knowledge through the social-interaction process. Moreover, the new knowledge-creation strategies comprise socialisation, externalisation, combination, and internalisation (Nonaka, 1994; Nonaka and Takeuchi, 1995; Nonaka *et al.*, 2000).

Socialisation centres on converting tacit knowledge to tacit knowledge. However, socialisation refers to the process that creates new tacit knowledge from existing tacit knowledge, which can only happen through a range of activities, such as shared experience, observation, practice, and imitations in formal or informal interactions within our outside of the boundaries of the organisation. Externalisation, on the other hand, is concerned with converting tacit knowledge into explicit knowledge using representations, comparisons, models, and concepts through books (Nonaka, 1994; Riege, 2005). Indeed, some scholars have claimed that the externalisation process can be considered one of the most significant processes in knowledge creation (Carlile, 2004).

Internalisation centres on converting explicit knowledge into tacit knowledge. However, the combination relates to converting explicit to explicit, whereas the combination mode explains how new explicit knowledge can be created from the dialogue between two types of explicit knowledge, such as through the social process using communication tools (Nonaka and Takeuchi, 1995; Nonaka *et al.*, 2000). In contrast, some authors have argued that knowledge can be divided into two types: organisational and individual (Ipe, 2003).

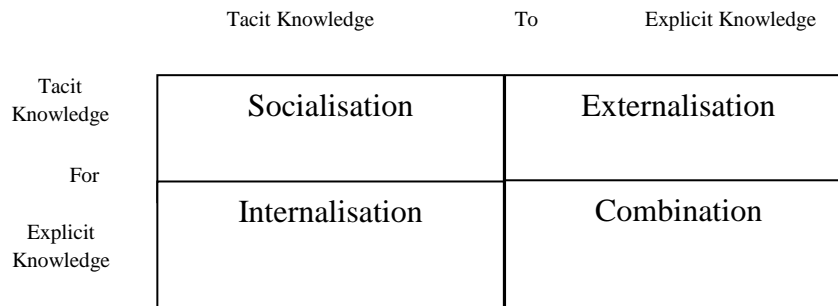


Figure 2-2: Modes of knowledge creation

Source: Adopted from Nonaka 1994

2.3 Customer Knowledge (CK)

In a service organisation, one of the most critical responsibilities of top management is maintaining customer satisfaction (Webster, 1988), and many factors might help the organisation to achieve this task. The organisation may also employ certain strategies to perform this task. However, the organisation’s need to react quickly to customer needs and to exceed the expectations of competitors forms a significant challenge for any strategy. To this end, the organisations have to take full advantage of CK, which includes the knowledge about, from, and for customers. Prior research has stressed the significance of KB to help top management obtain market knowledge (Hargadon, 2002). Furthermore, a great deal of literature has been written about knowledge market and the role of external knowledge brokers in this knowledge, but in contrast, far less attention has been paid to frontline employees’ contribution to the CK .

CK is a significant asset for any business (Rowley, 2002). Thus, it is imperative for the management knows how to succeed in these three primary processes: gathering, managing and sharing CK within the organisation (Garcia-Murillo and Annabi, 2002). Furthermore, scholars also believe that the CK helps the organisation to develop their relationships with customers and to enhance their service quality (Tseng and Wu, 2014). As we mentioned before, there are two types of knowledge: tacit and explicit. However, most CK is tacit (Wang, 2015), and in many cases, it is captured during the personal interaction between the customer and the frontline employee. Beyond this, CK also falls into two types: knowledge about customers or

possible customers, and the knowledge that customers hold about the organisation's products (Rowley, 2002).

Additionally, Garcia-Murillo and Annabi (2002) identified two other kinds of CK. The first is the knowledge that the customer already possesses related to the service or product, referred to as 'customer experience'. The second is the knowledge that the organisation needs to possess in order to help the customer to finish the transaction related to the product or service.

Moreover, based on the customer knowledge management (CKM) approach, there are three main kinds of CK: knowledge about the customer, knowledge for the customer, and knowledge from the customer (Daneshgar and Parirokh, 2012).

Knowledge about customers: This type of knowledge provides organisations with general information about their customers (Soltani and Navimipour, 2016), such as their motivations (Gebert *et al.*, 2003) and records of their transactions (Wu *et al.*, 2013). Usually, this type of knowledge concerns customer requirements and backgrounds (Khodakarami and Chan, 2014).

Knowledge for customers: This type of knowledge involves the products and services that an organisation provides to its customers, as well as knowledge that helps customers to make purchase decisions and to satisfy their needs (Khodakarami and Chan, 2014; Soltani and Navimipour, 2016). Organisations provide this type of knowledge directly to their customers; in many cases, this knowledge affects customers' perceptions of the service quality (Gohary and Hamzeli, 2016).

Knowledge from customers: This type of knowledge is concerned with customer experiences and perceptions (Daneshgar and Parirokh, 2012). In other words, this type of knowledge refers to the customers' view of an organisation and the products and services (Gohary and Hamzeli, 2016). Knowledge from customers also helps service organisations to maintain service quality (Gebert *et al.*, 2003). The interactions that occur with customers during service encounters are one of the best sources of this type of knowledge (Garcia-Murillo and Annabi, 2002; Matthing *et al.*, 2004; Tseng and Wu, 2014). Overall, CK is vital to the CKM approach, and knowledge from customers in particular is considered key to CKM (Gibbert *et al.*,

2002). Gebert *et al.* (2003) argued that a customer's experience with a product or service represents the main source of knowledge from that customer and that the optimal time and place to gain this knowledge is at the service point following the delivery of the service. Based on the taxonomy of CK, knowledge for customer results from knowledge about and from that customer (Daneshgar and Bosanquet, 2010). Furthermore, it also makes it possible to complete the cycle of the process of KS between an organisation and its customers.

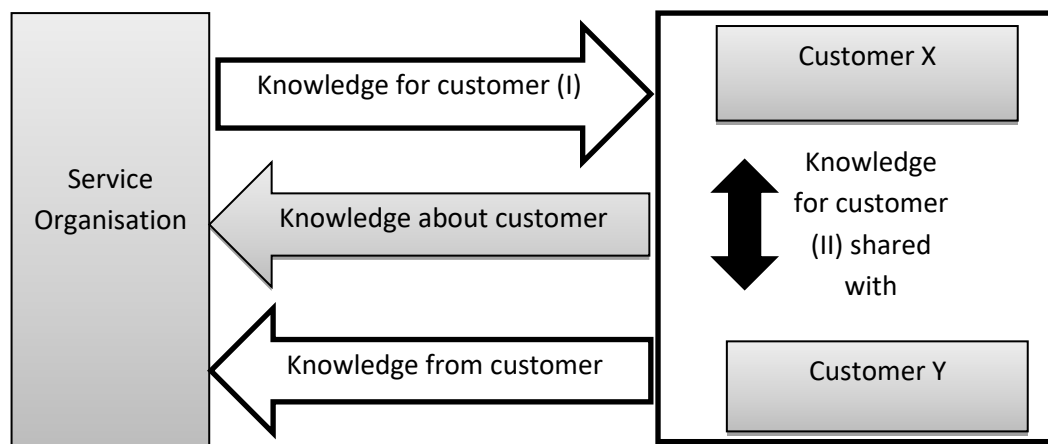


Figure 2-3: Three types of customer-related knowledge

Source: Adopted with modification from Wu *et al.* (2013)

Drawing on the knowledge-based view and based on the literature of CK, the distinction has been made between two types of CK, mainly, tacit and explicit CK (e.g. Nonaka, 1994; Su *et al.*, 2006; Zhang, 2011). Explicit CK involves all information and knowledge related to the customer that can be captured and transferred easily through communication tools and expressed by writing or other available means. Furthermore, with customer-related knowledge, most of the knowledge about the customer takes the form of explicit knowledge, such as the customer's background and transaction record. Customer tacit knowledge is highly significant for the organisation because it is considered a good source of innovation for product and service development (Su *et al.*, 2006; Taherparvar *et al.*, 2014).

However, this kind of knowledge is difficult to articulate because it falls into two types: technical knowledge, such as skills and ‘know-how’, and cognitive knowledge, which resides in the customers’ mind and forms as the result of their experience with products or services (Chen and Su, 2006). Hence, based on the taxonomy of CK, the majority of important CK is tacit knowledge (Davenport *et al.*, 2001; Taherparvar *et al.*, 2014), and it is unfortunately very challenging to access and understand tacit CK (Grimpe and Sofka, 2009).

In this vein, customer needs often fall within the tacit CK form, and it remains difficult to convert this to explicit knowledge, as the customer is often either unable to explain or is unclear about these needs (Zhang *et al.*, 2015). In this regard, Nonaka (1994, p.27) stressed that ‘many dimensions of customer needs take the form of tacit knowledge that an individual customer or other market participants cannot articulate by themselves’.

In addition, Davenport *et al.* (2001) distinguished between explicit CK, which is documented and accessible, and tacit CK, which is known, but undocumented and unreachable.

Despite the importance of tacit CK for an organisation to innovate and to enhance products or services, tacit CK has received little attention, and how the organisation can gain this knowledge remains poorly understood. However, a few studies have discussed this issue, such as Helkkula and Pihlström (2010), who suggested that tacit CK can be captured through metaphor style using projective techniques to create service ideas. Bretschneider and Zogaj (2016), meanwhile, argued that the best two strategies for an organisation to gain tacit CK are the observation of customer action strategy and storytelling strategy, while other methods, such as surveys, are inadequate for capturing customers’ tacit knowledge. Beyond this, Hallin and Marnburg (2008) stressed that social interaction is the best and only way to gain tacit knowledge from others. Davenport *et al.* (2001), however, argued that, in many cases, the CK that is critical for the organisation is embedded as tacit knowledge and resides in the customer’s mind. Because of this, some organisations employ subtle observation of their customers to convert this tacit CK to an explicit form, while others utilise the ethnographic approach to capture this kind of knowledge.

2.4 KM, CRM, and CKM

Based on the literature review of CK, there are three main approaches to CK and how to manage this knowledge in order to utilise it for multiple purposes. These approaches are KM, CRM, and customer-knowledge management (CKM). The following sections provide a brief overview of these three approaches.

2.4.1 Knowledge Management (KM)

Compared to other management disciplines, KM is considered rather young. Moreover, most literature on KM is dependent on contributions from other disciplines, such as information management and human resources (Serban and Luan, 2002; Jashapara, 2004).

Based on the KM literature, the main purpose of KM is explaining how organisations can manage and manipulate knowledge in order to utilise it, as well as how organisations can enhance the exploitation or exploration of knowledge (Swan *et al.*, 1999). Moreover, KM utilises the power of the mind to achieve efficiency and effectiveness, and accordingly, to ensure competitive advantage and access to the highest degree of creativity (Serban and Luan, 2002).

Huysman and Wit (2002) identified three approaches or schools of thought in the KM field. One of the approaches considers KM to be a human-resources issue, while another recognises KM as focussing on intellectual capital. The third views KM as the main task of ICT managers in organisations.

The main role of KM centres on maintaining and retaining the body of knowledge so as to ensure the objectives and goals of the organisation are achieved in the long term (Wiig, 1997). Furthermore, one of the most widely adopted perspectives of KM considers it to be a process: KM's focus is on knowledge flows, linking the process of knowledge to creation, sharing, as well as on the wider breadth and depth of distributing knowledge (Swan *et al.*, 1999; Alavi and Leidner, 2001).

Several definitions have been created for KM. However, some researchers and scholars have focussed on the direct method of managing knowledge in organisations through communication technology, while others have focussed on indirect methods of managing knowledge through managing people in terms of how

they possess, create, use, and share knowledge (Hislop, 2013). On the one hand, the main purpose of KM is to transform employee knowledge into organisational knowledge (Chow and Chan, 2008). On the other hand, some authors have focussed on the social side of KM, and how the intellectual and social capital of individuals can be used in order to improve an organisation's learning capacities (Swan *et al.*, 1999).

De Long and Fahey (2000) suggested that knowledge exists in an organisation at three different levels: the individual level, the group level, and the organisational level. However, the most important level for KS and creation is the individual level, as this is recognised as connecting the chain between other knowledge levels, and it is also known to possess a significant impact on the overall process of knowledge creation (Ipe, 2003).

Some authors have suggested that there exist two types of knowledge in an organisation, namely, general knowledge and specific knowledge. The former resides with individuals and is easy to transfer to others, while the latter is specific knowledge, which can be found with a few numbers of individuals (Yang and Wu, 2008). However, this specific knowledge often needs someone to help share it, and this role forms the main task of the knowledge broker.

The methods of KM can be divided into two main methods depending on the nature of the knowledge. The first method focusses on explicit knowledge and is concerned with helping to create and share knowledge, while the second focusses on tacit knowledge and how knowledge can be shared through interpersonal interaction (Choi and Lee, 2003).

2.4.2 Customer-Relationship Management (CRM)

Nowadays, most organisations strive to maintain a long-term relationship with their customers in order to retain the competitive advantage. To this end, CRM is deemed one of best holistic marketing strategies, as it helps organisations to gain this long-term relationship, as well as to sustain their comparative advantage (Gebert *et al.*, 2003) and enhance their service quality (Tseng and Wu, 2014) through gaining CK, such as knowledge for and about the customer.

Customer orientation is considered the background of the CRM concept focuses on the customer and the organisation's relationship with the customer (Chen and Wu, 2016). Moreover, the CRM literature has indicated that most organisations strive to orient their focus towards satisfying their existing customers and developing long-term relationships more than towards gaining new customers (Garrido-Moreno and Padilla-Meléndez, 2011). In the CRM approach, the focus is placed on the knowledge about the customer more than on the knowledge from the customer (Garcia-Murillo and Annabi, 2002). In other words, CRM is an aggregate of (people, processes, and technology) that aims to understand organisations' customers with the purpose of developing a long-term relationship with them by gaining their satisfaction and loyalty (Chen and Popovich, 2003; Xu and Walton, 2005).

Garrido-Moreno and Padilla-Meléndez (p. 438, 2011) defined CRM as 'a business strategy that aims to establish and develop value-creating relationships with customers based on knowledge. Using IT as an enabler, CRM requires a redesign of the organisation and its processes to orient them to the customer, so that by personalising its products and services, the firm can optimally satisfy customer needs and thereby generate long-term, mutually beneficial, loyalty relationships'.

On the other hand, according to the technological view, CRM is an information system that assists organisations in contacting customers, affording services for them, and gathering, storing, and analysing customer information in order to provide a complete understanding of the customers (Salojärvi *et al.*, 2010). The CRM systems also aid organisations in capturing and generating CK (Khodakarami and Chan, 2014).

According to the literature, CRM is divided into three types based on different jobs, namely, collaborative CRM, operational CRM, and analytical CRM (Gebert *et al.*, 2003).

Collaborative CRM: This type of CRM deals with all of a customer's interactions with an organisation (touch points), including phone, email, and SMS. The aim of this CRM is to provide all knowledge about the customers in order to sustain customer relationships (Wilde, 2011).

Operational CRM: This type of CRM aims to personalise the relationship with the customer through comprehensively tracking any customer contact with the organisation (touch points), and it makes the customer information collected from different sources available to all users who deal with the customers (Xu and Walton, 2005).

Analytical CRM: This type of CRM is designed to analyse the CK using multiple analytical tools in order to provide a complete picture about the customers and to recognise customers' behaviour patterns (Xu and Walton, 2005). The objective of analytical CRM is to explore potential sales opportunities, appropriate promotion strategies, and customer segmentation (Chen and Popovich, 2003; Wilde, 2011).

As demonstrated, the term 'CRM' is highly complicated, as it includes multiple aspects. Furthermore, ignoring CRM as a strategy and instead focussing solely on a technological element is considered one of the main reasons behind the failure of applied CRM in many organisations (Mendoza *et al.*, 2007).

2.4.3 Customer-Knowledge Management (CKM)

The CKM approach developed as a result of combining the KM approach with CRM strategy (Gebert *et al.*, 2003; Gohary and Hamzeli, 2016). In general, CKM is described as the holistic philosophy that helps an organisation to tap into their knowledge in order to grasp the big picture about their customers (Rowley, 2002). Overall, the primary focus of CKM is on the knowledge from the customer, as well as how to obtain and share this knowledge (Gibbert *et al.*, 2002).

According to García-Murillo and Annabi (2002), the CKM view of CK differs from CRM. For example, the primary focus of CRM is to gather knowledge about the customers based on their interaction with the organisation through the use of technology, and in many cases, the organisation's employees are not involved in gathering CK. On the other hand, CKM focusses on knowledge from the customers, such as their experience, which is gathered through the personal interaction between the customers and the employees. Furthermore, CKM identifies two forms of exchanging CK between the organisations and the customers. More specifically, in the CKM approach, the organisations provide the knowledge for their customers

about the service and products. Then, the customers provide their knowledge about the organisation's service and products with frontline employees during service encounters. Table 2-2 below summarises the main differences between the KM, CRM, and CKM approaches.

Chapter Two: Literature Review

	KM	CRM	CKM
Knowledge Source	Employee, team, company, network of companies	Customer database	Customer experience, creativity, and (dis)satisfaction with products/services
Axioms	If only we knew what we know	Retention is cheaper than acquisition	If only we knew what our customers know
Rationale	Unlock and integrate employees' knowledge about customers, sales processes, and Rand D	Mining knowledge about the customer in the company's databases	Gaining knowledge directly from the customer, as well as sharing and expanding this knowledge
Objective	Efficiency gains, cost saving, and avoidance re-inventing the wheel	Customer-base nurturing, maintaining the company's customer base	Collaboration with customer for joint value creation
Metrics	Performance against budget	Performance in terms of customer satisfaction and loyalty	Performance against competitors in innovation and growth, contribution to customer success
Benefits	Customer satisfaction	Customer retention	Customer success, innovation, organisational learning
Recipient of Incentives	Employee	Customer	Customer
Role of Customer	Passive, recipient of product	Captive, tied to product/service by loyalty schemes	Active, partner in value-creation process
Corporate Role	Encourage employees to share their knowledge with their colleagues	Build lasting relationships with customer	Emancipate customer from passive recipients of products to active co-creators of value

Table 2-2: Main differences between KM, CRM, and CKM

Source: Adopted from Gibbert *et al.* (2002. p.461)

2.5 Knowledge- Brokering (KB)

According to the Oxford English Dictionary, the meaning of ‘broker’ is ‘one employed as a middleman to transact business or negotiate bargains between different merchants or individuals’, and the term has formerly been used more widely, including in the senses of ‘jobber, agent, factor, commission-agent’.

Beyond this, Marsden (cited in Gould and Fernandez, 1989, p.90) defined brokerage as a process ‘by which intermediary actors facilitate transactions between other actors lacking access to or trust in one another’. Therefore, brokerage as a process involves an interaction between three parties, two of which are real parties while the third is the broker between them (Gould and Fernandez, 1989).

However, Fernandez and Gould (1994), in their brokerage typology, claimed that the broker’s role at the individual level can be divided into five types, namely, coordinator, itinerant, gatekeeper, representative, and liaison. Furthermore, they argued that the individuals are able to perform any combination of these roles concurrently.

1. **Coordinator:** The actor who works as a broker between two actors from his subgroup. In this type of brokerage, the broker’s role is linking and exchanging information between two peers (Shi *et al.*, 2009).
2. **Cosmopolitan (*itinerant broker*):** The actor who works as a broker between two actors belonging to the same subgroup, which he does not belong to.
3. **Representative:** The actor who works as a broker between external actors and his own group, which he represents and acts on behalf of. Shi *et al.* (2009) suggested that the broker’s role in this type of brokerage is that of a delegate acting on behalf of his peers to negotiate and exchange information with outsiders.
4. **Gatekeeper:** An actor who works as a broker between his group and the outside, and he possesses the privilege of deciding whether to allow or prevent access to an outsider. Thus, the gatekeeper (broker) and the receiver

are from the same group, while the source of information belongs to a different group.

5. **Liaison:** An actor who works as a broker between two or more actors that are not connected to each other and all of whom come from different groups.

Therefore, the central role of the broker is to facilitate the flow of information between two other actors who are not directly connected with each other, according to the Fernandez and Gould (1994) topology of brokerage. In this vein, Pappas and Wooldridge (2007), in their study focused on the boundary-spanning role of middle managers, viewed brokerage roles in an organisational context, as those boundary-spanning roles bridged internal organisational members and external stakeholders.

Even though the notion of brokerage had been used in literature as early as the beginning of the 19th century, the concept of KB only emerged in the 1990s (Haas, 2015). However, knowledge broker could refer to an individual, organisation, technologies, or objects that enable the knowledge of one community to be shared and used by another (Waring *et al.*, 2013). Additionally, some authors have suggested that the knowledge broker's role is to support the learning and development of new environmental management technologies in organisations (von Malmberg, 2004). However, Ward *et al.* (2009) argued that knowledge brokers play a vital role in the organisation in terms of managing various activities relating to the use of translating knowledge, as well as transferring knowledge into action, which occurs through filling the gap between knowledge creator and knowledge user. In other words, in some organisations, the knowledge broker works as a knowledge manager to fill the gap between researchers and decision-makers.

Most of the literature on KB came from a private sector that used the KM approach to understand the spread of knowledge between and within organisations (Ward *et al.*, 2009). After a while, KB was adopted in the public sector as well. For example, Oldham and McLean (1997) suggested three different approaches to KB in the public sector, as identified in the literature:

1. Knowledge management: This approach refers to managing the activities of the knowledge-transfer process between knowledge user and knowledge creation.
2. Linkage agents: In this approach, the knowledge broker aims at improving the relationship between knowledge creation (researchers) and knowledge user (decision-makers). Additionally, this approach focusses more on involving the decision-maker in the research process in order to ensure that such research is turned into reality.
3. Capacity builders: This refers to the tools that augment knowledge access by providing training to knowledge users. Thus, this approach focusses on helping the decision-makers through reviewing their shortcomings with respect to interpreting research results in order to increase their ability to understand and use research evidence.

Loew *et al.* (2004) presented a new model for KB as face-to-face communication, explaining the main role of the knowledge broker in organisations to be centred on providing assistance when others need such. However, in their study, reference was made to the preconditions that must be available in a knowledge broker. For example, the broker must be available and accessible when needed, and he or she should possess the knowledge needed to solve problems faced by the employees. Furthermore, he or she must be connected to other knowledge brokers in the organisation, as this network allows the knowledge broker to be assisted in problems outside of his or her area.

A knowledge broker can be defined as an individual that can recognise the structural holes in their own work and, accordingly, can create trust between parties. However, trust is considered key to this role (Kidwell, 2013). Giannakis (2008), meanwhile, argued that a knowledge broker is an optimal solution to transferring knowledge between organisational units and can be harnessed to transfer 'good practices' in the organisation.

Furthermore, the knowledge broker's most crucial role is to bridge the gap between research and real-life practice. However, KB appears in literature across three

categories: capacity builders, knowledge manager, and knowledge agents (Holzmann, 2013). The knowledge broker plays a significant role in transferring knowledge from the sender to the recipient. However, this role is carried out through a group of activities, such as acquiring new knowledge, integrating new knowledge, adapting research results, disseminating research results, and creating links (Hammami *et al.* 2013).

Some researchers have used the structural holes theory in an effort to explain the role of the knowledge broker (e.g. Hargadon, 2002), while Burt (2004, p.438) argue that 'people who stand near the holes in a social structure are at higher risk of having good ideas'.

Beyond this, KB is considered one of the solutions to support KS when cognitive differences exist between a knowledge holder and knowledge seeker. For example, Waring *et al.* (2013) stated that professional groups are often unwilling to share knowledge when such might threaten their position or uniqueness. However, the challenge of knowledge brokers is centred on accessing professional boundaries and supporting KS. Furthermore, knowledge brokers need to build connection between organisation actors and, accordingly, need to integrate the know-how of one group with another.

Knowledge-based practices are diffused through three strategies: central administration, brokering, and organic diffusion. However, organisation managers can promote knowledge diffusion through the knowledge-broker role to overcome the challenge of the formal structure, which often inhibits KS (Lupton and Beamish, 2014).

Hargadon (1998) focussed on KB at an organisational level. He stated that a knowledge broker is an intermediary organisation linking knowledge between knowledge sources and knowledge users by providing innovative solutions. He further argued that organisational culture is the most critical factor affecting the KB process. In addition, Hargadon (2002) also explained that the knowledge broker helps to reuse knowledge by acquiring and exploiting existing knowledge and creating new knowledge after using existing knowledge as raw material.

The knowledge broker organisation works as a window to link organisational learning with innovation, transforming old knowledge to become a new innovative product, process, and service. Knowledge brokers, through working within several actors, gain access to the ideas, artefacts, and people that reside within one domain, yet may be valuable in others. Moreover, the knowledge broker makes it possible to overcome the cognitive constraints present in organisations, such as specialised language (Hargadon, 2002).

In this vein, it is stated that knowledge brokers work to make the correct knowledge available to the right people at the right time (Hargadon, 2002). The primary role of the knowledge broker involves collecting knowledge from certain domains and then sharing this knowledge with others in order to provide solutions to problems faced by the organisation (Hargadon, 1998).

Moreover, the success of the broker's role depends on his or her ability to see the opportunities that other actors might not. However, KB mostly translates into how individuals or organisations use old knowledge to create new knowledge in order to achieve innovation (Hargadon, 2002). Boari and Riboldazzi (2014), in their study, focussed on the knowledge-broker's behaviour as an actor, where the knowledge broker plays different roles in an organisation, namely, gatekeeper, coordinator, representative, and liaison.

The role of the knowledge broker in the modern business world not only centres on moving knowledge, but also on producing new knowledge. The literature on KB presents two opinions: on the one hand, there is the transfer of knowledge from one place to another, while on the other, the knowledge broker exchanges knowledge between different places. Therefore, the knowledge broker mainly produces new knowledge (Meyer, 2010).

Most studies of KB have explained the knowledge broker's role as bridging the gap between two unconnected actors, such as individuals or organisations. Moreover, knowledge brokers may be an organisation or individuals. Furthermore, prior studies on knowledge brokers have largely focussed on the role of knowledge brokers in transferring knowledge (Hammami *et al.*, 2013). However, if the broker and

receiving partners possess social capital, this means more KS between the two actors. In this vein, Kim *et al.* (2011) argued that the knowledge broker's primary role is to connect people who are searching for knowledge to those people who possess this knowledge.

Conklin *et al.* (2013) divided the activities carried out by knowledge brokers in the health services sector into seven different types of activity: creating relationships, promoting mutual understanding between actors, facilitating knowledge exchanges, facilitating social interaction, developing interaction between groups, helping to overcome the problems impeding knowledge transference, and participating in analytical tasks. However, some authors have argued that the knowledge broker can also reduce the cognitive gap present between communities that use different languages and concepts (Delmestri and Walgenbach, 2005).

Kim *et al.* (2011) suggested that the knowledge-broker system transfers tacit knowledge as a substitute to an organisation's human knowledge broker in an effort to minimise misunderstanding between knowledge seekers and knowledge experts. Michaels (2009) discussed the KB strategies that explain knowledge brokers' roles in facilitating the exchange of knowledge between researchers and policymakers. Specifically, she suggested six KB strategies: informing, consulting, matchmaking, engaging, collaborating, and building capacity. Table 2-3 below presents the main intents for these strategies in the context of decision-making.

Strategies	Intent
Inform	<i>Disseminate content</i>
Consult	<i>Seek out known experts to advise on problem delineated by party seeking counsel</i>
Matchmaker	<i>Identify what expertise is needed, who can provide it, and the best ways to make the connections</i>
Engage	<i>One party frames the discussion through terms of reference and for the life of the required decision-making process, involves other parties in the substantive aspects of the problem on an as-needed basis</i>
Collaborate	<i>Parties jointly frame the process of interaction and negotiate substance to address a distinct policy problem</i>
Build capacity	<i>Parties jointly frame the process of interaction and negotiate substance with the intent of addressing multiple dimensions of a policy problem while considering what can be learned from doing so that is applicable to implications of the issue, future scenarios, and related concerns</i>

Table 2-3: A spectrum of KB strategies

Source: Adopted *with modification* from Michaels (2009, p.997)

These strategies aid in the decision-making process, where the main role of the knowledge broker involves transmitting necessary information. The knowledge broker could reduce the cognitive gap between communities using different languages and concepts (Michaels, 2009). However, Yang (2007), indicated that the leader of an organisation plays many roles, one of which is knowledge broker.

Several authors have investigated the relationship between KB and innovation, in addition to discussing the effects of KB on organisation innovation (Hargadon, 2002; Cillo, 2005; Kimble *et al.*, 2010; Waring *et al.*, 2013; Boari and Riboldazzi, 2014). For instance, Abbate and Coppolino (2011) insisted that the role of a knowledge broker is highly significant for open innovation in organisations. Furthermore, they also explained how the knowledge broker facilitates interactions between organisations in an effort to co-create knowledge.

Many organisations have also used knowledge brokers to transfer knowledge across geographic boundaries, thus engaging in boundary-spanning (Johri, 2008). Some authors have referred to this strategy as external KB, arguing that the main role of boundary-spanning is transferring and sharing knowledge from one place to another. Beyond this, the knowledge broker also contributes to organisational learning by transferring knowledge between organisational units (Pawłowski and Robey, 2004). Waring *et al.* (2013) suggested that the key challenge facing knowledge brokers is how sticky knowledge in organisations can be accessed and shared. In their work, Pawłowski and Robey (2004) distinguished between the knowledge broker and the boundary spanner, wherein they considered knowledge brokers to be a third party facilitating the knowledge transfer, and the findings of their study revealed that IT professionals in organisations play the role of a knowledge broker. According to the KB literature, there are various definitions of a knowledge broker, especially in regards to different backgrounds, such as health care literature, business literature, innovation literature, KM, and marketing literature. Table 2-4 below provides select definitions of the terms ‘knowledge brokers’ and ‘knowledge-brokering’ from the different areas.

Chapter Two: Literature Review

Author	Definitions
Hargadon and Sutton (1997)	Knowledge broker: <i>Third parties who connect, recombine, and transfer knowledge to companies in order to facilitate innovation.</i>
Hargadon (1998)	Knowledge broker <i>is an intermediary organisation linking knowledge between knowledge sources and knowledge users through providing innovative solutions.</i>
Sverrisson (2001)	Knowledge broker <i>might be individual or organisation that facilitates knowledge creation, knowledge-sharing and utilising knowledge.</i>
Jackson (2003)	Knowledge broker: <i>'A proactive facilitator who connects people, networks, organisations and resources and establishes the conditions to create something new or add value to something that already exists'.</i>
Lomas (2007, p.131)	Knowledge-brokering: <i>'All the activity that links decision-makers with researchers, facilitating their interaction so that they are able to better understand each other's goals and professional cultures, influence each other's work, forge new partnerships, and promote the use of research-based evidence in decision-making'.</i>
Rolls <i>et al.</i> (2008,p.31)	Knowledge-brokering: <i>'The process of connecting people, building relationships, uncovering shared needs, and sharing knowledge and evidence that improve role effectiveness'.</i>
Meyer (2010, p.118)	Knowledge brokers <i>are people or organisations that move knowledge around and create connections between researchers and their various audiences'.</i>
Waring <i>et al.</i> (2013)	Knowledge broker <i>might be an individual, organisation, technologies, or objects that enable the knowledge of one community to be shared and used by another.</i>
Kidwell (2013)	Knowledge broker: <i>The individual that can recognise the structural holes in their own work and, accordingly, can create trust between parties.</i>
Casey <i>et al.</i> (2013, p.4)	<i>'The knowledge broker role refers to key functions undertaken by caregivers around the transfer of information between the medical tourist and facility staff or others'.</i>
Venkitachalam and Bosua (2014, p.403)	Knowledge-brokering <i>was identified as another essential role that linked people to each other during certain knowledge seeking and sourcing activities'.</i>
Werner <i>et al.</i> (2015)	Knowledge brokers <i>include influential individuals with a large reservoir of knowledge they can transfer'.</i>

Table 2-4: Selected definitions of 'knowledge broker' and 'knowledge-brokering '

As revealed in the previous table, there is no single consensus on a uniform definition of KB, and Haas (2015) argued that the definition of ‘knowledge broker’ itself still is not clear. For example, Dougherty (1992) provided a general view of KB through defining it as the process that aims to connect knowledge seekers with knowledge senders. By contrast, some researchers have considered KB to be the process that links knowledge creators to knowledge users in order to improve innovation (Hargadon, 1998, 2002), while others have used KB in order to express the process of knowledge translation that aims to change research into practice (e.g. Ward *et al.*, 2009; Dobbins *et al.*, 2009, Gagnon, 2011; Kramer and Wells, 2005; Lomas, 2007). Furthermore, KB has sometimes been used to describe a set of objects that aim to facilitate knowledge transference between communities or within organisations (e.g. Pawlowski and Robey, 2004). Meanwhile, some of the researchers have viewed knowledge brokers as the individuals who capture and share knowledge between two parties (e.g. Verbeke *et al.*, 2011; Kim *et al.*, 2011; Rapp *et al.*, 2014; Berg *et al.*, 2014). Still other researchers have limited the knowledge broker’s role solely to individuals possessing high levels of experience and skills, such as IT professionals or persons who connect actors in the communities of practice (Wenger, 1998, Pawlowski and Robey, 2004).

2.5.1 External and Internal KB

Literature of KB distinguishes between two kinds of KB based on the belonging of knowledge broker to the group he facilitates transfers knowledge for them, namely, external and internal KB (e.g. Cillo, 2005, Currie and White, 2012; Berg *et al.*, 2014). Based on this typology, external knowledge brokers are the actors who transfer knowledge between knowledge users and knowledge generators, but they do not belong to the knowledge users’ community. In contrast, internal knowledge brokers transfer knowledge from out the organisation and between actors in the same communities. However, most of the existing literature has focussed on the role of external rather than internal knowledge brokers (e.g. Hargadon, 1998, 2002).

That being said, a few studies have discussed internal KB. For example, Cillo (2005) addressed market knowledge being obtained through internal actors, as illustrated in Figure 4-2. In addition, Waring *et al.* (2013) focussed on the internal broker role in

the healthcare context, more specifically on the types of knowledge broker roles in intra-organisational and structure positions. Moreover, they investigated how the structural position and relationship of the broker influence KS. Beyond this, Berg *et al.* (2014) investigated the impact of specific genes on the role of salespeople as internal knowledge brokers selling new products.

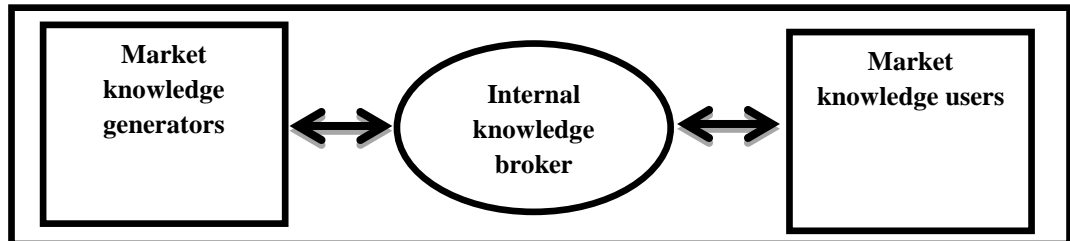


Figure 2-4: Internal knowledge broker

Source: Adopted *with modification* from Cillo (2005, p.405)

Cillo (2005) suggested four types of internal knowledge broker roles based on their activities in an organisation, the nature of the knowledge, and the cognitive distance between actors. These typologies are as follows:

Information broker: In this typology, the knowledge broker transfers information between two different actors from a similar context, and they often used technology tools like an intranet network.

Knowledge coder: This type fits with two actors from two different contexts. The actors do not possess the same cognitive background, and the cognitive distance is clear between them.

Integrated knowledge broker: This model is appropriate for sharing highly complex market knowledge within an organisation.

Pure knowledge broker: An organisation requires this type of broker when the cognitive distance between actors is substantial and the knowledge is highly complex.

2.5.2 Frontline Service Employees (FLSEs) as Knowledge Brokers

According to Melton and Hartline (2010.p.413), 'Frontline employees are employees of the service firm, who have regular contact with customers'. Currently, organisations are operating in turbulent and highly competitive environments. Thus,

there is a great deal of dependence on KB and KS. Intellectual capital theory suggests that knowledge workers play a significant role in the KM process (Edvinsson and Malone, 1997). Thus, in many instances, frontline employees serve as knowledge workers through direct interaction with customers or end users of the product (Rogers *et al.*, 1994). In many cases, frontline employees have even been considered the first source for gaining knowledge and, subsequently, sustaining a competitive advantage in service organisations (Loveman, 1998). The position of the frontline employees as boundary spanners and their constant interaction with customers during service encounters gives them the ability to understand customer experiences and to serve as a good source of ideas concerning develop organisation services (Melton and Hartline,2010).

In many cases, the customer's experience with the service organisation is even limited to the interaction with the frontline employee as a service encounter (Bitner *et al.*, 2000). Moreover, in service organisations, the frontline service employee is all too often the only chain linking the customer to the organisation (Coelho *et al.*, 2016; Lages and Piercy, 2012). Besides, the frontline service employee acts as a boundary spanner between the organisation and their customers, and most of his or her work time is often spent interacting with the customers to this end (Coelho *et al.*, 2016; Karatepe *et al.*, 2006).

According to Van der Heijden *et al.* (2013 p.517), 'FSEs are important knowledge brokers between customers and the firm, because the nature of their job gives them an ideal position from which to access, filter, and translate sticky knowledge possessed by dispersed customers'. This interaction between customer and frontline employee is called a service encounter, and this could occur through face-to-face meetings, over phone calls, or Internet contact (Bitner *et al.*, 2000). In addition, the interface between frontline employee and customer in service organisations generates new tacit knowledge (Kumar *et al.*, 2014). Table 2-5 below chronologically analyses recent research that investigated the role of frontline employees in sharing CK between customer and organisation. These studies have argued that frontline employees work as knowledge brokers between the organisation and customers, and most of these studies have focussed on the

willingness of the frontline employees to report the customers' feedback to the organisation. In addition, some of these studies have focussed on the main factors that influence bottom-up learning. However, none of these studies have provided a comprehensive framework for KB through frontline employees during service encounter.

Chapter Two: Literature Review

The study	The study's objectives	Type of study	The main findings
Hu et al. (2016)	<i>In their study, they investigated the main factors influencing the frontline service employee's willingness to transfer customer feedback from service encounters to their organisation.</i>	<i>Empirical: survey instrument, 332 frontline employees from major Taiwan restaurants.</i>	<i>There are some factors that affect the willingness of frontline service employee's to share the customers' feedback after service delivery with their organisation. The service climate and perceived organisation support have a positive effect on the willingness of frontline service employees to share negative customer feedback with their management. Furthermore, frontline employees that possess an internal locus of control demonstrate a greater tendency to share negative customer feedback with their organisation compared to those possessing an external locus of control.</i>
Engen and Magnusson (2015).	<i>Their study focussed on providing a more in-depth understanding of the role of frontline employees as boundary-spanners in the service organisation's innovation processes.</i>	<i>Empirical: qualitative single case study through 22 interviews.</i>	<i>In many cases, the interaction between frontline employees and customers during service encounters was considered to be sources of the innovation. In addition, middle managers played a critical role in driving frontline employees to act as innovators through their role as a gatekeeper for flowing knowledge between an organisation and the frontline employees.</i>
Walsh et al. (2015)	<i>The aim of this study was to develop valid willingness to report complaints (WRC) scale across cultures and countries.</i>	<i>Empirical: survey instrument included two countries (Germany and the US).</i>	<i>In addition to the prior factors that affected frontline employees' willingness to report customer complaints to direct supervisors based on the WRC scale of Luria, Gal, and Yagil (2009), this study added some factors that affect WRC, such as supervisor knowledge, role ambiguity, and job satisfaction.</i>
Berg et al. (2014)	<i>The impact of specific genes on internal knowledge-brokering and selling new products through salespeople.</i>	<i>Empirical: interview and survey.</i>	<i>The biological traits influence the behaviour and quality of internal knowledge-brokering through the salesperson help organisation to develop a new product.</i>
Rapp et al. (2014)	<i>Critical review of the challenger sales approach.</i>	<i>Review of literature and conceptual review.</i>	<i>Salespeople work as knowledge brokers who obtain knowledge about customers and products, in addition to communicating with customers to discover their needs and striving to satisfy their needs through organisation products.</i>

Chapter Two: Literature Review

Lages and Piercy (2012)	<i>The aim of this study was to investigate the individual and organisational factors considered to be influential factors for frontline service employees to generate ideas for service improvement.</i>	<i>Empirical: survey instrument, 740 frontline employees from fast-food outlets and restaurants in the UK.</i>	<i>The capability of the frontline employee to read the customer's need is the primary factor leading to generating ideas for service improvement. Also, this study found that there is no direct effect of the perceived organisational support by frontline employees on their ability to create new ideas for service improvement.</i>
Ye et al. (2012)	<i>The aim of this research was to understand the mechanism of capturing the frontline employee's knowledge generated during routine daily work and to articulate this knowledge to update knowledge for improving performance work through the frontline learning process.</i>	<i>Empirical: survey instrument, 398 frontline employees and 56 managers in a US healthcare organisation.</i>	<i>The frontline learning process (bottom-up learning) falls into three distinct sub-processes: knowledge generation, knowledge articulation, and knowledge update. The finding of this research focussed on the impact of the workload and employee goal convergence between quality and productivity, and it suggested that a moderate workload will help the frontline learning process.</i>
Verbeke et al. (2011)	<i>The drivers of sales performance.</i>	<i>Review of literature and meta-analysis.</i>	<i>The job of salespeople tends to be crucial for an organisation, especially when the salesperson becomes a knowledge broker who transfers knowledge to the customer. Thus, the salesperson needs cognitive conditions to act as a knowledge broker to absorb knowledge and transfer this knowledge to the customer.</i>
Wirtz et al. (2010)	<i>Their study aimed to investigate the impact of relational and structural social capital on the frontline employees' willingness to report knowledge from the customer (unsolicited customer feedback) to the organisation.</i>	<i>Two studies (semi-structured in-depth interviews and a quasi-experiment).</i>	<i>The relational and structural social capital demonstrated a positive impact on the frontline employees' willingness to share positive knowledge from the customers for evaluation purposes, as well as to share negative knowledge from the customers for service improvements.</i>

<p>Homburg et al. (2009)</p>	<p>The aim of this study was to investigate the accuracy of frontline employees' perception of (customer need knowledge).</p>	<p>Empirical: mixed method (qualitative study with an in-depth interview, quantitative data through the questionnaire), with Triadic data using three levels (customers, employees, and managers) in German travel agencies.</p>	<p>The long relationship between the frontline employee and the customer helps the frontline employees to more accurately capture the customer's needs (customer need knowledge), while significant difference in ages between the customer and the frontline employee will reduce the accuracy of the frontline employee's perceptions of (customer need knowledge).</p>
<p>Luria et al. (2009)</p>	<p>The primary focus of their study was on the factors that impact the willingness of frontline service employees to report customer complaints to managers. Moreover, this study tried to answer the question of why frontline employees decide to report or not report customer complaints to management.</p>	<p>Empirical: mixed methods, two qualitative studies (critical incident and extended interviews) and a quantitative study (survey instrument, 180 frontline service employees).</p>	<p>The organisational citizenship behaviour, service climate, and worker empowerment affected the willingness of frontline employees to report the customer complaints.</p>

Table 2-5: Select studies that discussed the role of frontline employees in transferring CK

The frontline service employee is largely the best source of information about the customer, and he or she is recognised as the best one in the organisation to understand the customer's problem and to uncover the customer's needs (Ellinger *et al.*, 2007; Lages and Piercy, 2012). In addition, some scholars have considered FLSEs to be a valued source for customer feedback (positive or negative) and the perception of service quality (Hu *et al.*, 2016; Bowen, 2016). Also, most of this CK concerns the customer's needs and how to enhance service quality (Ye *et al.* 2012).

According to Wong and McKercher (2011), frontline employees may act as knowledge brokers and, more specifically, as gatekeepers. However, their study focussed solely on the external role of KB, with consideration paid to the role played by staff at a tourist information centre in sharing knowledge with new tourists as a KB activity.

In many cases, in the service market, knowledge on reactions and customer expectations is still tacit knowledge. Thus, it will not be clear after the service has

been delivered, but instead appears during service delivery. As such, the only person who can obtain this knowledge is the frontline employee during the service delivery.

2.6 Knowledge-Sharing (KS) and Knowledge-Brokering (KB)

Literature reviews indicate a lack of consensus between KM authors regarding the distinctions between KS and KB. Therefore, based on the literature, KS and KB are viewed as overlaying processes. For example, some authors have considered KS to be part of the KB process (e.g. Hargadon, 2002), while others have viewed KB as the process that aids KS (e.g. Cillo, 2005). Indeed, the roots of disagreement between KS and KB stem from a lack of consensus between KS and knowledge transferring in the first place. Many authors (Goh, 2002; Serban and Luan, 2002; Chow and Chan, 2008; Massingham, 2014; Caimo and Lomi, 2014; Lefika and Mearns, 2015) have used KS and knowledge transferring concepts interchangeably with one another. However, some of the literature has begun differentiating between KS and knowledge transferring. For example, Ipe (2003), and Wang and Noe (2010) argued that the concept of KS often explains the process occurring between individuals, where the outcome of this process is transferring knowledge between two parties involved. KB, meanwhile, is the human force that facilitates the transfer of knowledge between knowledge creators and knowledge users, and the success of KB depends on the sharing of knowledge between knowledge creators and the knowledge broker, as well as between the knowledge broker and knowledge user. For example, Hargadon (2002) considered KS to be a significant process of KB. Furthermore, Cillo (2005) argued that the knowledge broker is a major player in the process of sharing knowledge. Beyond this, prior studies have suggested that the boundary-spanner position of frontline employees between organisations and their customers affords them the privilege of either inhibiting or encouraging the sharing of CK between organisation and customer (e.g. Verbeke *et al.*, 2011; Tortoriello *et al.*, 2012; Hu *et al.*, 2016). However, despite the critical role knowledge brokers play in sharing knowledge, the literature has paid little attention to investigating this role (Waring *et al.*, 2013).

This section aimed to review the literature of KS in order to distinguish between KS and KB, as KS is considered an essential component for the success of KB during

service encounters. However, due to the lack of literature on the factors that affect KB, this research used KS literature in order to explore the main factors that might influence KB through frontline employees during service encounters.

Knowledge is not a product that can simply be captured, moved, shared, and exchanged through context (Ferne *et al.*, 2003). However, one of the greatest challenges facing organisations involves how sharing knowledge can be encouraged (Hong *et al.*, 2011). Beyond this, Hendriks (1999) argued that KS involves a relationship between at least two actors; one possesses the knowledge and the other seeking to garner this knowledge.

KS is recognised as one of the processes involved in the comprehensive concept of KM in an organisation (Cabrera *et al.*, 2006). Furthermore, KS is one of the most compound processes in the organisation—especially between individuals within an organisation. Its success depends on the relationship between individuals (Ipe, 2003), and facilitating KS is a vital element for increasing productivity (Pan *et al.*, 2015). In fact, KS is considered the most critical process amongst KM processes, as it can help the firm to improve performance through transferring knowledge between employees and creating new knowledge (Zhang *et al.*, 2014). In addition, KS is also a highly complex process, owing to the fact it comprises a set of behaviours and that knowledge is embedded in the human mind (Chow and Chan, 2008). In addition, KS is a broad concept and includes the sharing of both tacit and explicit knowledge at the individual, group, and organisation levels (Small and Sage 2006). Accordingly, KS has received a great deal of attention from researchers and practitioners as a possible tool for enhancing organisations' innovative performance (Calantone *et al.*, 2002). Furthermore, KS has also been recognised as important for employee performance.

According to Hawamdeh (2003, p. 81), knowledge-sharing (KS) refers to 'the communication of all types of knowledge, which includes explicit knowledge or information, the "know-how" and "know-who", which are types of knowledge that can be documented and captured as information, and tacit knowledge in the form of skills and competencies'. However, KS in a virtual context is more difficult owing to

the dependence placed on information communication technology (Staples and Webster, 2008).

Lin (2007a, p. 136) defined knowledge-sharing (KS) as ‘social interaction culture, involving the exchange of employee knowledge, experiences, and skills through the whole department or organisation’.

Despite the fact that KS is considered a primary source of combative advantage for organisations (Hackney *et al.* 2008), KS also remains a significant KM dilemma nowadays. In fact, due to the complex nature of KS processes, there are two approaches centred on the management of KS in organisations: the engineering approach, which focusses on how management leads KS, and the emergent approach, which involves social nature (van den Hooff and Huysman, 2009).

Indeed, KS is deemed a multifaceted process at the organisational level, as it consists of a set of functions in organisations, including ‘capturing, organising, reusing and transferring experience-based knowledge that resides within the organisation, and making that knowledge available to others in the business’ (Lin, 2007b, p. 316). Beyond this, KS at the individual level also helps employees to garner knowledge from each other in order to best complete their job (Lin, 2007b). Because of this, KS is also a social dilemma in an organisation (Yang and Wu, 2008). Furthermore, Ipe (2003) insisted that KS between individuals in an organisation is considered a phenomenon and is a highly complex method.

2.6.1 Factors Impacting Knowledge-Sharing (KS)

Indeed, the effect of KS in organisations is highly complicated. This complexity stems from many causes, one of which is the construct of KS, which consists of a group of factors affecting KS as well as one another (Yang and Wu, 2008).

Wang and Noe (2010) conducted a systematic review of KS and identified five areas of KS research: the organisational context, interpersonal and team characteristics, cultural characteristics, individual characteristics, and motivational factors. In addition, prior research has suggested that numerous factors affect KS; however, many authors have focussed on organisational culture as a significant factor affecting KS (for example: Kim and Lee, 2006; Lin, 2008; Seba and Rowley, 2010; Seba *et*

al., 2012). Others have focussed on national culture (for example: Wei *et al.*, 2008; Siau *et al.*, 2010; Zhang *et al.*, 2014; Kivrak *et al.*, 2014) and organisational structure (for example: Kim and Lee, 2006; Al-Alawi *et al.*, 2007; Chen and Huang, 2007; Lin, 2008; Friesl *et al.*, 2011; Seba *et al.*, 2012) as significant factors. Still other studies have discussed organisational climate (for example: Taylor and Wright, 2004; Chen and Huang, 2007; Amayah, 2013). Such studies are concerned with the impact of social capital dimensions on KS (for example: Chow and Chan, 2008; Hau *et al.*, 2013). There are also researchers who have centred their analyses on the influence of top management support (for example: Lin, 2007; Fey and Furu, 2008).

Based on KS literature, various studies have focussed on the factors affecting KS behaviours. For example, Lin (2007b) identified three main factors affecting KS: organisational factors, individual factors, and technology factors. Additionally, some authors have suggested that there are three main groups of factors that foster KS in an organisation, namely, the organisational, individual, and knowledge levels (Yang and Wu, 2008).

Ipe (2003) identified four main factors affecting KS between individuals in organisations, and these factors also influence each other because they are all interconnected. These are as follows:

1. Knowledge nature: There are two types of knowledge, namely, tacit knowledge and explicit knowledge. However, individuals face many problems when sharing tacit or explicit knowledge, but when sharing tacit knowledge, such problems are clearer due to the nature of tacit knowledge. Furthermore, the value of knowledge is crucial for KS simply because when individuals realise the value of such knowledge, they sometimes tend to hoard it.
2. Motivation to share: Individuals, by nature, are not likely to share their knowledge without robust motivation to do so. Notably, there are two types of motivation for sharing knowledge at the individual level:
 - Internal motivations factors, such as considering knowledge to be power and reciprocity between individuals.

- External motivation factors, such as relationships with recipients and the rewards for sharing.
3. Opportunities to share: There are two channels for sharing knowledge, namely, formal instruction and informal instruction. However, the knowledge that is shared using the formal channel is most often explicit knowledge, whereas tacit knowledge is usually shared through an informal channel.
 4. Culture of the work environment: The organisational culture is considered the most significant factor affecting KS at the individual level. Moreover, organisational culture affects KS by defining the type of knowledge to share and how it should be shared. Furthermore, organisational culture is also known to impact the social interactions between individuals in the organisation.

2.6.2 Knowledge-Sharing (KS) Barriers

The KS literature has revealed that KS, as a process, faces many barriers that prevent the dissemination of knowledge. Indeed, some studies have argued that there are four sets of barriers known to inhibit KS or transferring: the nature of the knowledge, the nature of the sender, the nature of the recipient, and the nature of the context in which knowledge takes place (Szulanski, 1996). Furthermore, Hendriks (1999) suggested that the barriers to KS can be categorised into three main barriers: temporal distance, physical distance, and social distance. Szulanski (1996), meanwhile, argued that there are three major factors posing a barrier to KS: the weakness of the recipient's ability to absorb knowledge, casual ambiguity concerning the knowledge itself, and a difficult relationship between the knowledge sender and the knowledge recipient.

However, Disterer (2001) argued that there are two sources of KS barriers in organisations: individual barriers and social barriers. Riege (2005), by contrast, claimed that KS practices sometimes fail to achieve their goal in delivering the right knowledge from the right sender to the right recipient at the right time because of three main groups of barriers: organisational barriers, individual barriers, and technology barriers, with the majority coming from individual barriers. In addition,

many of the barriers are not separate from one another, but are instead predominately interlinked with other barriers (Kukko, 2013).

2.7 Literature Gaps and Potential Research Contributions

Based on the review of literature related to KB, CK, KS, and frontline employees, some significant gaps have been identified. The identification of these gaps is considered motivation to conduct more empirical research in order to achieve a better understanding of CK brokering through frontline employees. The following paragraphs discuss these major literature gaps.

First, frontline employees are considered powerful resources in organisations for gathering external knowledge, more specifically, knowledge of the market and the customer (Lages and Piercy, 2012; Engen and Magnusson, 2015; Tang *et al.*, 2015). However, where such knowledge is shared with back-office employees, the role and process of frontline employees as knowledge brokers to capture and share CK during customer interface remains underexplored and empirically limited (Ye *et al.*, 2012). Hence, the role of the frontline employees as knowledge brokers between the customers and the organisation requires more investigation (Berg *et al.*, 2014). Moreover, there is also a paucity of research concerning how organisations encourage the employees to manage and share CK to meet customer needs and enhance service quality (Korhonen- Sande and Sande, 2016). In addition, the role of frontline employees as knowledge brokers sharing knowledge within the organisation still needs more empirical research (Woisetschläger *et al.*, 2016). Furthermore, FLSEs as boundary spanners between customers and organisations play a pivotal role, which helps the organisation to gain CK, but in spite of this, little attention has been paid to this role (Van der Heijden *et al.*, 2013). Beyond this, little attention has been paid even to the frontline employees' vital role in translating new ideas generated from customer interaction, and much of the focus has instead been given to the top management and R&D departments (Radaelli and Sitton-Kent, 2016).

Second, in terms of the KB literature, most attention has been paid to the relationship between KB and innovation (for example: Hargadon, 1998; Hargadon, 2002; Cillo, 2005; Kimble *et al.*, 2010; Waring *et al.*, 2013; Boari and Riboldazzi, 2014; Hsu and Lim, 2014; Tortoriello, 2015). Moreover, much of the literature pertaining to KB has

focussed on knowledge translation. In other words, a great deal of attention has been paid to the role of knowledge brokers in transferring scientific research into actions (for example: Lomas, 2007; Gagnon, 2011). However, we know very little about the concept of KB in the context of service encounters.

Third, the review has also revealed that little effort had been made towards providing a comprehensive framework to explain KB through frontline employees, or the factors that influence this role. In addition, only a few studies have addressed the role of frontline employees as knowledge brokers, as illustrated in Table 2-5, which displays the main studies that discussed this role.

This research responds to the identified literature deficiencies regarding CK brokering through frontline employees during service encounters. By doing so, based on the literature review, this research proposes a conceptual framework to explore the phenomenon of CK brokering through frontline employees as well as the main factors that influence this role.

This research contributes to the literature of KB, KS, CKM, and AC at an individual level. Additionally, the proposed conceptual framework being empirically tested discusses the role of FLSEs as knowledge brokers that transfer knowledge between the customer and the organisation during service encounters. Moreover, while most of the previous researchers have discussed the frontline employee's role as knowledge brokers for the customers (e.g. Rapp *et al.*, 2014; Berg *et al.*, 2014; Verbeke, *et al.*, 2011), this research extends these studies by investigating the frontline employees' role as knowledge brokers for the organisation through capturing and sharing knowledge from the customers to the organisation during service encounters.

2.8 Chapter Summary

This chapter aimed to provide a theoretical background for this research by reviewing the literature on KB through frontline employees during service encounters. The literature review covered different kinds of literature, namely, KB, KS, CK, and literature on the role of frontline employees as knowledge brokers

between organisations and customers. This chapter also presented the significant gaps identified in the literature, which shed light on the importance of this research.

Based on this review, the following chapter (Chapter Three) provides the proposed conceptual framework for KB through frontline employees during service encounters.

Chapter 3 : Conceptual Framework for Knowledge-Brokering (KB) during Service Encounters

3.1 Introduction

The previous chapter provided a critical review of the literature on customer-knowledge brokerage through frontline employees. This review highlighted the urgent need for a comprehensive framework to better understand the role of frontline employees as knowledge brokers and to identify the main factors that influence this role.

A conceptual framework is ‘the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs your research’ (Maxwell, 2008 p. 222). Furthermore, the conceptual framework allows the researcher to connect the research at hand with the existing knowledge (Saunders *et al.*, 2009). Miles and Huberman (1994) argued that the conceptual framework must build upon theories, the researcher’s experience and the objective of the research in order to link together the different components of the research. The conceptual framework includes the researchers’ thoughts regarding the research phenomenon and it forms a tentative theory of what is going on in the research phenomena (Maxwell, 2008). Thus, in qualitative research, the conceptual framework helps researchers to describe the relations in their research, and it includes what they want to study, as well as the main factors, variables, and constructs of the study. Hence, a conceptual framework can be expressed through narrative style or graphically, primarily through a figure. In addition, the conceptual framework also helps researchers to define the scope of their research and it provides them with a frame from the range of the study. Beyond this, the conceptual framework also assists researchers in deciding what data should be collected to conduct the research.

Therefore, this chapter provides a proposed conceptual framework of customer KB during service encounter. Specifically, this conceptual framework explains the process through which customer knowledge (CK) is transferred from and to organisations via employees as knowledge brokers. The framework also identifies

the main salient factors that enable or hinder the frontline service employee in capturing and sharing CK during service encounters.

By building on the literature of KM, KB, KS, CKM, and absorptive capacity, this research attempts to understand knowledge brokerage through frontline employees. The proposed conceptual framework describes the role of frontline employees as knowledge brokers that capture and share three kinds of CK between organisation and customers during service encounters. Hence, the proposed conceptual framework is underpinning on the assumption that frontline employees during their interaction with the customers able to capture and sharing tacit and explicit CK. Furthermore, the individual absorptive capacity will also help the frontline employee to capture, assimilate and share this knowledge with customers and organisation.

The remainder of this chapter is organised into five sections. The following section (3.2) provides an overview of the theoretical foundations for this research. The third section (3.3) develops the proposed conceptual framework for KB through frontline employees and identifies potential factors that influence this role. Section (3.4) discusses the main proposed factors that influence KB during service encounters. The final section (3.5) summarises this chapter.

3.2 Theoretical Foundations

The prior research has employed several theories to understand the phenomenon of sharing and transferring CK between organisations and customers. However, understanding remains limited concerning the successful role of frontline employees as knowledge brokers between customers and organisations. This research applies two well-known theories, organisational knowledge creation theory and absorptive capacity theory, at the individual level to explain the role of frontline employees as customer-knowledge brokers during service encounters.

3.2.1 Organisational Knowledge Creation Theory

Knowledge management literature acknowledges that individuals in an organisation are the base of the creation of new knowledge. For example, Nonaka (1991) argued that individuals, such as frontline employees, are the source of new knowledge, and the ability of the organisations to sustain competitive advantage depends on

managing the creation of new knowledge. Moreover, new organisational knowledge is the results of the continuous interaction between explicit and tacit knowledge (Nonaka, 1994).

According to Nonaka et al. (2006, p. 1179), the organisational knowledge creation theory is ‘the process of making available and amplifying knowledge created by individuals as well as crystallising and connecting it with an organisation’s knowledge system’.

Therefore, based on this theory, the individual is the source of all knowledge in an organisation (Erden, *et al.*, 2008). Knowledge conversion is the process that demonstrates the interaction between tacit and explicit knowledge that lead to creating organisational knowledge (Nonaka and Takeuchi, 1995).

Furthermore, according to Nonaka and Takeuchi (1995, p. 3), organisational knowledge creation is ‘the capability of a company as a whole to create new knowledge, disseminate it throughout the organisational and embody it in products, services, and systems’. Notably, some authors have argued that new knowledge is the result of the continuous interaction between explicit and tacit knowledge, which is seen to reside in the human mind (Yang *et al.*, 2010). According to them, knowledge creation is a human systemic process depending on the interaction between individuals and their peers or otherwise between individuals and their environment. By contrast, the spiral model refers to the way in which knowledge is created through constant interaction and dialogue between tacit and explicit knowledge in the ‘Ba’ context (Nonaka, 1994).

The concept of ‘Ba’ is the context of knowledge creation; however, ‘Ba’ can be any type of environment, physical or virtual (Nonaka *et al.*, 2000). Nonaka and Takeuchi (1995) offered the SECI model which has become the foundation of knowledge creation theory. They suggested four ways that knowledge types can be combined and converted, showing how knowledge is shared and created in the organisation. The interaction and conversion of tacit and explicit knowledge is demonstrated in the SECI model (Figure 2-2), which is composed of four different stages of knowledge conversion. However, the SECI model explains how actors convert existing

knowledge into new knowledge through the social-interaction process. Moreover, the new knowledge-creation strategies are made up of socialisation, externalisation, combination and internalisation (Nonaka, 1994; Nonaka and Takeuchi, 1995; Nonaka *et al.*, 2000).

As mentioned in the preceding chapter SECI model express the four processes that lead to creating knowledge within an organisation. Hence, two of these processes include changing the same kind of knowledge which tacit to tacit or explicit to explicit, while other two process related to change knowledge to another type such as tacit to explicit or explicit to tacit. The process of converting tacit knowledge into tacit knowledge through the shared experience termed as Socialisation, while Combination process describes converting explicit knowledge into more complex explicit knowledge. On the other hand, externalisation process is concerning to turning tacit knowledge into explicit knowledge, as well as internalisation process includes changing explicit knowledge into tacit knowledge (Nonaka and Takeuchi, 1995; Nonaka *et al.*, 2000).

Moreover, Nonaka et al. (2006) argued that creating knowledge through the interaction between the two types of knowledge must be conducted in context combines this process, and they called this context 'Ba'. Thus, this research proposes that the service encounters in the organisation are the context of customer-knowledge creation because it is mainly the touch point between the customer and the service organisation.

Building on the previous research, this research proposes a conceptual framework to investigate the role of frontline employees as knowledge brokers in service organisations through creating and sharing three kinds of CK between customer and organisation. In addition, the interaction between the frontline employees and their supervisors or colleagues on one side and with customers on the other will lead to converting tacit and explicit CK between organisations and customers. This research utilises the SECI model from organisational knowledge creation theory (Nonaka, 1994) to explain the frontline employees' contribution as knowledge brokers in creating new CK based on the interaction between the frontline employee and the customer during service encounters.

Thus, this research argues that during the service-encounter process, the frontline employees provide the service to the customers who provide their feedback regarding the quality of service, their expectations about the service, and their suggestions. Most of the CK is tacit knowledge such as unspoken customer feedbacks and latent customer needs (Ye *et al.*, 2012; Wang, 2015). The new tacit customer knowledge is created through the personal interaction (face-to-face) between the customers and frontline employees during service encounters. Thus, based on SECI model, socialisation process is the result of the interaction between two kinds of tacit knowledge.

3.2.2 Absorptive Capacity Theory

Cohen and Levinthal (1990) are the first authors to coin the term ‘absorptive capacity’ to explain an organisation’s ability (R&D) to gain and utilise external knowledge to support its innovation process. The theory of absorptive capacity explains the organisation’s ability to evaluate, assimilate and apply external knowledge in order to sustain its innovation process (Zahra and George, 2002; Tsai, 2001, Cohen and Levinthal, 1990). According to the absorptive capacity theory, the cognitive structure at the individual level is crucial for the ability to assimilate and utilise external knowledge in the organisation. This is because the prior-related knowledge is considered as one of the essential conditions for the success of the absorptive capacity process, such as for recognising, assimilating and using the new knowledge (Cohen and Levinthal, 1990).

Absorptive capacity has been suggested to consist of two parts: realise absorptive capacity and potential absorptive capacity (Zahra and George, 2002). Based on this argument, the absorptive capacity process comprises four dimensions: acquisition, assimilation, transformation, and exploitation knowledge. The acquisition and assimilation dimensions are related to the potential absorptive capacity, while the transformation and exploitation process are related to realise absorptive capacity.

Most absorptive capacity research has focussed on the organisation level or business unit rather than the individual level (e.g. Zahra and George, 2002; Tsai, 2001; Cohen and Levinthal, 1990). This is despite the fact that the foundation of organisational absorptive capacity is the individual absorptive capacity, which thus depends on the

ability of the individual's absorptive capacity (Roberts et al.2012; Cohen and Levinthal, 1990). Lowik et al. (2017, p.1323) defined individual absorptive capacity as 'an individual's activities to recognise, assimilate, transform and exploit new external knowledge'. The amount of attention that has been paid to individual absorptive capacity remains insufficient to understand the contribution individuals make to organisation absorptive capacity (Tortoriello, 2015).

According to the literature, a relationship exists between knowledge transfer and absorptive capacity. More specifically, transferring knowledge to individuals increases their absorptive capacity, while a lack of absorptive capacity creates barriers for transferring knowledge (Alavi and Leidner, 2001). In contrast, the relationship between knowledge-sharing (KS) and absorptive capacity has demonstrated mixed results, with some scholars argued that absorptive capacity positively affects KS (e.g. Kang and Lee, 2016), while others indicated that high levels of absorptive capacity impede KS (Oliveira *et al.*, 2015).

Moreover, Minbaeva et al. (2003) indicated that absorptive capacity comprises ability and motivation, and greater levels of absorptive capacity, including higher levels of ability and motivation, will lead to higher knowledge transfer. Lichtenthaler (2009) argued that absorptive capacity eases KS because high levels of absorptive capacity make individuals better able to understand and integrate knowledge from different sources. On the other hand, Lowik et al. (2017) found individual absorptive capacity regarding the capture and use of external knowledge to be influenced by three factors at an individual level, namely, prior knowledge diversity, external network diversity and a bisociative cognitive style. The organisation can increase the absorptive capacity of their employees through human resources practice, such as training to increase ability and a rewards system providing motivations (Minbaeva *et al.*, 2003).

However, in the case of frontline employees as customer-knowledge brokers, the absorptive capacity comprises three dimensions, namely, the ability to recognise, assimilate and apply CK during service encounters. Therefore, this research argues that the prior knowledge about an organisation's services and products may help

frontline employees to serve a customer well and to gain new CK that leads to developing a long-term customer relationship.

In addition, KS between customers and frontline employees during service encounters also helps them to gain new CK from customers, while if the frontline employees do not seem able to recognise or assimilate this knowledge, this will affect KS with their organisations (Oliveira *et al.*, 2015).

Overall, this research argues that the frontline employees' absorptive capacity to gain CK consists of three dimensions: their ability of to recognise, assimilate, and use CK during service encounters.

3.3 Development of the Conceptual framework

This research proposes a conceptual framework to explain how frontline service employee act as knowledge brokers between the organisation and the customers during service encounters through sharing three kinds of CK. Furthermore, this conceptual framework focusses on the individual, organisational and technological factors that might encourage or inhibit the frontline employees' success in fulfilling their knowledge-broker role.

In this vein, the proposed factors that may affect the frontline service employees' ability to act as knowledge brokers have been drawn from the literature on KS due to the lack of studies discussing customer-knowledge brokering through frontline employees.

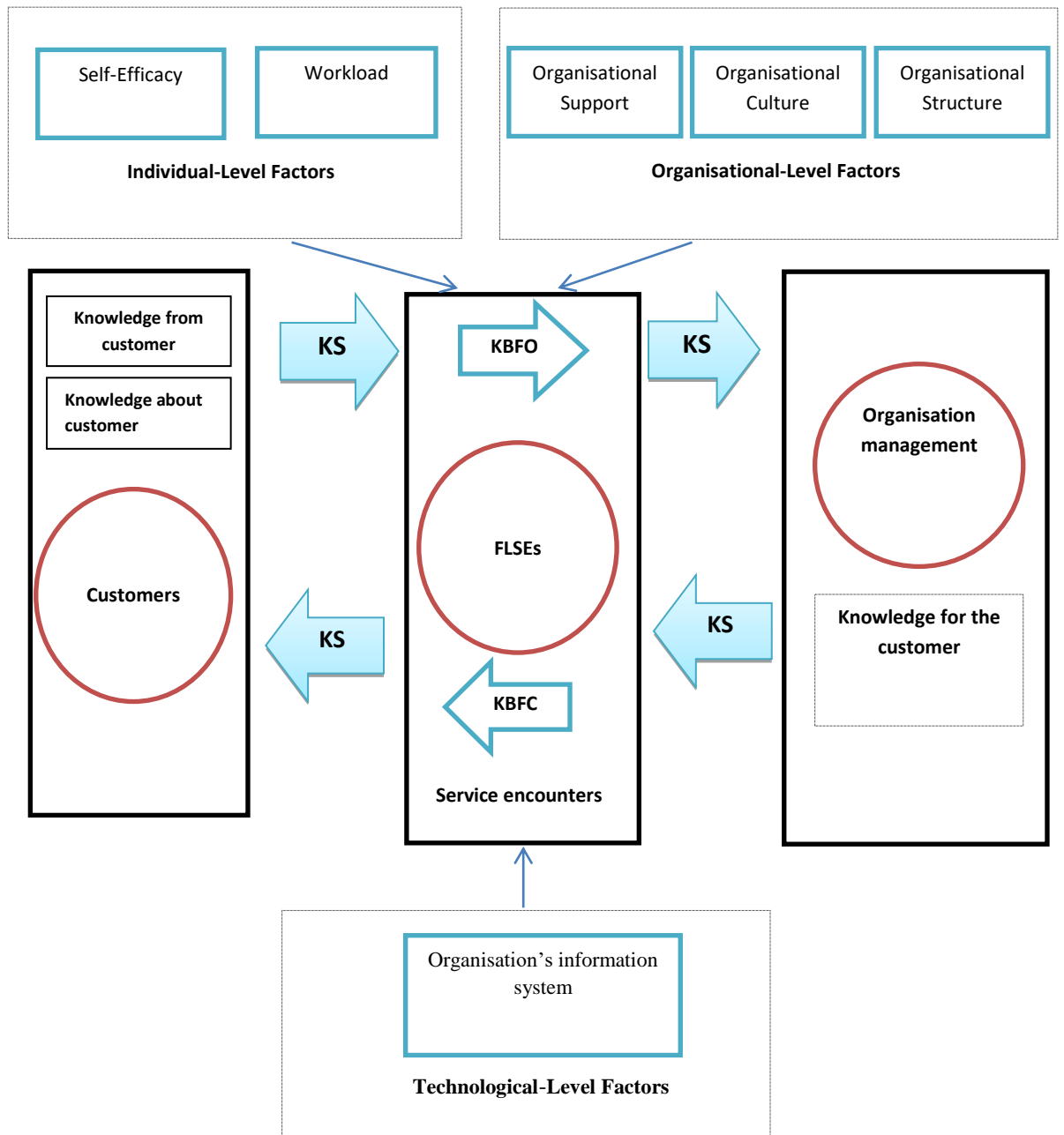


Figure 3-1: Customer-KB through frontline employees during the service encounters

Notes: KS = knowledge-sharing; KBC = knowledge –brokering for the customers; KBO = knowledge brokering for the organisation; CK = customer knowledge; FLSEs = frontline service employees

The conceptual framework demonstrates the flow of CK from the customer to the organisation, and vice versa, from the organisation to the customers through the frontline service employees.

The rest of this chapter is dedicated to explaining potential factors that might influence customer-KB through frontline employees. The literature review in Chapter Two highlighted the need for further investigation into the potential of frontline employees to act as knowledge brokers to capture and share CK between organisation and customers. As discussed earlier, the employees' participation in sharing and brokering CK remains insufficient for organisations. In addition, this research attempts to provide a conceptual framework for deeper understanding the main factors influencing frontline employees in acting as knowledge brokers between customers and organisation during service encounters.

In addition, after the literature review of frontline service employees and KB, some unanswered questions still remain, such as, how is CK transferred from the customer to the organisation during service encounters through frontline employees as knowledge brokers, and what are the main factors that influence customer KB through frontline employees?

Therefore, this chapter represents the conceptual framework that explains the frontline employees' role as knowledge brokers to transfer CK to an organisation based on the CKM approach, which focusses on three types of CK. Further, Chapter Six provides the revised conceptual framework based on the empirical investigation of three organisations.

Although many studies have discussed the role of frontline employees in transferring knowledge from the customer to an organisation, the majority of attention has been paid to examining the willingness of frontline employees to share CK (e.g. Hu *et al.*, 2016; Walsh *et al.*, 2015; Wirtz *et al.*, 2010; Luria *et al.*, 2009). Moreover, some studies have focussed on the role of frontline employees as knowledge brokers for the customers, mainly involving the transfer of knowledge about the service or products to the customers (e.g. Berg *et al.*, 2014; Verbeke *et al.*, 2011). Hence, the

frontline employees' role as knowledge brokers for the organisations still needs more empirical investigation. For example, Rapp *et al.* (2014) argued that salespeople today act as knowledge brokers for customers because they are acquiring knowledge of the customers' needs and then satisfying these needs by providing the products to them. Thus, this type of KB focusses on external knowledge.

3.4 Proposed Factors that Influence Knowledge –brokering (KB) during Service Encounters

The literature review of KS suggested that there are three main sets of factors at three levels that influence of KS namely, organisational-level factors, individual-level factors and technological-level factors (e.g. Lin, 2007b; Yang and Wu, 2008).

3.4.1 Organisational-Level Factors

Based on the literature on KS, certain very important factors at the organisational level have been highlighted to have a major influence on KS, namely, organisational structure (Kim and Lee, 2006; Chen and Huang, 2007; Lin, 2008; Seba *et al.*, 2012), organisational culture (Kim and Lee, 2006; Lin, 2008; Seba and Rowley, 2010), and organisational support (e.g. Al Saifi *et al.*, 2016a; Lin, 2006; Fey and Furu, 2008).

Organisational Structure

According to the organisational-structure literature, there is no universal definition for this concept, with some authors defining organisational structure as 'the recurrent set of relationships between organisation members' (Donaldson, 1996, p. 57).

Organisational structure affects KS in traditional organisations (Lee and Al-Hawamdeh, 2002; Chen and Huang 2007; Lin, 2008; Seba *et al.*, 2012). As revealed in the literature, several studies have found the relationship between organisational structure and KS to be highly complex. The work of Lin (2008) analysed the impact of three factors believed to influence KS amongst organisational units, namely, organisational-structure characteristics (formalisation, complication, and centralisation), organisational culture, and inter-unit interaction. In addition, the author also adopted the non-linear fuzzy neural network model to verify the hypotheses of the research.

Varied and mixed results have been identified in studies examining the relationship between organisational structure dimensions and KS. For example, Willem and Buelens (2006) conducted a study centred on the influence of organisational characteristics on interdepartmental KS. Their findings indicated that informal coordination in public organisations does not lead to higher KS intensity, although it was seen to lead to more effective KS.

Chen and Huang (2007), meanwhile, conducted research in South Korea and found the social interaction of a less formal and decentralised organisational structure to be more positive (Kim and Lee, 2006). The sample of the research comprised five private organisations and five public organisations, with the findings from their questionnaire revealing that the centralisation and formalisation of organisational structure positively affected KS.

Willem and Buelens (2009) studied the impact of organisational structure dimensions on KS. Their findings revealed no indication that the hierarchy affected KS, and they also found no proof to suggest that less formalisation and centralisation leads to more KS. On the other hand, they did find evidence indicating that decentralisation (horizontal coordination) positively affected KS.

Amayah (2013) conducted a study on the determinants of KS in a public-sector organisation. The findings indicated that organisational structure affected KS in the public sector. Moreover, the organisation's structural characteristics (formalisation and centralisation) were deemed to be significant barriers to KS.

'The high interaction between employees who work at the same level can enhance the personalisation of their social interactions. This can give rise to tacit and explicit knowledge-sharing. The hierarchical distance between top managers and frontline employees can inhibit explicit and tacit knowledge-sharing'. Al Saifi, et al. (2016b, p.314)

However, this research argued that organisational structure influences customer-KB through frontline employees during service encounters. Moreover, this research proposed that the hierarchical organisational structure impedes the frontline employees' role as knowledge brokers between the organisation and the customers.

Organisational Culture

Yang (2007, p. 532) defined organisational culture as ‘shared values, beliefs or perceptions held by employees within an organisation or organisational unit’. Similarly, Deshpandé and Webster (1989, p. 4) defined organisational culture as ‘the pattern of shared values and beliefs that help individuals understand organisational functioning and thus provide them with the norms for behaviour in the organisation’.

Numerous studies have considered organisational culture to be one of the most significant factors affecting KS (McDermott and O’dell, 2001; Lin, 2008; Seba and Rowley, 2010; Amayah, 2013). For example, Kim and Lee (2006) argued that the primary challenge organisations face when developing KS is building an organisational culture that promotes employees’ KS capabilities.

In addition, Al-Alawi *et al.* (2007) conducted a study in public and private organisations, and they found organisational culture to be a critical factor influencing KS. In addition, based on the KM and KS literature, some authors have also investigated the impacts of organisational culture on KS. For example, Lin (2008) conducted a study to explore three types of organisational culture, and the findings indicated that an innovative and supportive culture positively impacts KS. Cavaliere and Lombardi (2015) discussed the impact of organisation culture, focussing on innovative culture, competitive culture, bureaucratic culture, and community on two dimensions of the knowledge process, namely, donating and collecting knowledge. Markedly, their findings revealed that innovative, community, and bureaucratic culture positively affect knowledge donating; however, there was no significant relationship found between knowledge collecting and innovative, community, and competitive culture.

Several studies have suggested that social or mutual trust between individuals is one of the factors that influence the success of KS. Furthermore, social trust in an organisation improves interactions between co-workers, and this leads to sharing knowledge (Chow and Chan, 2008). In this vein, an organisational culture that supports trust between employees will encourage KS. Likewise, Al-Alawi *et al.*’s (2007) empirical study of the impact the organisational culture on KS found interpersonal trust between employees to significantly influence KS.

Most of the prior studies have also stressed that when employees trust each other; this eases the flow and sharing of knowledge (McDermott and O'dell, 2001). Continuing this, a lack of trust is considered one of the main barriers for sharing knowledge between employees (Riege, 2005).

However, this research argues that organisational culture influences customer KB through frontline employees during service encounters. Moreover, this research proposes that an organisational culture that encourages KS and learning supports the frontline employees' role as knowledge brokers between the organisation and the customers.

Organisational Support

Based on the previous studies, Yavas and Babakus (2010, p. 224) defined organisational support 'as a set of enduring policies, practices, procedures and tools that diminish the demands of the job and/ or assist employees in achieving their work goals and stimulate their personal growth/development'. According to Rhoades and Eisenberger (2002), fairness, supervisor support and organisational rewards and favourable job conditions are the most common factors which express the organisational support based on the employees' view. Moreover, according to the literature, there are many aspects of organisational support that support KS, such as training, system rewards, and recognition of employees' efforts (Bartol and Srivastava, 2002; Cabrera and Cabrera, 2005; Lin and Lee, 2006; Al Saifi *et al.*, 2016a).

In this vein, Lin (2007b) found that the top management support of the employees has tremendous power to encourage the KS process in an organisation. Additionally, some authors have argued that management support is crucial and can even be considered the most significant factor of systematic KM (Gomezelj Omerzel and Antoncic, 2008). Furthermore, Cavaliere and Lombardi (2015) indicated a strong relationship between top management support and the two dimensions of the KS process, namely, collecting knowledge and donating knowledge.

Some studies have also argued that knowledge brokers will be more efficient in dealing with customer needs if they receive feedback from their managers (Agnihotri

et al., 2014). Chen and Cheng (2012), for instance, argued that when managers afford the employees the opportunity to express themselves and make a contribution as a knowledge broker, this will encourage them to share their knowledge with the organisation.

Moreover, providing rewards to the employees based on their efforts represents a type of organisational support. According to Bartol and Srivastava (2002), rewards could be extrinsic, such as monetary or non-monetary incentives, or it could be intrinsic, such as enjoyment obtained from performing the task itself. Indeed, most of the KS literature has suggested that giving rewards to individuals significantly influences their KS behaviour (e.g. Bartol and Srivastava, 2002; Ipe, 2003; Cabrera *et al.*, 2006; Lin *et al.*, 2009; Lin and Huang, 2010). Economic rewards are one of the most popular extrinsic motivations that organisations offer in order to reward employees' proper behaviour (Hung *et al.*, 2011). Several studies have found that economic rewards have a significant impact on KS behaviour (e.g. Bartol and Srivastava 2002; Kankanhalli; 2005). More specifically, some studies have suggested that economic rewards significantly and positively influence individuals' KS behaviour (Hung *et al.*, 2011). In contrast, some research suggested that economic rewards have a negative impact on KS behaviour (Bock *et al.*, 2005). Meanwhile, still, other researchers have suggested that the lack of rewards can be considered a barrier to sharing knowledge (e.g. Weiss, 1999; Riege, 2005; Singh Sandhu *et al.*, 2011). On the other hand, the literature review has also presented mixed results across studies discussing the effects of intrinsic or extrinsic motivation on KS. Some such studies have recognised intrinsic or extrinsic motivation to positively affect KS (Al-Alawi *et al.*, 2007; Lin *et al.*, 2009). Meanwhile, still other studies have identified no positive effect of intrinsic or extrinsic motivation on KS (Lin, 2007; Seba *et al.*, 2012). Furthermore, according to the study carried out by Hau *et al.* (2013), which sought to distinguish between the impacts of motivational factors on tacit and explicit KS intention, it was found that intrinsic motivational factors, such as reciprocity and enjoyment, have positive effects on employees' KS intention. Further, these factors demonstrated more positive effects on tacit than on explicit knowledge intentions.

However, in contrast to previous studies, Hau *et al.* (2013) identified that distinctions could be made between the effects of extrinsic motivation such as reward on sharing two types of knowledge, revealing that organisational rewards have a negative effect on employees' tacit KS intentions, whereas there are positive impacts on their explicit KS intentions.

Overall, this research argues that organisational support, such as system rewards and recognition, influence KB through frontline employees during service encounters. Moreover, this research proposes that providing rewards and recognition will encourage frontline employees to engage in KB during service encounters. Conversely, a lack of organisational rewards and recognition when they are capturing and sharing knowledge from customers will inhibit KB through frontline employees.

3.4.2 Individual-Level Factors

The literature of KS has identified several factors at the individual level that influence KS. The essential factors include having the time to share knowledge (e.g. Riege, 2005; Kukko, 2013) and the self-efficacy of individuals (Cabrera and Cabrera, 2005; Hsu *et al.*, 2007; Lee Endres *et al.*, 2007).

Self-Efficacy

According to Wood and Bandura (1989, p. 364) self-efficacy refers to 'concerns people's beliefs in their capabilities to mobilise the motivation, cognitive resources, and courses of action needed to exercise control over events in their lives'.

Self-efficacy is considered a self-motivator for individuals, and it functions through the individual's judgement of their capabilities to perform some action in order to gain some level of performance (Bandura, 1986). Furthermore, individual with a high level of confidence in the value of their knowledge will be more willing to share this knowledge (Bock and Kim, 2001; Cabrera and Cabrera, 2005; Lin, 2006). Self-efficacy has a direct positive effect on KS for the individuals (Hsu *et al.*, 2007). Similarly, previous studies have supported self-efficacy's positive effect on the job performance of frontline employees in service organisations (Karatepe *et al.*, 2006). In addition, Lee Endres *et al.* (2007) revealed that possessing high self-efficacy helps employees to share tacit knowledge.

Overall, this research argues that self-efficacy influences customer KB through frontline employees during service encounters. Moreover, this research proposes that high levels of self-efficacy will help frontline employees to engage in KB during service encounters, while low self-efficacy will inhibit frontline employees in acting as knowledge brokers between the customers and the organisation.

Workload and Lack of Time

Based on a review of the KS literature, several studies have suggested that high workload and a lack of time is among the individual-level factors considered a barrier to sharing knowledge (e.g. Bartol and Srivastava, 2002 ; Huysman and De Wit, 2004; Riege, 2005; Hew and Hara, 2007; Singh Sandhu *et al.*, 2011; Seba *et al.*, 2012; Kukko, 2013). Additionally, some studies have argued that most often, frontline employees face high workloads during the service encounters, and thus do not have the time to capture and share knowledge (Lam *et al.*, 2017).

Moreover, Lam *et al.* (2017) argued that most service organisations face a problem with obtaining instant information about their customers because they use ‘mass services’, which means the number of employees serving the customers is miniscule compared to the number of customers being served. Furthermore, Ye *et al.* (2012), in their study of bottom-up learning in marketing frontlines, found that the workload of frontline employees influences their ability to capture or learn CK during service encounters, with high workloads inhibiting frontline employees’ learning.

Accordingly, this research proposes that a lack of time due to frontline employees’ high workloads during service encounters influences customer KB.

3.4.3 Technological-Level Factors

Literature of KS has suggested that technology, and particularly information systems, play a critical role in facilitating KS within organisations (e.g. Alavi and Leidner, 2001; Rhodes *et al.*, 2008). Moreover, Al-Alawi *et al.* (2007) in their empirical study found that the existence of information systems increased KS success. Similarly, Kim and Lee (2006) found that user-friendly information applications significantly influence employees’ KS capabilities. Likewise, Lin (2007b) discussed the impact of information and communication technology (ICT) use on the KS process and found

ICT to have a positive effect on collecting knowledge. Conversely, several studies have considered the lack of information systems in the organisation to be a barrier to sharing knowledge (e.g. Riege, 2005; Kukko, 2013). Therefore, this research supposes that technology factors, such as the availability of appropriate ICT in the organisation, influences the frontline employees' role as knowledge brokers during service encounters.

In summary, the main argument in this research is that frontline employees work as knowledge brokers for the customer and the organisation. Of course, this argument has been built on some assumptions. For instance, while the previous knowledge-brokerage definitions highlighted that the central job of the knowledge brokers is to link the knowledge sender to the knowledge user, in practice, the customer and the organisation are considered both knowledge sender and user at the same time. Hence, in the first place, customers need to obtain knowledge about the service and products (knowledge for the customer). Similarly, the organisations' management needs to gain CK (knowledge about and from customers). Thus, based on these considerations, the frontline employees are considered knowledge brokers for the organisation and the customers.

Primarily, this research draws on the definition provided by Rapp *et al.* (2014) and Van den Berg *et al.* (2014) concerning the role played by frontline employees as knowledge brokers. As a result, we define the role of frontline employees acting as knowledge brokers during service encounters as involving the acquisition of knowledge from and for the customer in order to identify both expressed and unexpressed customer needs in order to provide the product(s) and/or service(s) that can address such needs. In addition, this role includes two kinds of KB, namely, KB for customers (providing customers with knowledge about the service and products) and KB for the organisations (providing the organisation with knowledge obtained from customers concerning their experience and feedback about products and services).

3.5 Chapter Summary

Based on KM and CKM approaches, frontline employees play a critical role in capturing and sharing three kinds of CK, and in particular, knowledge from customers. This is considered the primary source of innovation, allowing for organisation services and products to be improved and for long-term relationships with customers to be developed. The role of frontline employees as knowledge brokers includes facilitating the transfer of CK between an organisation and their customers. Therefore, the aim of this research is to investigate the role of frontline employees as knowledge brokers between customers and organisation during the service encounter, as well as to identify the most important factors that influence this role.

To this end, this chapter has proposed a conceptual framework to explain the role of frontline employees as knowledge brokers through facilitating the sharing of knowledge for and from a customer during the service encounter. The literature review in Chapter Two concerning KS and KB revealed that there are three sets of factors that may influence customer KB. The first set of factors stem from the organisational level (organisational structure, organisational culture, and organisational support). The second set includes the individual-levels factors (self-efficacy and workload), while the third set involves technology-level factors.

Overall, building on the literature review of the phenomenon of KB provided in Chapter Two, this chapter has discussed a proposed conceptual framework for customer KB through frontline employees. The following chapter (Chapter Four) of this thesis discusses the research methodology adopted in this study and the justifications for the adopted interpretivism research paradigm.

Chapter 4 : Research Methodology

4.1 Introduction

This chapter is concerned with the research methodology that was employed in the present study in order to collect and analyse the data so as to answer the research questions. This chapter discusses the main aspects and foundations of scientific research namely, research philosophy stances (i.e. ontology, epistemology and axiology), research paradigms (interpretivism and positivism), research approaches (inductive and deductive) and research methods (qualitative and quantitative). Thereafter, the chapter provides the rationale for adopting the interpretivism philosophy, inductive approach, qualitative method and multiple case study strategy in this study. The chapter also presents the main data collection sources and data analysis technique that were used in this research. The chapter goes further to details the quality criteria in the qualitative research and the procedures that were adopted to ensure the attainment of the research quality. Finally, the chapter explains the ethical considerations that were taken throughout the stages of the study.

4.2 Research Philosophy

The research philosophy is critical aspect when embarking on research as it encompasses important assumptions pertaining to the way in which the researcher views the world. There are three main assumptions in research philosophy: ontology, epistemology and axiology (Saunders *et al.*, 2009; Collis and Hussey, 2009). However, any research should be constructed on bases, with some such bases are observable, such as methods and techniques, whereas other bases are latent, such as the philosophical assumption (Lee and Lings, 2008; Myers, 2013; Easterby-Smith *et al.*, 2015). Indeed, it is thought by many that philosophical foundations provide the underpinning assumptions for a study. In many cases, based on the philosophical view, the researcher can conduct and design the research (Tadajewski, 2004). Additionally, the philosophical research issue is critical to the researcher, with philosophical assumptions affecting the entire research project. More precisely, some

basic issues, such as epistemology, will help the researcher to understand his own role when it comes to the research methods and research design, which, in many cases, are based on the researcher's past experiences (Easterby-Smith *et al.*, 2015; Blumberg *et al.*, 2014). Moreover, it is critical for the researcher to clarify his own role in the study process, based on the research philosophy assumptions (Wilson, 2010). Lee and Lings (2008) argue that, before conducting a study, the researcher must acquire certain tools in an effort to understand the research construct. These tools essentially refer to the 'ologies', which include four elements, namely ontology, epistemology, axiology and methodology. In reference to this view, Easterby-Smith *et al.* (2015) point out that there are four rings in the trunk of the research tree: ontology, epistemology, methodology, and methods and techniques.

4.2.1 Ontology Stance

The ontology stance is an assumption pertaining to the nature of reality and our view of the social world, whether an external view (objective) or an internal view (subjective) (Wilson, 2010). Thus, when adopting an objective view, the central idea concentrates on the researcher being entirely separate and distinct from the research, whereas the essential point of subjective view concerns the role of the researcher as pivotal in the research, which depends on what the researcher thinks. Furthermore, the objective view is centred on the measurement of social phenomena, whilst from a subjective view is focused on the meaning of social phenomena (Holden and Lynch, 2004).

Ontology, as previously explained, distinguishes between the meaning of ontology in natural science and social sciences (Collis and Hussey, 2009). Thus, ontologies in natural sciences have been discussed through reference to realism and relativism. Hence, advocates of realism hold the view that there is a single truth, and we can reveal the facts; they also believe that we cannot access the facts directly, and therefore must use observation to ascertain them. In other words, the key concepts are external and concrete. Conversely, relativism advocates maintain that there are many truths, and that the facts are based on the researcher's own view (Easterby-Smith *et al.*, 2015). The ontology with social sciences adopts the same argument

when it comes to natural sciences; indeed, with the relativism position, there is no single truth, which depends on the perspective of the researcher and his/her view of the truth. Hence, the nominalism position in social sciences claims there to be no truth, with the facts merely products generated by humans (Easterby-Smith *et al.*, 2015).

Overall, ontology is related to our beliefs regarding the reality of the world's research, and whether this world is independent or dependent of our view of it (Lee and Lings, 2008). Moreover, the advocates of the positivist approach claim that reality is no longer one reality in the social world (Collis and Hussey, 2009). However, some researchers have explained the term 'ontology' as based on distinguishing between two terms, namely objectivism and subjectivism (Wilson, 2010).

4.2.2 Epistemology Stance

The Epistemology stance is associated with the theory of knowledge and the way in which we can gain such knowledge, as well as what may be seen to embody valid knowledge (Pierce, 2008; Wilson, 2008; Myers, 2013; Easterby-Smith *et al.*, 2015). The epistemology stance is extended to cover the nature of the relationship between the researcher and that being researched (Collis and Hussey, 2009), and further reflects the notion around the proper knowledge used to develop knowledge in the social world (Bryman and Bell, 2015).

Tadajewski (2004, p. 312) pointed out that 'epistemology is branch of philosophy concerned with the nature of knowledge, specifically how knowledge about knowledge is possible and concerns the study of criteria that delimit what does and does not constitute warranted knowledge'. Therefore, epistemology must follow ontology owing to the cornerstone of epistemology being the possibility of knowledge relating to the knowledge (Baker and Foy, 2008), as well as what we can think about reality and our own view regarding such reality (Lee and Lings, 2008).

4.2.3 Axiology Stance

Unlike ontology and epistemology, axiology is not a common term when discussing research philosophy. However, axiology is centred on the purpose of conducting the

research and what the researcher seeks to do or achieve in the research (Lee and Lings, 2008). Moreover, the keystone in axiology assumptions is the value of the researcher and the effect of this value on the process of the research. Thus, when adopting the positivism approach, the researcher has value-free (Wilson, 2010); this is in contrast with the interpretive approach because the researcher is inevitably involved with what he or she investigates and researches, where their value will have an effect on the research process (Collis and Hussey, 2009).

4.3 Research Paradigm

The term ‘research paradigm’ refers to a set of research philosophical assumptions that provides a guide to the way in which the research must be conducted (Collis and Hussey, 2009) and the way in which the social phenomena must be studied (Saunders *et al.*, 2009). Furthermore, the research paradigm includes the philosophical backgrounds that provide researchers with directions and rules that lead to the completion of scientific research. According to scholars, there are different research paradigms of which positivism and interpretivism paradigms are the most common (Collis and Hussey, 2009).

4.3.1 Positivism Paradigm

This paradigm, to begin with, was developed and used in natural sciences, but subsequently employed in social sciences (Blumberg *et al.*, 2014). The central assumption of the positivism paradigm is that the reality is independent of us, with the purpose of research to explore theories through the use of empirical investigation (Collis and Hussey, 2009). Moreover, in business research, researchers adopt the positivism paradigm focusing on testing theories in an effort to understand or increase the prediction of a social phenomenon, (Orlikowski and Baroudi, 1991). Additionally, Bryman and Bell (2015) point out that the positivism approach is the epistemological position that applies methods from natural sciences to research phenomena in social reality, with great interest paid to observations more than theory. The main idea in positivism position is that the social world exists externally from the researcher’s thought, and that the only way of investigating the social world is through objective measurement and facts. Furthermore, following this approach,

the researcher plays an independent role in the objective analysis of the social phenomena (Easterby-Smith *et al.*, 2015; Blumberg *et al.*, 2014).

4.3.2 Interpretivism Paradigm

The interpretivism paradigm emerged as a result of shortcomings in the positivism paradigm. One of the main shortcomings of the positivism paradigm is that the researcher being unable to isolate the research actors from their social context, with the investigators, in many cases, a part of what is under investigation, meaning their own concerns and views tend to be inherent in their research (Collis and Hussey, 2009). Some writers have referred to interpretivism as social constructionism because the reality is socially constructed and the meaning of the social world comes from the people living there (Easterby-Smith *et al.*, 2015). Therefore, there was a need to adopt a new research philosophy for the observation of social phenomena through the use of the subjective interpretation of actors in the social world. More precisely, the critical thought adopted through the interpretivism approach is standing on the strong link between the researcher and what is being researched. Accordingly, through the interpretivism approach, the researcher is interdependent of the social world and the social phenomena of the research (Wilson, 2008), which means the researcher's interests will affect the way in which the research is conducted (Blumberg *et al.*, 2014).

However, the main argument posed in the interpretivism paradigm is based on the idea of the subjectivity of people as people are known to create their own understanding of a phenomena based on their interactions with the world. Thus, this paradigm rejects the objective (Orlikowski and Baroudi, 1991) and paid attention to the interpretation of people in relation to the world, rather than the reality of such (Green and Thorogood, 2014).

Myers (2013) argues that interpretive researchers lean towards investigating the meaning in context, with the aim of the interpretive research centred on explaining the phenomena in their context because the researcher is unable to isolate the phenomenon from its context. Indeed, this approach is very helpful for theory-generation; however, it is recognised as more time-consuming when compared with

a positivist approach (Easterby-Smith *et al.*, 2015). However, the backbone of the interpretivism paradigm is that social reality has been influenced by our perceptions; in other words, social reality is more subjective than objective. Thus, what the researcher has in his or her mind is not distinct from social reality, meaning the cognitive background of the researcher will affect the research (Collis and Hussey, 2009). Table 4-1 below highlights the main differences between the positivist and interpretive paradigms.

Philosophical assumption	Positivism	Interpretivism
Ontological assumption (the nature of reality)	Reality is objective and singular, separate from the researcher	Reality is subjective and multiple, as seen by the participants
Epistemological assumption (what constitutes valid knowledge)	Researcher is independent of that being researched	Researcher interacts with that being researched
Axiological assumption (the role of values)	Research is value-free and unbiased	Researcher acknowledge that research is value-laden and biases are present
Rhetorical assumption (the language of research)	Researcher writes in a formal style and uses the passive voice, accepted quantitative words and set definitions	Researcher writes in an informal style and uses the personal voice, accepted qualitative terms and limited definitions
Methodological assumption (the process of research)	<p>Process is deductive</p> <p>Study of cause and effect with a static design (categories are isolated beforehand)</p> <p>Research is context free</p> <p>Generalizations lead to prediction, explanation and understanding</p> <p>Results are accurate and reliable through validity and reliability.</p>	<p>Process is inductive</p> <p>Study of mutual simultaneous shaping of factors with an emerging design (categories are identified during the process)</p> <p>Research is context bound</p> <p>Patterns and/or theories are developed for understanding</p> <p>Findings are accurate and reliable through verification</p>

Table 4-1 : Assumption of the main paradigms

Source: Creswell (1994 and 1998), cited by Collis and Hussey (2009)

4.3.3 Justifications for the Use of the Interpretivism Paradigm in the Current Research

In the previous sections, the main research paradigms have been discussed including their ontological and epistemological assumptions. The following sections provide various rationales underpinning the adoption of the interpretive paradigm so as to meet the aim of this research.

As mentioned above, the main idea in the interpretive paradigm is that reality is based on the way in which people perceive it, rather than through objective or external factors (Easterby-Smith *et al.*, 2015). The interpretive paradigm refers to the ways used in order to understand the phenomena from the view of the participants in the real world due to the inability to separate the phenomena's knowledge from its context (Lee and Lings, 2008). Moreover, Myers (2013) argues that the positivism paradigm is unsuitable when studying social phenomena in organisations, whereas the interpretive paradigm is the paradigm considered most suitable when striving to achieve in-depth understanding of the phenomena. Furthermore, the interpretive paradigm is the best approach when striving to understand the complexity of the phenomena in the social world and providing subjective interpretations of the views of people concerning the phenomena (Blumberg *et al.*, 2014).

As discussed in chapter one, this research aims to investigate the role of frontline employees as knowledge brokers between customers and organisation during the service encounter, as well as to identify the critical factors that influence this role.

Hence, the interpretive paradigm is recognised as the most appropriate paradigm in this study as the emphasis is placed on understanding the phenomenon of KB during service encounters from the perspective of individuals in the service organisations. In other words, this research adopted the interpretive approach owing to the fact that the main aim is centred on understand the meaning of phenomena in their context. Furthermore, due to the limited literature on KB during the service encounter, this study does not seek to test hypotheses or theory; therefore, the interpretive paradigm is viewed as being the most appropriate paradigm for this research.

4.4 Research Approach

Blumberg *et al.* (2014) affirm that the place of theory use in research depends on the reasoning approach of the research. Thus, the research process will be different depending on whether the researcher uses inductive or deductive reasoning approach. Hence, the most common approaches in research methodology are inductive reasoning and deductive reasoning. Accordingly, the two approaches can be differentiated based on various aspects as it has been provided by many researchers. In the deductive approach, the researcher observes facts in order to answer any ‘why?’ questions (Blumberg *et al.*, 2014), and begins from the top down; in other words, from broad to narrow (Myers, 2013). Under this approach, the researcher starts with a theory that is related to the research topic and develops a set of hypotheses to explain the phenomenon being investigated. Furthermore, the next step is centred on testing these hypotheses empirically (Collis and Hussey, 2009). Hence, the deductive research is grounded in logic, with the conclusion built on logic rather than on observations (Ghauri and Grønhaug, 2010). Overall, the researcher in the deductive approach begins with theory and hypotheses, which lead the process through to data collection (Bryman and Bell, 2015).

In contrast, in the inductive reasoning approach, the researcher begins from the bottom and progresses up through the collection of data, before attempting to analyse and interpret the results based on theories (Myers, 2013). In addition, following the inductive approach, a general conclusion can be drawn so as to develop theory from the empirical observation. Thus, unlike the deductive approach the inductive approach moves from a narrow to broad explanation (Collis and Hussey, 2009), with the product of the inductive approach a theory (Bryman and Bell, 2015). Otherwise stated, the researcher will begin from observations and then carry out the research so as to conclude with a new theory or contribution to existing theory (Wilson, 2010). In this vein, Ghauri and Grønhaug (2010) point out that, in the inductive approach, the first stage is observation before gathering the findings and outcome of the research, notably through the process of theory-building.

The researcher is attempting to examine KB during service encounters in services organisations. Hence, the researcher will begin by gathering data from literature pertaining to knowledge brokering. He will then empirically investigate the phenomenon in the context of services organisations. In light of this, the present research is based on the inductive approach, meaning that the researcher will start with a general approach before adopting a more specific method. Thus, Table 4 -2 highlights the main differences between the deductive and inductive approaches.

Deductive	Inductive
The researcher starts from broad to narrow “top- down”	The researcher starts from narrow to general “ bottom-up”
The researcher starts with a theory or some hypotheses that he or she wants to test	The researcher starts with empirical data from which he or she wants to build a theory
Confirmatory	Exploratory

Table 4-2 : Comparison between the deductive and inductive approaches

Source: Adapted from Myers (2013, p.23)

4.5 Research Methods

The management of the research methodology depends on the ontology, epistemology and axiology (Lee and Lings, 2008). The research methodology is associated with the research process and includes various methods of research (Collis and Hussey, 2009). The cornerstone of any research is answering the research question. Thus, in order to answer the research question, a sustainable method with the propensity to assist in finding the data for the research is necessary (Myers, 2013). According to Easterby-Smith *et al.* (2015), research methods include the individual techniques used for gathering and analysing research data. Some researchers use qualitative and quantitative expressions in an effort to refer to the research strategy (e.g., Wilson, 2010; Bryman and Bell, 2015). In this view, qualitative and quantitative research methods are recognised as the most popular types of research methods (Myers, 2013). However, there is a difference between

qualitative and quantitative methods, with the use of one method depending on many different factors, including the research purposes and research questions (Maxwell, 2012).

4.5.1 Quantitative Methods

Quantitative research methods have been used in natural sciences to investigate the natural phenomena. However, the quantitative methods became widely adopted in social sciences with the aim of examining social phenomena through the use of survey methods and other tools (Myers, 2013). In the quantitative methods, numbers and statistical tools are recognised as the main means that represent the optimal way of explaining phenomena; thus, the focal point in any quantitative strategy is the use of numerical analysis for this type of research (Wilson, 2010; Myers, 2013). In addition, through a quantitative method, the researcher uses controlled measurement to analyse the data, (Ghauri and Grønhaug, 2010). On the other hand, some researchers have paid attention to the distinguishing quantitative strategy from other strategies, such as qualitative strategy. Thus, the hidden label is the approach of the study as the majority of the deductive approach is a quantitative strategy when conducting this type of research. In many cases, the quantitative research builds upon a deductive approach, with theory used from the outset (Ghauri and Grønhaug, 2010). Therefore, in any deductive approach, the researcher begins with theory before generating hypotheses for the collection of data. Consequently, numerical analysis is used to refute or validate the research hypotheses (Wilson, 2010).

Green and Thorogood (2014) argue that the best way of distinguishing qualitative from quantitative approaches is through the central aim of the research and in line with the research question. Thus, if the research question begins with a word such as ‘why’, ‘how’ or ‘what’, such questions would lead to a qualitative approach. On the other hand, if the research question begins with words such as ‘how many’, such as that of this case, the quantitative approach will be considered most suitable in answering these questions.

4.5.2 Qualitative Research Methods

Creswell (1998, p. 15) defines qualitative research as ‘an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyses words, reports detailed views of informants, and conducts the study in a natural setting’. Therefore, the qualitative research is very appropriate to capture the complexities of the phenomena in the social world as it provides the researcher with excellent quality of data-generation and in-depth findings (Pierce, 2008).

The qualitative research methods are adopted in the social sciences in order to assist the researcher in studying social phenomena. There are some types of qualitative research methods including grounded theory, action research and case study (Myers, 2013). Most of the qualitative researches are based on the inductive approach, where the theory will be the outcome of the study (Wilson, 2010). According to various writers, the easiest way of distinguishing between qualitative and quantitative methods depends on the form of data to be collected in order to answer the research question. In the qualitative approach, essential data will be in words and text format, whilst in the quantitative method, data is numerically in nature. Easterby-Smith *et al.* (2015) argue that qualitative and quantitative research methods can be distinguished based on the philosophical assumptions, such as epistemology and ontology positions, as in some cases, both methods might use both text and numerical formats. In general, the qualitative data comes from three primary sources: in-depth interview, direct observation, and written documents (Patton, 2002). Table (4-3) provides a summary of the main differences between the qualitative and quantitative research.

Characteristics	Quantitative research	Qualitative research
Origins	Natural science	Social sciences
Philosophic roots	Positivism	Interpretivism
Research design	Deductive, Systemic	Inductive, Flexible
Contribution to theory	Theory testing ,seeks explanation and universal laws	Seeks explanation and solutions
Researcher	Observer , outsider	Participant, insider
Researcher's attitude	Objective	Subjective , empathetic
People are regarded as	Objective	Subjective
Research questions often starts with	Why	How or What
Location	Research centre or laboratory	Field based
Samples or cases	Random ,large, focus on universes	Non-random, small, focus on minorities
Focus	The individual	The group
Records	Frequency	Social meanings
Data	Numeric concept indicators	Non-numeric concepts
Data collection	Surveys and structured, questionnaires	Personal interviews
Represented by	Tables and charts	Transcripts
Analysis	Statistical	Non-statistical
Generalisability	High	Non claimed
Costs	High	Low
Findings	Nomothetic (general laws)	Ideographic (specific to historical and culture context)

Table 4-3: Comparison between the Quantitative research and Qualitative research

Source: Adopted *with modification* from Pierce (2008, p.43)

4.5.3 Justifications for Choosing the Qualitative Research Method

In this research, there are various reasons underpinning the use of the qualitative method for this investigation. Firstly, based on the literature of the research methodology, the main reason behind the use of the qualitative method is the objective of the research and research problem (Ghauri and Grønhaug, 2010). Creswell (1998) has pointed out that, in the first place, the nature of the research question is the most important determinant when selecting which method should be adopted in the research. More specifically, when the research question begins with a word such as ‘why’ or ‘how’, a qualitative approach is more appropriate. In the present research, the question posed begins with ‘how’, with the main objective centred on understanding the KB phenomena and the ways in which CK are generated during services encounters and transferred to the organisation.

Secondly, the qualitative method is mainly used when there is a lack of literature pertaining to the research topic, with the research aiming at generating or otherwise developing theory rather than merely testing theory (Bryman, 2016). Therefore, in this research, a qualitative method is applied as a result of the paucity of literature related to KB through frontline employees during service encounters.

Thirdly, the qualitative method is considered to be the most suitable method in the case of the indicative and exploratory research, as well being the best way of establishing more about social phenomena if the objective of the study is to dig more into the phenomena (Ghauri and Grønhaug, 2010). Moreover, the qualitative method is appropriate when the aim of the research is to study individuals in their natural setting (Creswell, 1998). Furthermore, the qualitative research method is recognised as the ideal approach when the research is conducted in order to investigate topics such as social, cultural and various aspects of people or organisations (Myers, 2013). Therefore, since the objective of the current study is to investigate the role of frontline employees as knowledge-brokers during service encounters so as to transfer CK between the organisation and customers the qualitative approach is more suitable.

Finally, qualitative research is the best choice when the research problem needs to be explored, with the variables cannot be simply identified and the theories not available to describe the phenomena under the investigation (Creswell, 1998). Indeed, in this research, the focus is on identifying the main factors affecting the role of frontline employees to act as knowledge-brokers during service encounters because, based on the literature, KB during service encounters require more attention.

4.6 Research Strategy

The research strategy serves as a research plan that guides the researcher in the completion of the research (Matthews and Ross, 2010). Therefore, after deciding on the research method for the research, the researcher has to determine which research strategy will be used as it provides the researcher with directions concerning research design (Creswell, 2009). Moreover, the researcher has to choose a research strategy that will facilitate answering the research question and meeting the research objectives. According to the business research methodology literature, there are several research strategies in social sciences, including case study, experiment, survey, action research, grounded theory, ethnography and archival research (Saunders *et al.*, 2009). Thus, in the following sections, the case study is discussed as a research strategy used in this research.

4.6.1 Case Study

The case study strategy is considered a research approach to investigate the phenomena and it is more than a method of gathering qualitative data because it helps the researcher to capture multiple perspectives concerning the phenomenon under investigation in its natural context (Blumberg *et al.*, 2014). Thus, it is suitable for exploratory or explanatory research (Myers, 2013). However, based on the literature of social sciences research, the case study approach is widespread for collecting data in the interpretive research, positivist research and critical research (Myers, 2013). According to Yin (2014, p. 16), ‘a case is an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomena and context are not clearly evident’. In this

respect, Myers (2013, p. 78) has pointed out that ‘case study research in business uses empirical evidence from one or more organisation where an attempt is made to study the subject matter in context. Multiple sources of evidence are used, although most evidence comes from interviews and documents’. Thus, the case study might be designed to analyse the phenomena of an organisation, group of people, or individual (Wilson, 2010).

Indeed, the case study approach is very helpful when the aim of the research is to study the phenomena in its natural setting and there is no ability to quantify this phenomenon (Yin, 2014; Myers, 2013; Ghauri and Grønhaug, 2010). The case study approach is used either with exploratory or descriptive alike, and might be designed to answer more than one type of research question, such as exploratory and descriptive, or analytic (Blumberg *et al.*, 2014). Also, the case study approach is the most appropriate in testing or building a theory (Maylor and Blackmon, 2005). Most of case studies fall into three types: exploratory, explanatory, and descriptive (Yin, 2014).

In the same vein, the research problem and research question are considered the major determinant to selecting the case study as the research strategy. The case study strategy is beneficial when the research’s aim is to answer ‘how’ or ‘why’ questions, when the researcher is not able to control the phenomena in its context in the social world, and when the boundaries between the phenomena and their context cannot be defined (Yin, 2014). Furthermore, case studies help to contribute to knowledge through the use of empirical evidence in real life (Myers, 2013).

However, the case study research has various advantages, although there are also disadvantages. The primary benefit of the case study research is that it allows the researcher to investigate the contemporary phenomenon in its real context when the researcher aims to gather a rich understanding into the context, despite not being able to control the context (Yin, 2014; Saunders *et al.*, 2009; Eisenhardt, 1989). Moreover, the case study research is a flexible methodological approach, and is used to investigate the phenomena in the real-life context, and is therefore not the only

method for gathering information. The case study research is also beneficial for developing theory (Blumberg *et al.*, 2014).

On the other hand, the main disadvantage of the case study research, particularly in business settings, is the difficulty in terms of gaining access to the organisations under the study. The case study research has also been criticised for the lack of control of the researcher the situation during the completion of the case study research (Myers, 2013). In addition, the case study research is recognised as a challenge for the novice researcher in terms of focusing on the most significant issues in particular with the huge amount of data produced during the case study in mind of theory-development. Hence, the completion of a case study research is most time-consuming in terms of preparing and analysing the data when compared with other research strategies (Eisenhardt, 1989; Myers, 2013). The case study research is the same as other qualitative methods that have been greatly criticised concerning the ability to achieve the quality criteria.

4.6.2 Types of Case Study

The case study is used to collect data for qualitative or quantitative research, although it may be considered as the most common strategy in qualitative business research (Maylor and Blackmon, 2005; Myers, 2013). In general, case study design might comprise only one case study (single) or otherwise several case studies (multiple) (Eisenhardt, 1989). According to the case study literature, the case study design is divided based on two major factors, namely on the scope of cases and on the type of analysis. Thus, the case study based on the scope can be single or multiple cases whereas based on the approach of analysis; it can be holistic analysis or embedded analysis. The holistic analysis is associated with a single unit of analysis, which can be an individual, an organisation or any entity experiencing the phenomena. On the other hand, the embedded analysis involves multiple units of analysis and it is focused on more than one unit of analysis. For example, the focus might be centred on more than one level within an organisation (Wilson, 2010). Yin (2014) divides case studies into four types: single case design (holistic), single case study (embedded), multiple case designs (holistic) and multiple case designs

(embedded). However, there are some single case studies adopting a multiple case study analysis. More precisely, in this design of single cases, the researcher focuses on a single case study and uses a subcase of analysis (Maylor and Blackmon, 2005).

4.6.2.1 Single and Multiple Case studies Design:

Using single case study design is recommended in different situations. For example, Ghauri and Grønhaug (2010) point out that a single case study is beneficial and fitting when the research aims at testing and building a theory. Case study design is appropriate when the researcher tests long-standing theory (Wilson, 2010). Moreover, it is the best choice for the researcher when the case is considered a unique case for the phenomena under research. Yin (2014) recommends the completion of a single case study design for a pilot study prior to embarking on the main study.

On the other hand, according to Maylor and Blackmon (2005), the multiple case study design is considered an appropriate design if the aim of the research is concerned with various features across cases, as well as the replication of evidence between cases, which will increase the validation of cases. Furthermore, the multiple case study design is suitable for a non-unique case study, and the use of more than one case study must be justified as every case study should help the aim of the research in many cases (Ghauri and Grønhaug, 2010). However, multiple case study designs will help the researcher in the use of the cross-case study analysis so as to make the research more robust in terms of theory-building (Yin, 2014).

Hence, the use of multiple case studies enables a researcher to achieve literal replication through the completion of similar cases whilst predicting similar results or theoretical replications through the selection of different cases and predicting different results (Blumberg *et al.*, 2014). In other words, a multiple case study approach is appropriate when the research aims at predicting similar results amongst replications or showing different findings, but for expected, explainable reasons (Ellram, 1996). In many studies, the results of multiple case studies are more robust when compared with that derived from a single study; this also helps the researcher to provide a generalisation of the results (Blumberg *et al.*, 2014). Furthermore, the

strategy of a multiple case study design is a valuable option when the research seeks to compare the findings from the first case with other cases in order to complete a generalisation based on these findings (Saunders *et al.*, 2009). Indeed, Yin (2014) has communicated a preference for the completion of a multiple case design rather than a single case design owing to the fact that the multiple design helps the researcher to demonstrate direct and theoretical replication, with the findings coming from more than a single case seen to be more convincing.

However, the selection of cases is based on replication logic and not on sampling logic (Blumberg *et al.*, 2014). Moreover, replication logic is considered to be the main rationale behind the decision to adopt the multiple cases studies design, either for literal or theatrical replication, because sampling logic is not acceptable when completing a case study research (Eisenhardt, 1989; Yin, 2014). In addition, the choice of a multiple case study design can achieve logical replication through the separate analysis of each case, notably a ‘within cases analysis’, based on the proposed conceptual framework.

4.6.3 Purposeful Sampling

Purposive sampling is ‘the fundamental principle for selecting cases and individuals in qualitative research’ (Bryman, 2016, p. 420). Purposeful sampling (judgemental) allows the researcher to select cases that will help to answer the research question, especially when there is a small sample, as in the qualitative case study research (Saunders *et al.*, 2009). Purposive sampling is quite often used in the qualitative research when the researcher uses the theoretical framework based on existing social theory (Boeije, 2010).

Thus, the purposive sampling strategy was applied in the selection of case studies in this research as it allows selecting information-rich cases for in-depth investigation (Patton, 2002). More specifically, a purposive sample has been used to select Jordanian banks as case studies. Banking organisations are recognised as high-involvement industries and knowledge-intensive establishments. Moreover, banks are seen to be high-contact service organisations, with frontline bank employees dealing with many customers through highly personal interactions. In addition, in

knowledge-intensive firms, such as banking organisations, the service is most commonly the result of the interaction between frontline bank employees and customers during service encounters. Overall, the bank's service encounters are considered to be the best place for the creation and brokering of CK between customers and the entity. Therefore, in the present work, the multiple case studies approach has been selected across three large commercial banks in Jordan in order to achieve the replication logic through investigating KB during service encounters in each bank.

The researcher conducted initial contact with potential case study organisations, and further sent invitation letters via email to 21 commercial banks in Jordan, followed by a telephone call to explain the aim of the research and in the hope of gaining access to the banks (See Appendix II).

Furthermore, Marshall (1996) argues that the random sampling technique is not suitable for qualitative research as it is not an effective way of investigating a complex phenomenon in real life, with qualitative researchers in many cases coming to realise that there are some informants seen to be more valuable than others. In this regard, purposive sampling is considered more appropriate for qualitative research, whereas theoretical sampling is commonly used for generating theory from data, as in the grounded theory approach (Boeije, 2010). According to the writers, most often in qualitative research, there are two different sampling levels, namely sampling of context and sampling of participants (Bryman, 2016). Furthermore, as has been mentioned previously, the purposeful sampling approach was adopted in order to select the most productive case studies that will help to answer the research question. Moreover, purposeful and snowball sampling techniques were also selected in order to choose the interview's participants for each case study. In fact, the snowball sampling technique is commonly applied when the researcher is experiencing difficulty in identifying participants in the desired population (Saunders *et al.*, 2009). Quite often, through a snowball sampling technique, the key informant might be able to recommend potential candidates for interview (Marshall, 1996).

However, in this research, the snowball sampling technique was adopted for the selection of participants in each bank after conducting the first interview with one manager from top management; this was decided in mind of ensuring access to the bank, with other participants recommended. Moreover, the number of sample was identified during the interview progress, with additional interviews not carried out when data saturation was reached and when no additional themes could have emerged from new interviews.

4.6.4 Number of Case Studies in a Multiple Case Study

There is no agreement regarding the ideal number of cases to be included in a multiple case study design in the current literature. For example, some researchers pointed out that there is no optimal number when conducting a multiple case study design because the critical point of deciding the number of cases is reaching ‘theoretical saturation’ (Eisenhardt, 1989). Theoretical saturation occurs when the researcher reaches a situation where new information does not emerge when collecting new data (Maylor and Blackmon, 2005). In other words, the researcher refrains from adding additional case studies when no new insights can be obtained that differ from that collected from previous cases (Eisenhardt, 1989). However, Maylor and Blackmon (2005) suggest that the proper number of multiple cases must be no less than two cases and no more than eight cases, whereas Perry (1998, p. 794) contends that ‘the widest accepted range to fall between two to four as minimum and ten, 12 or 15 as maximum’.

Therefore, in this research, three case studies were carried out as this was the point at which theoretical saturation was reached. As Eisenhardt (1989, p. 545) states, ‘researchers should stop adding cases when theoretical saturation is reached’. Additionally, this number falls within the optimal range suggested in the current literature.

4.6.5 Justifications for the Use of a Case Study Strategy in the Present Work

In this research, the emphasis is placed on studying the phenomena of KB during service encounters in services organisations. Thus, it was not possible to isolate this phenomenon from its context as KB is socially constructed in the organisational

context. According to Yin (2013), in most explanatory cases studies, the research questions begin with ‘how’ or ‘why’. In this vein, it is notable to highlight that the research question posed in this study is ‘How do frontline employees serve as knowledge brokers between customers and organisation during the service encounters in order to transfer three kinds of customer knowledge?’.

Ghauri and Grønhaug (2010) suggest that if the research approach is inductive and the aim of the study is to provide a general explanation, the optimal design for such a research is a multiple case study design. Therefore, the present study adopts an inductive approach, where the aim of the study is centred on investigating the role of frontline employees as knowledge brokers between customers and organisation during the service encounter, as well as to identifying the most critical factors that influence this role. By so doing, and for these reasons, the best way of gathering data is through a multiple case study design. Maylor and Blackmon (2005) reported that one of the reasons underpinning the use of a similar multiple case study design is the ability to carry out a replication approach. Furthermore, this approach can help the researcher in analysing the differences and similarities between the cases and using ‘cross-case’ analysis, as well helping to answer the research question; this increases the overall validity of the data collection method and the value of the research (Yin, 2014). Therefore, in this research, the multiple case study design was employed by gathering data from three banks in Jordan so as to investigate the role of frontline employees as knowledge brokers between customers and organisation during the service encounter, as well as to identify the critical factors that influence this role.

4.6.6 Case Study Protocol

Yin (2014) points out that in the case study research, researchers should understand the case study protocol, especially when using a multiple case study design. The case study protocol aims at helping the researcher to control the contextual environment of the research, which could help to ensure the completion of multiple cases with the same design, despite the different circumstances (Perry, 1998). Moreover, a case study protocol serves to guarantee the consistency of the case study when the

researcher gathers data from different sources (Eisenhardt, 1989). The protocol is also recognised to help the researcher to prepare in advance for data collection procedures and assists in increasing the reliability of the research findings through giving the researcher directions that enhance results (Yin, 2014). In other words, the case study protocol works like a road map in its ability to assist the researcher in the completion of the case study (Perry, 1998). Thus, it is more than interview questions, and contains general rules and producers that guide the researcher throughout the data collection stage (Dubé and Paré, 2003). Furthermore, Gibbert *et al.* (2008) add that having a case study protocol will improve the quality of the case study research owing to its ability to show the way in which the entire case study has been conducted. In essence, the case study protocols with a case study database are the two tools able to ensure reliability in the case study (Yin, 2014).

Therefore, in this research, the case study protocol was developed in order to ensure the completion of multiple case studies in line with the same procedures and in mind of improving the research quality criteria, such as reliability. Hence, the main part of the case study protocol is the interview protocol, which helps the researcher to ensure the same guide of interview questions is followed in each interview (see Appendix III).

4.7 Data Collection

The qualitative findings are obtained based on the collection of three different types of data, namely: in-depth interviews to gain insight into people's experiences (i.e. through their direct quotations; direct observations (i.e. through a detailed description of observations); and the analysis of the written documents (Patton, 2002). Maylor and Blackmon (2005) further note that the use of more than one source for gathering data in the case study is recognised as both helpful and valuable in answering the research questions, with these resources also increasing the quality of the case study. Importantly, all case study scholars emphasise that a case study needs to be based on multiple sources of evidence in order to achieve validity (Blumberg *et al.*, 2014). Yin (2014) suggests six different sources of evidence in the case study research: field interviews, documentation, archival records, direct

observations, participant-observations, and physical artefacts. The use of multiple sources of evidence in the case study research assists the researcher in overcoming the weaknesses associated with one approach with the strong points of another (Blumberg *et al.*, 2014). Therefore, in this study, three sources of evidence, namely semi-structured interview, direct observation and documentation, were employed in order to gather as much evidence as possible.

In this research, a triangulation strategy was employed throughout the data collection process, triangulation is a process of using a combination of evidence from individuals, data sources or methods of data collection in order ensure the overall accuracy of the study: in this case, information does not come from one source (Creswell, 2002); hence, Patton (2002) points out that the use of multiple data sources, such as the combination of interviews, observation and document analysis, is recognised as a type of triangulation. Triangulation falls into four types, namely data method, data sources, theoretical triangulation and the triangulation of investigators (Krefting, 1991).

The current literature has emphasized the need for importance of using and triangulating several sources of data in the case study research (Saunders *et al.*, 2009). For example, Triangulation in social research is a helpful strategy that improves the overall quality of the research. Moreover, the triangulation logic helps the researcher to overcome bias when using a single data source. Yin (2014) recommends the application of triangulation during the collection of data and not only the use of an individual source of evidence as the main strength of the case study comes from the use of multiple sources of evidence to investigate the phenomena under study.

The pilot interview is seen to be beneficial prior to conducting the main data collection stage as it allows the researcher to gather feedback pertaining to the research topic, which is useful when posing questions (Griffie, 2005). Moreover, Barriball and While (1994) argue that carrying out a pilot interview schedule provides researchers with valuable experience, and therefore, it is considered as a good training before completing the main data collection process. Furthermore, a

pilot study is recommended as it can help to identify practical problems that could arise as a result of research procedure, which helps with designing a case study protocol (Van Teijlingen and Hundley, 2001). Thus, in this study, a pilot study was carried out through the completion of three interviews with bank managers in order to improve the case study design, interview schedules and questions.

4.7.1 Interviews

An interview is considered as a core tool for data collection in social sciences. Interview is a conversation between two parties, mainly the communication between the interviewer (researcher) and the interviewee (respondent) via a face-to-face or virtual meeting (via telephone or internet) (Matthews and Ross, 2010). Similarly, Ghauri and Grønhaug (2010, p. 126) define an interview as ‘face-to-face verbal exchanges, in which one person, the interviewer, attempts to obtain information or opinions or beliefs from another person, the interviewee’. There are three ways of conducting an interview, such as by email, telephone or in-person (personal interview).

In qualitative research, many methods help a researcher to collect and generate data, such as interviews, observations and fieldwork, focus groups and document use (Lee and Lings, 2008; Myers, 2013). Indeed, interviews are recognised as the most popular and well-known tool in this regard, and is recognised as the best way of collecting in-depth data due to it being a flexible method for data collection (Lee and Lings, 2008). Moreover, the use of interview leads to understand the view, opinion and experiences of the respondent through words (Easterby-Smith *et al.*, 2015). Furthermore, in-depth interviews help the researcher to garner rich answers from the interviewee regarding their own perspectives in relation to the phenomena under study (Lee and Lings, 2008).

4.7.1.1 Interviews Types

Easterby-Smith *et al.* (2015) point out that research interviews fall into three types in terms of structure: highly structured interviews, unstructured interviews, and semi-structured interviews. However, Lee and Lings (2008) affirm that in-depth

interviews might be unstructured or semi-structured, suggesting that structured interviews are not considered in-depth.

Highly Structured Interviews (Survey Research):

In this type of interview, the interviewer asks the same questions across all interviewees, adopting the same tone of voice, with the interview questions seen to be short and direct (Easterby-Smith *et al.*, 2015). Thus, it is suitable if the researcher has a large number of questions outlined on an interview sheet as the respondent will not take a long time to answer the questions (Wilson, 2010).

In many cases, this type of interviews is used in quantitative research more than in qualitative research (Lee and Lings, 2008). Furthermore, structured interviews are associated with a positivism paradigm; through such a type of interview, all the questions are planned beforehand. This means that questions cannot be modified during the interview or after an interview with other interviewees (Collis and Hussey, 2009). Moreover, the respondents are not allowed to pose additional questions regarding the topic of the research or in line with the questions asked in this type of interviews (Wilson, 2010). Therefore, the reliability of this type of approach is very high in comparison with other types of interview (Baker and Foy, 2008).

Unstructured Interviews:

Some researchers refer to this type of interview as an informal or non-direct interview (e.g. Baker and Foy, 2008) that is relatively similar to general conversation, with the answer to one question, in many cases, leading on to the next question (Pierce, 2008). In this type the interview commonly begins with broad questions that are not direct to the research topic (Wilson, 2010). Accordingly, the researcher does not prepare questions in advance but rather asks questions during the interviewee based on the discussion (Collis and Hussey, 2009). The aim of this type of interview is to give the respondent the freedom to give opinions and their own individual perspective on the research topic. Thus, the role of the interviewer in the unstructured interview is merely leading the discussion through the introduction of the most important points of interview questions (Ghauri and Grønhaug, 2010). It is

believed that this is very useful for the first phase of exploratory research because the aim of the researcher is to gain extra information regarding the research (Baker and Foy, 2008).

In contrast with other types of interview, unstructured interviews are considered costly with respect to time, with the researcher commonly facing difficulties in keeping the interview focused on the topic at hand whilst keeping the interviewees on track (Collis and Hussey, 2009). Moreover, the analysis of this type of interview is difficult because some of the interview content might expand onto other topics, with too many themes identifiable through one interview (Wilson, 2010).

Semi-structured Interviews:

The semi-structured interview can be linked with qualitative research, and it is considered the best approach when a researcher is keen to gather in-depth data regarding the behaviour or experience of the interviewees. Additionally, semi-structured interviews are located between highly structured and unstructured interviews. In this type of interview, the interviewer prepares some questions and might ask various probing questions depending on the discussion and interviewee answers during the course of the interview (Lee and Lings, 2008). In other words, semi-structured interviews are a mixture of open-ended and closed questions, with the interviewer has a discussion guide and flexibility to ask extra questions to obtain additional data from the interviewees. Thus, the validity of this type of interview is greater than in the case of a structured interview because the respondent can express their opinion with freedom and using their own words (Baker and Foy, 2008).

Number of scholars has suggested different situations that favour the use of semi-structured interviews. For example, Lee and Lings (2008) point out that semi-structured interview is an appropriate method when the researcher has a theoretical framework, which helps the researcher to garner useful information for collecting data. Moreover, semi-structured interviews are suitable when gathering data from multiple case studies. In addition, semi-structured interviews give the researcher a greater advantage when there is a need to draw a comparison between cases (cross-

case analysis) as the researcher asks the same questions of all respondents, notably in contrast to unstructured interviews.

Given the merits of semi-structured interviews discussed above, this research adopted semi-structured interviews. In this research, a conceptual framework has been built based on the literature of KB and KS. In addition, a qualitative approach and multiple case study design have been adopted in mind of gathering data from services organisations.

4.7.2 Observation

Observation is one of the major three ways in which primary data can be collected from the field of qualitative research (Saunders *et al.*, 2009). Observation, concerns any observable human experiences or organisational processes within the context (Potton, 2002). Myers (2013, p. 137) simply defines observation as ‘watching other people from the outside’. In addition, this supports the researcher in obtaining data from the social world through observing people in their normal environment (Lee and Lings, 2008).

In many cases, in the qualitative research, the data gathered through the interview method alone is recognised as incapable of providing complete understanding in regards the phenomenon under investigation. Thus, researchers quite often use observations as a method to achieve more in-depth value from the fieldwork (Myers, 2013).

Based on methodology books, scholars have distinguished between two types of observation based on the role of the researcher in the observation process, namely direct (or non-participant) and participant observation (Mayers, 2013; Yin, 2014; Collis and Hussey, 2009). In non-participant observation, the researcher might only observe what people are doing without being involved in observation. Direct observations are appropriate if the research question aims at investigating what has happened in a real setting. Through this method, the researcher needs to pay attention to what goes on and must record actions in order to analyse observations in the future (Fitzpatrick and Boulton, 1994). In the participant observation, on the

other hand, the researcher participates in the observation and not only acts as a passive observer (Collis and Hussey, 2009).

It has also been suggested that observations can also be differentiated based on whether it is structured or unstructured. In the structured observation, which are used in the positivism research when the role of the researcher is limited to record certain observations and behaviours. On the other hand, following the unstructured observations, the researcher observes all actors' actions and behaviours (Mulhall, 2003). Using the above two classification criteria (i.e. role of researcher and the degree of structure), scholars suggested that direct observation (non-participant) and participant observation can be either structured or unstructured observation.

In this research, direct observations were used in combination with semi-structured interviews and documentation as they are most common in qualitative business research and do not require long periods of time in participant observations. Therefore, the researcher employed direct observation (non-participant observation) to observe the KB process during service encounters and to observe organisational culture, as recommended by Yin (2014). By so doing, the researcher visited several branches in each of the three case study banks and spent some time observing the daily work of the branch and the frontline bank employees during service encounters. This was done after gaining permission to take field notes during the completion of interviews, which played a major role in facilitating the observation of the phenomena of KB. Moreover, the researcher attended some of the different training workshops provided to frontline bank employees in the virtual branches, but notably as an observer and not a participant.

4.7.3 Documentation

Document is another source of data, which refers to the pre-existing data that have been generated by someone other than the researcher, with such data also used in qualitative and quantitative research (Lee and Lings, 2008). In this vein, Bryman (2016 p. 567) points out that 'documents constitute a very heterogeneous set of sources of data, which include personal documents, official documents from both the state and private sources and the mass media'. In case study research, the

documentation which provides explicit evidence is used to support evidence from other sources, such as interviews and observations (Myers, 2013; Yin, 2014). In many different situations, document reviews will help the researcher to understand what goes on in an organisation and will provide further enlightenment regarding the phenomena under study (Bryman, 2016). Thus, organisation documents may adopt the following forms: newsletter, mission statements and meeting minutes, job definitions, annual reports and internal policy documents, for example (Lee and Lings, 2008).

In the present research, several different types of documentation were used as secondary data in order to support the primary data gathered from the interviews and field observations. For example, organisations' websites and annual reports were reviewed in mind of garnering knowledge pertaining to the organisation background. Moreover, documents published by the Central Bank of Jordan were used as supplements regarding the competitive position and background of those banks involved in the research. Furthermore, some of the documents used in the training workshops provided to frontline bank employees have been used so as to improve their ability to transfer knowledge throughout the service encounters.

4.8 Data Analysis

Data analysis in qualitative research refers to the process of searching and organising data evidence, such as the interview transcript, field notes and other evidence that helps the researcher to increase overall understanding of the data and to display the findings (Bogdan and Biklen, 1998). In general, there are two fundamental activities in the analysis of qualitative data; these activities are focused on segmenting and reassembling data (Boeije, 2010). Hence, the data analysis process encompasses various sub-processes, namely working with data, organising data, divided data into manageable items, synthesising data, searching for patterns, determining what is important, and what data can to be communicated to others (Bogdan and Biklen, 1998).

According to Myers (2013), the qualitative data analysis approach helps the researcher to recognise the meaning of data, the key themes in the data and the

contribution of the data to the knowledge. Nevertheless, the process of the qualitative data analysis is an interactive process involving three overlap activities: data reduction, data display and conclusion drawing and verification (Miles and Huberman, 1994). Data reduction is related to the process of decreasing and organising the data through several activities, such as sorting, focusing, coding, transforming, and summarising the data so as to help with drawing the final conclusion. Data display is related to the activities concerned with drawing and showing data conclusions from a large volume of data, which is commonly done through the presenting of charts, graphs, networks and matrices. The activity of conclusion-drawing and verification is concerned with drawing logical meaning from the evidence based on the data.

The analysis of qualitative data is deemed a complicated process because of the vast size of qualitative data (Collis and Hussey, 2009; Myers, 2013), with no uniform technique adopted for analysing qualitative data (Saunders *et al.*, 2009). For example, according to Myers (2013), there are two ways of interpreting the qualitative data, either through a top-down or a bottom-up analysis. Thus, the top-down approach refers to analysing the data relying on the literature of the research, whereas in the bottom-up approach, the researcher uses concepts generated from the data collected. On the other hand, Maylor and Backmon (2005) divided qualitative data analysis into two styles, namely structured and unstructured analysis: structured analysis is similar to the top-down analysis whereas unstructured resembles the bottom-up analysis. However, according to scholars, there are several techniques for analysing qualitative data: grounded theory, analytical induction, series of event, critical incidents, hermeneutics, conversation analysis, discourse analysis, narrative analysis, metaphorical analysis and content analysis (Bryman, 2016; Blumberg *et al.*, 2014; Collis and Hussey, 2009; Myers, 2013; Maylor and Backmon, 2005).

4.8.1 Unit of Analysis

The unit of analysis is a vital step in the research design and is very relevant for all parts of the research process, which refers to the level and objects researched (Blumberg *et al.*, 2014). In the current study, bank employees were employed as the

focal unit of analysis in this research to investigate the role of frontline employees as knowledge brokers between customers and organisation during the service encounter, as well as to identify the critical factors that influence this role.

4.8.2 Qualitative Content Analysis

In general, content analysis refers to any attempts made in relation to qualitative data reduction in order to identify the core meanings of data (Potton, 2002). Content analysis is ‘a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use... and it provides new insights, increases a researcher understands of particular phenomena or informs practical actions’ (Krippendorff, 2004, p. 18). The main reason behind content analysis technique use is the reduction of the size of data to a manageable amount and textual analysis data alongside other forms of evidence (Blumberg *et al.*, 2014; Flick, 2014).

Based on the research methods literature, two types of content analysis have been used to understand the meaning derived from the content of data, namely quantitative and qualitative (Graneheim and Lundman, 2004; Hsieh and Shannon, 2005). The quantitative content analysis technique is employed to test hypotheses in deductive research through counting the manifested text (Zhang and Widemuth, 2009). However, qualitative content analysis is concerned with more than counting words as in traditional quantitative content analysis; rather, emphasis is placed on the latent content (Graneheim and Lundman, 2004). Qualitative content analysis has been commonly used in qualitative research and refers to the subjective interpretation method used to analyse text data through a systematic process using coding and themes to understand the phenomena under investigation (Hsieh and Shannon, 2005). Hence, content analysis has been used widely in analysing interview transcripts in the case study research (Patton, 2002).

Therefore, qualitative content analysis was used in this work to investigate the role of frontline employees as knowledge brokers between customers and organisation during the service encounter, as well as to identify the critical factors that influence this role.

In addition, qualitative content analysis has been used to gain more in-depth meaning of the qualitative data. Maylor and Blackmon (2005) recommend the use of qualitative content analysis when the researcher's emphasis is placed on searching out underlying themes. Moreover, according to Hsieh and Shannon (2005), there are three approaches to the qualitative content analysis: conventional, directed and summative approach. The directed approach is a structured process and is considered the most appropriate when the aim of the analysis is to validate the conceptual framework about the phenomenon. Therefore, in this research, the directed qualitative content analysis approach was implemented in an effort to validate the proposed conceptual framework. Moreover, in the directed content analysis approach, prior research and the conceptual framework concepts are used as initial coding (Maylor and Blackmon, 2005). Despite the qualitative content analysis being based on deductive interpretation in validating the conceptual framework (Zhang and Waltemath, 2009), the inductive interpretation has also been used in our analysis to allow new patterns that previously did not exist in the conceptual framework to emergent. However, quite often in practice, the researcher combines elements of the inductive and deductive approaches during the analysis of qualitative data (Saunders *et al.*, 2009). Furthermore, most researchers use a combination of inductive and deductive approaches during the analysis to gain the full advantages of qualitative content analysis (Drisko and Maschi, 2015).

4.8.3 The Process of Qualitative Content Analysis

Despite there being no standardised procedures for analysing the qualitative data, there are three groups of processes employed for analysing qualitative data: summarising meaning, categorising meaning and structuring meaning (Saunders *et al.*, 2009). On the other hand, the qualitative content analysis process includes three main stages: data preparation, data organisation and findings reporting (Elo and Kyngäs, 2008). Moreover, Zhang and Waltemath (2009) provide eight steps to the qualitative content analysis process. These steps were followed throughout this analysis process as follows.

1- Data Preparation:

The qualitative content analysis deals with different sources of data, but in the written text format prior to starting a process of data analysis. Thus, in this research, all audio interviews were transformed to written text through transcribing each interview and then translating the interview text from Arabic to English. Thereafter, a back translation technique was applied through an independent assistant to test the overall accuracy of translation, as recommended by Douglas and Craig (2007).

2- Defining the Unit or Theme of Analysis:

Overall, the coding process is the first step in the process of qualitative data analysis (Bryman, 2016). Therefore, the coding unit refers to a part of the text that will be coded during the analysis of the content. In the qualitative content analysis, the individual themes are most often used than in the quantitative content analysis, which considers words, sentences or paragraphs (Zhang and Waltemath, 2009). Thus, in this analysis, emphasis has been placed on looking for any text that expressed the idea of themes, even if through a single word or chunk of text (An example is presented in Appendix (V) concerning the open coding stage).

3- Categories Development Scheme Coding:

Categories and a coding scheme can be produced from the data, theories or literature, and might be devolved in an inductive or a deductive way. Hence, most often, the deductive way is used to generate the initial code from the conceptual framework, with the inductive method then used to modify the conceptual framework (Miles and Huberman, 1994). Therefore, the deductive approach was used to produce the initial codes based on the conceptual framework, whereas the inductive approach was applied in order to allow any new themes to appear from the data.

4- Coding Scheme Testing:

Zhang and Waltemath (2009) recommend that the coding scheme be tested through a sample of coding in the early stages in order to validate the coding scheme and check consistency. Hence, if consistency is low, the researcher needs to revise the coding scheme so as to achieve sufficient consistency. Thus, after coding the first interview as a sample, consistency was checked, with improvements made to the coding rules.

5- Complete Texting Coding:

The coding scheme applies to the entire text after achieving consistency in the coding sample, which means the opportunity for new themes and concepts to emerge, and the addition of new codes to be implemented into the rest of analysis, becomes present (Zhang and Waltemath, 2009). Indeed, in the coding stage, the coding of the rest of the interviews was carried out based on the first codes generated in the first interview, with new codes added as needed if a code was found not to exist in the first interview.

6- Coding Consistency Assessment:

In this stage, the testing of the coding scheme needs to be carried out after coding all the interviews and, in particular, in mind of new codes that have been added after the coding sample (Zhang and Waltemath, 2009). Therefore, after completing the coding for all interviews, the consistency was checked for all codes in order to correct mistakes and ensure consistency at the level of all interviews.

7- Draw Conclusions from the Coded Data:

This is the most important step in the analysis process, which includes making sense of the categories or themes so as to identify links between the categories through shedding light on patterns and testing the categories for the data as a whole (Zhang and Waltemath, 2009). In this research, a within-cases analysis was applied for each case in order to extract meaning from the categories or themes at the level of the case, as Yin (2014) recommended prior to conducting a cross-case analysis.

8- Methods and Findings Reporting:

In the final step of the qualitative content analysis, the researcher needs to explain and report on the analysis procedures applied during this process. Miles and Huberman (1994) point out that the third fundamental activity in the process of qualitative data analysis is the way in which the conclusions of the interpretations are presented, whereas presenting the findings of the qualitative content analysis is considered a difficult step in the process as a whole (Zhang and Waltemath, 2009). Thus, in this research, attention was directed towards explaining the procedures of the qualitative content analysis used to analyse the data, with a cross-case synthesis following the within-cases analysis carried out in order to represent the findings of the research.

4.8.4 Qualitative Data Analysis Software

In recent years, Qualitative Data Analysis (QDA) software has been used widely to facilitate the analysis of qualitative data (Bryman, 2016). The purpose of the software program is to assist the researcher in managing and organising the data analysis process with efficiency (Flick, 2014). Therefore, QDA software does not automatically analyse the data, as in the case of quantitative computer software. Nonetheless, it does help with various actions, such as data storing, coding and retrieval, as well as comparing and linking (Patton, 2002). Despite there being several QDA software programs available, the main focus is centred on coding the text and retrieving the codes to link the text with themes (Bryman, 2016). However, it remains that the use of QDA software helps the researcher to reduce the time of analysis, increase the quality of the research, and improve the overall validity of the analysis process (Flick, 2014). In this vein, Myers (2013) recommends that researchers use QDA software when completing a qualitative research—and, more specifically, when the content analysis technique is applied. Hence, QDA software makes qualitative content analysis more manageable (Zhang and Waltemath, 2009).

4.8.5 Using NVivo 11

NVivo software is commonly used in qualitative data analysis and helps the researcher in multiple tasks, namely managing data, managing ideas, querying data,

visualising data and generating reports from the data (Bazeley and Jackson, 2013). Furthermore, NVivo software is a useful QDA software dealing with large volumes of data and has the ability to count words, connect phrases and segments and deal with several types of data, such as text, audio and video (Blumberg *et al.*, 2014).

In this study, NVivo 11 was used to perform a systematic analysis and assist in organising the process of coding the transcribed data stemming from the semi-structured interviews, documents and observations. Importantly, the auto-coding feature was not used in the coding of the transcripts of the interviews; this was decided against because the auto-coding feature does not help with semi-structured interview questions, nor does it help the researcher in conducting a qualitative content analysis and reflecting on interpretations of the data. NVivo software does not analyse data in the place of the researcher, but rather it helps the researcher in identifying a link between the data and retrieving data quickly so as to reduce the time of the analysis process, whilst also ensuring transparency in the analysis.

4.8.6 Quality of the Research

The quality of the qualitative research refers to the extent to which the research findings and conclusions convincingly describe the social phenomenon under study (Boeije, 2010). Historically, the achievement of rigour in qualitative research is considered challenging more so than in quantitative research (Krefting, 1990). The main criticism concerning qualitative methods is relating to the frequent inability to reach or achieve rigour when compared with quantitative methods (Sandelowski, 1986). Furthermore, based on the research methods literature, there is no consensus in relation to the criteria to be used when testing the quality of the qualitative research (Rolfe, 2006). For example, according to Bryman (2016), there are three primary criteria representing the quality of social research, namely reliability, replication and validity; Maylor and Blackmon (2005), on the other hand, use four criteria for assessing the quality of qualitative research, namely reliability, validity, credibility and generalisability. Yin (2014) points out that the four concepts used to test the quality of any social research apply to case study research as well, namely trustworthiness, credibility, confirmability and data dependability. Rolfe (2006)

argues that the lack of agreement regarding the criteria for testing the quality of qualitative research is owing to the absence of a unified methodology and theory in the qualitative research.

Guba and Lincoln (1994) have adopted various labels when referring to the quality criteria in the qualitative research from those used in quantitative research, such as trustworthiness, confirmability, dependability, credibility and transferability. However, despite there still being a lack of consensus pertaining to these criteria, the decision was made to adopt the Maylor and Blackmon (2005) criteria in order to judge the quality of the research. Thus, these criteria deal with four sets covering the most common criteria: reliability, validity, credibility and generalisability.

4.8.6.1 Reliability

Generally, the reliability concept is concerned with the overall replicability of the research findings when other studies have used the same procedures (Ritchie *et al.*, 2013). According to the framework of (Maylor and Blackmon, 2005, p. 363), the level of reliability is defined after answering the following question, ‘Would it be possible for the work to be repeated and obtain the same or a similar result?’.

Furthermore, reliability in a case study research refers to the ‘operations of a study, such as the data collection procedures-can be repeated, with the same results’ (Yin, 2014, p. 46). Unlike quantitative studies, which lead to a higher level of reliability, qualitative research would be challenging to repeat in an identical way whilst achieving the same results (Maylor and Blackmon, 2005). Therefore, the main idea underpinning reliability criteria is the minimisation of biases and reduction of errors in qualitative research (Sandelowski, 1986; Dubé and Paré, 2003). Hence, ‘the reliability of findings depends on the likely recurrence of the original data and the way they are interpreted’ (Ritchie *et al.*, 2013, p. 272).

However, reliability in the qualitative research can be achieved initially through gathering accurate data recording and completing a transcription of the interviews (Lewis, 2015). Moreover, Yin (2014) provides various tactics that can help a researcher to achieve a high level of reliability in regards the case study research. He suggests the researcher uses the case study protocol and generates a case study

database. Hence, these tactics ensure that the same results are obtained if the research is repeated in the same steps whilst using the same data.

In this inquiry, a case study protocol was applied in order to ensure that the same procedures could be used across all study cases. Specifically, a case study database was generated for each case study through recording and transcribing all interviews, as well as documenting all steps of the field investigation. Thus, the case study database was developed using the NVivo program in order to group all raw materials of the three case studies into one place, namely interviews audio, interview transcripts, field notes and interview analysis material, in much the same way as coded data.

4.8.6.2 Validity

The validity criteria are concerned with the accuracy of the researcher to explain the phenomenon under study, as perceived by the study population. Thus, it is related to the research methods used, the quality of the analysis process, and the interpretation of data (Ritchie *et al.*, 2013). Maylor and Blackmon (2005) point out that when needing to evaluate the validity of the qualitative research, there is a need to answer various questions, such as, ‘Does the work reflect the reality of the issue or situation being investigated?’ In the same vein, Yin (2014) used the label of construct validity to refer to validity, suggesting that the use of multiple sources of evidence, establishing a chain of evidence and reviewing the draft of the case study report by respondents increases the overall validity inherent in the case study research. In other words, the main idea underpinning the validity criteria is the need to ensure all elements are examined, from the right data to the right source.

Therefore, in this study, a number of procedures leading to increased validity and quality of the research were applied, with the interview questions reviewed and revised alongside academic staff on two different occasions; once prior to the conduction of the pilot study and a second time before the main data collection stage in the fieldwork.

The full information relating to the study was provided to the interviewees through invitation via email before conducting the interview. Moreover, the sample was

provided with participant information sheets, which included complete information relating to the purpose of the study and the procedures of the meeting.

The researcher applied the triangulation of the qualitative data sources in the research so as to enhance the overall validity of the study and accordingly reduce bias. As suggested by Patton (2002, p. 556) in regards the use of triangulation in increasing the overall validity of the qualitative research: 'Four kinds of triangulation can contribute to verification and validation of qualitative analysis'. Thus, in the first place, the researcher used multiple sources of data (interview, observation and organisation documents published on the website). Moreover, the researcher collected the data from a different point of view within the same organisation. Hence, the semi-structured interviews were conducted across three levels: at top management level; at middle-manager level (branch manager); and at the frontline employees' level.

In addition, after generating the first draft of each case study report, the researcher has contacted (using email or telephone) with key informants to review the report and to seek their feedback about the report.

4.8.6.3 Credibility

Credibility in qualitative research is associated with how vivid and accurate the description of the phenomenon may be seen to be (Beck, 1993). Whereas positivist researchers use internal validity labels, interpretivists use credibility concept in order to check that their study measures what is intended (Shenton, 2004). In other words, credibility criteria are concerned with the way in which the researcher presents the findings, with the credibility of the qualitative research is quite often related to the researcher's overall ability and efforts (Golafshani, 2003). Maylor and Blackmon (2005) argue that the researcher is able to achieve credibility through ensuring that the way the findings are presented will lead to the impression that they are well grounded.

The use of the quotations of informants helps to increase overall credibility in the findings of the qualitative research (Beck, 1993). Lee and Lings (2008) recommend

the inclusion of raw data when writing up the results, such as direct quotations from the research participants, so as to clarify the views of the respondents and not only focus on the researcher's own interpretation. Moreover, according to Fisher (2001, p. 601) 'use of verbatim quotations in the findings of the reports assists the reader in establishing the trustworthiness of the research, and therefore allows the reader to assess whether the findings may be transferable to their practice'.

In this research, direct quotations from interviewees were used whenever the need was required to support some argument in within-case study reports for each case study. This was done in order to highlight the robustness of the findings. Moreover, multiple sources of data were used to increase the credibility of the research findings.

4.8.6.4 Generalisability

According to Maxwell (1992, p. 293), generalisability in the qualitative research 'refers to the extent to which one can extend the account of a particular situation or population to other persons, times, or setting than those directly studied'. Yin (2014) adopted the external validity label to refer to the generalisability criteria in the case study research, whereas Guba and Lincoln (1981) used the term 'transferability' instead of 'generalisability'. Thus, generalisability or external validity refers to the extent to which the findings of the research are generalisable in any case using the other research methods. Maylor and Blackmon (2005) considered the generalisability criteria in terms of how the findings apply to the world beyond the context of the investigation. In this vein, Maxwell (1992) distinguishes between two types of generalisability in the qualitative research, namely internal generalisability and external generalisability. The former is involved with the generalising of the findings within a community that has been observed as part of this community, whereas external generalisability is related to generalising the results to other communities. The lack of generalisability in the qualitative research is recognised as the greatest criticism of this research as the qualitative research was not designed to be representative in terms of statistical generalisability, such as through quantitative research (Pope *et al.*, 2000).

Indeed, in this study, the need to increase the overall generalisability of this research is necessary. Thus, replication logic was applied through the completion of multiple case studies, as per Yin (2014) suggests, so as to improve the external validity (generalisability) in the case study research.

4.9 Ethical Considerations

In general, research in social science is a human practice, with the ethical principles needing to be afforded high attention from researchers owing to the central concept in qualitative research being that of trust (Boeije, 2010). In other words, the researcher must be able to morally defend the way in which the research was conducted when faced with all parties involved in the study (Blumberg *et al.*, 2014). McNabb (2008, p. 20) interrelates the research ethics with doing the right things, and defined the research ethics as ‘the application of moral standards to decisions made in planning, conducting and reporting the results of the research studies’.

In the qualitative research, the respondent has several rights that must be protected. Thus, Blumberg *et al.* (2014) suggest that, in order to protect these rights, the researcher needs to take into his account three actions throughout the process of the research design, namely give details about the benefits of the study, clarify participants’ rights and protection and obtain informed consent.

Therefore, in this research, the recommendations outlined by Blumberg *et al.* (2014) were followed in regards the three procedures during study design so as to ensure the protection of the rights of the interviewees in the research. In the first instance, the researcher has obtained ethical approval from Brunel College of Business, Arts and Social Sciences Research Ethics Committee (see Appendix I) prior to conducting the pilot study. Secondly, during any contact with organisations’ management, the researcher needed to ensure the participants’ information sheet was attached with the invitation email and letter (see Appendix II) in order to ensure the benefits of the study and rights of the participants during the interview were explained. Thirdly, before all interviews, the researcher provided the participant with a consent form (see Appendix IV) in order to ensure their acceptance of conversation recording using audio tape and to communicate their rights during and following the interview.

Confidentiality or anonymity is considered the most important requirement in qualitative research, especially when conducting interviews. Thus, the readers of the research report should not be able to identify which organisation or which persons participated in the researcher (Flick, 2014). Therefore, in this research, confidentiality and anonymity were achieved through the following actions. Before starting field work, so as to facilitate the process of obtaining access to organisations, the researcher got letter—from Brunel Business School (see Appendix II). Following the collection of the data, the researcher committed to the following: firstly, only the interviewer had the right to access the audiotape, as well as all information gathered, coded and anonymised; secondly, the transcript was carried out and checked by the researcher so as to ensure accuracy and confidentiality; third, all information shared with the researcher during the interview was kept strictly confidential, with any information relating to the interviewees, such as names and addresses, removed. Importantly, in regards this final consideration, the real name of the organisations remained anonymous and were replaced with X, Y and Z.

4.10 Chapter Summary

In this chapter, the researcher has provided an introduction to the research philosophy assumptions, methods and techniques, and research methodology. In addition, the discussion has focussed on the research methodology to be employed in this research.

The researcher employed an interpretive paradigm and applied a qualitative approach using multiple case study strategy in order to investigate the role of frontline employees as knowledge brokers between customers and organisation during the service encounter, as well as to identify the critical factors that influence this role.

Furthermore, in this chapter, a justification of the reasoning behind the use of the interpretative underlying epistemology, qualitative approach and case study for data collection has been put forward. Furthermore, the data analysis technique used to interpret the data was discussed in consideration to the data gathered through the use of the semi-structured interview, non-participant observations and documentations. Hence, in this chapter, the quality and rigour criteria underpinning the qualitative

research were highlighted, with light shed on the main actions implemented in order to reach a high level of quality in the research.

At the end of this chapter, the importance of the ethical considerations were considered and shown, alongside the main actions employed in this research during the processes of research design, data collection, data analysis, and findings presentation.

Chapter 5 : Multiple Case Studies: Analysis and Findings

5.1 Introduction

In the previous chapter, we discussed the research methodology and the justification for utilising the qualitative approach and case studies design to conduct this research. The purpose of this chapter is to present the finding of the data analysis of the three case studies of the top three Jordanian commercial banks. This data was collected primarily through the semi-structured interview with the Jordanian bank's managers and frontline employees.

This chapter has been broken down into three main sections. The following section of this chapter provides the 'within-case analysis' and descriptions analysis of the three cases based on the semi-structured interviews, documents, and observations. The third section in this chapter provides summary of this chapter.

5.2 Case Studies Analysis

The rest of this chapter has been allocated to provide the analysis and findings of the empirical data collected from the field using the semi-structured interviews, documents, and observations for the three case studies in the Jordanian banking sector. To this end, following sub-sections present an introduction to each case as well as the analysis and findings, as recommended by Yin (2014) with respect to the multiple-research design. Hence, the main reason for using the multiple-case studies design was to achieve replication logic by using three case studies, as well as to gain more robust and generalisable results through cross-case analysis (Benbasat *et al.*, 1987).

The analysis of each case separately is called 'within-case analysis' (Miles and Huberman, 1994). This means that an individual case study is analysed in a way that is isolated from the rest of the other cases and without trying to bring evidence from other cases the researcher is investigating (Maylor and Blackmon, 2005). The main reason to use within-case analysis is to deal with each case individually in order to reduce the high volume of data from multiple-case analysis, as Eisenhardt (1989, p.

540) recommended that ‘within-case analysis can help investigators cope with this deluge of data’. Hence, the within-case analysis offers a complete description of each case (Creswell, 2009).

To this end, each case-analysis report provides the background of the case and the organisational position of the individual who participated in this research. Then, it presents information concerning CK that is created during service encounters. In addition, each within-case analysis report also presents the interpretation of the findings concerning the role of frontline bank employees as CK brokers. This analysis further attempts to highlight the factors that inhibit or motivate frontline employees to capture and share CK from the customer to the organisation during service encounters in Jordanian bank sectors. All three of the cases utilise the same format, as presented in Table 5-1 below.

1	➤ Case study background
2	<ul style="list-style-type: none"> ➤ Customer knowledge(CK) in the organisation ○ Knowledge for the customer ○ Knowledge about the customer ○ Knowledge from the customer
3	➤ KB during the service encounter
4	<ul style="list-style-type: none"> ➤ Factors impacting KB through frontline employees: ○ Individual-level factors ○ Organisational-level factors ○ Technological-level factors ○ Customer-knowledge-level factors
5	➤ Case Summary

Table 5-1: Case analysis format

5.2.1 Case Study 1: X Bank

Background and Overview

X bank was founded in the 70s of the last century as a public shareholding limited company, and the primary focus of the bank was to provide housing financing. Over time, X bank changed to become a comprehensive commercial bank, and it is one of the most successful banks in Jordan, with the capital of X bank reaching USD 355 million in 2017.

In this vein, X bank possesses the largest branch network in the local banking sector with more than 130 branches in Jordan, as well as the largest ATM network with more than 225 ATMs spread throughout Jordan. The X bank group includes 55 international branches in Palestine, Syria, Algeria, the United Kingdom, and Bahrain, as well as representation offices in Iraq, the United Arab Emirates, and Libya.

X bank is considered one of the most important banks in Jordan's economy. Furthermore, X bank is the second largest bank in Jordan in terms of net profit and the number of employees (Central Bank of Jordan, 2017), with more than 2,400 employees in Jordan. The net profit of X bank amounted to about 183 million dollars in 2016, and the management of X bank has achieved constant progress in increasing bank profitability since 2009, as illustrated in Figure 5-1. In this vein, X bank has also received the award for best bank in Jordan in 2016 according to the Banker Middle East Magazine.

X bank is one of the leading banks in the Jordanian banking sector. For example, X bank is the first bank in Jordan and the Arab world to launch savings account prizes for their customers (in 1977), open a branch for children (in 1993), and adopt mobile banking services (in 2014).

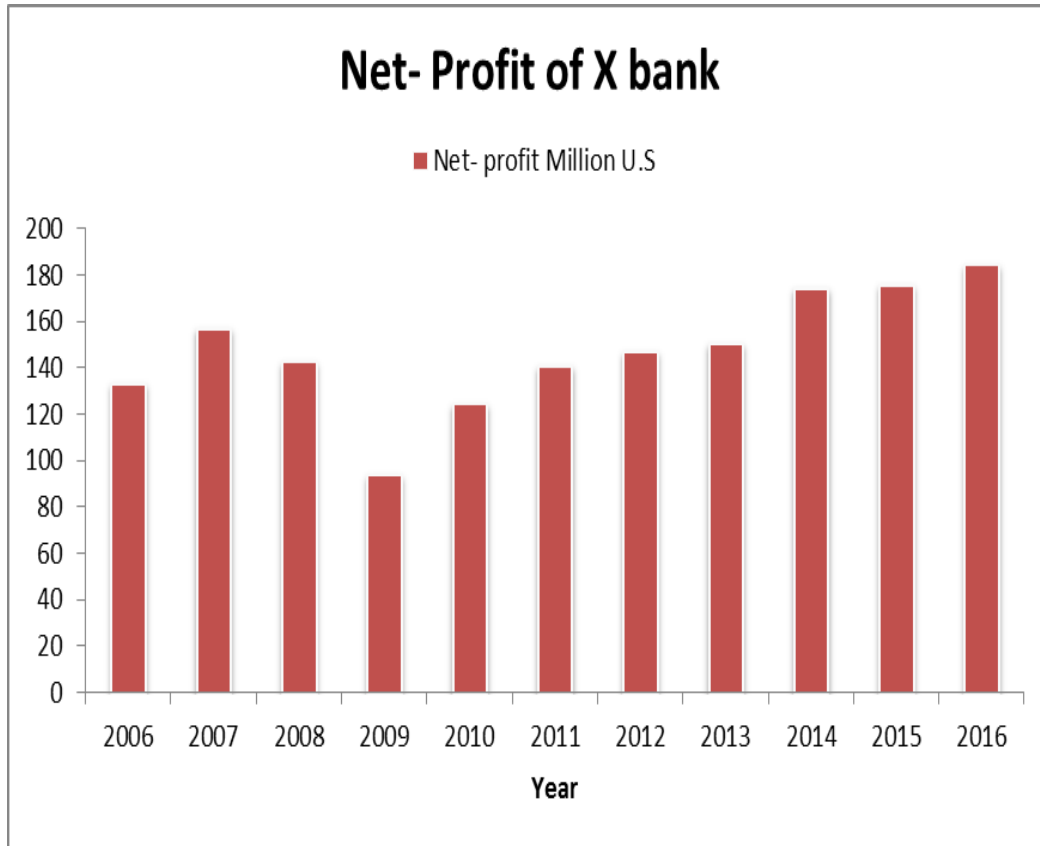


Figure 5-1: Net profit for X bank in the last 10 years

Source: Annual reports of X bank

In the first case study, 11 semi-structured interviews were conducted in this bank across three levels: first, at the top management level; then, at the middle manager level (branch manager); and finally, at the frontline employees' level. In addition, we also used documentation and direct observations of frontline bank employees as sources of evidence besides the interviews, as presented in Table 5-1. Yin (2014) recommended using multiple sources of evidence to aid triangulation and to increase the strength of the case study data collection.

Participant (code)	Hierarchal level	Gender	Years of experience	Interview duration (min)
R 1	Top management	M	21	21:20
R 2	Top management	M	19	19:24
R 3	Middle management	M	16	37:30
R 4	Middle management	M	25	42:50
R 5	Middle management	M	17	30:38
R 6	Middle management	M	18	37:22
R 7	Middle management	M	12	25:33
R 8	Middle management	M	13	17:07
R 9	Frontline bank employee	M	5	18:18
R 10	Frontline bank employee	F	4	23:39
R 11	Frontline bank employee	M	6	21:05

A sample of the documents: The bank’s website, the bank’s annual report, archival records, a report from the Central Bank of Jordan, and the publications of the Jordanian Banks Association.

All the **middle managers** who participated in this research work both on the front line and as branch managers (sales and service managers).

A sample of the observations: The interactions between the frontline bank employees with customers during service encounters. In addition, the researcher considered the frontline bank employees’ communication with their branch manager regarding the capturing, creating, and sharing of CK.

Table 5-2: Interviewees and other sources of evidence (X bank)

Customer Knowledge (CK) at X Bank

In service organisations, knowledge creation and sharing most often takes place during the interaction between the customer and the frontline employees. Therefore, the CK during the service encounters in X bank fall into three kinds, namely, knowledge about the customer, knowledge for the customer, and knowledge from the customer. In X bank, CK is essential for the CRM strategy, and it is crucial for facing the high level of competition in the Jordanian banking sector. The head of marketing and product development in X bank made the following comment:

R2: 'The customer is the most important one in the service sector. Thus, the service organisations always seek to satisfy the customer needs in order to keep a long-term relationship with them. In this vein, the organisation primarily focusses on the customer, and it needs to know what the customer needs. This is not just for existing customers either, but for the potential customer as well, because we are facing fierce competition in the banking sector. Hence, nowadays, if the customer does not find what he needs in your bank, he will move to other competitors'.

The main attention in X bank goes towards the knowledge about the customer and the knowledge for the customer during the service encounter, because the frontline bank employees have to gather the knowledge about the customer, such as gender, background, education level, and transaction history. The frontline bank employee is also obligated to provide knowledge about the bank's services and products for the customer during service encounters, but gathering knowledge from the customer through frontline employees still requires more attention. One of the branch sales and services managers commented the following:

R8: 'In our bank, we are sharing knowledge about the service and products, and sometimes we are sharing the knowledge about the customer needs during our formal and informal meetings. Also, we have to record all the transactions that occurred with the customers during the service encounter or other interactions into our database, but sometimes, in an informal way, the customer asks about some services or needs, and for various reasons, our frontline employee does not report this information to the management'.

Interpreting the interviews revealed that the management in X bank does not receive the full CK created during the interaction between the frontline employee and the customer. According to the head of retail banking services and products,

R1: 'During the service encounter with the customer, a vast amount of knowledge is exchanged between the customer and frontline bank employees, but unfortunately,

very little of this knowledge moves up to the bank's management with respect to unmet customer needs or poor service quality'.

The frontline bank employees deal with all three types of CK during the service encounters, while the knowledge 'about' and 'for' the customer are the most-shared knowledge during service delivery. Obtaining the knowledge from the customer during the service encounters remains the main challenge facing the bank management, because most often, the knowledge from the customer takes the form of tacit knowledge. One of the branch sales and services managers stated the following in this regard:

R4: 'The frontline employees are working directly with the customers, and they work to provide the knowledge about the services and products to the customers during the service encounter. Moreover, they are able to gain some information and knowledge regarding the customer's feedback and suggestions, but quite often, this knowledge remains in the minds of employees'.

A similar comment was made by one of the frontline bank employees. He referred to the importance of transferring knowledge to customers during the service encounters:

R10: 'In our bank, we are sharing knowledge about the service and products with customers and our co-workers, and sometimes, we are sharing knowledge about customer needs during our formal and informal meetings. Also, we have to enter all the transactions that occurred with the customers during the service encounter into our information system, but sometimes, informally, the customer asks about some services or needs, and for various reasons, not all the frontline employees report this information to the management'.

The management of X bank understood the importance of obtaining the three kinds of CK in order to sustain their competitive advantage and to improve their service quality. Unfortunately, knowledge about the customer and knowledge for the customer are the main forms of knowledge being sharing during the service encounters in X bank, while knowledge from the customer still has not received as much attention from the frontline bank employees and management.

Knowledge-brokering (KB) during the Service Encounters at X Bank

The interpretation of data from X bank indicated that KB during service encounters through X bank’s frontline employees is an integrated process consisting of two main processes: KB for the customers and KB for the organisation, as illustrated in Figure 5-2.

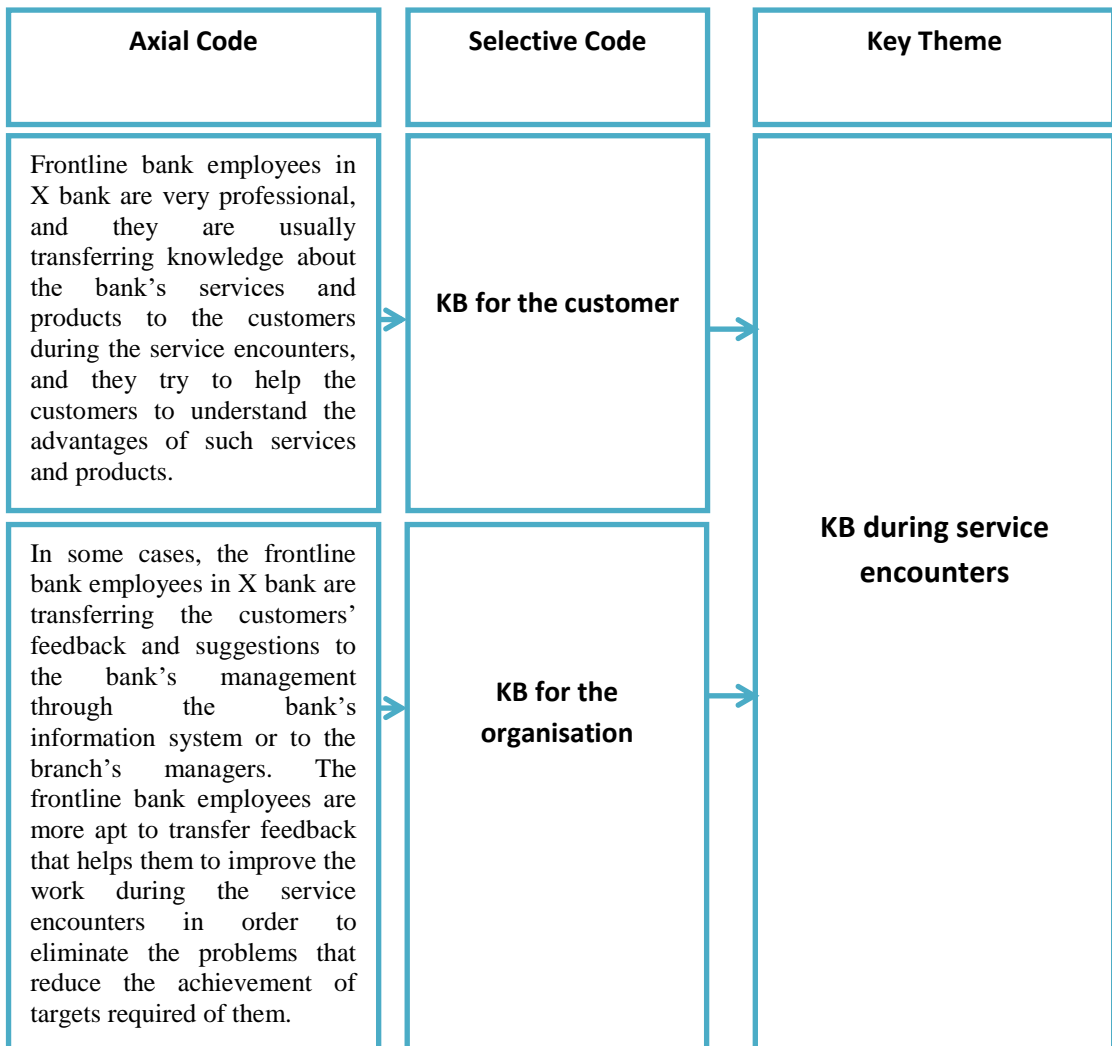


Figure 5-2: KB during service encounters at X bank

Service encounters in X bank are still the primary venue for exchanging knowledge between the customers and the organisation, as most of X bank’s customers prefer face-to-face interaction. Therefore, frontline bank employees play a critical role for the organisation and customers because they have regular contact with the customers, and they furthermore represent the face and voice of the organisation for

the customers and the voice of the customer for the organisation during service encounters. One of the middle managers reported the following view:

R4: 'I agree with the importance of ICT in the service organisations, but in many cases, the customer prefers to contact the bank through face-to-face interaction; therefore, the bank's information system is not able to capture the feedback from the customer during the service encounter. Also, most of our customers do not like to use the new application via mobile or Internet banking. Thus, the customer still depends on the frontline employees during the service encounters'.

The role of the frontline employee in transferring knowledge for and about the customer during service encounters is pivotal for the organisation and the customers, because in many cases, the frontline employees are the only link between customer and organisation.

In X bank, the frontline bank employee is considered one of the main sources of knowledge about and for the customer. The frontline bank employees work as knowledge brokers in two ways (for the customer and for the organisation), but their role as a knowledge broker for the customers is more obvious. Mainly, they help the customers to learn about the bank services or products, and they are ready to provide the customer with knowledge about the service. In addition, if the customer needs to know anything, he or she will ask the frontline employee about it; thus, in this case, the frontline employee must have the answer and the ability to help the customer to know as much as possible about the service and product, which was confirmed by interviewees:

R2: 'we have highly professional frontline employees compared to other employees in service organisations. Thus, I argue that they are working as knowledge brokers for customers because they know the services they provide to customers very well and the majority of our employees are internal customers as well'.

R10: 'The capturing and saving of CK during service encounters is one of the tasks required from the frontline bank employees because we use the bank system to conduct most of the customer transactions. Thus, transferring knowledge about customers is considered an essential job of us'.

The X bank frontline employee needs to share knowledge in two ways: from the organisation to the customer and from the customer to the organisation. Furthermore, these employees are highly professional compared with other banks' employees, and they perform multiple tasks for the bank customers during service encounters. In

addition, it has been observed that in X bank, the customer can finish all of his or her transactions through contact with one frontline employee, and the customer does not need to visit more bank employees to accomplish these transactions, unlike other banks. This was confirmed by one of the branch sales and services managers:

R5: 'In our bank, the frontline employees provide a variety of services for the customer during the service encounters, and the customer can get all of those services through contact with just one frontline employee. In addition, the frontline employees also need to engage in cross-selling during the service encounter'.

All managers in this bank who participated in this study argued that the frontline bank employees have the capability to act as knowledge brokers through transferring CK from and for the customer. For example, the head of retail banking services suggested the following:

R1: 'Indeed, our frontline employees act as knowledge brokers because they offer knowledge for the customer about the service and products, in addition to transferring the customer's needs and suggestions that have been raised during the service encounters to the bank's management'.

In X bank, the frontline bank employees are accustomed to transferring CK for improving service quality to their manager or through the information system using the intranet or Microsoft Outlook within the bank system. In addition, the frontline bank employees in X bank focus on transferring the knowledge from the customer about any complaint regarding the quality of service provided to them, because the frontline bank employee is the first one to receive the customer feedback after service is delivered. For example, the one of the middle managers reported the following:

R4: 'I remember that day when I was working as a frontline employee (teller). I had a long queue of customers waiting for a service encounter. One of the customers was chatting with me about the problem of the long line, and he gave me an idea of how we could reduce the waiting time for the customer based on his experience with banking sectors overseas. This is a kind of knowledge from the customer that will help the organisation to improve the service quality, and the performance as well'.

The X frontline employees have many options for reporting customer feedback (knowledge from the customer) to the organisation. Specifically, they can transfer this feedback either through the bank's information system or to the direct manager. In addition, there is a new initiative in X bank to share knowledge within the branch

through conducting meetings every month with the employees in order to discuss the bank services and products and to share knowledge about the organisation and customer feedback, and they called this meeting the ‘knowledge meeting’. The entire frontline bank employees interviewed emphasised that the bank’s management provided all of the tools that help to share knowledge within X bank.

R11: ‘We have a database to store all information about the customer and his transactions, so if the frontline employee wants to contribute to this database, he is able to do that, and he has the right to view the information about the customers during the service encounter. On the other hand, we have a scheduled meeting on a monthly basis at the branch level, and we call this meeting the “knowledge meeting”. In it, our employees have the opportunity to exchange their knowledge about the service and products in order to update their knowledge with the latest knowledge in the organisation’.

The previous quotations demonstrated that the frontline bank employees share three kinds of CK during service encounters within the bank, and they do this through formal and informal meetings and through the use of the bank’s information system.

Factors that affect CK brokering through frontline bank employees at X bank

The analysis of the data collected from X bank indicates that the role of frontline bank employees as knowledge brokers in X bank, with regard to sharing CK between the organisation and customers, is not as it should be. Thus, the analysis reveals that a set of factors inhibit the frontline bank employees in acting as knowledge brokers between the bank and the customers during service encounters. The analysis of the interviews also suggests that four main sets of factors affected KB during the service encounters through the frontline bank employees, namely, organisational factors, individual factors, technological factors, and factors related to the nature of CK.

1. Organisational-Level Factors

The frontline employees of X bank face many barriers that impede them in successfully serving as knowledge brokers for the organisation and the customers. The analysis of data reveals that at X bank; certain organisational factors influence KB through frontline bank employees, as illustrated in Figure 5-3 below.

The main barrier stems from the traditional organisational view of the role of frontline service employees, which limits this role solely to delivering the service.

The analysis of the data reveals that KB for the organisation through the frontline bank employees is still not of great importance for X bank's management. Furthermore, the frontline bank employee's role as knowledge broker for the organisation is considered a voluntary task and is not compulsory for them, while KB for the customer is a required action as part of the provision of services to customers during service encounters. One of the middle managers commented the following:

R8: 'Capturing and sharing knowledge from the customer is not a mandatory task for the front bank employee, and if he is unwilling to act in this role, no one can force him to do so, while the frontline bank employee has to share the knowledge for the customer during service encounters'.

A similar comment was made by one of the frontline bank employees, who explained why they do not engage in KB for the organisation:

R10: 'Some of our frontline employees do not share their CK for many reasons; sometimes, they feel this knowledge is power for them, and because of this knowledge, the organisation still needs them. Also, they believe that they will gain some rewards because of this knowledge'.

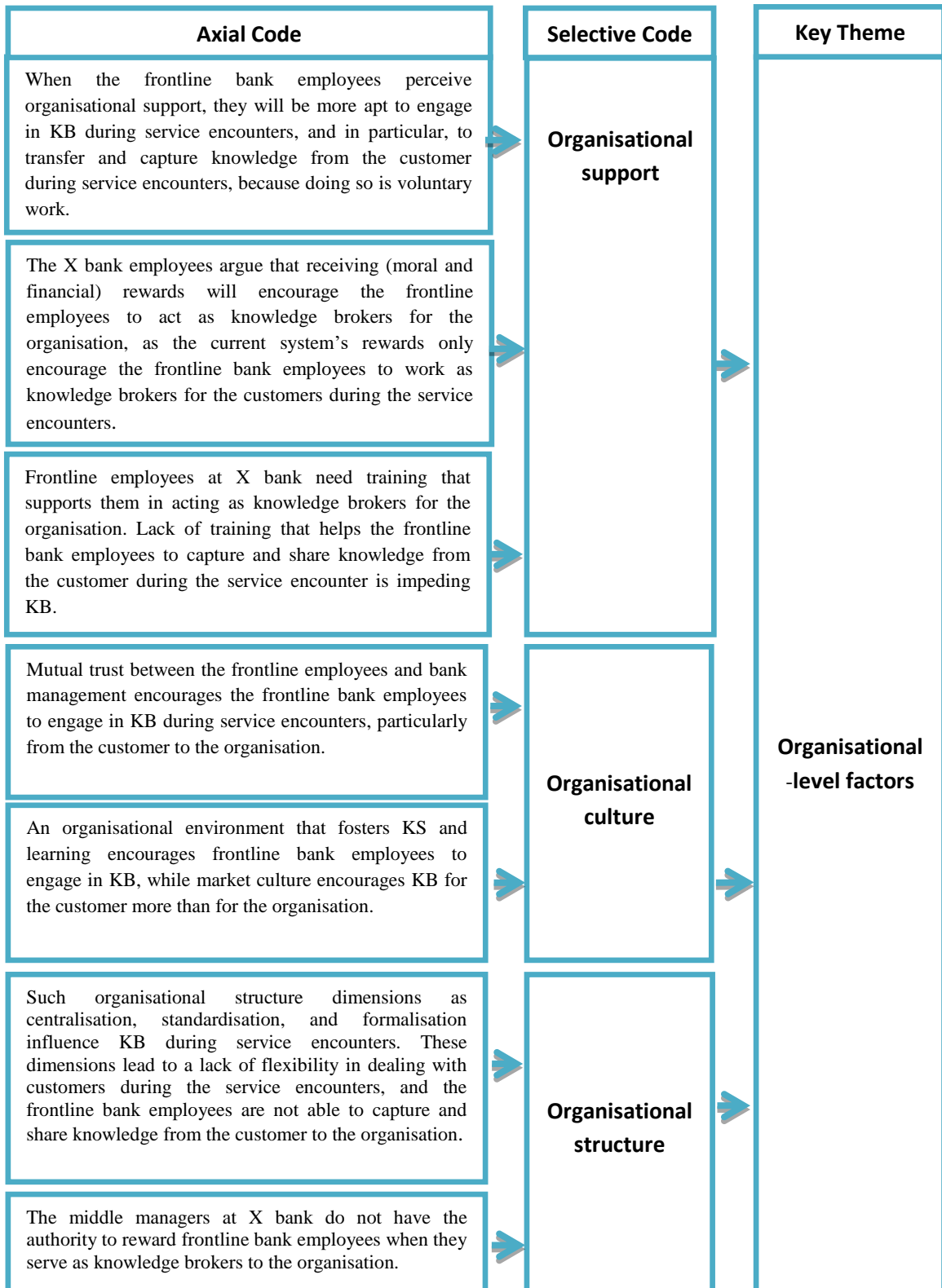


Figure 5-3: Organisational-level factors that impact KB during service encounters at X bank

During the interview with one of the managers at X bank, the researcher asked about management's role in gaining the full advantage of frontline bank employees as knowledge brokers. The manager in question summarised the organisational factors that affect KB during the service encounters:

R8: 'Indeed, I think that the organisation can encourage their frontline employees to capture and share the knowledge from the organisation to the customer and from the customer to the organisation. Also, the organisation can achieve that through a package of procedures, such as training programmes, reward systems (moral and mandatory rewards), adopting the organisational culture that supports frontline employee to be freer to gain and share knowledge within the organisation and with customers, adopting organisational support for the frontline employee, and spreading justice among organisation employees'.

Organisational Culture

The organisational culture is crucial for KS within the organisation. Indeed, when the organisation appreciates employees who share their knowledge within the organisation, this will encourage them to act as knowledge brokers to transfer knowledge between the organisation and the customers.

The market culture dominates the culture of the X bank because of the high competition in the banking sector between the local and foreign banks that work in Jordan. The management of X bank maintains growth in profits compared to other banks, as illustrated in the annual reports. The competition among employees in X bank has increased due to the market culture and because of monetary incentives being linked at the individual level to achieve the bank's targets.

R9: 'In our bank, there is high competition among our employees regarding achieving the organisation's targets because the bank's management links the rewards to the achieved targets. Indeed, our bank's management raises the targets every year, such as increasing the bank's customers and sales. Thus, our employees always try to gain these targets in order to receive extra rewards'.

The internal environment of X bank is vital for KS and KB through the frontline bank employees during service encounters. Thus, if trust exists between the employees and their organisation, this will be reflected in the behaviour of the employees in the organisation and during contact with the customer as well. During the interview with the head of retail banking services and products in X bank, the following comment was made:

R2: 'The trust between the employees and within the organisation will give the employees the ability to feel free to discuss the information about the customer or the customer's complaints about the service without fear of reactions from the management'.

The majority of the participants from X bank argued that an organisational culture that creates trust between the employees and bank management will encourage the frontline employees to serve as knowledge brokers in two ways during service encounters, namely, for the customer and for the organisation. In other words, the trust between the employees and the organisation is crucial for maintaining the good relationship between them, and this will facilitate the sharing of knowledge concerning the customers' needs, services, and products between the frontline employees and managers. For example, one of the branch sales and services managers in X bank commented the following:

R7: 'High trust between the frontline employees and their managers encourages the frontline employee to act as a knowledge broker to bring the knowledge about and from the customer to their managers, because they trust their managers to mention their contribution to the top management in order to gain rewards'.

X bank encourages employees to learn about everything new, and it provides a high quality of training over the year for all employees. In addition, they also have a long-term plan to develop the organisation and employees. Hence, X bank's frontline employees feel free to report about anything they think might help the bank's management and bank customers.

R1: 'The employees in X bank can learn something new every day, and the management of X bank provide all new training programmes about the new services or technology adopted in our bank. Furthermore, X bank has also created a culture of competition between the employees and the corporation as well'.

The analysis of the interviews and the observation reveals that the organisational culture in X bank encourages the frontline employees to share knowledge about the service and products with the customers during services encounters. Furthermore, X bank's management of encourage KS between the bank employees through formal and informal methods.

R9: 'KS is crucial in a service organisation. We used to conduct meetings every month for all branch employees, and we call this meeting the 'knowledge meeting'. Also, we discuss our understanding about the service and products, and we try to update our employees' knowledge with anything new about the organisation,

services, and products'.

The management of the X bank realises the importance of KS within the organisation, and it focusses on encouraging the employees to share knowledge about their experiences of the organisation and the customers through scheduled branch-level meetings at the bank. The interpretation of the data collected from X bank reveals that the organisational culture that supports KS and learning play a critical role in encouraging or impeding KB through the frontline bank employees during service encounters.

Organisational Support

The majority of the interviewees from X bank suggested that organisational support is critical for encouraging frontline bank employees to act as knowledge brokers. These employees work in stress-filled environment, and any organisational support will help them to fulfil their job and to act as knowledge brokers through capturing CK and transferring this knowledge to the customers, and from the customer to the organisation. Most of the interviewees confirmed this, including one of the branch sales and services managers:

R8: 'Organisational support is very important in service organisations because the service employees are more prone to burnout and high workload during service encounters. Thus, the frontline employee needs organisational support to keep working in the first place. Hence, if the employee receives a sufficient amount of organisational support to act as a knowledge broker, this support will encourage him to do this job very well. Moreover, when the employee perceives organisational support, he will work harder to meet the organisation requirements for transferring knowledge to the customer and from customer'.

The interpretation of the data indicates that when frontline employees perceive organisational support, they will be more active in capturing CK and transferring this knowledge to the organisation. Conversely, the absence of organisational support will reduce the loyalty of frontline employees, and they will not care about their organisation or share their knowledge about or from the customers.

R6: 'Organisational support is imperative for service employees because the frontline employee needs this support to feel that his organisation has his back and that if he does something well for the organisation, they will help him to keep doing so. All of this will encourage the frontline employee to be more active'.

Despite how important the knowledge from the customer gained through frontline

bank employees is for improving service quality during service encounters, the management of X bank has not afforded proper importance to frontline employees as valid sources of this knowledge. However, they foster frontline bank employees to gather knowledge about the customer and to provide knowledge for the customer, but gaining knowledge from the customer during service encounters still lacks a clear strategy in X bank.

R9: 'Indeed, we use the bank intranet to provide our suggestions about how to improve the service quality based on our contact with the customers during service encounters, but unfortunately, most of the time, they ignore these suggestions. Also, when they provide new products or services, they do not take our feedback beforehand'.

As indicated by the majority of participants, the absence of organisational support impedes frontline bank employee in acting as knowledge brokers, particularly in capturing and sharing knowledge from the customer. The employees will be more active in transforming CK when they perceive organisational support.

In this vein, most of the middle managers whom participated in this research suggested that providing rewards for frontline bank employees when they transfer valued knowledge from the customer to the organisation is crucial for encouraging this behaviour. In addition, having a clear reward system for KB from the customers to the organisation will encourage frontline bank employees to act in this capacity. For example, one of the branch sales and services managers commented the following:

R4: 'Rewards are the principal motivation for the employees to do their job; also, the presence of two types of rewards is vital for employees. These rewards will encourage the frontline employee to act as knowledge brokers because the rewards are considered a power that makes the employee work hard to gain benefits for the organisation and for themselves as well'.

The management of X bank linked rewards with performance and with the achieved targets. Hence, the employees in X bank earned monetary rewards based on their performance. Because of this, they believe that sharing knowledge about the customer and for the customer will help the frontline bank employees to complete their job during service encounters and then achieve the bank targets in order to gain the rewards. Evidence for this statement was found in the interviews with X bank's

managers. For example, the head of retail banking services and products commented the following:

R1: 'In our organisation, we use reward systems to encourage employees to improve their performance. To this end, we are comparing between target performance and achieved performance to reward the employees. Thus, I believe that the reward system will help the organisation to encourage the frontline employee to share their knowledge'.

The management of X bank used to provide annual rewards to their employees when they provided valuable suggestions that helped the bank to improve its performance, reduce costs, and improve service quality. Surprisingly, there are no obvious rewards for employees that capture and share knowledge from the customer during service encounters. One of the branch sales and services managers commented as follows:

R6: 'Indeed, in our bank, when the employee raises an idea or suggestion to help improve the performance or reduce costs, the bank's management rewarded him. However, these cases are very few, because our organisation focussed on the performance of the branch as a whole'.

This lack of rewards provided to employees when they capture and share knowledge from the customer is viewed as one of the barriers that inhibit frontline bank employees in acting as knowledge brokers during service encounters, and in particular, for the organisation. One of the X bank's frontline employees argued the following:

R11: 'I think that if the organisation links the knowledge contribution of the frontline employee to a reward system, this will encourage the frontline employee to act as a knowledge broker to transfer knowledge from the customer to improve service encounters'.

The interpretation of the data suggests that two types of rewards (financial and moral) are vital in X bank for encouraging frontline bank employees to capture and transfer knowledge from the customer, though the employees prefer financial rewards such as monetary rewards more than moral rewards.

R2: 'In our organisation, we are using the two kinds of rewards, mainly, monetary and moral. We also have an annual ceremony to reward the best branch and the best employee who demonstrated good performance and contributed to the organisation's knowledge. However, I have noted that in many cases, the employees prefer to gain monetary rewards rather than moral rewards'.

A similar comment was made by one of the frontline bank employees:

R10: 'Without a doubt, in our environment, we prefer the monetary reward, though the moral rewards are essential as well. Thus, when the employees are earning both rewards, they will be very proud and active in serving the customers and the organisation. The moral rewards are crucial besides the monetary bonus because the employees will realise that the management acknowledges and respects their efforts in the organisation, and this will give the frontline employee more satisfaction'.

The interviews confirmed that a lack of rewards hinders frontline employees in serving as knowledge brokers during service encounters, while the presence of such rewards encourages the employees to fulfil their role as knowledge brokers.

Organisational Structure

The majority of participants in X bank argued that the frontline bank employees' role as knowledge brokers during service encounters is affected by the organisational structure. The analysis of the interviews, documentation, and observations from X bank reveal that centralisation, formalisation, and standardisation comprise the main organisational structure dimensions at X bank.

The high degree of centralisation and formalisation in X bank inhibits KB during service encounters because the frontline bank employees do not have the direct contact with top management they need in order to deliver their knowledge, and because of high centralisation, middle managers lack the freedom to provide rewards to frontline bank employees. Evidence of this was obtained through the interviews. For example, one of the branch sales and services managers indicated the following:

R3: 'The organisational structure influences the frontline employees in acting as knowledge brokers for the organisation. In particular, the communication with top management is considered a challenge for most of the bank employees. Therefore, the centralisation design affects the role of a knowledge broker. I believe that the tall organisational structural impedes the frontline employees' role as knowledge brokers because in many cases, the knowledge will freeze in their level. For this reason, the frontline employees feel down, and they will not try to act as knowledge brokers because they do not find the support from the organisation and their voice will not reach to top management'.

In X bank, the working instructions are strict, and the bank employees do not possess the authority to change these instructions. Therefore, the employees claim that the high centralisation, formalisation, and standardisation of the organisational structure in X bank does not encourage them to engage in KB during the service encounter.

The majority of the participants from X bank's middle management indicated lacking rewards for the frontline bank employees when they transfer knowledge from the customers to the bank's management because of the organisational structure.

R8: 'In our organisation, the effect of the organisational structure is obvious on the authority of branch managers, and the employees, as well. For example, if the branch manager wants to reward any employees for acting as knowledge brokers, he needs to get the acceptance of top management. Moreover, our frontline employee does not have direct contact with top management to transfer CK to them'.

R9: 'However, at the end of every year, our top management rewards every employee who made a good suggestion for our organisation. On the other hand, I think the organisation can encourage the frontline employees to act as knowledge brokers more if they empower the branch manager to reward the frontline employees when they contribute to the organisational knowledge'.

The frontline employees of X bank face challenges in transferring knowledge from the customer to the organisation because some of the middle managers still work as a chain between the employees and the bank's management based on the organisational structure. Figure 5-4 illustrates the summary of the sources of evidence that indicate how organisational-level factors affect KB during service encounters in X bank.

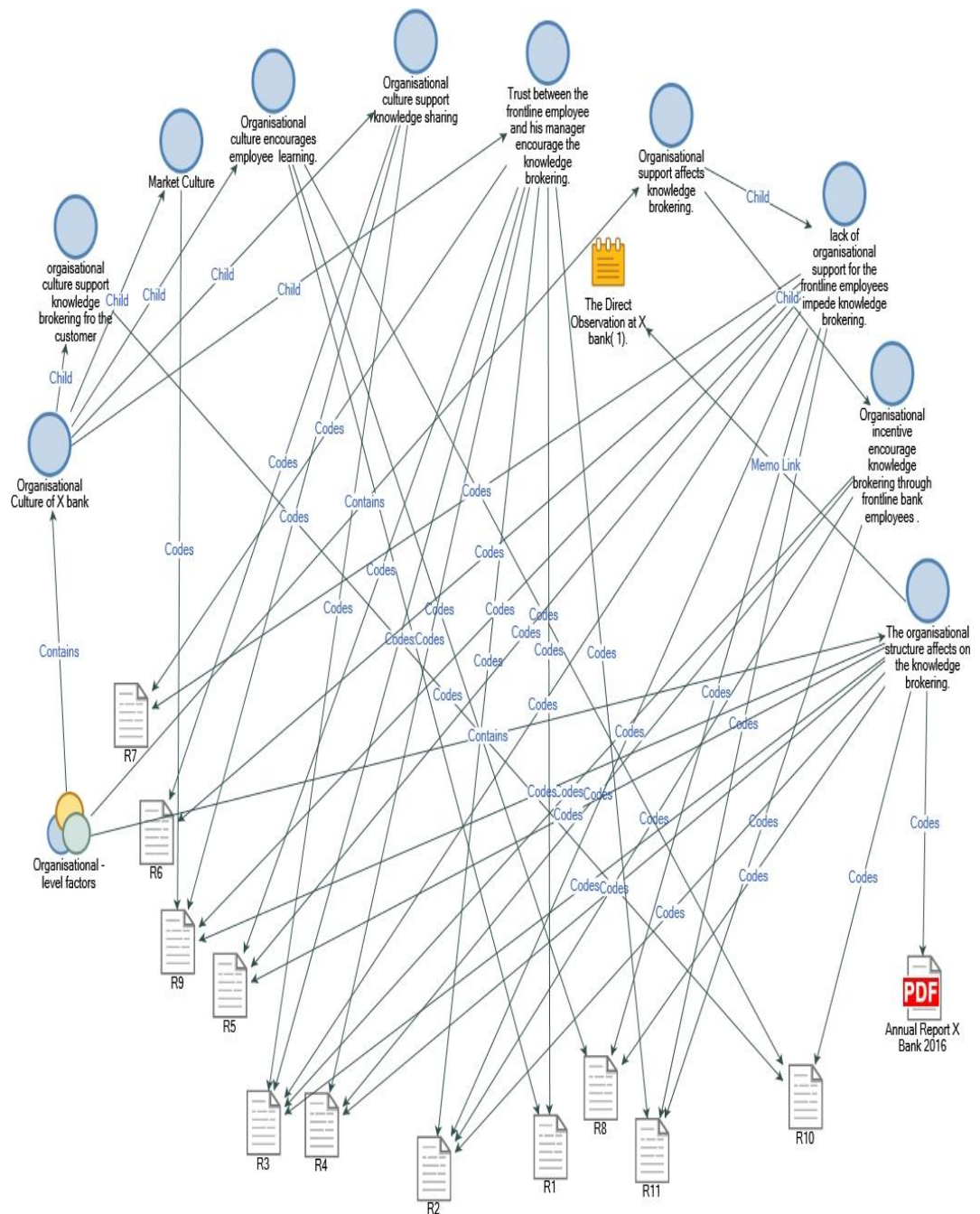


Figure 5-4: Summary of the sources of evidence that identified the organisational-level factors that affect KB during service encounters at X bank

Figure 5-4 above illustrates the main sources that suggested organisational factors affect KB during service encounters at X bank. The majority of the participants suggested that the organisational culture, organisational support, and organisational structure comprise the main organisational factors that inhibit or encourage frontline bank employees to serve as knowledge brokers during service encounters in two

ways.

2. Individual-Level Factors

Through investigating the individual factors that affect the KB of X bank's frontline employees during service encounters, it was found that the workload during service encounters, the absorptive capacity at the individual level, and self-efficacy either impede or encourage KB for the organisation and customers, as illustrated in Figure 5-5. For example, one of the middle managers at X bank suggested that KB during service encounters is not successful because of certain factors:

R8: 'In many cases, our frontline employees are facing some barriers that prevent their role as knowledge brokers during service encounters. For example, high workloads will weaken this role, as will a lack of training and skills or a lack of awareness about the service and organisation. Also, it is sometimes not easy to obtain knowledge about the services from the organisation database, and this inadequate experience will affect things as well'.

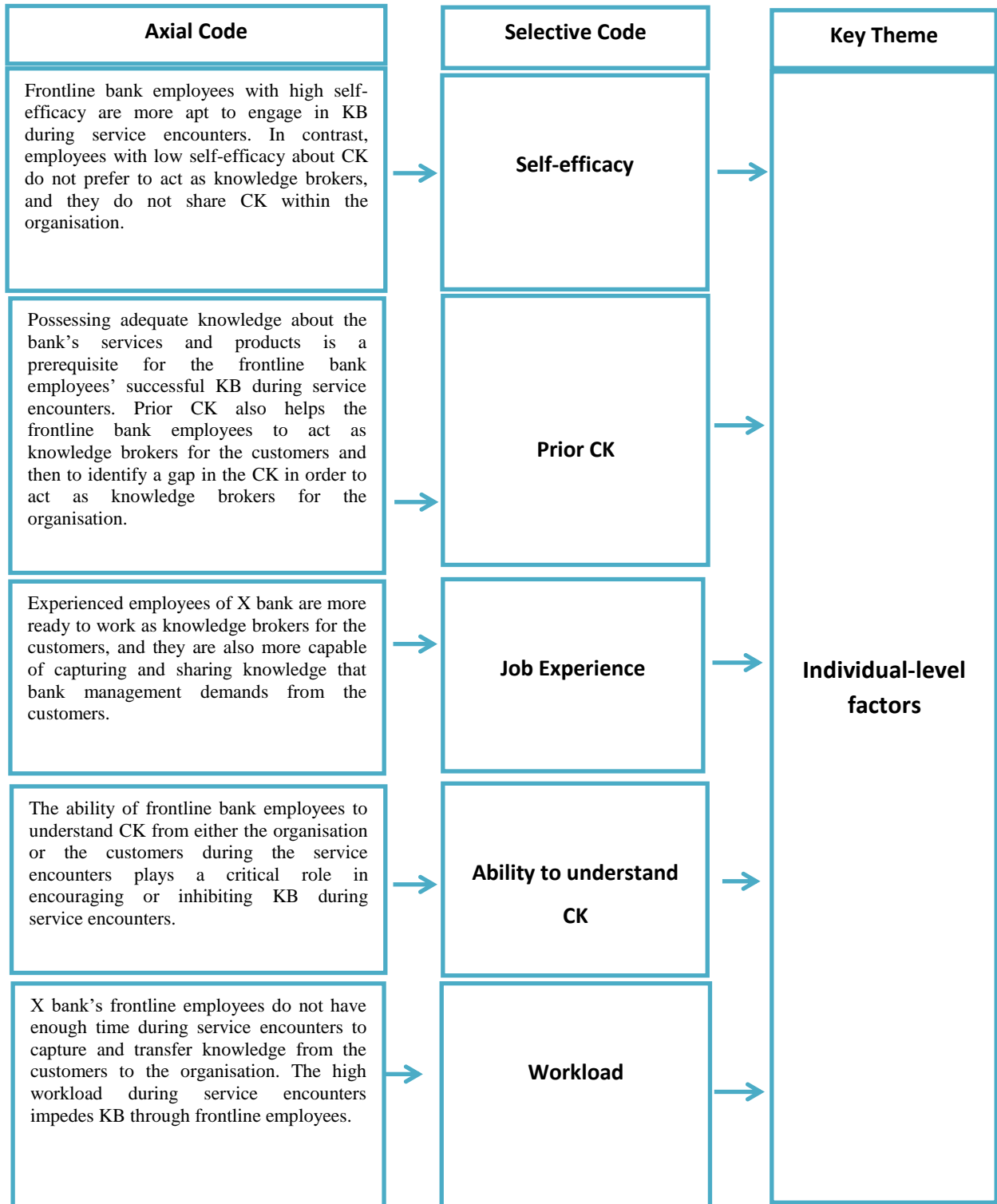


Figure 5-5: Individual-level factors that impact KB during service encounters at X bank

Workload at Service Encounters

In X bank, frontline employees work in the mass-services setting because this bank possesses a significant market share of Jordanian customers. This forces the employees to deal with a large number of customers during peak days, such as paydays at the end of the month. Many of the middle managers and frontline bank employees who participated in this study claimed that the high workload is one the barriers that inhibits frontline bank employees in acting as knowledge brokers during service encounters. The frontline bank employees are not able to capture and share knowledge from the customer when they are serving a large number of other customers during service encounters. The interviews confirmed this effect on the employees' role as knowledge brokers. For example, one of the branch sales and services managers commented the following:

R4: 'I think that the primary barrier is the heavy workload at service organisations, because the most of these organisations have adopted the mass-service approach in order to reduce operating expenses. For example, in our organisation, some of our frontline employee serve and meet more than 200 customers daily during service encounters'.

Continuing this, frontline bank employees are paying more attention to providing the customer with knowledge about the services and the bank products. In addition, the frontline bank employees most often work under pressure because they must deal with a large number of customers and long queues during peak hours. Thus, their focus shifts more towards fulfilling the customers' requests rather than reading the customer or capturing knowledge from the customer about the service quality.

R7: 'The role of the frontline employees as knowledge brokers concerning the transfer of knowledge from the customer to the organisation is not efficiently practised at our bank for many reasons. For example, our frontline employees are dealing with a large number of customers during service encounters, and their main concerns are achieving the organisation's target, such as a certain number of credit cards. Thus, they pay most of their attention to serving the customers and to gaining new ones'.

The findings indicate that the high workload during service encounters at X bank impedes KB through the frontline employees. Additionally, the high workload's impact on KB for the organisation is more apparent because the frontline bank employees' role as knowledge brokers for the customer is considered part of their

job during service encounters.

Prior Customer Knowledge

In X bank, the frontline employees' prior knowledge about the services and products is the main prerequisite for their ability to act as knowledge brokers for the customers and the bank. Possessing experience and adequate knowledge from the organisation about the services and customers will help the employee to capture and share the new knowledge from the customer. Conversely, lacking prior knowledge about the services, products, and customers will impede their role as knowledge brokers, as suggested by most of the interviewees in X bank.

R4: 'The frontline employees are able to act as knowledge brokers to gain and transfer knowledge from the customer to the organisation as long as they possess the knowledge about the organisation's products and services. In other words, the frontline employees can succeed in fulfilling their role as knowledge brokers if they know their work well'.

Job Experience

The experience of X bank's frontline employees helps them to be more able to act as knowledge brokers for the customers and then for the organisation, because more experience makes them more able to define and fill the gap in the customer's knowledge. The majority of the participants stressed that frontline bank employees with adequate experience are keener to engage in KB during service encounters. For example, the head of retail banking commented the following:

R1 'Having the experience is very beneficial for frontline employees when acting as knowledge brokers. Because when they possess more knowledge about the organisation and the service, they will be able to transfer knowledge from the organisation to the customer. Also, in this case, they will have the opportunity to develop the right relationship with the customer and, based on what they can understand, the needs of the customers as well'.

Most participants from X bank indicated that having prior CK, including knowledge about the customer and knowledge for the customer, supports frontline bank employees in capturing and sharing knowledge from the customer to the bank's management. Conversely, lacking prior CK is considered a barrier to successful KB during service encounters.

R10: 'The main barrier that frontline employees face in acting as knowledge brokers is the heavy workload at work and during service encounters. In some cases, the employees also lack the adequate knowledge about the services and products, and that will make them less able to understand new knowledge from the customer and transfer this knowledge to the organisation. Thus, a lack of prior knowledge will make the frontline employees tend not to work as knowledge brokers, as their self-confidence will be very low'.

Ability to understanding Customer knowledge

The frontline employees' ability to understand three kinds of CK, namely, knowledge for the customer, knowledge about the customer, and knowledge from the customer, will encourage them to engage in KB in two ways (for the organisation and for the customers):

R8: 'On the other hand, the role of frontline employees as knowledge brokers for the organisation (transferring knowledge from the customer to the organisation) is affected by some barriers, such as lack of motivation, lack of reward, lack of ability to understand what the customers need, high workload, and lack of self-confidence concerning the knowledge they hold'.

Self-Efficacy

The majority of the interviewees from X bank stressed that the frontline bank employees who possess high levels of belief in their CK (knowledge for the customer) are more able to act as knowledge brokers for the customer. Moreover, when frontline bank employees have high levels of belief in their CK (knowledge from the customer), they will be keener to act as knowledge brokers for the organisation. Interviewees such as the head of retail banking services and products stressed this point:

R1: 'Indeed, there are some barriers that impede that role such as the lack of accreditation of the knowledge from the frontline employees with respect to the knowledge generated from the customers during the service encounter. Also, the lack of self-confidence of the frontline employees is inhibiting the frontline employees to share the new knowledge from the external environment'.

Conversely, the interviews also confirmed that frontline bank employees who possess low self-efficacy about their CK usually do not engage in KB during the service encounters, and in particular, KB for the organisation.

R2: 'In many cases, if the frontline employees do not have self-confidence or they do not have trust in their knowledge, they will prefer not to share their knowledge because they will be afraid of consequences of sharing not-suitable knowledge. Thus, they are sometimes trying to avoid reinventing the wheel'.

The analysis of the data reveals that the frontline employees' level of self-efficacy plays a critical role in encouraging or impeding their role as knowledge brokers between the customers and the bank's management.

Figure 5-6 below presents the main sources that referred to the individual-level factors that affect KB through frontline bank employees during service encounters. According to most of the X bank interviewees, the high workload during service encounters inhibits the employees in engaging in KB for the organisation and for the customer, because they prefer to serve the customers in order to achieve the bank's targets and to obtain rewards. Additionally, the absorptive capacity of the frontline bank employees influences the success of KB during the service encounters. Beyond this, the frontline bank employees who possess prior knowledge, good experience, and the ability to understand CK are also more likely to engage in KB between the customer and the organisation.

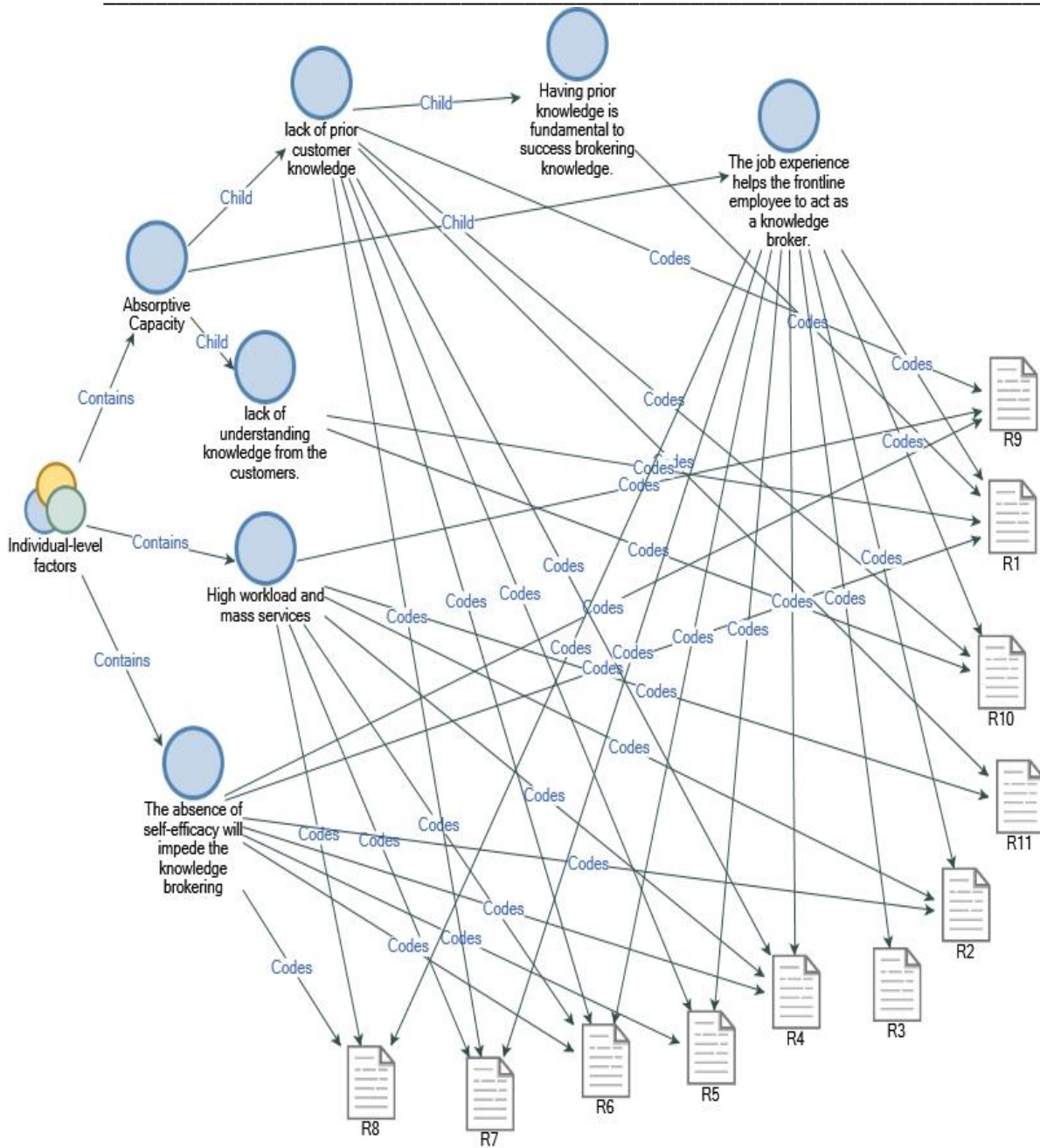


Figure 5-6: Summary of the sources of evidence that identified the individual-level factors that impact KB during service encounters at X bank

3. Technological-Level Factors

Interpreting the data gathered from X bank through interviews and observations during the fieldwork reveals that the existing information’s system, and the absence of a CRM system at X bank, are considered technological barriers for KB, as illustrated in Figure 5-7 below. In addition, the findings also indicate that obtaining CRMs will support X bank’s frontline employees during their interaction with the

customers through allowing them to receive up-to-date knowledge for the customer and about the customers.

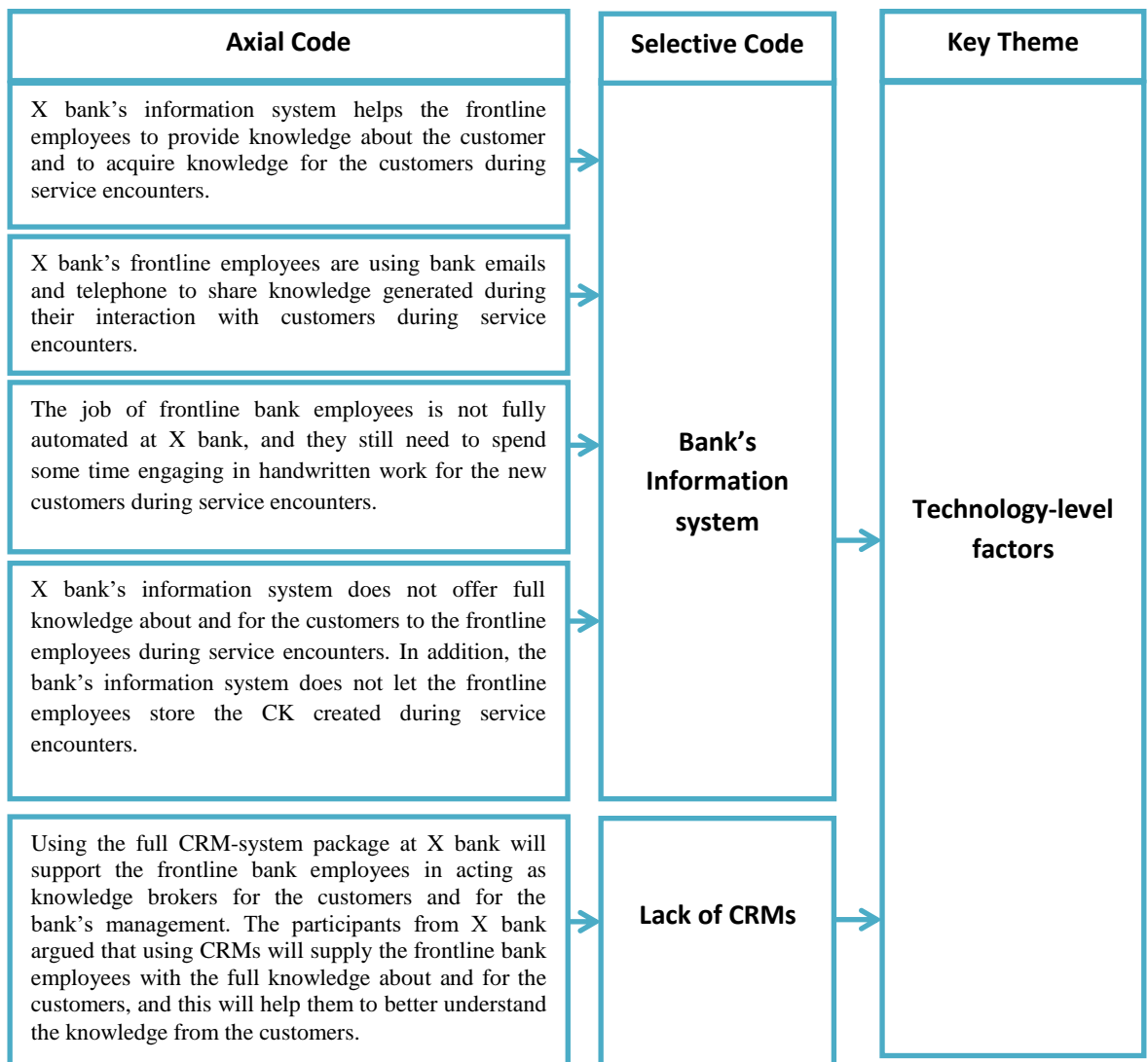


Figure 5-7: Technology-level factors that impact KB during service encounters at X bank
 X bank has provided several e-channels for their customers, such as ATMs, Internet banking, mobile banking, and a call centre. Six years ago, the management of X bank updated the bank database about customers through implemented a new information system. The information system at X bank is critical for the success of the entire

bank's transactions. In addition, the frontline bank employees use the bank's information system during service encounters to accomplish all customer transactions and store all the knowledge about the customers. Beyond this, they also use the system to acquire knowledge for the customer in order to deliver the bank services and product to the customers.

R10: 'In our organisation, we have a database to store all information about the customer and his transactions, so if the frontline employee wants to contribute to this database, he is able to do that, and he has the right to view the information about the customers during the service encounter'.

However, X bank does not use the full package of the CRM system. Instead, they use the call centre services, Internet banking, and mobile banking, which help the bank to gather knowledge about the customer. Despite this, in many cases, the customers of X bank prefer to contact the organisation through face-to-face interaction, and as a result, the bank's information systems are not always able to capture the feedback from the customer during service encounters. In addition, most X bank customers do not like to use the new application via mobile or the Internet, such as e-mobile; therefore, the customers still depend on the frontline employees during service encounters. One of the X bank branch sales and services managers reported the following:

R4: 'I agree with the importance of new ICT in the banking sector, but in many cases, the customers prefer to contact our bank through face-to-face interaction, and therefore, our bank information system is not always able to capture the feedback from the customer during service encounters. Also, most of our customers do not prefer to use the new application via mobile or the Internet, such as e-mobile; therefore, the customers still depend on the frontline employees during the service encounter'.

While the management of X bank has adopted a CRM strategy in order to maintain long-term relationships with their customers, they still do not use the full package of a CRM system. Most of the participants suggested that adopting the full package at X bank will help the frontline bank employees to act as knowledge brokers during service encounters because the CRM system will provide them with adequate knowledge about and for the customers. Because of this, the frontline bank employees will be able to obtain the CK that helps them to understand the customers, which will reduce the time spent during service encounters and help the frontline bank employees to capture and store knowledge from the customers. Figure 5-8 below illustrates the main sources at X bank that referred to the impact of technological-level factors on KB during service encounters.

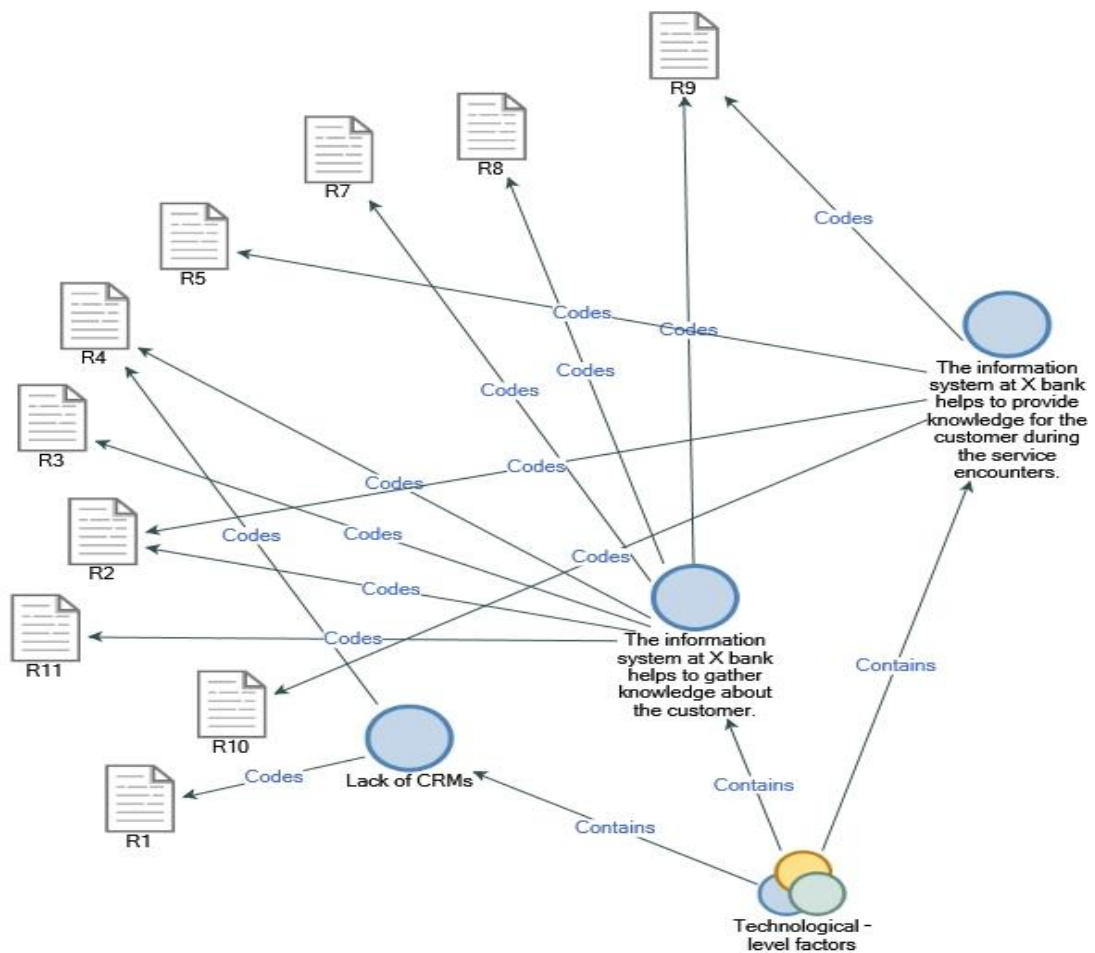


Figure 5-8: Summary of the sources of evidence that identified the technology-level factors that impact KB during service encounters at X bank

4. Knowledge-Level Factors

The scholars of KM have classified CK into three types: knowledge for the customer, knowledge about the customer, and knowledge from the customer. These three kinds of CK can be tacit or explicit knowledge. Knowledge from the customer is the primary knowledge used to improve the quality of service and develop the products, and the majority of knowledge from the customer that is gathered during service encounters takes the form of tacit knowledge. Hence, capturing and sharing tacit CK about the service quality remains one of the barriers facing X bank frontline employees when acting as knowledge brokers to transfer this knowledge to the bank management in order to improve service quality. It has been found that the nature of the CK affects the KB during service encounters, as demonstrated in Figure 5-9 below.

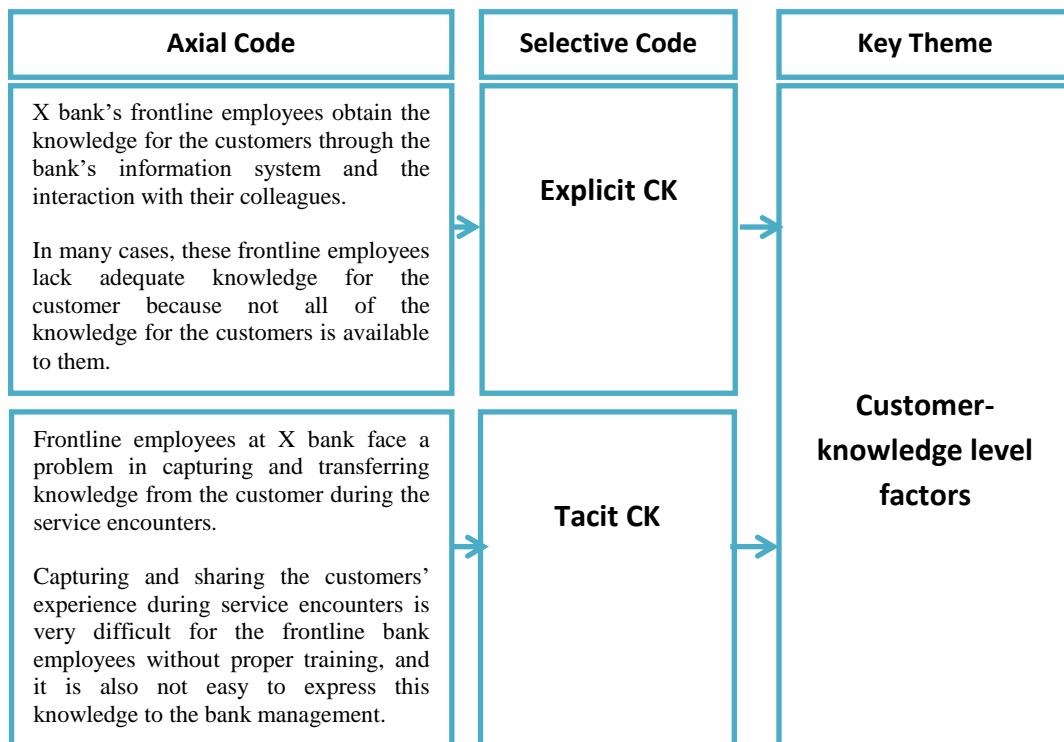


Figure 5-9: Knowledge-level factors that impact KB during service encounters at X bank
 At X bank, the frontline employees deal with both tacit and explicit CK during service encounters. The majority of knowledge for the customers is explicit knowledge, while the majority of knowledge from the customers is tacit knowledge,

and not all frontline employees are able to capture and share tacit CK during service encounters. The interviews confirmed this.

R7: 'In many cases, the customer does not prefer to talk about their expectations and experience about the service. Thus, the frontline employee should be able to gain this knowledge from the customer during the service encounter. However, not all the frontline bank employees can read the customer without asking him directly'.

Obtaining knowledge from the customer concerning their suggestions and ideas remains challenging for X bank's frontline employees, who need to spend extra effort during service encounters in order to capture the customers' experiences. On top of this, the customers are most often not willing to share their explicit knowledge concerning their feedback about the service quality either during service encounters.

R4: 'Based on my experience, which is more 25 years in this bank, I have noted that the customers usually do not want to talk about their needs directly. Instead, they always wait for someone to encourage them to express that. Essentially, this is the role of frontline employees during the service encounter. The knowledgeable employee is deemed a source of confidence for the customer. Also, the customer will be more comfortable engaging in dialogue with someone who is knowledgeable about the service'.

Furthermore, X bank lacks adequate training to help the frontline employees capture and transform knowledge from the customer to the bank's management during the service encounters. Instead, the majority of the training has been tailored to help the frontline bank employees capture knowledge from the organisation and transfer this knowledge to the customer in order to convince customers of the value of the bank's products and services. The frontline employees at X bank need more training to learn how to capture and share tacit CK, such as the customer experiences and nonverbal feedback, during service encounters.

R1: 'Indeed, our frontline employees need extra training concerning how to capture unmet customer needs and how to lure the customer to disclose these unmet needs. Indeed, many of our customers, if they are not happy with our service quality, do not give any comment, and they just leave us without any explanation. Hence, we are very keen to hear their voice in order to improve our service quality, and in this case, the frontline employees are the best solution to know what our customers want'.

The frontline employees at X bank share tacit and explicit CK within the organisation, while the explicit CK is the most common, such as knowledge about

the customer and knowledge for the customers, as it is easy to obtain this from the bank’s information system or co-workers. Tacit CK, on the other hand, is regarded as tricky for the frontline bank employees because it requires extra effort during the service encounters in order to be captured and shared, and not all of the employees are able to understand this knowledge. Figure 5-10 below illustrates the main sources at X bank that referred to the impact of the CK’s nature on KB during service encounters.

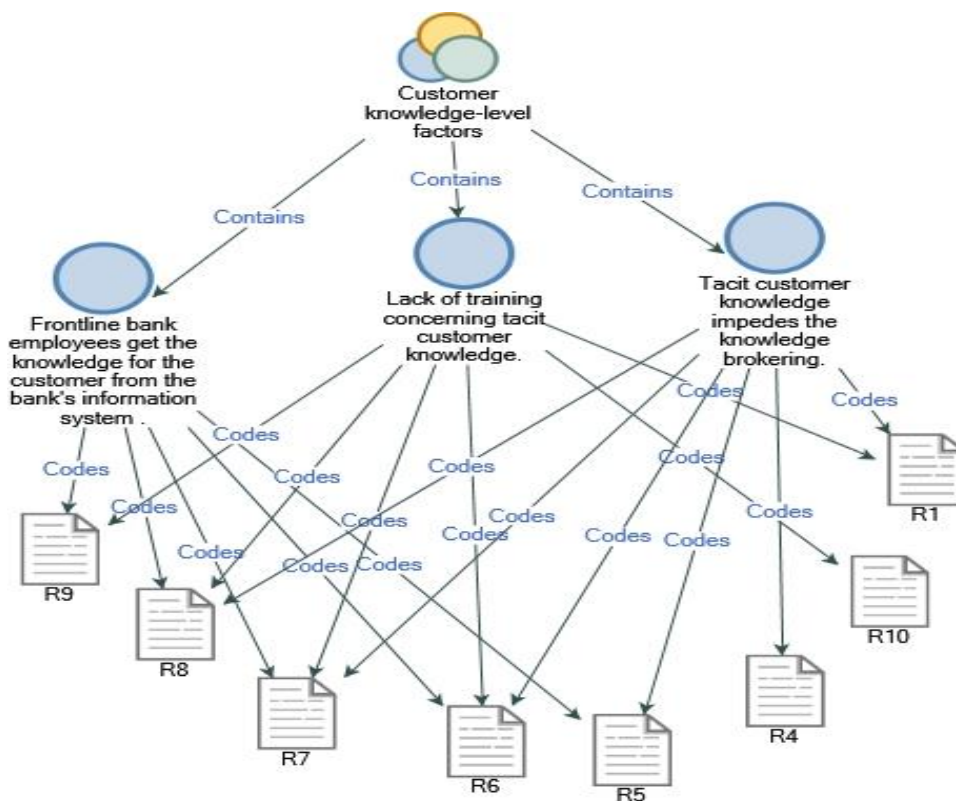


Figure 5-10: Sources of evidence that identified the knowledge-level factors that impact KB during service encounters at X bank

Summary of the Case Study (1)

The interpretation of the data collected from X bank through semi-structured interviews, bank documents, and direct observation suggests that KB through X bank’s frontline employees during service encounters is still in its infancy stage. Moreover, these frontline employees are practising KB for the customers more than for the organisation during service encounters. The majority of interviewees argued

that the frontline employees act as knowledge brokers to transfer knowledge about the customer and knowledge for the customer, but more effort is needed from the bank's management to help the frontline employees to transfer knowledge from the customer.

The analysis of the empirical data from X bank exposes four sets of factors that slow down KB during service encounters through the frontline employees: organisational-level factors (organisational culture, organisational support, and organisational structure), individual-level factors (Workload, , Self-efficacy, Prior CK, Job experience, and Ability to understand CK) technological-level factors (existing bank's information system and the absence of a CRM system), and customer-knowledge-level factors (tacit and explicit CK).

The investigation of KB through frontline bank employees during service encounters reveals that KS is the fundamental process of KB, and the success of KB depends on the KS between the frontline bank employees and the organisation. Moreover, the findings of this case suggest that frontline bank employees contribute to CK brokering through their contribution to three kinds of CK, while knowledge from the customers remains challenging due to the tacit nature of such knowledge.

5.2.2 Case Study 2: Y Bank

Background and overview

Y bank is among the top five local commercial banks in Jordan in terms of profit, capital, branches, ATMs, and employees. Y bank was founded during the 1960s, and it provides a wide range of products and services to both individuals and organisations. In addition, Y bank employs a number of strategies intended to improve its service as well as its information and technology infrastructure; it has done so in order to enhance its competitiveness and advance its position through the goal of providing high-quality service.

In addition, Y bank is among the top three banks in Jordan with regard to investing in ICTs and human resources, which it accomplishes by providing high-quality training for both new and existing employees, and it boasts the best training centre in the banking sector as a result of using the virtual branch concept. Furthermore, Y bank is keen to attract distinguished employees from other banks, and it strives to ensure that its employees are professional.

Over the last 10 years, Y bank has undergone significant development in terms of branch expansion, and it has further experienced a continuous increase in profitability, as illustrated in Figure 5-11. The growth in the number of branches reflects the rise in the number of customers and the bank's increased market share. Thus, despite the high levels of competitiveness within Jordan's banking sector, Y bank is able to satisfy customers' needs and desires. Indeed, Y bank has more than 90 branches and over 1,700 employees in Jordan, and it has implemented electronic services for its customers, including ATMs, online banking, phone banking, and call centre services.

Y bank has focussed intensively on a CRM strategy, and it has a department that is responsible for customer retention. The role of this department is to share information concerning customer feedback and unsatisfied customer needs in order to promote enduring relationships with clients.

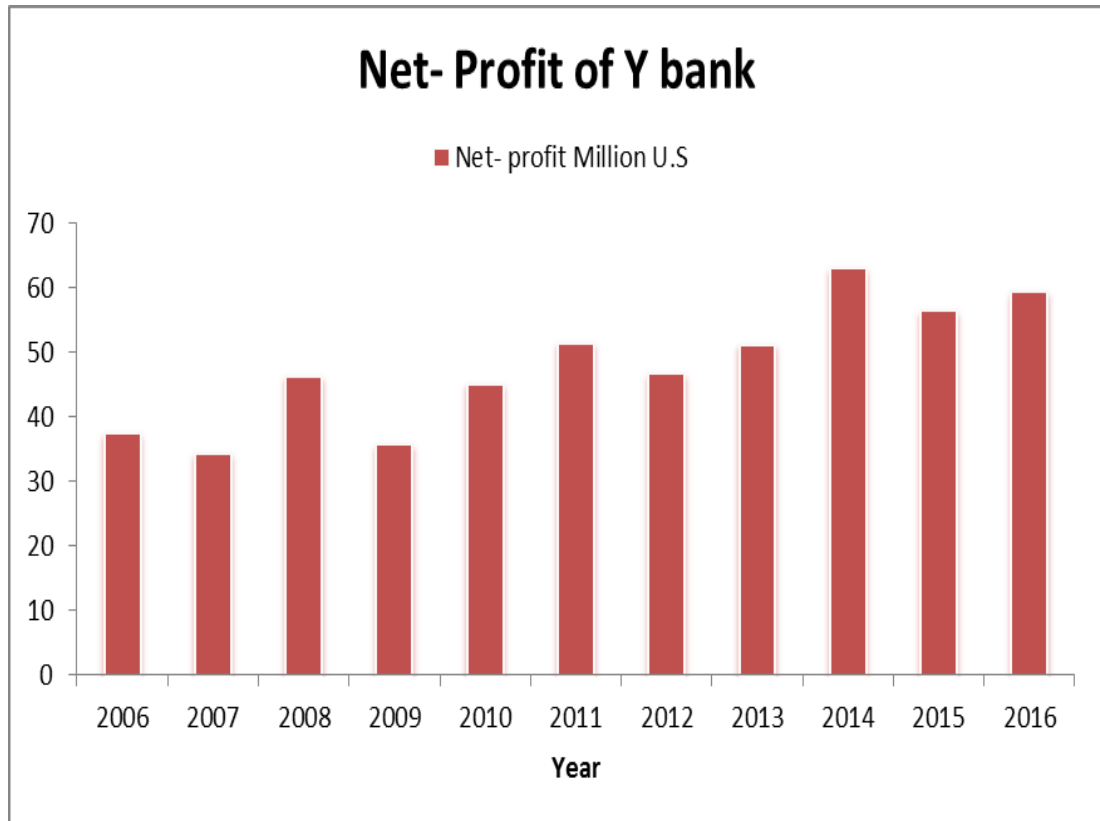


Figure 5-11 : Net profit for Y bank in the last 10 years

Source: annual reports of Y bank.

In the second case study (Y bank), ten semi-structured interviews conducted across three levels: two interviews with top managers, six interviews with middle managers, and two interviews with the frontline employees. In addition to the interviews, we use the documentation provided by and the direct observations of frontline bank employees concerning service encounter as sources of evidence, as shown in Table 5-3.

The next section provides the main findings from Y bank regarding their view to customer knowledge (CK) at Y bank, CK brokering through frontline employees, and the main factors that influence KB during service encounters.

Participant (code)	Hierarchal level	Gender	Year of Experience	Interview Duration (Min)
R 12	Top Management	F	17	18:56
R 13	Top Management	F	13	27:52
R 14	Middle Management	M	11	35:22
R 15	Middle Management	F	9	37:25
R 16	Middle Management	M	11	39:26
R 17	Middle Management	F	9	42:27
R 18	Middle Management	M	11	45:24
R19	Middle Management	M	16	42:39
R20	Frontline bank employee	M	2	16:25
R 21	Frontline bank employee	M	1	19:22

A sample of the documents: The bank’s website, the bank’s annual report, archival records, a report from the Central Bank of Jordan, and the publications of the Jordanian Banks Association.

All the **middle managers** who participated in this research work both on the front line and as branch managers (sales and service managers).

A sample of the observations: The interactions between the frontline bank employees with the customer during service encounters. Inundation, the researcher considered the communication between the frontline bank employees with their branch manager with regard to capturing, creating, and sharing CK.

Table 5-3: interviewees and other sources of evidence (Y Bank)

Customer knowledge (CK) at Y Bank

Having access to the three types of CK is critical in the banking sector for many reasons; as such, Y bank pays great attention to obtaining knowledge about the customers and for the customers during the service encounters. Indeed, it is very clear that Y bank has implemented a number of initiatives intended to ensure that knowledge about the customer during service encounters is obtained:

R15 “We adopted the concept of ‘know your customer’, and we try to obtain as much customer information as possible in order to provide the services and products that customers seem to require according to what we know about them.”

A number of the interviewees noted that knowledge about the customers is very important in terms of assisting management to maintain long-term relationships with customers, as, if bank managers know their customers very well, they are able to serve them appropriately and provide products and services that satisfy their requirements. For example, one of the branches’ sales and services managers made the following comment:

R18 “In our bank, we use the concept of CRM and a ‘know your customer’ (KYC) initiative in order to be in compliance with anti-money laundering regulations, as well as to identify what we can provide to our customers. Thus, we ask our frontline employees to obtain information concerning their customers’ backgrounds during service encounters, as it is helpful in developing long-term relationships with customers.”

Within Y bank, there is a department that is responsible for collecting service improvement suggestions from employees. Thus, when frontline employees wish to share their knowledge concerning how service quality might be improved, they can do so by sending emails to their branch managers; thereafter, their managers will send suggestion to the department, which will then consider these ideas and tap into the knowledge provided. The quality assurance manager in retail banking management made the following statement:

R12 “The frontline bank employees have several channels to transfer their CK to the management of the bank. Hence, they can send an email, use the telephone to contact with us to share their suggestions, as well as they able to share this knowledge with their managers and they can raise this knowledge through the bank meetings with top management.”

The primary focus of the bank's management is to gain knowledge about the customer and provide the knowledge for the customer during the service encounter. Also, the necessity to get knowledge about the customer is evident in the Bank's instructions and policy.

The knowledge of customers obtained during service encounters is important for Y bank in terms of identifying customer needs and satisfaction, as well as improving service and developing new products. In order to have access to this knowledge, Y bank attempts to obtain it from customers using several tools; in addition, the bank uses the knowledge from the customers to create knowledge for the customer.

The quality assurance manager in retail banking management made the following statement:

R12 "We have allocated a special communication channel for customers and employees to pass on their feedback concerning our services and products to our department. In addition, we keep following our customers to ensure that we provide them with high-quality services. Therefore, we dealing with the CK in two ways: One from the branches to bank's management and another one from bank's management to the branches."

The management of Y bank is aware of the benefits offered by the CK that can be obtained during interactions between customers and the frontline employees. However, obtaining this knowledge is still challenging for the bank's management, as the majority of it is tacit knowledge, such as customer experiences.

With regard to this topic, one of the sales and service managers made the following comment:

R16 "Without a doubt, our bank's management has realised the importance of the knowledge that is generated by frontline employees and customers during service encounters; however, some barriers impede the full tapping of this knowledge."

Despite the fact that the three kinds of CK are critical for any service organisation, knowledge obtained from customers is most important with respect to ensuring quality of service, developing new products, and managing customer relationships. The Head of the Core Segment and Products Office made the following comment:

R13 "We seek to obtain knowledge from customers such as feedback concerning services or products through frontline bank employees, and, based on this

knowledge, we quite often improve our services with the intention of maintaining existing customers and attracting new ones.”

Obtaining CK is considered to be the first step toward customer satisfaction, while gaps in terms of CK may lead to losing customers and competitive advantage within the banking sector. Hence, the CK generated during service encounters functions as a primary indicator of customer satisfaction and unsatisfied customer needs. A sales and service managers noted that:

R17 “In many cases, the main reason behind the bank’s failure to retain customers and prevent them from switching to other banks is that they did not receive customer feedback regarding the service quality at the appropriate time.”

All of the interviewees from Y bank admitted that the frontline employees make a significant contribution to organisational knowledge, particularly in terms of the CK that is generated during service encounter interactions. The CK obtained as result of interactions between customers and frontline employees is considered to be valuable when it comes to improving service quality and developing new products. However, the frontline employee is the first bank employee to receive customer feedback during service delivery and at the points in time when customers compare their expectations with the actual performances of the services. A sales and service manager made the following comment:

R19 “The frontline bank employee is the last person who delivers service to the customer during service encounters and the first to receive the customer’s reaction about the service quality. Thus, if the frontline employee accurately relays either positive or negative customer feedback regarding a particular service, this information will prove helpful to the organisation in terms of improving its services.”

A similar comment was made by the quality assurance manager involved in retail banking management:

R12 “In our bank, frontline employees always contribute to the bank’s knowledge; in addition, they deliver feedback from the customers, and they also give us their feedback about products and services. Hence, I think that they contribute about 30-40 percent to the projects that are concerned with improving service quality in our bank.”

However, the bank’ management realised the benefit of knowledge from the customer during the service encounter concerning improving service quality and new

products. Hence, capturing and sharing knowledge from the customer during service encounters through frontline bank employees in Y bank is still need more attention from frontline bank employees and bank's management to get the full advantage of this knowledge.

Knowledge-brokering (KB) during service encounter at Y bank

In Y bank, the interactions that occur between frontline employees and customers during service encounters are considered to represent the best opportunity to exchange and obtain the three kinds of CK and, in particular, knowledge from customers. KB during the service encounter in Y bank consists of two main processes KB for the customer and KB for the organisation as shown in figure (5-12) below. The frontline bank employees during the service encounters provide the services and the products, as well as due to the nature of bank services and products the customers need to get knowledge from the bank to accomplish these transactions. Thus, the frontline bank employees serve as a knowledge broker for the customers, and in some cases, they act as knowledge brokers for the organisation through capturing and sharing knowledge from the customers to the bank's management concerning customer's feedback and customer's suggestions.

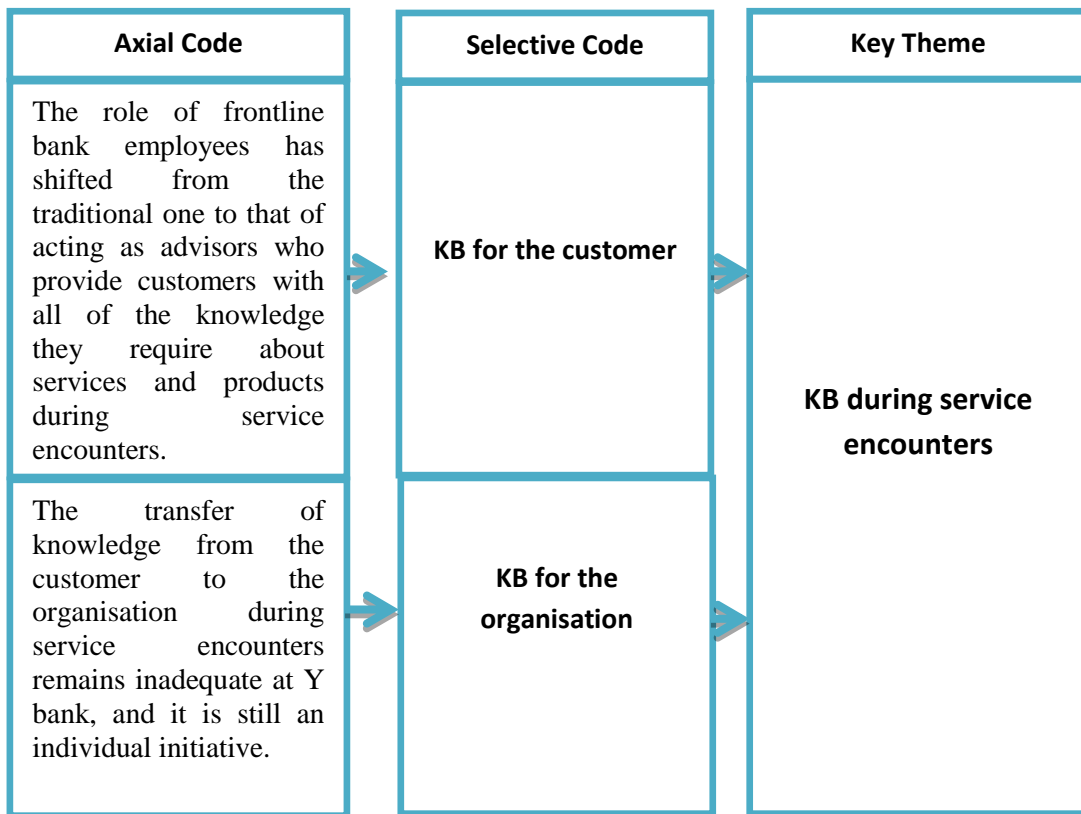


Figure 5-12: KB during service encounters at Y bank.

Moreover, frontline bank employees frequently share the new knowledge obtained from customers in order to improve upon the quality of services and products. The Head of the Core Segment and Products Office made the following comment:

R13 “Frontline employees always strive to improve the things that will help them to sell the bank’s products to customers. Thus, if they are exposed to some ideas or suggestions that might help in this regard, they attempt to report them to management in order to improve upon the bank’s services or products. In fact, most of the ideas that come from frontline employees are the results of interactions between frontline employees and the customers, as well as from customers’ experience with other banks.”

In the banking industry, services encounters are considered to be the engines of banks, and frontline bank employees are the engine fuel. Frontline bank employees represent the face of management to the customer, and they represent the customer front to a bank’s management. At Y bank, management has realised the importance of frontline bank employees as a source of CK that can be used to improve upon the

bank's services and products. The quality assurance manager involved in retail banking management made the following observation:

R12 "In our bank, the frontline bank employees represent the critical chain between the customers and bank. In other words, the frontline employees have a primary role in our bank because they are the main engine for the bank business and they work in the market. Thus, if they provide any ideas or feedback, we must study their suggestions and make changes based on this feedback insofar as we can."

The frontline employees at Y bank work as representatives and gatekeepers between the bank's management and its customers. Thus, they function as knowledge brokers that facilitate the exchange of knowledge (about customers, from customers, and for customers) between customers and the bank's management. The Head of the Core Segment and Products Office made the following statement:

R13 "The importance of the frontline bank employees stems from the two roles that they play: frontline bank employees are the face of the bank for the external environment, and the frontline bank employees are considered to be the voice of the customer with respect to customer feedback."

The interactions that occur between frontline employees and customers during service encounters are considered to be the heart of the work conducted at Y bank because, in many cases, customers do not need to contact any bank employees other than those at the frontline. In addition, frontline employees represent the bank front to customers:

R13 "Frontline employees make a significant contribution to the process of developing and improving service quality based on their feedback, which is the result of their interactions with customers during service encounters. Frankly, in many cases, we have received good ideas and suggestions from the frontline employee, and, after examining the quality of these suggestions, we apply them to our services and products."

A knowledge broker is a person who is able to deliver knowledge to those who need it at the right time and place; thus, frontline employees are considered to be knowledge brokers because they are able to provide knowledge to the customer during the service encounter. In addition, the interviews provided the following insights:

R12 "Frontline employees deal with different types of customer characters, and customers' moods changes from time to time; however, our frontline bank

employees are aware of the importance of delivering knowledge of services and products to customers at the right place and time.”

R14 “Naturally, a frontline bank employee is the first source of the knowledge about customers. Hence, the management of our bank appreciates the role played by frontline bank employees as a significant source of CK; therefore, we support those who serve in this role through a package of training programmes intended to empower frontline employees to improve service quality and obtain knowledge from the customers.”

An analysis of data that were gathered from the interviews and the direct observations revealed that frontline bank employees at Y bank play a substantial role in terms of capturing knowledge and sharing knowledge obtained from customers with the organisation and knowledge from the organisation with customers during service encounters. However, the role that the knowledge broker plays for customers (i.e. transferring knowledge about services and products from the organisation to customers) is practiced more frequently than that he or she plays for the organisation (i.e. transferring knowledge from customers to the organisation). One of the interviewees made the following observation:

R18 “In our bank, we have moved from the customer service-oriented stage during interactions with customers to the consultant-oriented stage. Thus, the role of frontline bank employees has changed, as it is no longer exclusively focused on providing services and products to the customers; rather, their role has been extended to become consultants who are intended to help customers to overcome their challenges, as we know what customers need.”

At Y bank, management’s efforts are focused on encouraging frontline employees to act as knowledge brokers for customers in order to provide knowledge concerning services and products to clients.

However, the role played by frontline employees as knowledge brokers for the organisation still requires more attention and organisational support. Certainly, transferring knowledge to customers during service encounters is considered to be a vital task performed by frontline employees in a service organisation, whereas transferring knowledge from customers to the organisation is still considered to be voluntary work on the part of frontline employees. All of the interviewees from the bank that participated in this study noted that frontline bank employees serve as knowledge brokers for customers during service encounters:

R20 “When we open a new account for the customers, we get all the required information about them. Also, during service encounters, we have to serve the customer as best we can by providing all the information he or she requires about the bank’s services and products; furthermore, we need to cross-sell other products and services.”

The analysis of the data reveals that, at Y bank, frontline bank employees act as knowledge brokers during service encounters by contributing to the three kinds of CK, namely knowledge for the customer, knowledge about the customer, and knowledge from the customer. Moreover, the findings of this research distinguish between the two kinds of KB during service encounters, namely KB for the customer and for the organisation. However, an analysis of the results shows that the success of frontline bank employees in their role as knowledge brokers for the organisation depends primarily on their success as knowledge brokers for customers.

Factors that affect CK brokering through frontline bank employees at Y bank

An analysis of the data revealed that the frontline bank employees of bank Y more frequently work as knowledge brokers for customers than for the organisation; in other words, frontline bank employees transfer knowledge of services and products from the organisation to the customer. However, the transfer of knowledge obtained from customers during service encounters to the organisation remains very rare. An analysis of the data collected from Y bank exposed a set of barriers that restrict the ability of frontline bank employees to serve as knowledge brokers for the organisation by transferring the knowledge obtained from customers concerning their experiences and feedback.

1. Organisational -level factors

At Y bank, KB during service encounters has been affected by a number of organisational factors that affect KB from the customer to the organisation. In the following section, we identify the primary factors that were mentioned by the interview participants from Y Bank as shown in Figure 5.13.

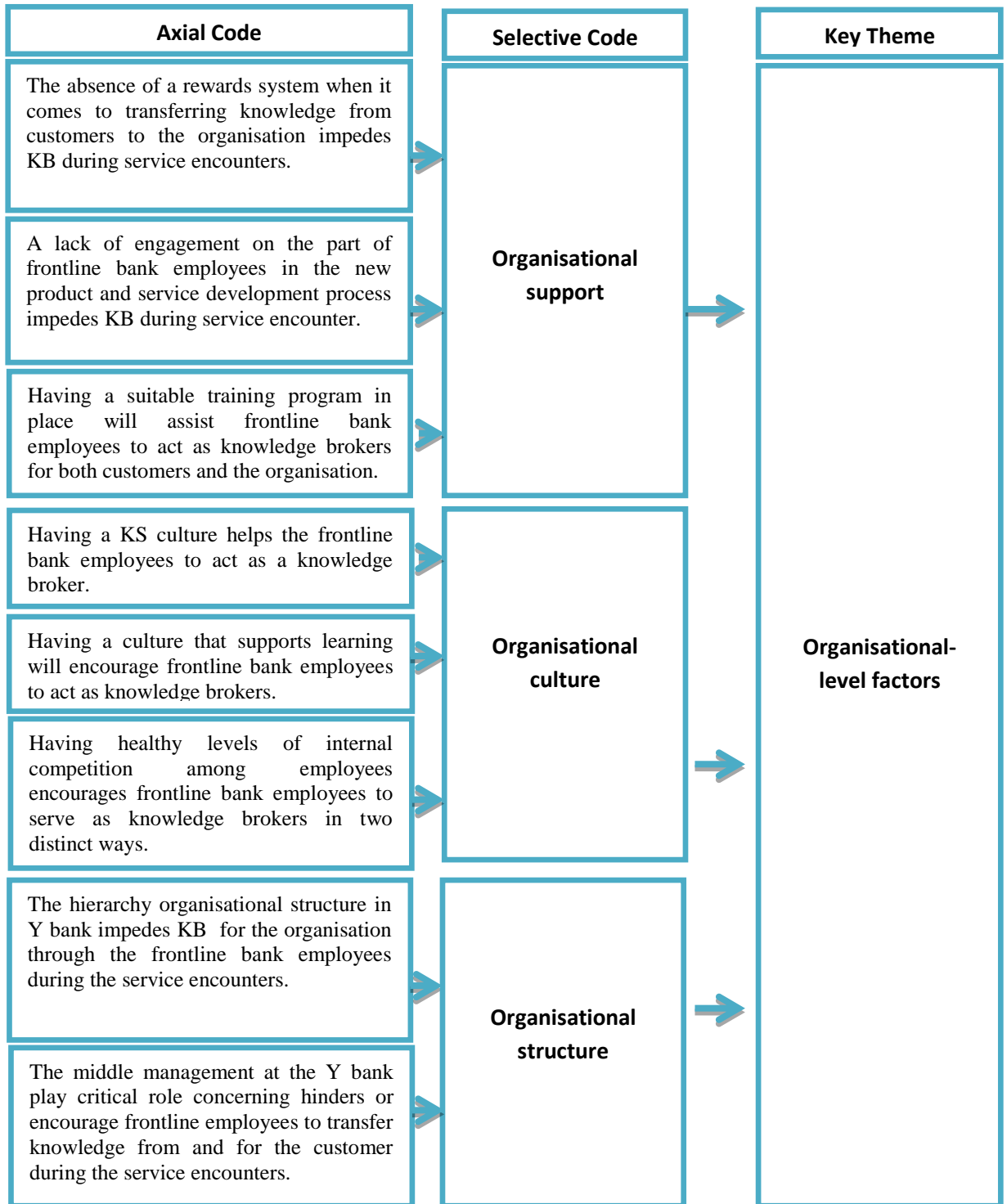


Figure 5-13: Organisational-level factors that impact KB during service encounters at Y bank

Organisational support

At Y bank, organisational support is considered to be a critical factor in terms of encouraging frontline employees to engage in the KB process during service encounters. Frontline employees are able to serve as knowledge brokers for the organisation if they perceive themselves as having organisational support, as KB for the organisation remains a voluntary task when compared with KB for customers. The majority of the interviewees stated that the existence of organisational support encourages frontline employees to act as knowledge brokers for both customers and the organisation. For example, one of the sales and service managers made the following comment:

R19 "I am quite sure that frontline employees will work as knowledge brokers if there is a positive atmosphere in a bank branch and if a branch manager encourages his or her frontline employees to share knowledge obtained from the customer and knowledge with the customer."

Moreover, the Head of the Core segment and products office reported the following view:

R13 "...I always say that there is room for improvement in our bank. Thus, we have to hold more meetings with frontline employees, and we need to shed light on the employees who contribute to the bank's knowledge, as doing so will encourage frontline employees to transfer their knowledge to the organisation."

On the other hand, the absence of organisational support was identified by the majority of the interviewees at Y bank as a major barrier that impeded frontline bank employees when engaging in the KB process in order to capture knowledge from customers during service encounters and to share it with the organisation. For example, one of the frontline bank employees made the following comment:

R21 "The organisation does not require frontline employees to transfer knowledge obtained from customers, and not much effort is invested in encouraging frontline employees to serve as knowledge brokers; instead, we are asked to serve the customers and to cross-sell during service encounters."

This view was confirmed by one of the sales and service managers, who made the following statement:

R14 "Our frontline employees are represent a treasure trove of information concerning the needs and desires of both customers and competitors, but the bank's management has not yet tapped into this source."

At Y bank, there was no reward system in place intended that is intended to encourage frontline bank employees to work as knowledge brokers who transfer CK from customer to the organisation. Many of the interviewees from Y bank stated that no financial rewards are offered to frontline bank employees when they report customer feedback or ideas and suggestions that might assist the organisation in attempting to improve the quality of services and products. However, in some cases, the management of Y bank has provided moral rewards for such engagement with respect to frontline bank employees transferring knowledge from customers to the organisation. For example, one of the sales and service managers made the following statement:

R17 "While there is no reward for this role, as a manager I keep such contributions in mind when we evaluate the performances of frontline employees. In addition, in some cases, employees might receive thank-you letters due to such contributions, but there are no clear procedures for rewarding employees in such situations."

Furthermore, one of the frontline bank employees reported the following:

R21 "In our bank, an initiative has been launched by the HR department that is intended to select the employee of the month. We refer to this as the 'Ideal employee of the month', and this initiative is sponsored by the Chairman of the Board of Directors. They select employees who offer anything unusual to the bank, such as transferring knowledge from the customer or providing valuable suggestions; however, financial rewards are only associated with branch sales."

On the other hand, Y bank provides financial and moral rewards to its employees when they achieve certain targets, such as increasing profitability or the number of customers. One of the sales and service managers reported the following:

R14 "Frontline bank employees are the only ones who are able to transfer the knowledge obtained from customers during service encounters, but the bank's management cannot force frontline employees to perform this job alongside their primary duties. In addition, we attempt to encourage them to do so through considering their contributions when we evaluate their performance; this is done in order to encourage them to perform this task, as there is no direct reward for doing so."

The majority of the participants from Y bank indicated that frontline bank employees do not participate in the process of developing services and products, as their responsibility is limited to selling such products to customers. Furthermore, the management of Y bank receives feedback concerning new services and products from frontline bank employees after they have provided them to the customers, not

before. For example, the Head of the Core Segment and Products Office reported the following:

R13 "In our bank, we provide rewards to all employees based on their performance; however, encouraging frontline employees to feel engaged is considered to be a real motivation for them to capture and transfer their knowledge to the organisation. Indeed, based on our culture, the reward and punishment system frequently drives employees towards achievement."

An analysis of the data obtained from Y bank reveals that frontline bank employees are not entirely engaged in terms of transferring their knowledge of products and services to customers. Moreover, the lack of organisational support to frontline bank employees is one of the factors that not encourage them to engage in the process of KB especially for the organisation.

Organisational culture

Indeed, all six middle managers from Y bank stressed that the bank's management supports the bank's employees in terms of on-going learning and assists them in sharing their knowledge within the organisation through several channels. One of the frontline employees reported the following:

R20 "In our branch, we meet at the beginning of each day before opening the bank to the customers; the purpose of these meeting is to discuss the problems that we are confronted by and the best approaches to overcoming particular issues and exchanging experiences."

The organisational culture of Y bank is indicated to support KS, and it has been found that sharing knowledge has becomes one of most prominent dimensions of the bank's organisational culture. One of the sales and service managers made the following comment:

R19 "We use meetings and emails to share knowledge within our branch. In addition, I have created a WhatsApp group for all of the employees at my branch, and, through this group, we share knowledge with each other; furthermore, if someone obtains any information that might prove helpful to our bank, he or she will share it. "

Furthermore, the management of Y bank encourages employees to develop themselves in order to improve their performance. Thus, at Y bank, there are high levels of internal competition among the employees when it comes to promotion, as employees receive promotions based on their performance and the targets that they have achieved. On the other hand, the management of Y bank offers the bank's

employees the latest training workshops in order to empower them to serve the customers in the best manner possible. The Head of the Learning and Development Department made the following statement:

R18 "In our bank, there are high levels of competition among our employees, and management has the objective of developing employees in such a manner that they are motivated to increase productivity. Thus, employees who have skills and continually strive to improve themselves will receive promotions and high positions within our bank, regardless of their job tenure."

In Y bank the market and hierarchy culture remain the dominant organisational cultures at Y bank, despite management's attempts to develop a distinctive organisational culture through focusing on supporting the employees in on-going learning and providing them with adequate training programmes. Furthermore, Y bank's management encourages its employees to obtain knowledge for customers and to share knowledge within the organisation using both formal and informal means. However, the organisational culture in Y bank plays a substantial role in order to encourage the frontline bank employee to engage in the KS but the KB process not fully supported by the organisational culture that focuses on internal competitiveness that depends on achieving the targets and increasing knowledge for the customer.

Organisational structure

The analysis of the interviews and the bank documents showed that the organisation structure in the Y bank is hierarchy structure and there high level of the centralisation, formalisation and standardization.

R19 "In our bank the organisational structural very important because we have a big bank and our branches in different cities; therefore, we have standard regulations, and in many cases, we need to contact with bank's headquarter of the bank to get their approval in some decisions concerning daily work."

The interpretation of the data revealed that the hierarchy structure in Y bank impact the KB through the frontline employees during the service encounters, as well as this structure causes the lack of communication between the frontline employees and with the bank's top management and this will increase unwillingness of them to contributing their knowledge. Moreover, lack of flexibility in this structure will slowdown transferring CK to bank's management through the frontline employees.

The Head of the Core Segment and Products Department made the following comment:

R13 “..... we conduct regular meetings with the branches managers to get their feedback and suggestions as well. Thus, the frontline bank employees can pass their feedback to the branch manager, and the branch manager delivers this knowledge to us because we have more than 70 branches and we try to get their feedback as much as we can.”

The hierarchy organisational structure at Y bank allow the middle managers to work as a link between the frontline employees and top management; thus they play a critical role concerning support the frontline employees to get the knowledge for the customer and encourage them to contribute knowledge that obtained from the customers. Also, the branch managers at Y bank work as a filter for the frontline employees' knowledge that generated during the service encounter before they reach top management.

R17 “Thus, when the frontline employee wants to share his knowledge concerning how to improve service quality, he can do that through send an email to his branch manager and then his manager will send this suggestion to the employees in that department.”

Organisational structure in Y bank influence the KB through the frontline bank employees and it in many case inhibit the frontline bank employees to contributing their CK to the organisation because of the hierarchy structure. Figure (5-14) below illustrates the main sources at Y bank that referred to the organisational-level factors that impact KB during service encounters in the Y bank.

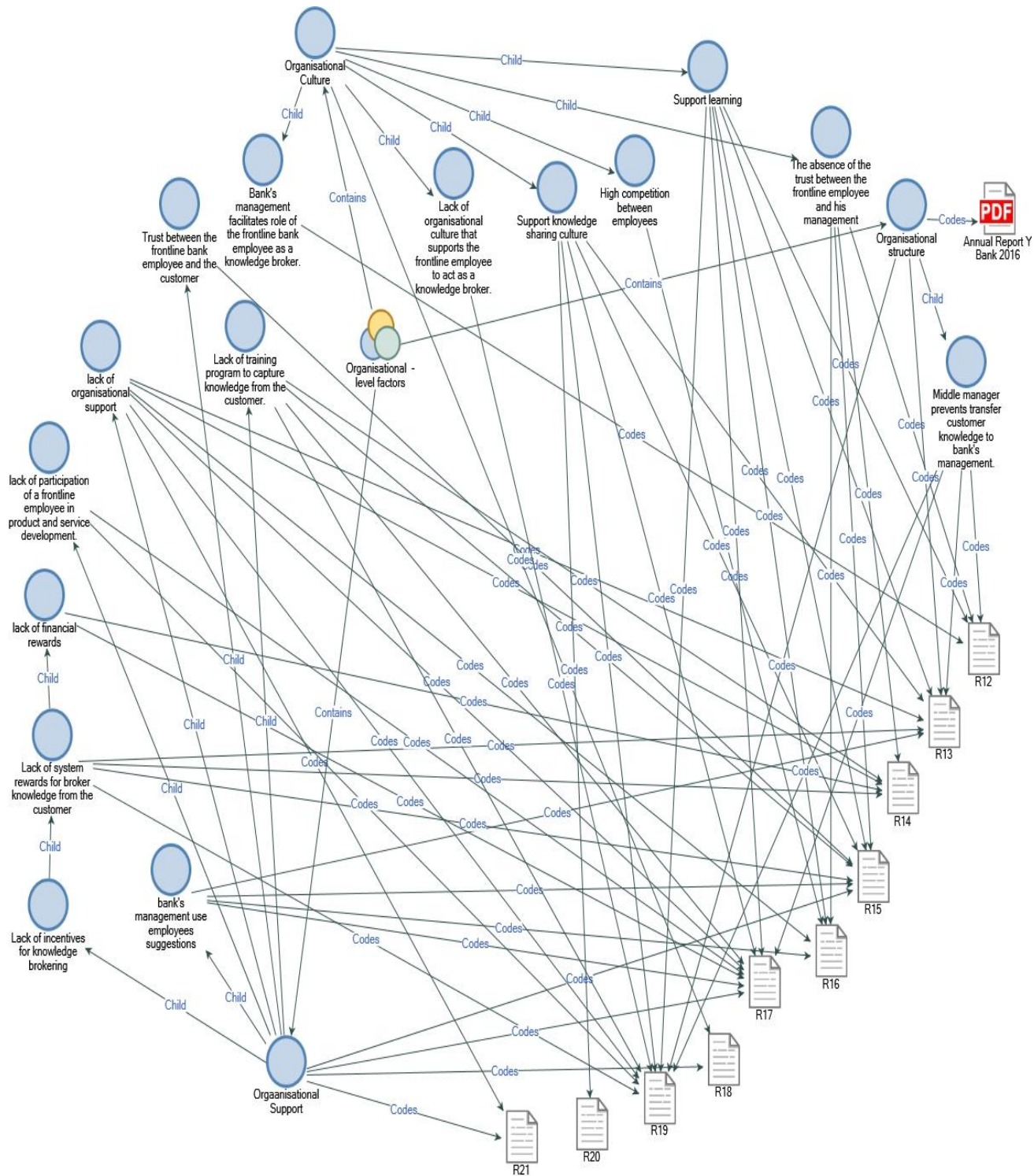


Figure 5-14: Summary of the sources of evidence that identified the organisational-level factors that affect KB during service encounters at Y bank

The previous sections illustrate that the organisational culture, organisational support and the organisational structure at Y bank influences the KB through frontline bank employees during the service encounters.

2. Individual-level factors

An analysis of the data gathered from Y Bank using the semi-structured interviews, observations, and documentation indicates that successful KB for the organisation during service encounters depends on the success of KB for the customer. Figure (5-15) below shows the surmises the main individual - level factors that affect KB during service encounter at Y bank.

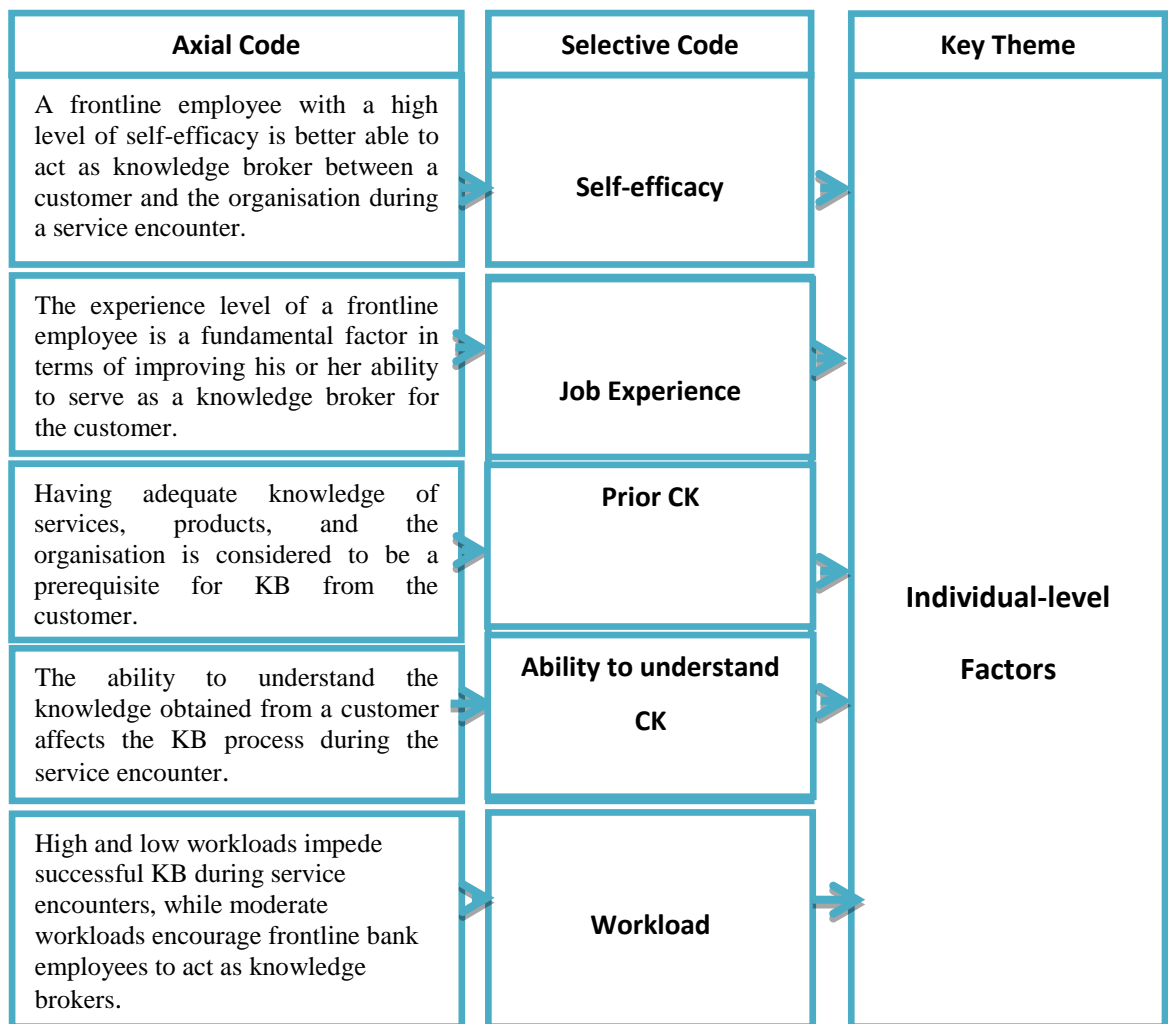


Figure 5-15: Individual-level factors that impact KB during service encounters at Y bank.

Self-efficacy

An analysis of the interviews established that frontline bank employees are considered to be the heart of the KB process during service encounters. The majority of the interviewees indicated that there are particular factors that influence KB at the individual level and employees' willingness to act as knowledge brokers during

service encounters. Hence, the majority of the participants noted that self-efficacy is very important in terms of encouraging frontline bank employees to act as knowledge brokers between customers and the organisation. Furthermore, a self-efficient frontline employee is better able to transfer knowledge from and to the customer during a service encounter because he or she will have the power of knowledge. One of the sales and service managers made the following comment:

R16 “Having self-confidence and respect for customers will help frontline employees to develop relationship with customers, while customer relationships built on credibility and transparency will promote customer loyalty toward the bank.”

In this vein, one of the frontline bank employees argued that self-confidence is a critical factor with respect to encouraging frontline employees to be more active in terms of serving as knowledge brokers:

R21 “A shy employee will undoubtedly not be successful as a knowledge broker because, if you want to serve as a knowledge broker, you have to have an open mind when engaging in dialogue with customers.”

It seemed clear that the frontline bank employees with high Self-efficacy are more able to serve as knowledge broker between the organisation and customer during the service encounter, while the low Self-efficacy is considered as a barrier to the frontline bank employees to engage in the KB process in two ways.

Workload

The mass service setting is the typical situation in Y bank: Frontline bank employees deal with a large number of customers during service encounters through face-to-face interaction. In addition, the frontline bank employees at Y bank work either as tellers or customer services employees, both of which offer a full range of services to customers in one setting. The Head of the Core Segment and Products Department made the following comment:

R13 “Our frontline employees provide all of our services and product to customers in one sitting, and they have no need to consult other bank employees.”

There is no consensus concerning the impact of a high workload on the ability of frontline bank employees to act as knowledge brokers. A number of the participants argued that a high workload will not help frontline bank employees to act as knowledge brokers between the customer and organisation; hence, it seems that a heavy workload will impede frontline employees in terms of acting as knowledge

brokers between customers and the organisation. A sales and service manager made the following statement:

R14 “In many cases, a high workload during service encounters limits the ability of frontline bank employees to act as knowledge brokers. It is challenging for frontline bank employees to capture knowledge from customers and transfer it during service encounters when there is a long queue of customers waiting for service from frontline employees, and these employees are obliged to also offer these customers high-quality service.”

One of the frontline bank employees made a similar comment with respect to the impact of a high workload on KB during service encounters:

R20 “To be honest with you, the bank targets that branches and employees are required to satisfy are very high, and it quite often the case that we are unable to achieve the bank’s targets, cross-sell, and capture knowledge from customers at the same time.”

In contrast, a number of the interviewees suggested that a high workload does not affect frontline bank employees’ ability to act as knowledge brokers because doing so depends on the ability of a frontline bank employee to manage his or her time during service encounters. The Head of the Learning and Development Department made the following comment:

R18 “A high workload is not considered to be a barrier, as frontline employees need to arrange their priorities in such a manner that they can both offer services and products to customers and focus on the targets; however, a failure to set priorities will frequently lead to the opportunity to capture knowledge from a customer being ignored.”

On the other hand, many of the interviewees of Y bank expressed the belief that a moderate workload encourages frontline bank employees to act as knowledge brokers who transfer knowledge from the customer to the organisation. For example, one of the sales and service managers made the following statement:

R19 “Interaction with a high number of customers will help frontline bank employees to obtain new and varied CK, while an extreme workload might limit the ability of frontline employees to act as knowledge brokers. Therefore, a moderate workload during service encounter will prove very beneficial in terms of providing frontline bank employees with opportunities to transfer knowledge in two directions.”

The low and high workload during service encounter impeded the KB process between customer and organisation, while the moderate workload encourages the KB process for the customer and organisation.

Prior Customer Knowledge

The researcher asked the participants to identify the primary barrier that limited the ability of frontline bank employees to serve as knowledge brokers between the customer and organisation and to transfer CK from the customer to the organisation and from the organisation to the customer during service encounters. Most of the interviewees noted that a lack of prior knowledge and experience was considered to be the main obstacle to KB during service encounters. In addition, the analysis of the interviews revealed that the participants considered prior knowledge as knowledge for the customer. Therefore, having adequate knowledge regarding services, products, and the organisation is deemed as a prerequisite for KB from the customer.

For example, the quality assurance manager in retail banking management made the following comment:

R12 “Frontline bank employees are able to act as knowledge brokers, but they need to have adequate knowledge of the bank’s services because, in many cases, they are able to capture knowledge but not able to understand this knowledge in such a manner that they are able to transfer it to the organisation.”

Job Experience

Many of the interviewees stressed the importance of the experience levels of frontline employees as the fundamental factor in increasing their ability to serve as knowledge brokers for and from the customer. Hence, the levels of experience of frontline employees help them to identify CK gaps, and they determine the ability of such employees to maintain the long-term client relationships that are necessary in order to gain knowledge from customers.

R15 “Not all our frontline employees are able to act as knowledge brokers: For example, in my branch, only one of our frontline employees works as a knowledge broker, because she has the experience and the skills that help her to create the good relationships with customers that are required to market the bank to them and to obtain their knowledge.”

Moreover, having knowledge of services and products (i.e. knowledge for the customer) enables frontline bank employee to gain knowledge from customers. One of the sales and service managers made the following statement:

R16 “Work experience is essential in allowing employees to do their jobs well; thus, when a frontline employee has experience, he can act as a knowledge broker in two ways. For example, I have noticed that my previous experience as a customer service employee has helped me to pursue success in my subsequent

work; in addition, it allowed me to serve customers very well, as I was able to do so base on my existing knowledge, without the need to consult anyone in the bank.”

Ability to understanding Customer knowledge

The ability of frontline bank employees to understand CK is considered as a factor either impedes or encourages KB during a service encounter. Evidence for this view was obtained from the interviews: For example, the quality assurance manager involved in retail banking management commented that:

R12 “We always aspire to obtain as much knowledge from our employees about the customer experience as we can. However, in many cases, the credibility of this information is our most significant obstacle, as the majority of this information is related to our competitors and their services. Moreover, the inability of our frontline employees to understand this information and transfer this knowledge in the appropriate format limits the success of this process.”

Having adequate prior CK and ability of frontline employees to understand CK are affecting KB success during service encounter and in particular for the organisation. Also, the frontline bank employees with high Job experience are more able to identify the gap in CK in order to fill this gap by sharing this knowledge within the organisation.

Figure (5-16) below illustrates the primary sources at Y bank that referred to the individuals -level factors that impact KB during service encounters in the Y bank.

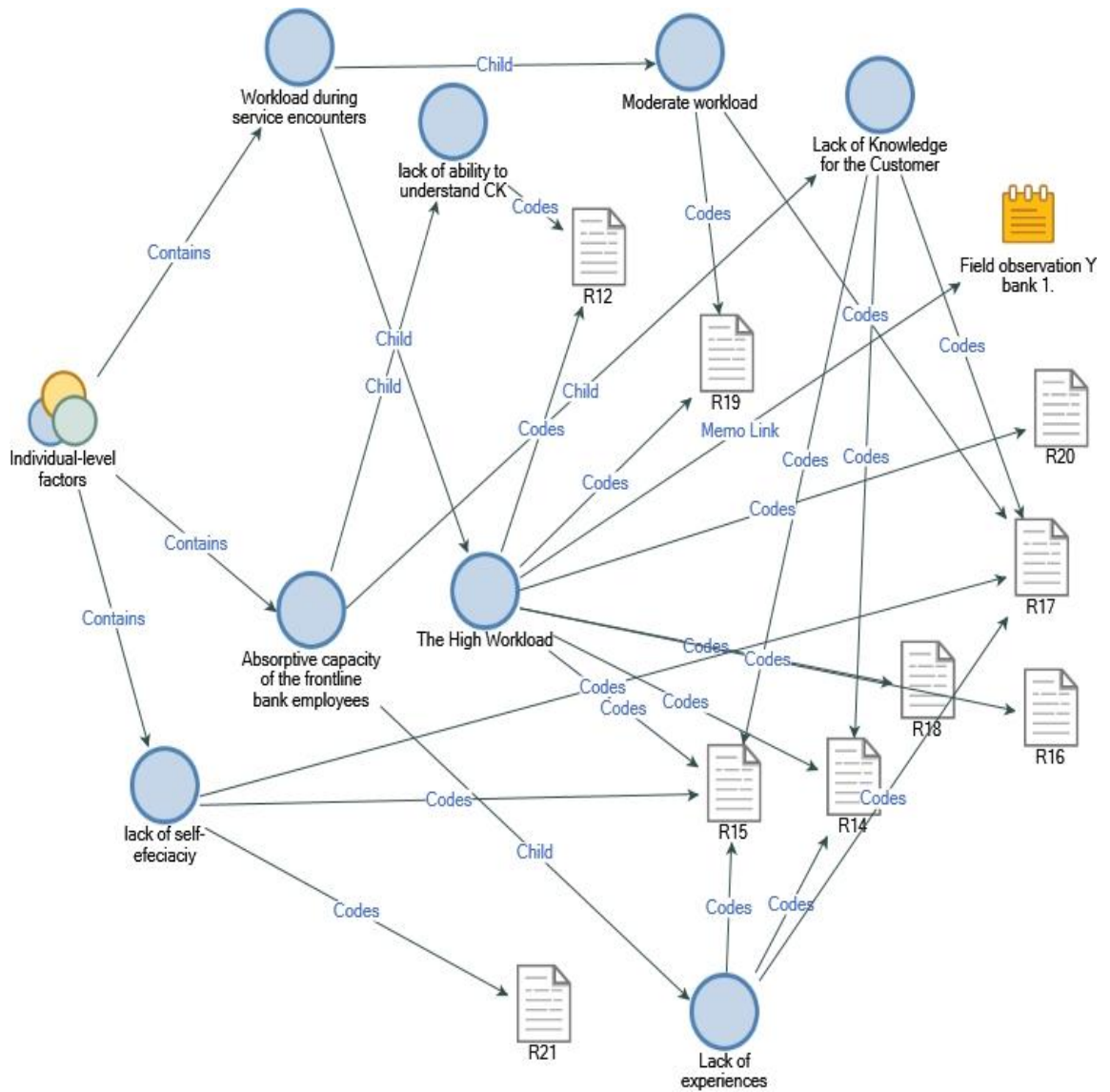


Figure 5-16: Summary of the sources of evidence that identified Individual-level factors that impact KB during service encounters at Y bank.

3. Technological-level factors

The analysis of the data from Y bank pointed out that bank's information system has a significant effect on the success the process of KB during the service encounters and the absence of the CRM system impede role of the frontline bank employees as knowledge brokers as shown in the figure 5-17.

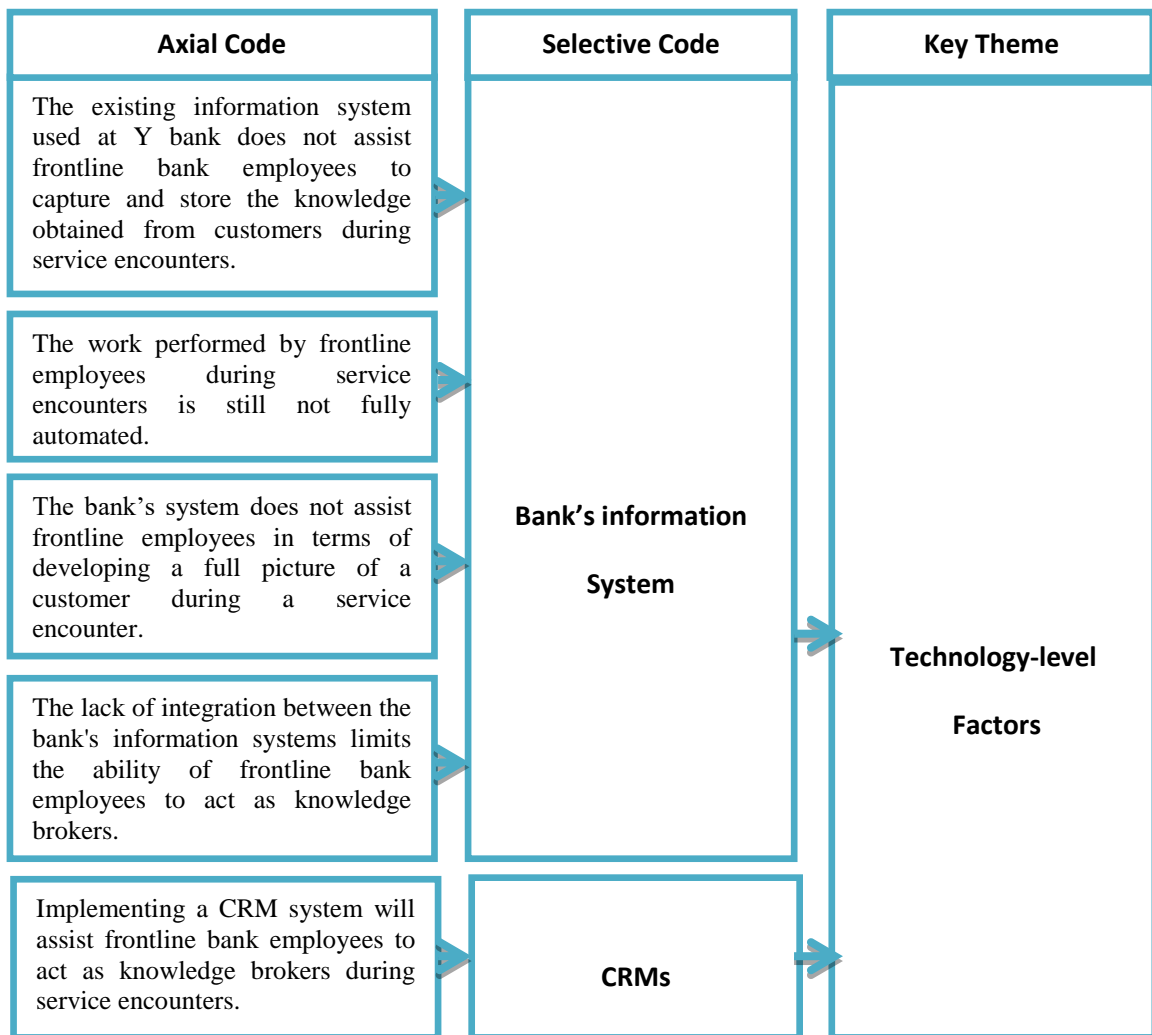


Figure 5-17: Technology-level factors that impact KB during service encounters at Y bank.

Bank's information system

The information system used at Y bank is very sophisticated, yet it is easy to use for both employees and customers. A number of the managers described it as a tracking system, not a CRM system. On the other hand, when analysing the data that were gathered from Y bank, it was noted that the bank's information system does not assist frontline bank employees in terms of storing and processing the knowledge captured from customers during service encounters. One of the sales and service managers made the following comment:

R19 "Our bank information system is a tracking system, and, through this system, we can track the transactions of the customers who use our touch points. However, there is no integration with other bank systems, such as the call centre. As such,

this system not helps frontline employees to obtain a full picture of a customer during a service encounter.”

The interviews revealed that the bank’s employees use the bank’s email to share their knowledge concerning customers, as there is no software in place that helps them to capture and transfer the knowledge obtained during the service encounter. This was evidenced in the observation and interviews; for example, one of the sales and service managers made the following statement:

R14 “When our frontline bank employees have suggestions for improving the quality of services, we encourage them to send their ideas to our bank’s management using the bank’s email.”

CRM System

The management of Y bank is very keen to develop long-term customer relationships; in addition, Y bank has adopted the CRM strategy, and the institution has allocated a department for this purpose. However, the bank still does not employ CRM software:

R18 “The concept of CRM exists in our bank strategy, and we have employees who work as ‘relationship managers’ for the VIP customers...the CRM software is coming soon, and we engage in many activities that are intended to maintain long-term relationships with our customers.”

Many of the respondents from Y bank stated that implementing a CRM system will assist frontline bank employees in terms of acting as knowledge brokers, as the use of such a system will provide frontline employees with full knowledge for customers during service encounter interactions. Furthermore, a CRM system will assist frontline bank employees to identify gaps in CK, which will prove helpful in gaining knowledge from customers and sharing such knowledge within the organisation. Most of the interviewees from Y bank expressed the belief that a CRM system would prove beneficial for KB during service encounters because it would reduce the time required to gather knowledge about customers and provide employees with knowledge of customers from a variety of sources in a rapid manner. For example, the quality assurance manager involved in retail banking management made the following statement:

R12 “In our bank, the frontline employees face a significant challenge when it comes to capturing and transferring the CK obtained during service encounters, and one of these reasons behind this is the lack of CRMs. While we are using the sophisticated technology at our bank, the work of the frontline employees during

service encounters is still not fully automated, and these employees are obliged to invest more effort in serving and informing customers.”

However, a number of the middle managers confirmed the importance of the CRM system as a source of CK, alongside frontline employees:

R16 “Implementing CRM technology will help the bank’s management to know customers and offer them suitable services and products; however, this technology cannot guarantee success without the participation of frontline employees, who must feed this technology with information.”

The existing bank information system and the lack of CRM system in Y bank are the main barriers that impede the frontline bank employees to act as knowledge broker during the service encounters according to the majority of participants from Y bank as shown in the figure (5-18) below.

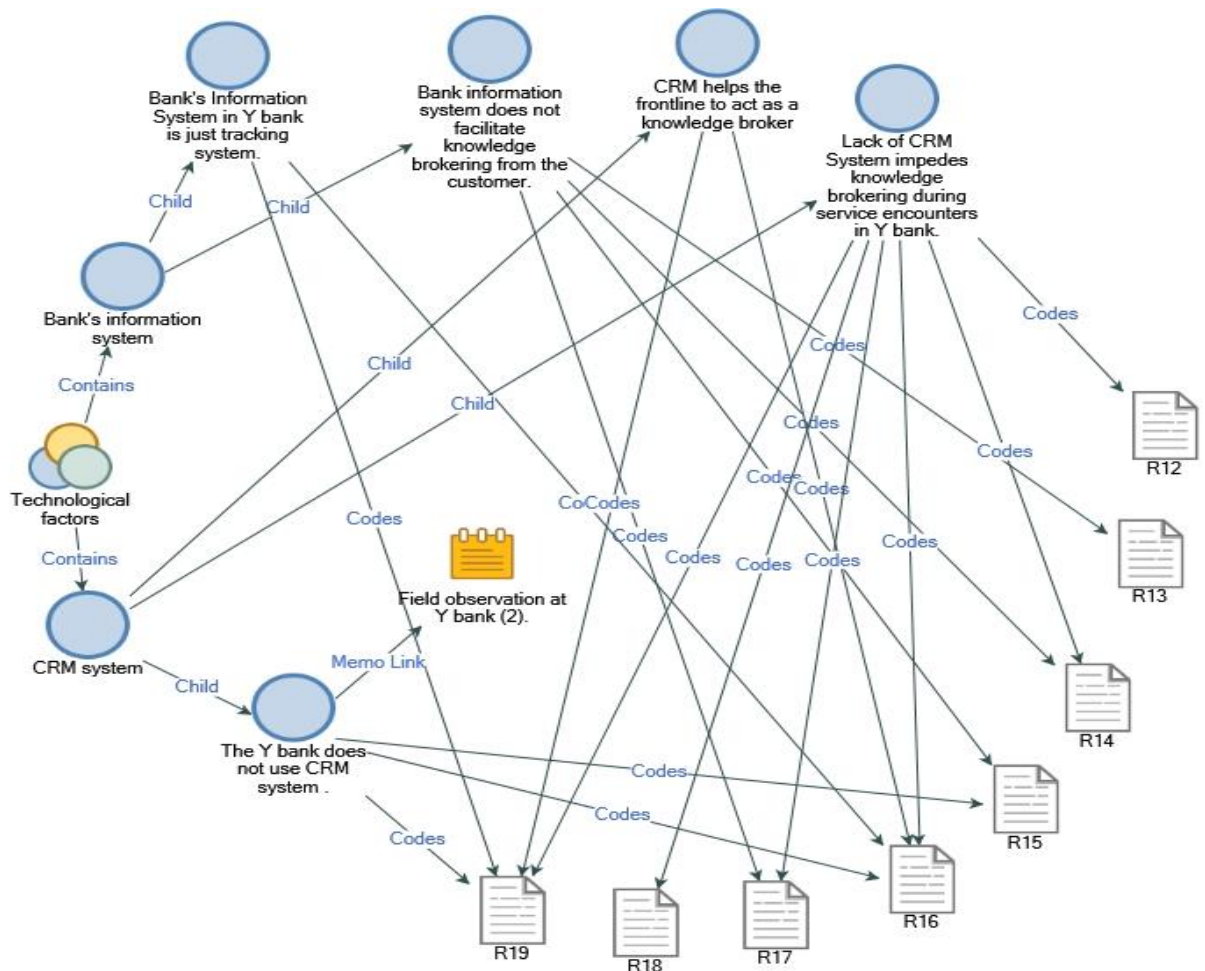


Figure 5-18: Summary of the sources of evidence that identified technology -level factors that impact KB during service encounters at Y bank

The existing information system in Y bank and the absence of CRM system are deemed as barriers that slow down the frontline bank employees to serve as a knowledge broker because the information system does not help the frontline bank employees to store and sharing knowledge from the customers during the service encounter.

4. Knowledge-level factors

The analysis of the data identified the effect of CK, nature on KB during service encounters. The two kinds of the CK, namely, tacit and explicit knowledge are impact on the process of KB during service encounters as shown in figure (5-19).

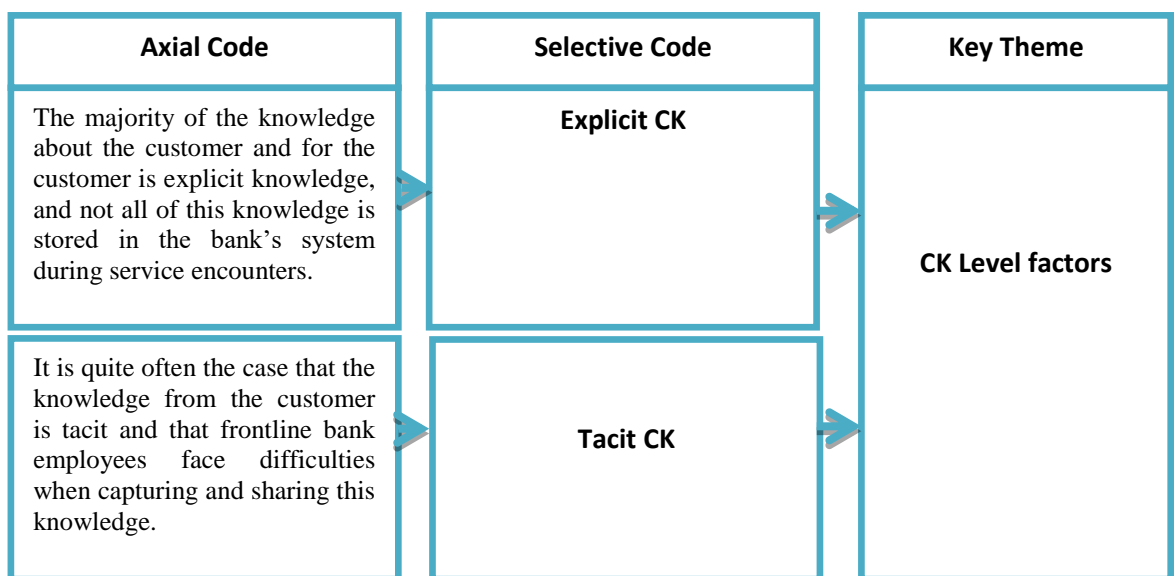


Figure 5-19: Knowledge-level factors that impact KB during service encounters at Y bank.

During service encounters, CK takes one of two forms: explicit or tacit. Most of the knowledge for the customer is explicit knowledge, while the majority of knowledge from the customer is tacit knowledge. One of the sales and service managers who had experience with a bank outside of Jordan made the following statement:

R17 “Honestly, not all the frontline bank employees able to get customer experience, and in many cases, the frontline employees facing a challenge to understand the latent customer needs about their experience and suggestions because this requires unique skills and knowledge.”

The management of Y bank realises the difficulty involved in capturing and sharing the tacit CK obtained during service encounters. Furthermore, they attempt to train their frontline bank employees to be able to capture this knowledge and then share it

within the organisation. The Head of the Learning and Development Department made the following observation:

R18 “We have implemented a set of training programs that are intended to help our frontline employees to read customers through developing their social intelligence and their ability to read clients’ body language during service encounters.”

A related comment was made by one of the sales and service managers with respect to the importance of tacit CK:

R14 “The most significant challenge facing our management is that, frequently, we do not know why customers are not satisfied with our services, and they leave our bank without any explanation or comments.”

Despite the customers in Y bank highly prefer face to face dealings with the bank but the frontline bank employees still facing a challenge to understanding the knowledge from the customers that related to their experiences with the bank services and products. On the other hand, most of the participants from Y bank argue that knowledge for the customer in some cases is tacit knowledge and if the frontline bank employees did not use these service or product they would not be able to transfer this knowledge to the customers during the during the services encounters.

R16 “In our bank, before introducing any new products or services to the customers, we conduct some meeting and training workshop with frontline bank employees to inform them about them to get their feedback. Also, our bank’s management publishes all information on these products on the Bank’s intranet. On the other hand, the frontline bank employee needs to use the bank services and products to be able to transfer the knowledge about them to the customer.”

The nature of CK in many cases impede KB during service encounter because most of the knowledge from the customer during the service encounters in Y bank is tacit knowledge and not all the frontline bank employees are able to capture and share this knowledge.

Figure (5-20) below illustrates the primary sources at Y bank that referred to the knowledge -level factors that impact KB during service encounters.

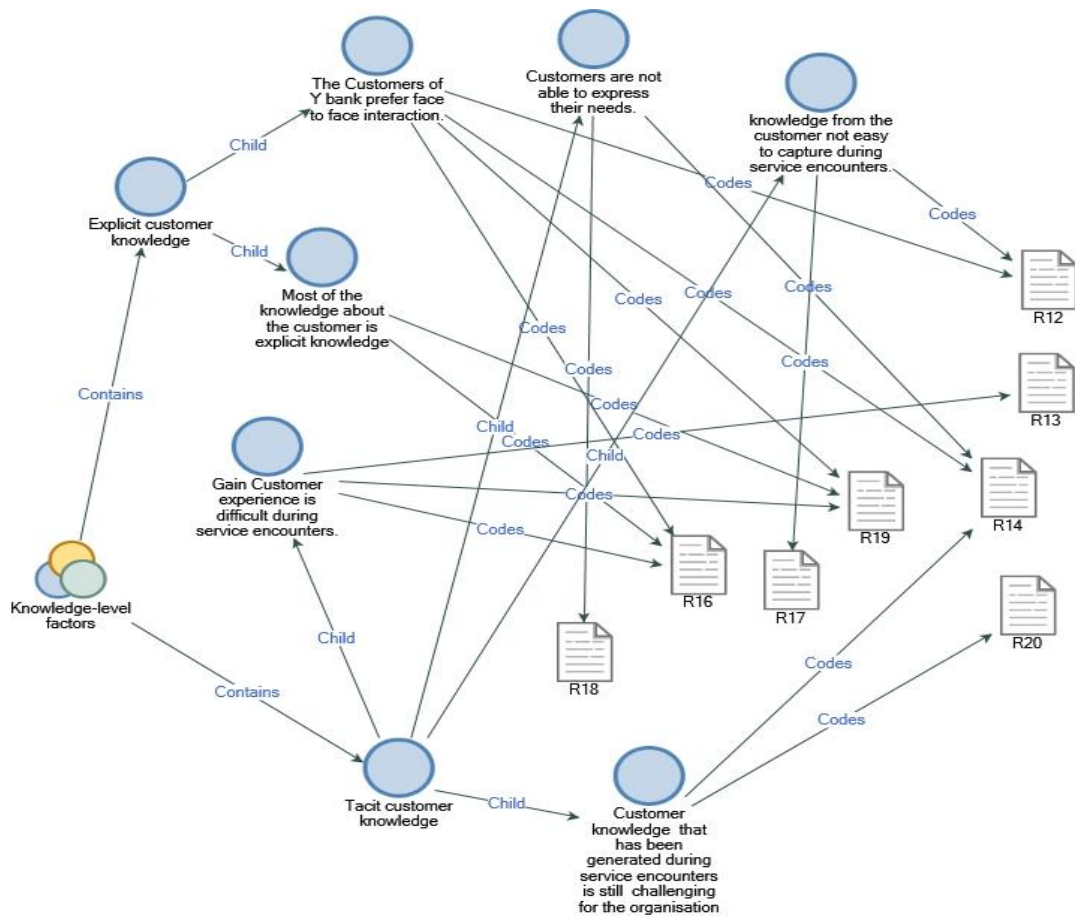


Figure 5-20: Summary of the sources of evidence that identified knowledge -level factors that impact KB during service encounters at Y bank

Summary of the Case Study (2)

The frontline bank employees at Y bank contribute to organisation's knowledge through the three kinds of CK during service encounters by using both formal and informal methods, such as information systems, emails, and formal and informal meetings, to transfer knowledge between the customers and the organisation. During service encounters, three types of CK are generated, namely knowledge of the customer, knowledge about the customer, and knowledge from the customer. However, knowledge from the customer represents a challenge for Y bank because

the role played by frontline bank employees in terms of capturing and transferring this knowledge is considered to be secondary or voluntary.

Despite the fact that the management of Y bank appreciates the importance of the knowledge obtained from customers during service encounters and the role played by frontline bank employees as a primary source of such knowledge, it was clear that frontline bank employees demonstrate low levels of engagement in this process. In addition, the management of Y bank devotes a great deal of attention to supporting their frontline bank employees in becoming customer consultants by working as knowledge brokers for customer during service encounters

The analysis revealed that KB during service encounters at Y bank flows effectively from bank employees to customers, while the flow of knowledge from such employees to the organisation must be further developed. The analysis of the interviews, observation, and documents from Y bank indicate that there are four main factors that affect KB during service encounters and, in particular, KB from the customer to the organisation. These factors fall into four main groups, namely organisational-level factors, individual-level factors, technology-level factors, and knowledge-level factors.

According to the analysis of the data concerning Y bank, the success of KB for this organisation depends on the success of KB for the customer in the first instance. The majority of the participants suggested that implementing a CRM system will assist the frontline bank employees to act as knowledge brokers in two ways, namely for the customer and the organisation.

Moreover, the majority of the participants noted that the absence of financial rewards for frontline bank employees is considered to be a barrier that prevents such employees from working as knowledge brokers for the organisation from the customer. The analysis of the interviews revealed that the majority of frontline bank employees' time is spent brokering explicit knowledge for the customer from the organisation. In addition, the frontline bank employees struggle with brokering knowledge from the customer to the organisation because the majority of knowledge from the customer is tacit knowledge, such as customer experiences, and the frontline bank employees are confronted with high workloads during service

encounters as a result of the fact that Jordanian customers prefer face-to-face interaction.

5.2.3 Case Study 3: Z Bank

Background and Overview

Z bank is one of the most important Jordanian commercial banks, and it was founded in the middle of the twentieth century. In addition, Z bank is also considered a leading bank in retail in Jordanian banking sectors, reporting more than 130 thousand individual customers, and it possesses a wide branch and ATM network in Jordan.

Z bank is one of the most essential banks in Jordan due to its long partnership with the Jordanian government, the majority of government employees receiving their salary from this bank. In addition to this, Z bank has more than 1,800 employees, and its net profit in 2016 reached approximately \$50 million, as illustrated in Figure 5-21. Furthermore, Z bank also provides a different package of services for individuals and companies.

The management of Z bank seeks to attract new customers through investments in the latest technology. For example, Z bank is the first bank in the world to use IRS technology to recognise the customer's identity. In addition, Z bank recently entered into an agreement with Jordanian universities in order to print university cards for the students, who can shop through this card because it is prepaid as well.

In this vein, the management of Z bank is working to launch the first three 'hybrid bank branches', which are a combination of a digital branch with a limited number of the frontline employees just to help the customer to use the e-channels and self-service. Z bank is continuing to invest in the latest technology, and it is preparing to use CRM systems in order to manage and maintain long-term relationships with the customers.

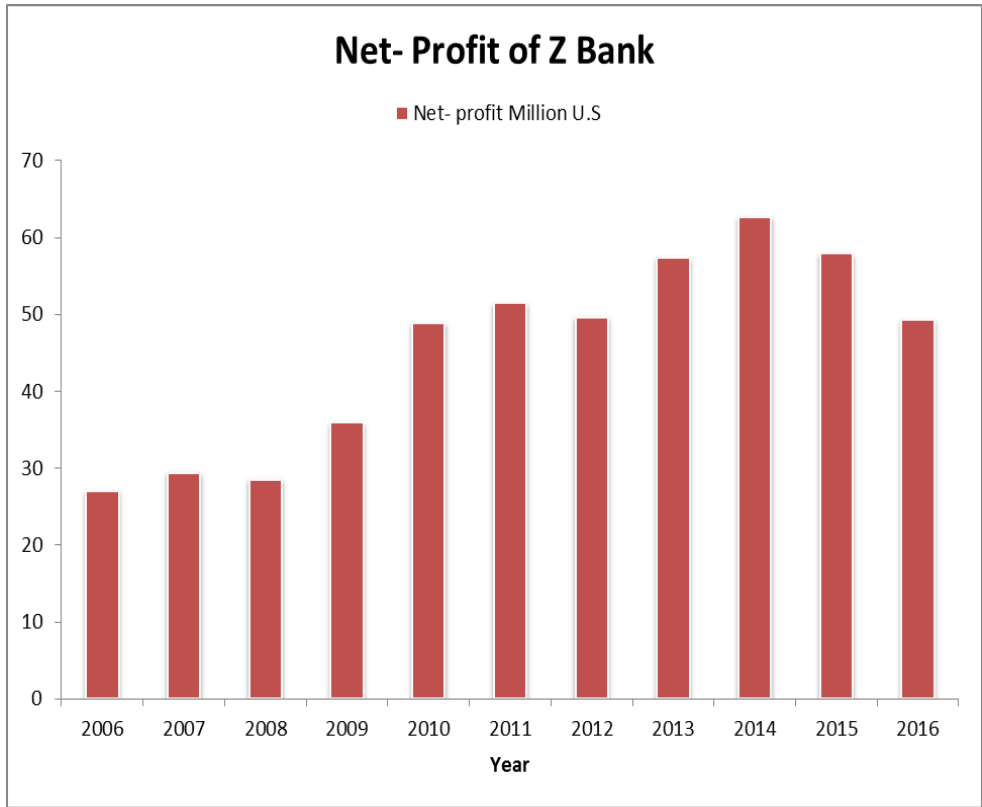


Figure 5-21: Net profit for Z bank in the last 10 years

Source: Annual reports of Z bank

In the third case study (Z bank), nine semi-structured interviews were conducted across three levels. These include three interviews with managers from the top management, five interviews with middle managers, and one interview with a frontline employee. In addition to the interviews, we also utilised documentation and direct observations of frontline bank employees during service encounters as sources of evidence, as presented in Table 5-4 below.

The following sections provide the main findings revealed based on the data gathered from Z bank through the semi-structured interviews, documentation, and observations. The results describe the importance of customer knowledge (CK) at Z bank, the role of frontline employees as knowledge brokers, and the main factors that influence CK brokering during service encounters.

Participant (code)	Hierarchal level	Gender	Years of experience	Interview duration (min)
R 22	Top management	M	15	52:45
R 23	Top management	M	9	58:41
R 24	Top management	M	10	55:08
R 25	Middle management	M	20	37:25
R 26	Middle management	F	11	19:36
R 27	Middle management	M	9	32:16
R 28	Middle management	M	19	28:11
R 29	Middle management	M	8	27:45
R 30	Frontline bank employee	M	4	22:18

A sample of the documents: The bank’s website, the bank’s annual report, archival records, a report from the Central Bank of Jordan, and the publications of the Jordanian Banks Association.

All the **middle managers** who participated in this research work both on the front line and as branch managers (sales and service managers).

A sample of the observations: The interactions between the frontline bank employees with the customer during service encounters. In addition, the researcher considered the frontline bank employees’ communication with their branch manager regarding the capturing, creating, and sharing of customer knowledge.

Table 5-4: Interviewees and other sources of evidence (Z bank)

Customer Knowledge (CK) at Z Bank

In banking sectors, during service encounters between the frontline bank employees and the customers, knowledge is exchanged regarding the service and products, as well as the customer’s needs and wants. The management of Z bank realises the

significance of the CK that is generated during these encounters, and in particular knowledge about customers' needs and wants. This was confirmed by the product development manager and other interviewees.

R24: 'In our department, we are trying to obtain knowledge about the customers' needs and wants from the frontline bank employees through their contact with them during our field's visits to the bank's branches or by email'.

R29: 'Nowadays, our customers know about the services and products of competitors more than us, and we need to know what they know'.

Despite the management of Z bank understanding the importance of CK gathered during service encounters, they still lack an official strategy for gaining the benefits of using frontline bank employees as a source of this knowledge and as knowledge brokers. The head of marketing and product development division in Z bank stated the following:

R22: 'Without question, we realise the importance of this knowledge, and we have a set of procedures to develop this knowledge. Specifically, we have a quality department that focusses on the quality of services in our bank. The employees in this quality department visit the entire bank's branches four times over the year in order to conduct workshops for the employees to improve their skills'.

However, one of the sales and services managers in Z bank stated the following:

R26: 'Unfortunately, we have not reached the stage of providing the services and products to our customers without asking them about such, because our existing system does not support that. Also, our frontline employees give most of their attention to serving the customers and achieving their targets, and most often, they do not initiate capturing knowledge from the customer. Frankly, our frontline bank employees are just doing the traditional role of the frontline employee, which is solely providing the services and products to the customers'.

Moreover, a product development manager in Z bank stressed the need for a clear strategy for transferring knowledge from the frontline bank employee to the organisation:

R24: 'In many cases, the frontline employee does not realise the importance of sharing CK within the bank, and there are no rules and regulations that organise the transfer the knowledge from the employees to the organisation. Indeed, we do not have a clear strategy with regard to using the knowledge of the frontline bank employees that is created during the service encounter'.

The analysis of the data suggests that Z bank's management and frontline employees do not give the proper attention to the CK generated during service encounters. All of the bank documents and the directed observation also indicate that the frontline

bank employees are working to gather knowledge about the customer and provide knowledge for the customer during service encounters.

Knowledge-brokering (KB) during the Service Encounter at Z bank

The interpretation of the data from Z bank indicates that KB through frontline employees during service encounters is accomplished in two ways: KB for the customer and KB for the organisation. As illustrated in the figure (5-22) below, during service encounters, the frontline bank employees provide knowledge for the customer about the services and products, in addition to transferring knowledge about the customer to the bank's management. However, transferring knowledge from the customer to the organisation, including such information as customer experience, feedback, and suggestions, is still not fully practised.

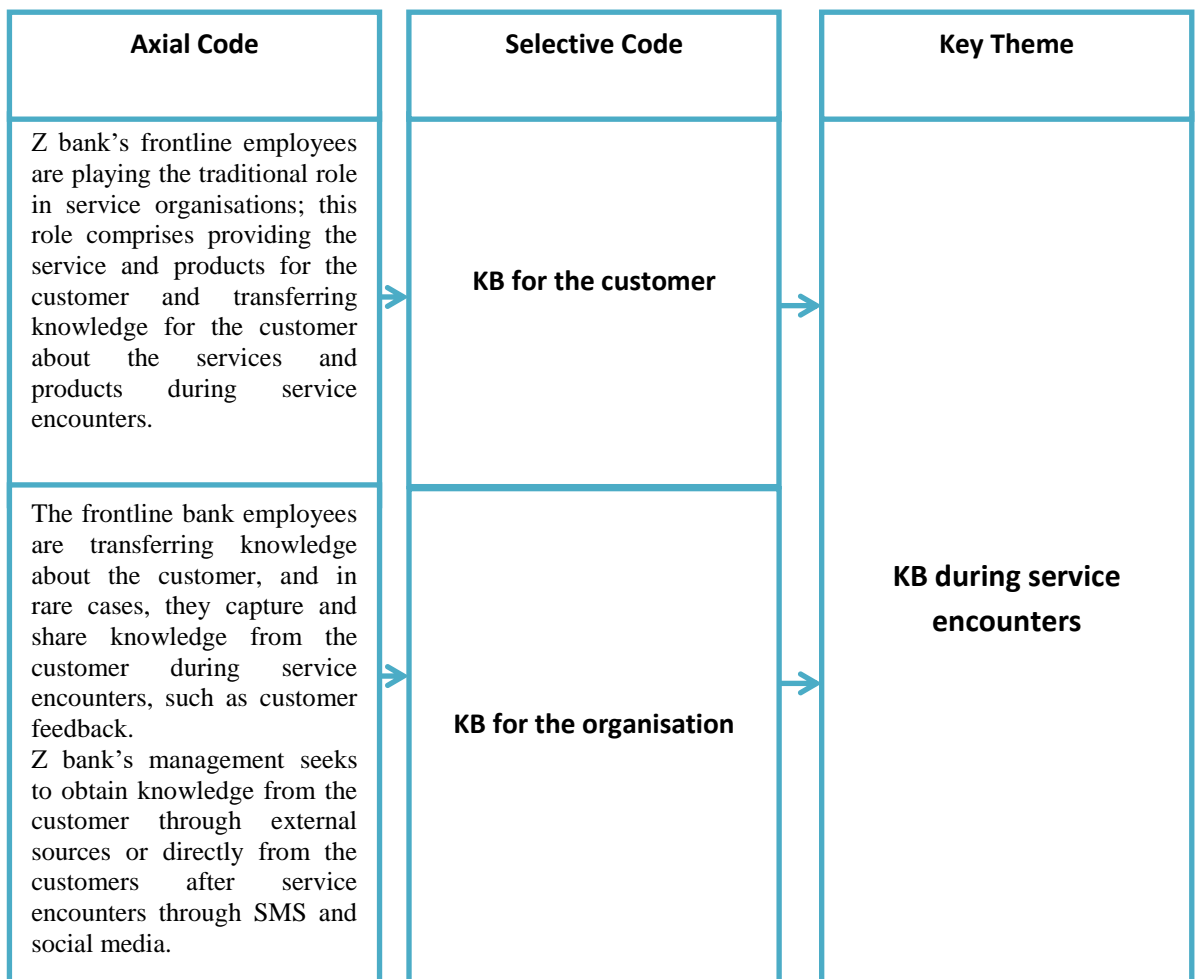


Figure 5-22:KB during service encounters at Z bank

The managers of the Z bank consider the KB occurring during service encounters to be a good strategy for sustaining their competitive advantage in Jordan's banking sector because of the high level of competition between local and foreign banks working in Jordan. The frontline bank employees require more attention from the management in order to encourage them to act as knowledge brokers for the organisation and the customers alike. A product development manager in Z bank clarified the importance of KB during service encounters:

R24: 'We work in a highly competitive environment in Jordan's banking sector, as there are more than 25 banks ready to serve the customers. Thus, we firmly need our frontline bank employees to act as knowledge brokers in order to help both the customers and the bank, because we will not get the full CK without this contribution. On the other hand, we also need to build their self-confidence in order to increase their ability to create and transfer knowledge, and they need to perceive the top management's support in this regard'.

The frontline bank employees' role as knowledge brokers for the organisation is significant for helping the bank's management to know what the customer wants. This has been confirmed by many of the managers, including one of the sales and services managers in Z bank, who stated the following:

R28: 'In many cases, the customer does not realise his needs, or is unable to express these requirements through his language. Thus, during the service encounter, the frontline employee is the best one to do the cross-selling and extract the unseen needs of the customer through personal interaction and asking projection questions'.

The management of Z bank considers two sources for improving service quality, namely, the mystery shopper and the customers' feedback. Indeed, the knowledge that comes from the frontline bank employees as a result of their interaction with the customers during service encounters is still not among the organisation's primary sources for improving their service quality for the customer, and this is in spite of the fact that frontline employees are the most reliable source of CK concerning service quality. The manager of the business transformation and quality department in Z bank asserted the following:

R23: 'We have become conscious of the importance of knowledge from the customer, and we are looking to get the customer's experience. Therefore, we work on the results that come from the mystery shopper and the evaluation questionnaires, and we concentrate on the feedback from the customers before and after any touch point with our bank. However, we are always looking to keep the customer satisfied'.

On the other hand, all participants agreed that while KB during service encounters is an integrated process between the organisation and customers, quite often, the frontline bank employees act as knowledge brokers for the customer more than for the organisation. For example, one of the sales and services managers in Z bank stated the following:

R27: 'Mostly, our frontline bank employees are working as knowledge brokers for the customer, transferring knowledge from the organisation about the services and products to the customer during service encounters. By contrast, their role as knowledge brokers for the bank is limited to transferring information about the customer, such as customer background and his transactions'.

Factors that affect CK brokering through frontline bank employees at Z bank

The analysis of the data indicates that in Z bank, the KB process occurring during service encounters is affected by various factors that encourage or prevent the success of this process for the customer and the organisation in two ways. The influencing factors of this KB process fall into four levels: individual, organisational, technological, and knowledge. In the following sections, we present the sub-factors in each level based on the interpretation of the data from Z bank.

1. Individual-Level Factors

The analysis of the empirical data collected from Z bank reveals some factors at the individual level that influence KB through frontline bank employees during service encounters. As presented in Figure 5-23 below, the workload during the service encounter is critical for the frontline bank employees to engage in KB in two ways. Moreover, lack of awareness of the frontline bank employees about the importance of knowledge from the customers impedes KB. Low self-efficacy will lead employees to engage less in KB, and their absorptive capacity also plays a significant role in the success of KB from the customer.

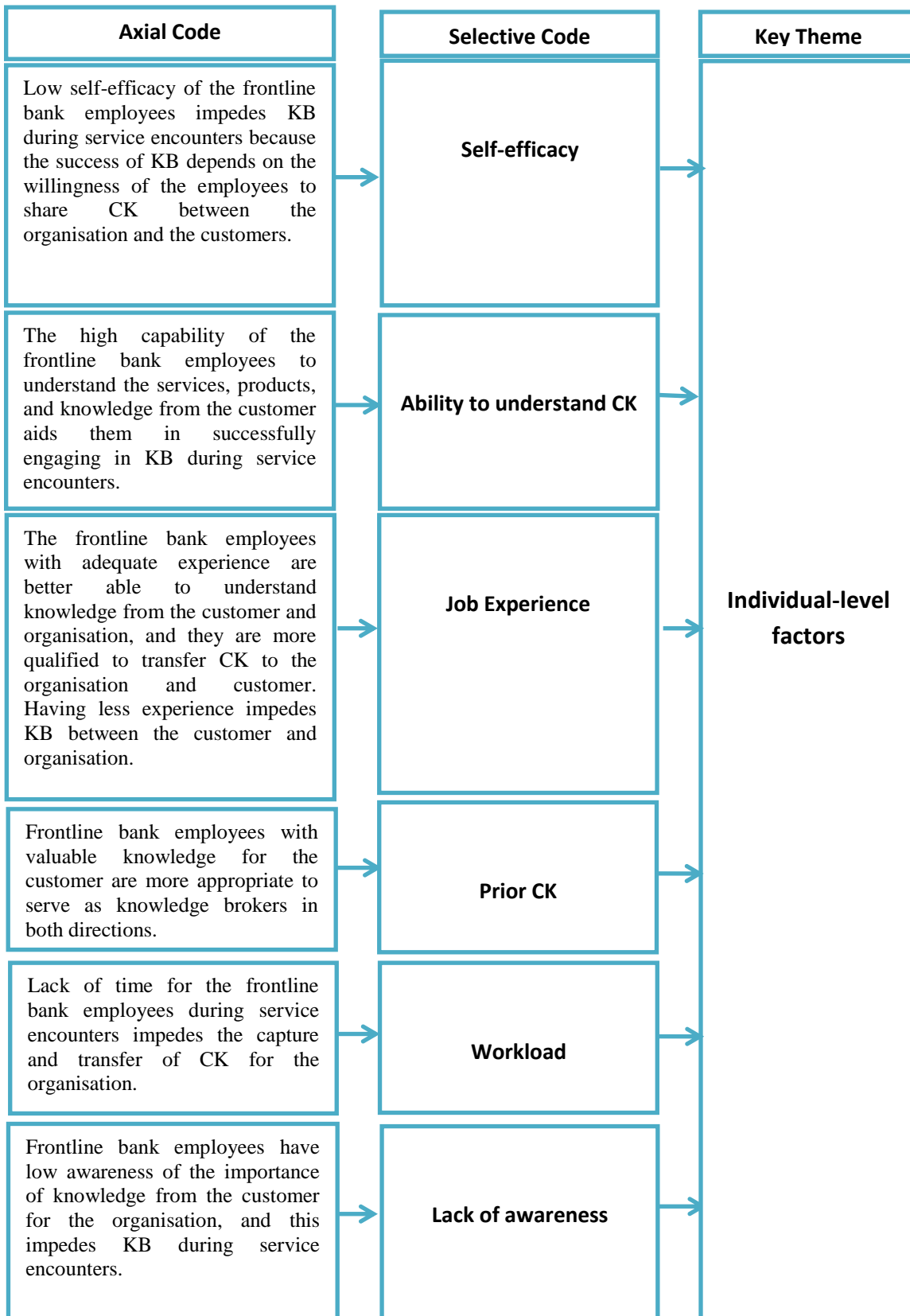


Figure 5-23: Individual-level factors that impact KB during service encounters at Z bank

Workload

Z bank is considered a retail bank, and the individual customers are the central focus of the bank's management. Therefore, the frontline bank employees face high workloads during service encounters. In this regard, the head of the marketing and product development division commented as follows:

R22: 'Our bank is the leader in retail banking in Jordan; we have 89 branches, and we have more than 130 thousand customers that receive their salary through our bank from different organisations. Thus, our frontline bank employees are dealing with a large number of customers during service encounters. Because of this, we need to adopt automation services in order to reduce the burden on frontline bank employees, reduce the cost, and reach high service quality'.

A similar comment was made by one of the sales and services managers:

R25: 'In our bank, the frontline bank employee is either a teller or a customer service employee. Thus, most often, the teller employee does not have the time, and his focus is going to be on serving the customer during the service encounter, and if he finds extra time, he needs to do cross-selling for the customer'.

Most of the interviews with Z bank's managers argued that a moderate workload during service encounters provides the best situation for frontline bank employees to act as knowledge brokers in two ways. For example, the product development manager stated the following:

R24: 'In many cases, employees use high workloads as an excuse to justify their failure to share knowledge. Indeed, high workloads have a positive effect on the frontline employee because through this interaction, the employee can gain CK, while a lower workload reduces the knowledge gained from the daily interaction with the customers. Also, there is no constant high workload, and the frontline bank employee can use his spare time to act as a knowledge broker'.

In summary, the high or low workload has a negative influence on the role of frontline employees as knowledge brokers. First, the low workload will diminish the knowledge gained from customers during the service encounters. Second, the high workload will hinder frontline employees to capture and transfer knowledge during the service encounters. On the other hand, the moderate workload has a positive influence on the frontline bank employees to obtain new knowledge from different customers.

Self-Efficacy

The analysis of the data reveals that when the frontline bank employees have confidence in their ability to share CK, they will be able to act as knowledge brokers for the customer and for the organisation. Conversely, lacking this belief will inhibit their ability to engage in the KB process during service encounters. This was evidenced when the product development manager was asked about the main barrier that impedes frontline bank employees in serving as knowledge brokers:

R24: 'Indeed, the main barrier is the absence of self-confidence in the frontline bank employee, because this leads to unwillingness to share knowledge captured from the customer or the organisation'.

The analysis of the data from Z bank suggests that frontline bank employees with low self-efficacy prefer not to engage in the KB process during service encounters. Similarly, the significant step in KB during service encounters is KS, which depends on the self-efficacy of the employees.

Prior Customer Knowledge

The findings from the data collected from Z bank reveal that the frontline bank employee's absorptive capacity plays a vital role in the success of KB during service encounters, and in particular, KB for the organisation. The majority of the participants stressed that prior knowledge about the organisation's services and products facilitates the frontline employees' role as knowledge brokers for the customers by providing knowledge for the customer. In addition, having prior knowledge is considered a critical factor that helps the frontline bank employees to serve as knowledge brokers for the organisation through identifying the CK gap that the organisation is looking for in order to improve their service quality and development products. This was evidenced in many of the interviews. For example, one of the sales and services managers in Z bank commented the following:

R26: 'The relationship between the customer, organisation, and frontline employee is an integrative relationship concerning the creation and sharing of CK. Therefore, the frontline employee first needs to have the knowledge about the bank's services and products in order to capture the knowledge from the customers about their feedback so as to improve the service quality and products for them'.

In this respect, the product development manager expressed his view about frontline bank employees acting unsuccessfully as knowledge brokers for the organisation:

R24: 'In general, the frontline bank employee does not give good ideas or suggestions because he does not see the big picture and instead has only one perspective, while the bank's management is able to grasp the whole picture about what the competition provides to their customers'.

Job Experience

All the respondents from Z bank agreed that frontline bank employees with greater levels of experience can better serve as knowledge brokers for the customer and the organisation. Conversely, most of the participants also argued that the lack of experience in many cases impedes the frontline bank employees in engaging in KB during service encounters. For example, one of the sales and services managers reported the following:

R25: 'The frontline bank employee with significant experience is capable of understanding the customer and the bank's services and products. Furthermore, he will be more able to share knowledge between the customers and the organisation in both directions'.

Ability to understanding Customer knowledge

The frontline bank employees' ability to understand the CK is essential for ensuring successful KB during service encounters. During the interview with the product development manager, we asked him about the contribution of frontline employees with ideas about new products and services; he stated the following:

R24: 'On one hand, the frontline bank employee does not give good ideas or suggestions because he does not have the full picture, and instead just has a small part of the knowledge about the market and the competitors. Thus, he is not able to understand all of this knowledge. On the other hand, the bank's management is more able to grasp the whole picture about what the competitors provide to their customers. Therefore, I think that 70% of the frontline bank employees' time during service encounters is going to provide knowledge for the customer, and the rest is to provide the customer's knowledge to the organisation'.

Continuing, when the researcher asked the manager of the business transformation and quality department about frontline bank employees' contribution towards CK, he argued that the weakness of this contribution is due to a lack of ability to understand the knowledge from the customer and an unwillingness to engage in this process.

R23: 'Admittedly, we need to speak with the frontline bank employees in order to hear from them about their knowledge relating to the ability to improve service quality. Thereafter, we have to discuss these suggestions with the top management to get the right decision to improve service quality, but quite often, we receive useless suggestions due to a lack of understanding of the CK or simply a lack of interest on the part of the frontline bank employees'.

Lack of Awareness

The data collected from Z bank reveals that the majority frontline bank employees do not fully realise the importance of knowledge from the customer, and they instead give the majority of their attention to providing knowledge about the services and products for the customers during the service encounters. One of the sales and services managers commented the following:

R25: 'On the other hand, some of the frontline bank employees do not realise the importance of the bank's customers or the extent of the competition among the Jordanian banks, or the fact that customers can switch to another bank if they did not find what they expected from our bank. Thus, we need to change the old orientation of our employees and utilise customer orientation, because we are different from the public sector, and the customer is the heart of our industry'.

The manager of the business transformation and quality department made a similar comment:

R23: 'Indeed, our frontline bank employees are transferring knowledge from the customer regarding the problems they are facing, but they are not trying to transfer unsatisfied needs or how to improve service quality'.

In many cases, this lack of awareness stems from the belief that the bank does not appreciate this knowledge or is able to obtain such information from other sources.

R30: 'The frontline employees believe that the bank's management can gain CK through the systems or the call centre. Thus, they give less attention to capturing knowledge from the customer and transferring this knowledge to the organisation'.

The frontline bank employees' lack of awareness about the value of the knowledge from the customer gained during the service encounter is one of the factors that impede KB for the organisation at Z bank. The majority of the interviewees and the interpretation of the direct observations in Z bank agree about the impact of individual-level factors on the KB through the frontline bank employees, as illustrated in Figure 5-24.

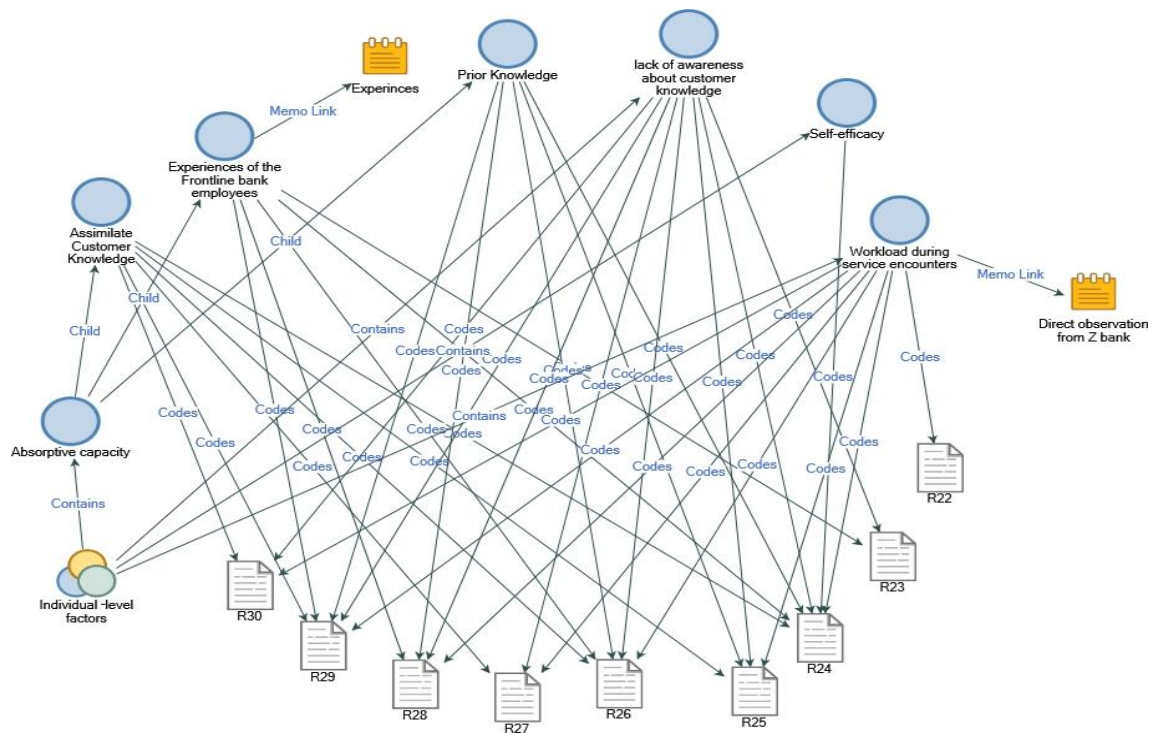


Figure 5-24: Summary of the sources of evidence that identified individual-level factors that impact KB during service encounters at Z bank

Figure 5-24 demonstrates the association between the sources of the data and nodes that identify the individual-level factors that impact KB during service encounters in Z bank. Data analysis reveals that low absorptive capacity, low self-efficacy, frontline employees' lack of awareness concerning the importance of knowledge from a customer, and high or low workload impede KB during service encounters.

2. Organisational-Level Factors

The process of KB during service encounters in Z bank is not fully supported by the bank's management, and in particular, KB from the customer to the organisation is still fragile according to the data analysis. The data interpretation highlights some organisational-level factors that affect the role of the frontline bank employees as knowledge brokers in Z bank, as illustrated in Figure 5-25.

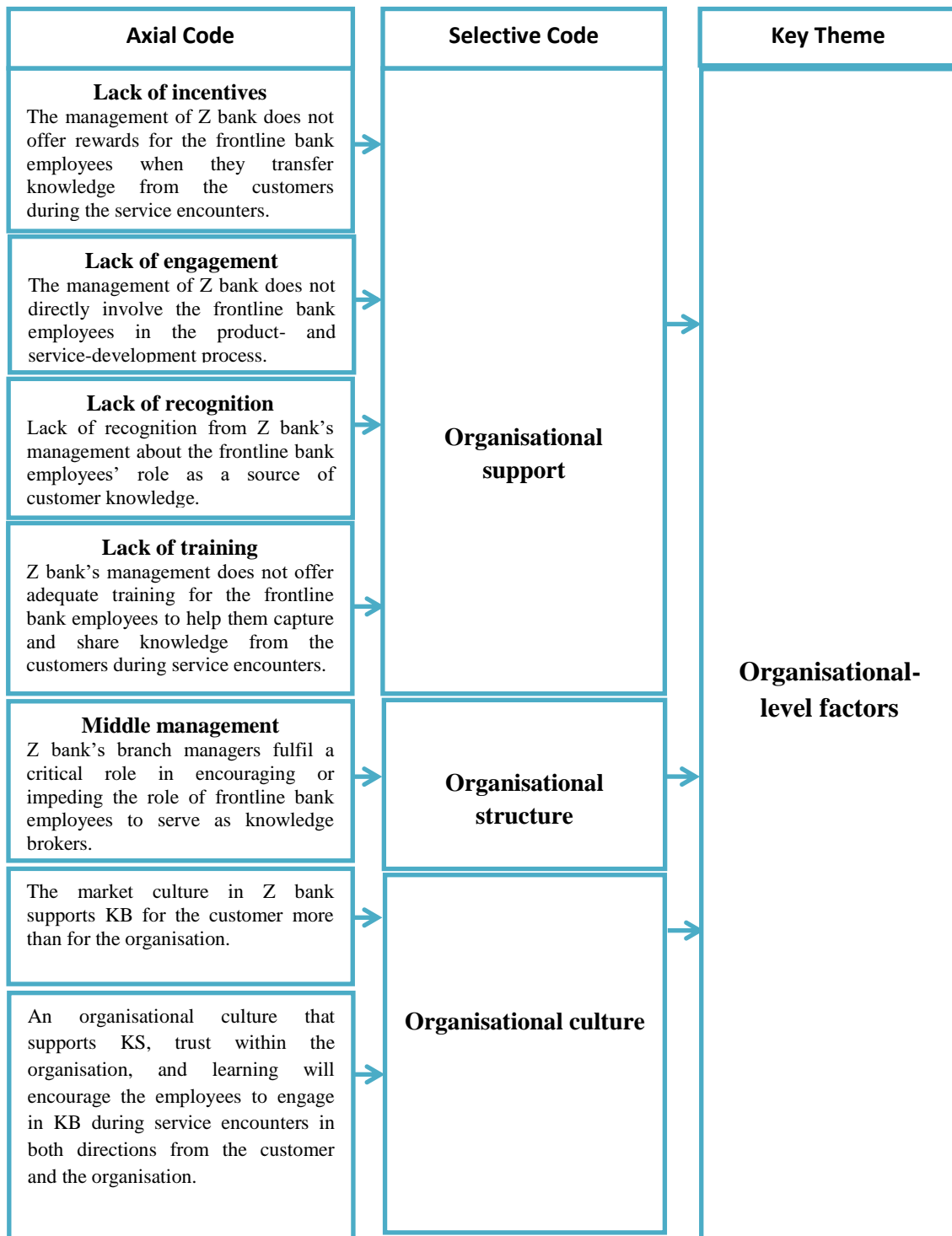


Figure 5-25: Organisational-level factors that impact KB during service encounters at Z bank

Organisational Culture

The organisational culture of Z bank seems to be market oriented, and the main focus of the bank's management is to increase profit. In addition, competitiveness is

high between the bank's employees. Evidence of this was found in the interview with a product development manager:

R24: 'Indeed, organisational culture is a big concept, and our bank is one of the most successful banks in Jordan, it still does not have strategic management to develop a distinctive organisational culture, and they instead just focus on how to get profit'.

The bank's management supports KS, but not as the main strategy, and it does not consider the frontline bank employees to be the primary source of CK. In fact, the data interpretation suggests that Z bank's organisational culture encourages the role of frontline bank employees as knowledge brokers for the customer and does not support KB for the organisation. This is supported by the majority of the interviews. For example, two middle managers commented the following:

R25: 'Indeed, in our bank, there is a high degree of internal competition among our employees to get the promotions, and this pushes our employees to obtain as much knowledge as they can about the services and products in order to win the high position in our bank'.

R28: 'The organisational culture of our bank is competitive, and the opportunity is open for every employee to learn and gain the knowledge and get the promotion, while our employees realise that when they work hard, they get the promotion and career development. Therefore, our employees are very keen to become knowledgeable to get the good position and salary'.

The organisational culture that supports trust within the organisation encourages the frontline bank employees to become involved in the KB process during service encounters because this high level of trust increases their willingness to share knowledge between the customer and the organisation. Evidence of this is found in many of the interviews. For example, one of the managers stated the following:

R24: 'I understand the importance of trust for the employees and to give them the freedom to speak to the bank's management without fear of consequences related to their ideas or suggestions. In fact, the key to success in the service sector is customer focus, and we can obtain the customer's experience through the frontline bank employee if we give them the freedom to transfer the customer's entire feedback'.

The quotes above and the direct observation during the interviews with the participants in the bank branches reveal that Z bank's organisational culture affects KB during service encounters. The bank's management created a market culture in Z bank by supporting internal competition among the employees through offering promotions based on the employee's knowledge of the bank's products and services

and their ability to learn and develop themselves. This market culture encourages the frontline bank employees to serve as knowledge brokers for the customers more than for the organisation in order to gain the promotions and upgrade their positions.

Organisational Support

In Z bank, the organisational support for the frontline bank employees plays a significant role in KB and KS during service encounters through the frontline bank employees. The majority of the participants indicated that providing incentives for the frontline bank employees when they transfer knowledge from the customer to the bank's management encourages them to serve as knowledge brokers for the organisation during service encounters. One of the sales and service managers commented as follows:

R27: 'Indeed, there are no rewards provided to the frontline employees when they share CK with the organisation. I think that such rewards, either financial or moral, will encourage the frontline employees to share CK with the organisation, and I also believe that 75 % of the reward should be financial and 25% should be moral to ensure that the frontline employees become more active in doing so'.

The absence of incentives, either financial or moral, that push Z bank's frontline employees to capture and share knowledge from the customers is considered one of the reasons behind their unwillingness to serve as knowledge brokers, particularly from the customer to the organisation.

R29: 'The bank's management needs to develop a reward system to encourage the frontline bank employees to act as knowledge brokers, as well as to open direct contact between the frontline employee and the management for them to deliver their knowledge efficiently'.

Meanwhile, the analysis of the data also indicates that the absence of frontline bank employees' participation in product and service development reduces the employees' role as knowledge brokers for the organisation. In Z bank, the frontline employees do not fully engage in the product- and service-development process, and in many cases, they simply provide the customer feedback concerning any comments about the new products or services. The manager of the business transformation and quality department reported the following in this regard:

R23: 'Next month, I will conduct a meeting with about 42 experienced employees in order to hear from them about the problems they are facing and how they can deal with these obstacles. Here, we aim to treat the problem, not just the symptoms of the problem. Honestly, this is the first time in our bank that the frontline employees

will participate in the process of changing and improving’.

All of the participants from middle management confirmed that frontline bank employees do not formally engage in this process:

R29: ‘The frontline bank employees do not participate in the process of developing the service and product before providing the service and product for the customer. Admittedly, our bank’s management depends on the marketing department to design and develop our products, while the role of the frontline employees is just to provide and sell these to the customers, and to receive their feedback after that’.

From the data analysis, it becomes evident that Z bank’s frontline employees lack training workshops to help them capture knowledge from the customer in order to serve as knowledge brokers during service encounters, especially from the customer to the bank’s management. Evidence for this is found through many of the interviews, such as with the product development manager:

R24: ‘The frontline bank employees need an adequate training programme before going into the field, and the virtual branch must be activated to give the employees at least three months for training in the same conditions as in the field. Unfortunately, our employees did not get the advantage from a virtual branch of our bank, because we do not use it as we should’.

However, it seems explicit that the bank’s management does not pay a high degree of attention to the contribution of frontline bank employees as a source of CK. The frontline bank employees’ resulting unappreciated role as knowledge brokers hinders the success of the KB process during service encounters. This is made clear when the researcher asked the head of the marketing and product development division if the frontline bank employees are able to work as knowledge brokers during service encounters. He provided the following comment:

R22: ‘Honestly, the frontline bank employee in our traditional branch is not able to work as a sales person and knowledge broker at the same time, as he needs to engage in office work during the service encounters. Thus, the “hybrid bank branches” will help him to act as a knowledge broker’.

This is further confirmed during the interview with the product development manager:

R24: ‘I feel there is a communication gap between the bank’s [top] management and the frontline bank employees. Indeed, our top management does not make an effort to obtain the knowledge created in the field between the frontline bank employees and the customers during service encounters’.

Indeed, having a reward system, recognising the frontline employees’ role as a

source of CK, and engaging them in the development process of the bank's products and services all encourage the employees to broker CK to the bank's management. In addition, providing adequate training programmes to empower the frontline employees to serve as knowledge brokers between the customers and bank's management will contribute to the success of this role in two ways (for an organisation and customers).

Organisational Structure

Due to hierarchical organisational structure, the middle managers of Z bank influence the KB process during the service encounter. In fact, many of the participants stressed that the branches' managers represent a significant role in either encourage or inhibiting the frontline bank employees to act as knowledge brokers. In many cases, the frontline bank employees report sharing knowledge from the customer to the branch manager in the first place. One of the branch managers made the following comment when asked about how the frontline bank employees transfer the knowledge that they capture from the customer to the organisation during service encounters:

R28: 'In many cases, the frontline employees in our branch are coming to me, and they report their notes and feedback, and I in turn send these to our bank's management'.

Despite the ability of Z bank's frontline employees to share knowledge from the customer with the bank management through emails and the intranet, the branches' managers are still considered the main chain between the frontline employees and top bank management.

R26: 'Sometimes, the frontline employees provide ideas and suggestions to improve the service or products, but these suggestions not applicable, and so the branch manager plays a very vital role in filtering these suggestions before sending them to our bank's management'.

Through the interpretation of the interviews and the direct observation, it is seen that the branch managers' role is critical for supporting the frontline bank employees in transferring and filtering CK from the customer to the organisation. In addition, a high level of trust between the frontline bank employees and the branches' managers encourages them to pass on the knowledge from the customer to the organisation.

R28: 'Trust between the frontline bank employee and his manager is a crucial factor that encourages the frontline bank employees to act as knowledge brokers,

and an absence of trust impedes the frontline bank employees in serving as knowledge brokers’.

Figure 5-26 below presents a summary of the references that identified the organisational-level factors that influence KB during service encounters at Z bank.

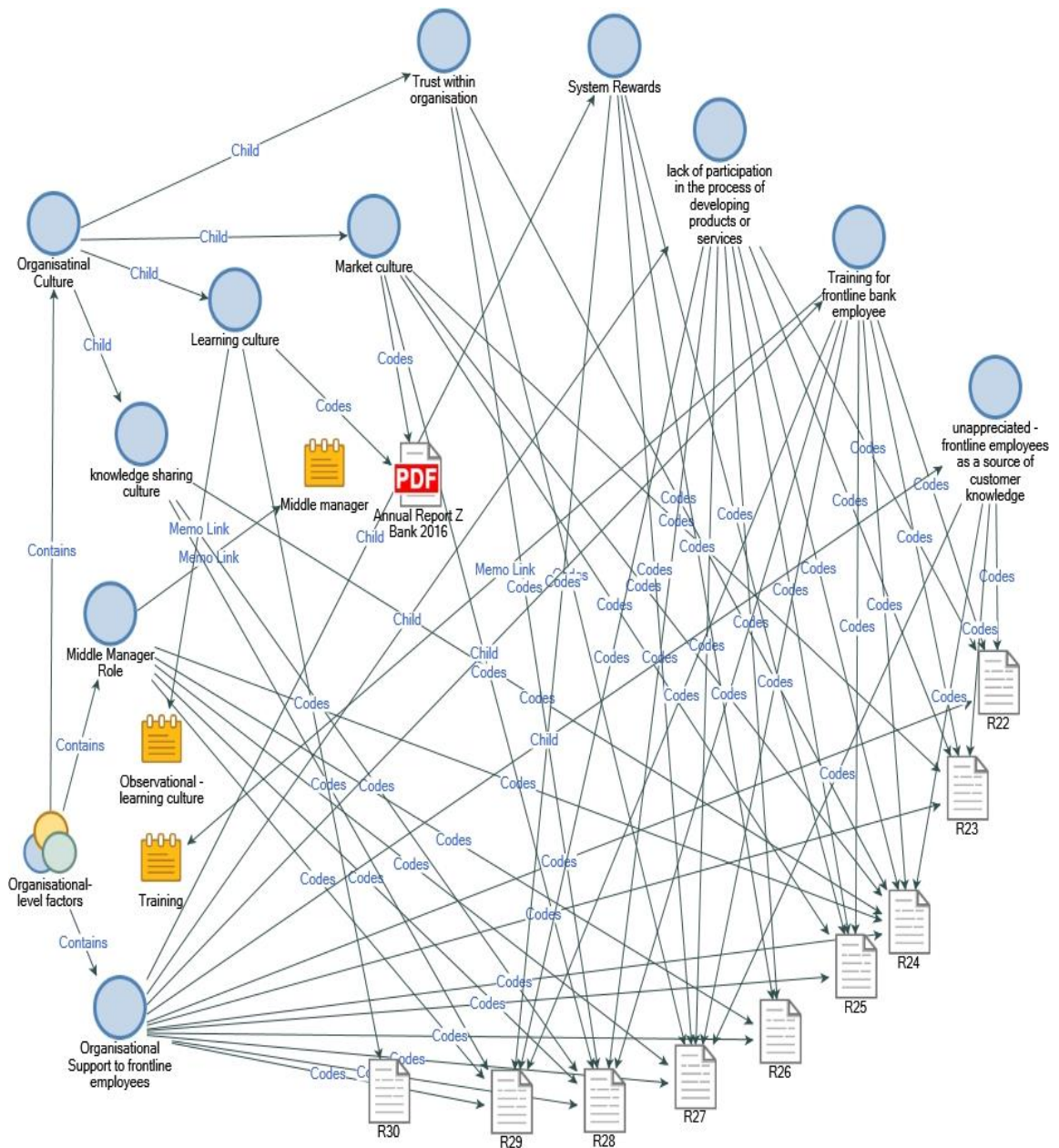


Figure 5-26: Summary of the sources of evidence that identified Organisational-level factors that impact KB during service encounters at Z bank

The analysis of the data from Z bank unveils that certain organisational factors affect the success of KB during service encounters. The interpretation of the interviews

indicates that when frontline bank employees perceive organisational support, they will become keener to act as knowledge brokers from the customer. Moreover, the absence of rewards for the frontline bank employees when they capture and share knowledge from the customer is considered a reason to not engage in KB for the organisation. It is also made clear that Z bank's management does not see the frontline employees as valued sources of CK, they are not very involved in the process of developing the new services and products, and their feedback is only requested after launching these products or services. The findings further reveal that organisational culture affects the process of KB during service encounters in Z bank. Having an organisational culture that supports KS and learning encourages KB for the organisation, while the market culture does not. The data analysis additionally reveals that middle managers in Z bank play a critical role in the success of KB from the customer to the organisation, and high degrees of trust between the frontline bank employees and the branch managers encourages KB during service encounters.

3. Technological-Level Factors

The information system in Z bank is one of the fundamental tools for successful service encounters. The data analysis reveals that the information system plays a significant role in supporting or inhibiting the frontline employees' role as knowledge brokers during service encounters in Z bank, as illustrated in Figure 5-27 below.

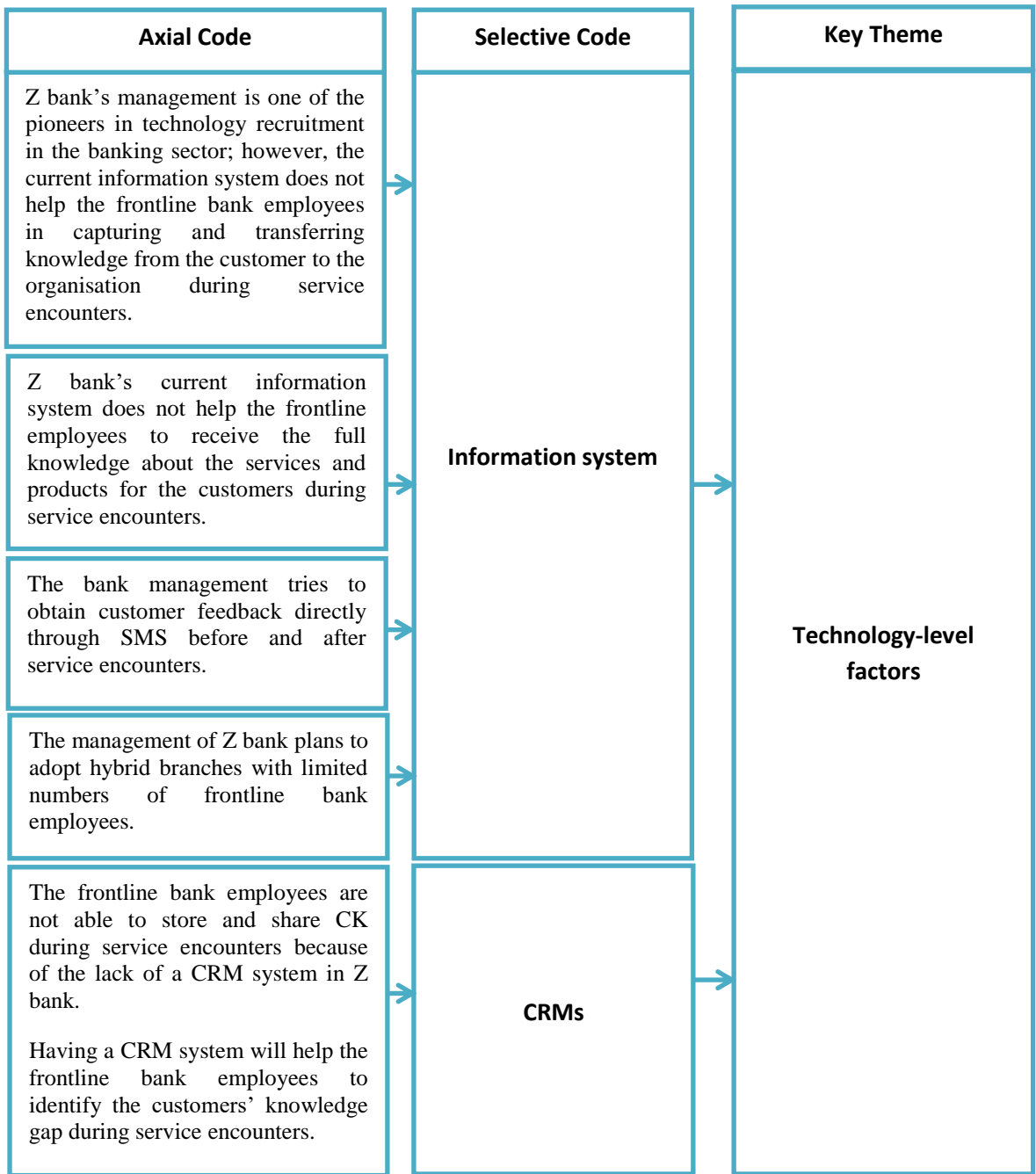


Figure 5-27: Technology-level factors that impact KB during service encounters at Z bank

The investment in technology is a strategic choice for Z bank, and they invested a lot of money in using modern technology in their business. In fact, Z bank is a leader in the banking sector concerning its application of technology, and it has the vision to improve its banking work through innovative technology. The evidence found in the documents and interviews indicates that Z bank's management is engaged in a pioneering role concerning its adoption of advanced technology for its banking

operations. For example, the manager of the business transformation and quality department said the following:

R23: 'Our bank is the first bank in the world to use the IRS technology to recognise the customer's identity. Also, in 2015, we started a partnership with Jordanian universities in order to replace the old student ID cards with prepaid cards that can also be used as student ID, and we have already entered into agreements with seven universities. We can also track these cards to learn the preferences of the university students, and we try to study their transaction in order to maintain a long-term relationship with them after they graduate'.

Bank's Information System

The bank's management tries to gather knowledge from the customer through several channels, and in many cases, it relies on the customers to pass their feedback on to bank management. However, most often, the customers are unwilling to pass their negative feedback on to the bank's management, and they instead prefer to switch to another bank. The head of the marketing and product development division in Z bank commented the following in this regard:

R22: 'We use a sophisticated program, which is the best program in the Jordanian banking sector. Also, we are getting the customer's experience via the call centre, bank website, the bank's Facebook page, and a suggestions and complaints box in the branches. I believe that just 40% of unsatisfied customers are willing to complain, while the rest are unwilling to do so. Thus, we have to be proactive to improve the service quality in order to maintain our customers and attract new customers as well'.

However, many of participants indicated that Z bank's information system does not support the KB process during service encounters through the frontline bank employees. For example, one of the branch managers commented the following:

R27: 'Our bank's system is not helpful for the frontline bank employees with respect to storing the CK generated during service encounters between the frontline employees and the customer, and most of the knowledge from the customers has been lost because of that'.

A similar comment was made by another middle manager:

R28: 'Our information system does not help the frontline employee to record the transactions and customer feedback, such as the dialogues during the service encounter. Thus, when the frontline bank employees possess knowledge about the customer, they can share this knowledge with their branch manager'.

Lack of CRMs

The CRM as a strategy in Z bank still needs a great deal of attention from Z bank management, while employing CRM in the banking sector is a promising investment. Indeed, a customer service strategy seems new at Z bank.

R24: 'I worked in three banks before Z bank, and unfortunately, the CRM system has not been applied in the Jordanian banking sector for several reasons. For example, the investment in this technology is still poor, and most banks do not manage the customer relationship as they should. Thus, when the bank's management starts to use CRMs, they will maintain the customer relationship and this will help to make decisions that keep the bank ahead of its competitors. In our bank, we used several systems, but we still do not have an effective system that helps to apply CRM to gain the full advantage'.

All of the Z bank participants argue that a CRM system will support the success of KB during service encounters. In addition, using a CRM system will assist the frontline bank employees in acting as knowledge brokers through focussing on capturing and sharing tacit CK. For example, the head of the marketing and products development division stated the following:

R22: 'It is very challenging for frontline bank employees to capture and transfer knowledge from the customer to the bank's management, while I think that if we use CRMs, this will reduce the workload for frontline employees and give them the time to serve the customer very well and to capture the knowledge from the customers'.

Having a CRM system will help the frontline bank employees to obtain knowledge about and for the customer from different sources simultaneously during service encounters, and then to capture and store new knowledge from the customers.

Figure 5-28 below illustrates a summary of the sources of evidence that identify the technological-level factors that impact KB during service encounters in Z bank

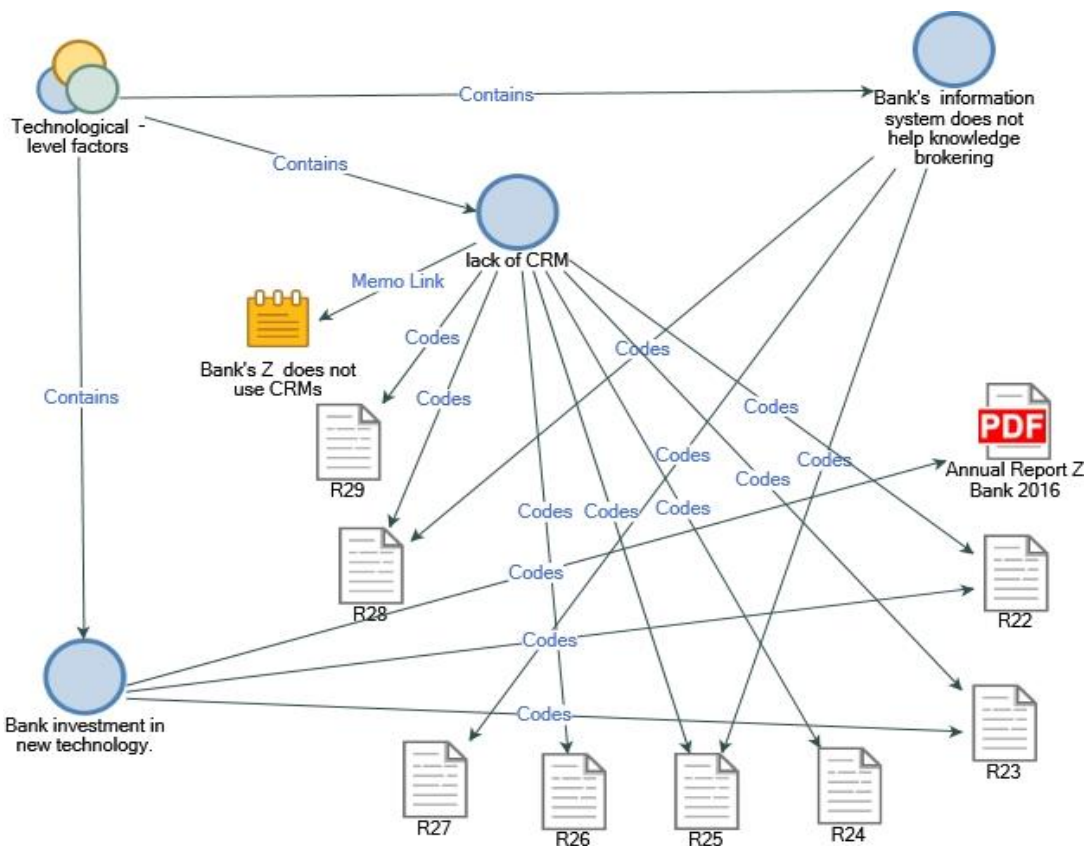


Figure 5-28: Summary of the sources of evidence that identified technology -level factors that impact KB during service encounters at Z bank

The interpretation of the data reveals that Z bank’s current information systems do not support the frontline bank employees in serving as knowledge brokers, as the employees are not able to obtain the full knowledge for the customers, which impedes them in gaining knowledge from the customers during service encounters. Moreover, the current information system does not fully support the frontline bank employees in capturing, storing, and sharing CK during service encounters. On the other hand, many participants report that using the CRM system will strengthen the frontline bank employees’ ability to act as knowledge brokers between the customers and the organisation.

4. Knowledge-Level Factors

The highly tacit nature of knowledge from the customer and the struggle of understanding the explicit knowledge for the customer are considered significant challenges facing frontline bank employees when engaging in KB during service encounters, as illustrated in Figure 5-29 below.

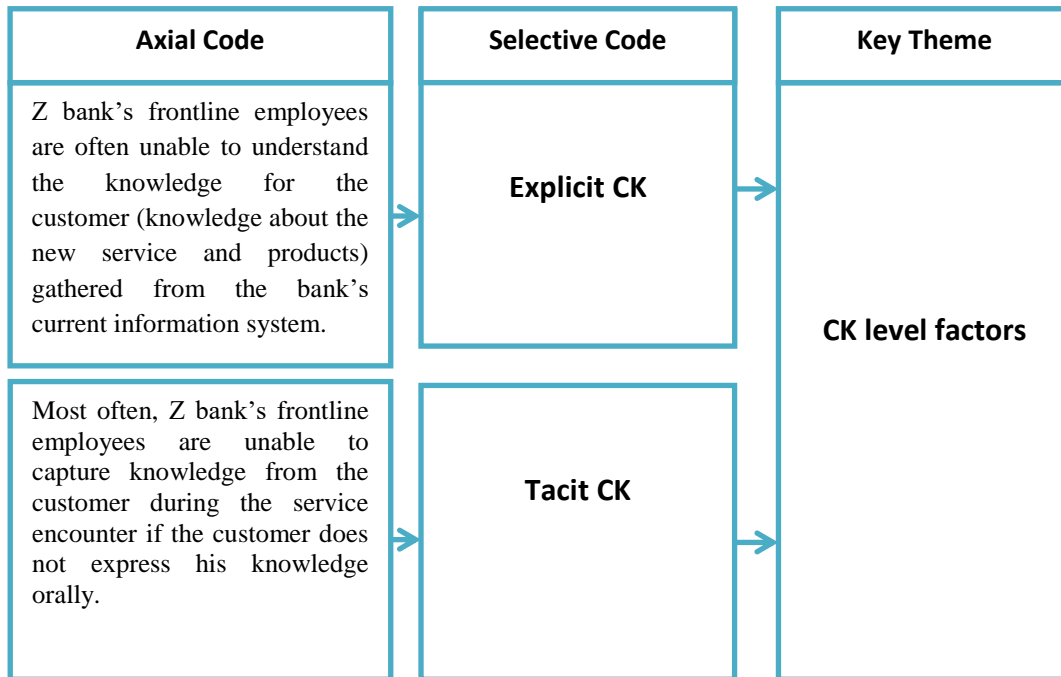


Figure 5-29: Knowledge-level factors that impact KB during service encounters at Z bank

In many cases, frontline bank employees have to share knowledge about the services and products with customers during service encounters in order to sell the bank's products and services, and to do cross-selling as well. The majority of interviewed managers indicated that not all of the frontline bank employees are able to capture knowledge from the customer, particularly when it is not explicit knowledge. This difficulty was demonstrated by many interviewees, including one of the sales and services managers, who stated the following:

R29: 'The frontline bank employees have a vital role of exchanging knowledge between the customers and the organisation. However, in many cases, the customer does not realise his needs or is unable to express these requirements through his language. Hence, our frontline employees are struggling to extract the unseen needs of the customer and conduct the cross-selling'.

In addition, the product development manager highlighted the challenge of capturing tacit CK during service encounters:

R24: 'The interaction between the frontline bank employees and the customers produces new knowledge for the two parties. This knowledge takes two forms: easy to express and difficult to express. However, our bank's management concentrates more on the clear knowledge because the unclear knowledge needs more effort to capture, and not all employees are able to express this knowledge'.

Z bank's frontline employees face a problem in capturing tacit CK, and the organisation does not provide them with proper training to help them deal with this

type of knowledge, which also constitutes the most significant volume of CK during service encounters.

R28: 'Honestly, our frontline bank employees are not able to read the customer's needs unless the customer asks about it, because we do not train them in how to read the customer's need without using oral language'.

However, the frontline bank employees were trained to capture and share explicit CK from the organisation to the customers, though frontline bank employees still face a significant challenge in expressing and sharing tacit CK.

R27: 'In our bank, several training workshops help the frontline bank employee to capture the knowledge from the information system or the bank's management in order to deliver this knowledge to the customers. Hence, frontline bank employees need to provide accurate knowledge about the services or products during the "moment of truth" service encounters'.

The analysis of interviews with Z bank managers indicates that tacit CK influences the KB process during service encounters. Moreover, most of the knowledge from the organisation to the customer is explicit CK, and frontline bank employees are able to share this knowledge with the customer during service encounters. This interpretation is illustrated by various participants, such as the product development manager, who mentioned the following:

R24: 'Regardless of how complicated the product is, the frontline employee has 90 seconds to deliver the knowledge about the product to the customer; otherwise, there is a problem'.

Conversely, knowledge from the customer during the service encounter takes the form of tacit knowledge, and frontline bank employees often ignore trying to capture and share this knowledge because it requires more time and effort. Most of the participants refer to the effect of tacit CK on KB during service encounters, as demonstrated in Figure 5-30.

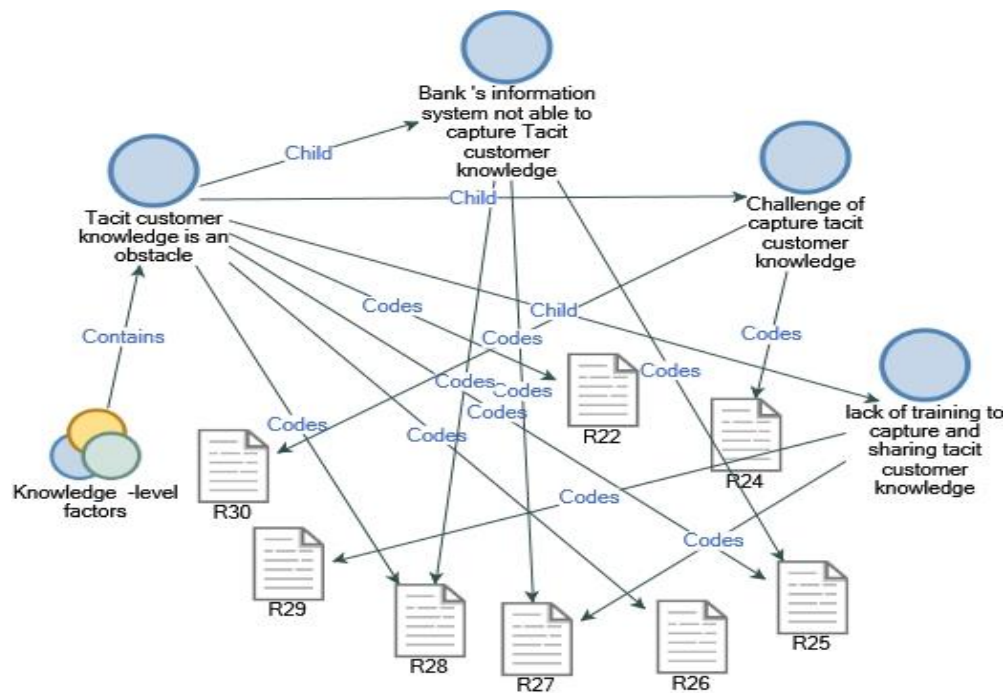


Figure 5-30: Summary of the sources of evidence that identified Knowledge -level factors that impact KB during service encounters at Z bank

Figure 5-30 illustrates the references that indicate the effect of natural CK in the KB process during service encounters. Capturing and sharing tacit CK during service encounters is still considered significantly challenging when the bank's information system does not help the frontline employees to gain this knowledge or when there is a lack of training programmes to support this.

Summary of the Case Study (3)

Z bank is generally considered a retail bank, and face-to-face is the primary means of interaction between the customers and the frontline employees. However, KB for the organisation during service encounters is still in an initial stage in Z bank. The data analysis suggests that frontline bank employees face many challenges in fulfilling the role of knowledge broker during service encounters, especially for the organisation. KB through the frontline employees during service encounters has been influenced by four sets of factors: organisational-level factors, individual-level factors, technological-level factors, and the nature of the CK created during the service encounters.

The organisational-level factors that affect KB fall into three groups: organisational culture, organisational support and organisational structure. The data analysis suggests that organisational culture either encourages or impedes the frontline bank

employees in engaging in KB for the organisation, though Z bank's market culture supports KS and KB for the customer more than KB for the organisation. The interpretation of the evidence also reveals that Z bank's management does not pay proper attention to the frontline employees as a valuable source of CK. The frontline employees also perceive a lack of organisational support encouraging them to work as knowledge brokers for the organisation. In addition, they also note an absence of incentives for employees when they engage in KB between the customers and bank management. Continuing, there is also a deficiency of training programmes that empower the frontline bank employees to serve as knowledge brokers. Branch managers in Z bank play key roles in successful KB between the frontline employees and the bank's management because they remain as the main contact point between the two parties.

The frontline bank employees' lack of awareness concerning the significance of CK for the organisation is a vital individual-level factor impeding KB during service encounters in Z bank. Further at the individual level, low ability to understand CK, lack of prior CK, lack of work experience, and low self-efficacy of the frontline employees will also inhibit them in acting as knowledge brokers. In addition, a moderate workload during service encounters helps to ensure successful KB for the organisation and for the customers as well.

Despite Z bank management's substantial investment in promising technology, the bank's information system does not assist the frontline bank employees in working as knowledge brokers, and most of the participants argue that having a CRM system will help the frontline employees to engage in KB. Beyond this, tacit CK constitutes a significant obstacle for successful KB from the customers during service encounters in Z bank due to the frontline bank employees' inability to capture and transfer this knowledge.

5. 3 Chapter Summary

This chapter first presented an overview of the research context and the justification for using the Jordanian banking sector for this research. The rest of this chapter illustrated the within-case study analysis for each case. In addition, this chapter also presented the analysis of the field work through within-case analyses of each case independently through providing an overview and background of each organisation

as well as the main findings in each case based on semi-structured interviews, documents, and direct observation. The analysis of each case utilised the qualitative content analysis technique with the deductive approach from the proposed conceptual framework and the inductive approach from the data in order to revisit the conceptual framework for each case.

Each case study analysis comprises investigations into the phenomenon of KB during service encounters and explores the main factors that affected KB during the service encounters on four levels, namely, organisational level, individual level, technological level, and CK level.

Based on the findings of each within-case study analysis, the following chapter provides a discussion of the cross-case analysis to highlight the similarities and differences between the main findings from each case. In addition, the following chapter also sheds light on the main factors that affected KB through frontline bank employees during service encounters in the three organisations.

Chapter 6 : Cross-Case Syntheses and Discussions

6.1: Introduction

This research aims to investigate the role of frontline employees as knowledge brokers between customers and organisation during the service encounter. Specifically, this research seeks to understand the main factors that influence frontline employees in acting as knowledge brokers for the customers and the organisation during service encounters.

As mentioned in Chapter Two, the role of frontline employees as knowledge brokers between the customers and the organisation requires more investigation. The majority of KM literature focusses on KB's impact on innovation (Waring *et al.*, 2013; Boari and Riboldazzi, 2014; Berg *et al.*, 2014). However, there is also a need for research concerning how organisations encourage the employees to manage and share customer knowledge (CK) in order to meet customer needs and enhance service quality (Korhonen- Sande and Sande, 2016). In addition, the role that FLSEs play as internal knowledge brokers in intra-organisational KS still requires more empirical research (Woisetschläger *et al.*, 2016). Chapter Three proposed a conceptual framework to explain frontline employees' role of KB during service encounters between the organisation and the customers. The organisational knowledge creation theory and the absorptive capacity theory were selected to explain KB during service encounters through frontline bank employees. The preceding chapter presented the within-case analysis and the findings for each case separately.

In this chapter, we discuss the cross-case findings with the intent of gaining a deep and comprehensive understanding of the phenomenon of KB during service encounters through frontline employees. According to Yin (2014), cross-case analysis makes the research more robust through demonstrating the differences and similarities between the cases. In addition, cross-case analysis also provides more understanding of the phenomenon under investigation rather than simply the findings of the individual case analysis. Furthermore, it also increases the generalisability of the findings of the multiple cases (Miles and Huberman, 1994). The rationale behind

using the multiple case study design is to conduct a cross-case analysis in order to compare the findings of each case so as to obtain high-quality outcomes. To accomplish this, the theoretical discussions have been provided under each part of the cross-case findings in order to link the emerged themes to the theoretical foundation.

This chapter is divided into five sections, including Section 6.1, which provides the introduction to the chapter. Section 6.2 presents the outcomes of the investigation of KB through frontline employees during service encounters. In particular, it sheds light on the frontline employees' contribution to the three kinds of CK transferred during service encounters. Section 6.3 presents and discusses the main factors that influence frontline employees' role as knowledge brokers during service encounters. Section 6.4 suggests a revised conceptual framework for this knowledge-brokering (KB) based on the cross-case analysis of the three case studies. Section 6.5 provides a summary of this chapter.

6.2 Knowledge-brokering (KB) during the Service Encounters

The preceding chapter provided the analysis of the proposed conceptual framework within each case study by analysing the interviews, the organisations' documents, and direct observations. The three banks are currently facing high levels of competition from the local and foreign banks working in Jordan. Hence, having CK forms the basis for gaining a competitive advantage in Jordan's banking sector, while knowledge about the customer and knowledge for the customers has received the main share of attention from the banks' management in each case. However, despite the fact that knowledge from the customer during service encounters is considered a main source of innovation and competitive advantage (Lages and Piercy, 2012; Larivière *et al.*, 2017), the three banks still need more effort to adopt the concept of KB through frontline employees as a result of daily interaction with the customers.

The frontline employees in the three banks contribute to KB through sharing CK between the organisation and the customers during service encounters, while some of

them share knowledge about the customer, knowledge for the customer, and knowledge from the customer.

Additionally, each case study analysis of the phenomenon of KB through frontline employees during service encounters suggests a distinction between two kinds of such KB, namely, KB for the customer and KB for the organisation. There is an agreement between the three cases to divide KB during the service encounters into two integrative processes, KB for the customer and KB for the organisation, as illustrated in Table 6-1.

Case	KB for the Customer	KB for the Organisation
Case X	Frontline employees in X bank are highly professional, and they usually transfer knowledge about the bank's services and products to the customers during service encounters, and they try to help the customers to understand the advantages of services and products.	X bank's frontline employees are keener to transfer customer feedback to bank management in order to improve the work during service encounters in order to eliminate the problems that reduce their achievement of targets required of them.
Case Y	The role of frontline bank employees at Y bank has shifted from the traditional one to that of acting as advisors who provide customers with all of the knowledge they require about services and products during service encounters.	The transfer of knowledge from the customer to the organisation during service encounters remains inadequate at Y bank, and it is still an individual initiative.
Case Z	Z bank's frontline employees play the traditional role in service encounters; this role comprises providing the service and products for the customer and transferring the knowledge for the customer about the services and products.	The frontline bank employees transfer knowledge about the customer, and in rare cases, they capture and share knowledge from the customer during service encounters.

Table 6-1: KB during service encounters

From the viewpoints of the three organisations, frontline employees work as knowledge brokers for the customers during service encounters. These employees are considered the core source of knowledge about the services and products for the customers. In addition, in the finance organisations, the frontline employees' job requires them to disclose full knowledge about products and services during service

encounters. However, the three banks agreed about the less-than-mature role of the frontline employees as knowledge brokers for the organisation compared to their role as knowledge brokers for the customers.

The two processes of KB during service encounters are integrative, and we find that the frontline employees' success in KB for the organisation first depends on the success of the KB for the customers. In this vein, the three banks focussed on capturing knowledge about the customers and providing knowledge for the customers during service encounters, while obtaining knowledge from the customers received less attention from the three banks' management, particularly at Z bank. Banks X and Y designed some initiatives aiming to encourage KB through the frontline employees from the customer to the organisation. However, brokering the CK through the frontline employees was not fulfilled as it should be because of certain barriers that inhibit this process. Four main sets of factors are identified that impact the frontline bank employees' role as knowledge brokers. In the following section, these factors are presented and discussed.

These findings are consistent with the study of Cadwallader *et al.* (2010) which demonstrate that most often frontline employees are serving as knowledge brokers for the customers through introducing customers to new service innovations. Also, they argue that the boundary-spanning role of the frontline employees between organisation and customers give them the opportunity to act as barrier or catalysts to customer awareness concerning acceptance and adoption of the service innovation.

6.3 Factors Affecting Knowledge-Brokering (KB) during Service Encounters

The analysis of the data gathered from the three organisations reveals that there are four sets of factors affecting KB through frontline employees during service encounters. The following sections discuss and review these factors, while Table 6-2 below provides the summary and conclusion of these factors.

Chapter Six: Cross-Case Syntheses and Discussions

Factors group	Main Factors	Case X	Case Y	Case Z
Organisational – level	Organisational support	Lack of training programs for frontline employees in terms of capturing and transferring knowledge from the customers during service encounters impedes KB for the organisation. Lack of incentives (moral and financial) for the frontline employees to transfer knowledge from the customers to the organisation impedes KB for the organisation. When frontline bank employees perceive themselves as having organisational support, they will be more active when it comes to engaging in KB during service encounters.	The absence of a rewards system when it comes to transferring knowledge from customers to the organisation impedes KB during service encounters. A lack of engagement on the part of frontline bank employees in the new product and service development process impedes KB during service encounters. Having a suitable training program in place will assist frontline bank employees to act as knowledge brokers for both customers and the organisation.	A lack of rewards for the frontline bank employees when they transfer knowledge from the customers during service encounters hinders KB for the organisation through its frontline employees. The inadequate training that empowers frontline bank employees to capture and transfer knowledge from the customer to the organisation prevents KB for the organisation. Lack of appreciation of the role that frontline bank employees play as a source of CK and their lack of involvement in the new product and service development processes impedes KB for the organisation.
	Organisational culture	Mutual trust between frontline bank employees and their manager encourages them to engage in KB during service encounters. The market organisational culture inhibits KB for organisations, and it encourages KB for the customer. Having an organisational learning culture encourages frontline bank employees to act as knowledge brokers.	Having a KS culture would help frontline bank employees to act as knowledge brokers. Having a culture that supports learning will encourage frontline bank employees to act as knowledge brokers. Having healthy levels of internal competition among employees encourages frontline bank employees to serve as knowledge brokers in two distinct ways.	Having an organisational culture that supports KS, trust within the organisation, and learning encourages the frontline bank employees to engage in knowledge during service encounters in both directions (i.e. from the customer and organisation). Market organisational culture encourages KB for the customer more than KB for the organisation on the part of frontline employees during service encounters.
	Organisational structure	The organisational structure influences KB by frontline employees, as high levels of centralisation, standardisation, and formalisation inhibit KB on the part of frontline employees. This is due to the fact that KB requires high levels of flexibility and direct communication with the top management.	The hierarchical structure of Y bank, which is reflected through high levels of centralisation and formalisation, makes the flow of CK from the frontline employees to the top management more complicated as result of multiple layers, and it inhibits frontline employees from engaging in KB for the organisation.	Due to the hierarchical organisational structure, middle management plays a critical role in encouraging or impeding frontline bank employees from serving as knowledge brokers during service encounters.

Chapter Six: Cross-Case Syntheses and Discussions

Individual- level	Prior CK	Frontline employees with adequate knowledge about the bank's services and products are more able to act as knowledge brokers, and prior knowledge helps them to identify a gap in the CK.	Having adequate knowledge of services, products, and the organisation is considered to be a prerequisite for KB from the customer.	Having the prior knowledge that customers require concerning services and products during service encounters and adequate job experience is considered to be vital to successful KB for both customers and the organisation.
	Job Experience	Experienced frontline employees are readier to work as knowledge brokers for the customers, and they are also more capable of capturing and sharing knowledge between customers and organisation.	The level of experience of a frontline employee is a fundamental factor in terms of improving his or her ability to serve as a knowledge broker for the customer.	The frontline bank employees with sufficient experience are better able to understand knowledge from the customer and organisation, and they are more qualified to transfer CK to the organisation and customer.
	Ability to understand CK	The ability of frontline bank employees to understand CK from either the organisation or the customers during the service encounters plays a critical role in encouraging or inhibiting KB during service encounters.	The ability to understand the knowledge obtained from a customer affects KB process during a service encounter.	The capability of frontline employees to understand the three kinds of CK will help them to contribute to KB during service encounters.
	Workload	The high workloads encountered during service encounters impede KB by frontline bank employees.	High and low workloads impede successful KB during service encounters, while moderate workloads encourage frontline bank employees to act as knowledge brokers.	A lack of time for the frontline bank employees during services encounters impedes capturing and transferring CK for the organisation.
	Self-efficacy	Frontline bank employees with low self-efficacy when it comes to having CK preferred to not engage in KB during the service encounters.	A frontline employee with a high level of self-efficacy is better able to act as knowledge broker between a customer and the organisation during a service encounter.	A low level of self-efficacy on the part of frontline bank employees impedes KB during the service encounters because the success of KB depends on the willingness of these employees to share CK between the organisation and customers.
	Lack of awareness	A lack of awareness on the part of frontline employees with regard to the value of knowledge from the customers hinders KB during service encounters.	A high level of attention is paid by frontline employees to obtaining knowledge about the customers and providing knowledge for the customers during the service encounters, while less attention is paid to obtaining knowledge from the customers, such as information concerning their experiences with the organisation.	Frontline bank employees have a low level of awareness of the importance of knowledge from the customer for the organisation; this impedes KB during service encounters.

Technological-level	Bank's information system	The bank's information system does not support frontline bank employees when acting as knowledge brokers for the organisation.	The bank's existing information system does not assist frontline bank employees to capture and store the knowledge obtained from customers during service encounters. A lack of integration between the bank's information systems limits the ability of frontline bank employees to act as knowledge brokers.	The regular information system does not support KB by frontline employees during the service encounters.
	Lack of a CRM system	Having a full CRM system would improve KB during service encounters, and it will support the frontline bank employees to act as knowledge brokers in both ways.	Implementing a CRM system will assist frontline bank employees to act as knowledge brokers during service encounters.	The absence of a CRM system hinders frontline bank employees from engaging in the two forms of KB during service encounters.
Knowledge-level	Tacit CK	The difficulty experienced in capturing and sharing tacit CK during service encounters impedes KB by frontline bank employees.	It is quite often the case that the knowledge from the customer is tacit and frontline bank employees face difficulties when capturing and sharing this knowledge, and this impedes KB from the customers to the organisation.	The highly tacit nature of CK during service encounters impedes KB from the customer to the organisation.
	Explicit CK	Lack of access to explicit knowledge for the customer during service encounters impedes KB for and from customers by frontline bank employees.	The majority of the knowledge about the customer and for the customer is explicit knowledge, and not all of this knowledge is stored in the bank's system during service encounters.	The complexity of the explicit CK, such the knowledge for the customer (e.g. knowledge concerning new service and products), that exists in the bank's information system impedes KB for both the customer and the organisation.

Table 6-2: Factors impacting knowledge-brokering (KB) during service encounters

6.3.1 Organisational -Level Factors

The analysis suggests that the organisation plays a critical role in encouraging or impeding frontline employees to engage in KB during service encounters. More specifically, three main organisational-level factors influence this KB, namely, organisational support, organisational culture, and organisational structure.

Organisational Support

All three of the banks reported that the absence of organisational support forms the central barrier impeding frontline bank employees in acting as knowledge brokers, particularly from the customers to the organisation. In this research, the organisational support includes organisational recognition of the frontline employees as a source of CK, the provision of rewards, the provision of training, and the frontline employees' involvement in the process of developing new products and services.

The first source in the organisational support factor is the *organisational recognition for the frontline employee's knowledge*. The findings suggest that a lack of *organisational recognition* of frontline employees as a source of knowledge from the customers inhibits the frontline employees in acting as knowledge brokers for the organisation. In addition, it is found that the administrations in the three banks grant less attention to the knowledge from the customer that comes from the frontline employees, as their focus is instead on the knowledge about the customers, such as their motivations, transactions, requirements, and background. Furthermore, the banks' instructions obligate frontline employees to provide knowledge about the customer to the organisation, while providing knowledge from the customers, such as customer experiences, is still a voluntary job for the frontline employees.

Moreover, the three banks utilise the CK gathered directly from the customers through multiple communication channels and from the external companies in order to develop the products or services, while the contribution of the frontline employees is still very low with respect to transferring knowledge from the customers during service encounters.

This finding is consistent with the literature, which has linked the perceived organisational support of employees with their intention to contribute their

knowledge within the organisation (e.g. Watson and Hewett, 2006). According to Eisenberger *et al.* (1986), the perceived organisational support includes the individuals' belief concerning the extent to which the organisation values their contribution and cares about their wellbeing. Therefore, this study highlights that when the frontline employees believe that the organisation recognises their knowledge generated from the customer interaction during service encounters, this will encourage them to contribute their knowledge to the organisation.

Also, this is consistent with findings of Engen and Magnusson (2015), who argued that the middle and top management in service organisations lack a great appreciation of the knowledge held by frontline employees as a result of their interaction with customers during service encounters. Ye *et al.* (2012), for example, indicated that the knowledge generated between the frontline employees and customers during service encounters possesses a great deal of potential for significant payoffs for the organisation. In many cases, however, the organisation does not tap into this knowledge and it remains in the frontline employees' minds because the organisation's attention goes to top-down learning instead of bottom-up learning. Furthermore, service organisations still have a problem with capturing CK precisely with offline services (Lam *et al.*, 2017).

The second source in the organisational support factor is ***the organisational rewards***. All of the participants from the three organisations indicate that the frontline employees require positive motivation to engage in the KB process during service encounters. According to past studies, the main challenge facing the organisation concerns how to motivate the employees to contribute their knowledge to the organisation (King *et al.*, 2002).

In addition, a lack of extrinsic motivations, such as moral and financial rewards, which are tailored to stimulate employees to capture and transfer knowledge from the customer to the organisation, also impedes frontline employees in acting as knowledge brokers from the customers to the organisation.

The explanation of why organisational rewards can encourage frontline employees to act as knowledge brokers for the customer and the organisation is rooted in social exchange theory, which proposes that individuals compare between the costs and

potential benefits in their exchange relationship and they try to maximise benefits and minimise costs (Emerson, 1976). Unfortunately, KB for the organisation is still a voluntary job, and the employees do not contribute their CK without motivation to do so, such as organisational rewards (Lin and Huang, 2010).

It is found that the three banks lack rewards that encourage the frontline employees to capture and share knowledge from the customer to the organisation during service encounters. Consequently, the results of this research further support the claims of Pass *et al.* (2004), who affirmed that organisations typically do not reward their frontline employees for sharing their market knowledge within the organisation.

Moreover, it is noticed that the frontline employees in the three banks engage in KB for the customers more than for the organisation. This is explained by the lack of rewards for KB for the organisation, as the employees understand that when they provide knowledge about the service and products for the customer during service encounters, this will help them to achieve their targets, which leads to obtaining rewards, such as monetary and moral rewards. Therefore, the absence of rewards when the frontline employees contribute the knowledge created during interaction with the customers to the organisation is considered one of the barriers impeding KB for the organisation.

These findings provide additional support for the past studies that have suggested a reward system will encourage employees to share their knowledge (e.g. Bartol and Srivastava, 2002; Ipe, 2003; Cabrera *et al.*, 2006; Al-Alawi *et al.*, 2007; Lin, Hung and Chen, 2009). Conversely, these empirical findings are also in line with the various prior studies that have considered the lack of organisational rewards to be barriers impeding employees in contributing their knowledge to the organisation (e.g. Riege, 2005; Lee and Ahn, 2007; Singh Sandhu *et al.*, 2011). Moreover, this finding is consistent with the recent empirical results offered by Anaza and Nowlin (2017), which affirmed that the lack of organisational rewards, including recognition and monetary, impede frontline employees in sharing their market knowledge to the organisation.

The third source in the organisational support factor is the ***organisational training for the frontline employees***. The lack of organisational training that supports

frontline employees in capturing and sharing knowledge with the customer during service encounters impedes KB for the organisation and the customer.

According to the findings from X and Z banks, the main focus of bank management is on training frontline employees to gain knowledge about the services and products, and to better their ability to improve service quality and provide knowledge for the customers during service encounters. In contrast, the three banks also give less attention to training frontline employees to capture and transfer knowledge from the customer to the organisation. The prior studies found that sufficient training increases the employees' absorptive capacity to understand knowledge, and this increases their ability to transfer knowledge (e.g. Minbaeva *et al.*, 2003).

The findings also reveal that well-trained frontline employees are more able to act as knowledge brokers for the customers during service encounters, and this helps them to identify the CK gap, aiding them in acting as knowledge brokers for the organisation. According to the findings, Y bank is the best bank investor in their employees in terms of training, as it employs the 'virtual branch' in order to train the employees before and after their appointment. Hence, the majority of the Y bank participants argue that the role of frontline bank employees has been extended to be more than just traditional service employees and has instead become knowledge brokers through work as consultants for the customers and bank management.

The fourth source in the organisational support factor is *involving the frontline employees in the process of developing new products and services*. The majority of participants from the three banks indicate that the frontline bank employees are not fully involved in the new service-development process, which includes three stages: design, development, and full launch. In the three banks, the frontline employees are solely involved in the development and full-launch stages, and it is rare to participate in the design stage, which consists of contributing their CK. Therefore, the lack of frontline employees' participation in the design stage increases their unwillingness to engage in KB for the organisation.

Furthermore, the findings from the interview analysis suggest that involving the frontline employees in the three stages of the new service development process will

encourage them to act as knowledge brokers for the organisation, while lack of participation in the new service development process will impede KB for the organisation.

Consequently, when the organisation does not use the knowledge from the frontline employees, this makes them believe that they are not participating in the decision-making, even indirectly through using their CK. This is consistent with prior studies that found that when employees believe they are participating in the organisation's decision-making, this encourages them to contribute their knowledge to the organisation (e.g. Han, 2010), in addition to increasing the quantity and quality of KS (Witherspoon *et al.*, 2013). This is also in line with the evidence presented by Melton and Hartline (2010) indicating that frontline employees' participation in the design stage of the new service development process positively influences the employees' attitude towards the organisation.

Organisational Culture

The second factor in the set of organisational-level factors is the organisational culture. Collectively, data from the three banks reveals that the organisational culture influences KB through the frontline employees during service encounters. In addition, it is found that the organisational culture either encourages or inhibits the frontline employees in serving as knowledge brokers for the organisation. Similar findings have been found in prior studies, which have suggested that the organisational culture impacts employees' KS behaviour, and it may either increase or decrease their willingness to share knowledge within the organisation (e.g. De Long and Fahey, 2000, Kim and Lee, 2006; Lin, 2008; Seba and Rowley, 2010; Seba *et al.*, 2012).

The participants and data from the three banks indicate that the organisational culture that supports KS (a KS culture) and learning encourages the frontline employees to capture and share knowledge from the customer to the organisation during service encounters. Frontline employees need knowledge for the customer in order to capture knowledge from the customer; thus, a KS culture in the organisation will help them to obtain the requisite knowledge for the customers and encourage them to share knowledge from the customer to the organisation.

The empirical findings are in line with many studies that have highlighted the positive impact of organisational culture on KB. For example, Hargadon (2002) argued that the success of KB requires an organisational culture that supports and rewards employees when they act as knowledge brokers.

In addition, the findings of this study are also consistent with previous studies that have found trust within the organisation and between the employees to be the main component in a KS culture (e.g. Casimir *et al.*, 2012). High levels of trust between frontline employees and their managers encourage them to share knowledge obtained from the customers during service encounters with the organisation. Furthermore, these findings offer further support to the study of Wirtz *et al.* (2010), which found that high levels of social capital (trust between frontline employees and their managers) increases the employees' willingness to share knowledge from the customers (negative customer feedback) generated during service encounters within the organisation.

However, the participants and data from the three banks also reveal that the market and hierarchy cultures form the dominant organisational cultures of the three banks. According to Cameron and Quinn (2005), the primary focus of market culture is on external and internal competitiveness, while the main features of hierarchy cultures include multiple hierarchical structures, high formalisation, and lack of employee empowerment. It is found that market and hierarchy cultures support the frontline employees' role as knowledge brokers for the customer while inhibiting the role of knowledge brokers for the organisation. These results are understood side by side with the study of Suppiah and Singh Sandhu (2011), which found market and hierarchy cultures to negatively influence tacit- KS behaviour. On this note, it must also be taken into consideration that the majority of knowledge from the customer that is generated during service encounters is tacit knowledge (Wang, 2015).

Organisational Structure

The third factor in the set of organisational-level factors is the organisational structure. The finding in this research suggested that the organisational structure impacted on the KB through the frontline employees during the service encounters. Also, the findings revealed that the organisational structure either encourage or

hinder the creation and transferring the CK between the organisation and customers through the frontline employees. Many of the previous studies discussed the influences of organisational structure on the KS in the organisation and they stressed that the hierarchy organisational structure consider as barrier to KS through the employees (e.g. Seba *et al.*, 2012; Amayah, 2013).

However, the analysis of the data from the three banks suggested that hierarchy organisational structure inhibited CK brokering for the organisation through the frontline employees during the service encounters. The hierarchy structures in the three banks which show its features through high centralisation and formalisation is made the flow of CK from the frontline employees to the top management more complicated through multiple layers. The empirical findings of this research are in line with previous research of Kim and Lee (2006) which found that the hierarchy organisational structure had a negative impact on the employee's KS capabilities. Also, these research findings provide further support to the Chen and Huang (2007) who suggested that organisational structure with less centralisation and less formalisation leads to high social interaction and this will increase the KS in the organisation. Additionally, the research findings consistent with the study of Sharratt and Usoro (2003) that pointed out that the centralisation dimension in the hierarchy structure stifle knowledge creation and it was inhibiting sharing tacit knowledge in particular.

Moreover, due to the hierarchy structure in the three banks, the middle managers such as the branches managers played a critical role concerning support or hinder the frontline employees to fulfil the role of knowledge brokers for the CK between the organisation and customers. The majority of the participants from the three banks argue that the branches managers act as a filter of flow the CK between the frontline employees and top management, as well as they able to encourage the frontline bank employees to capture and transfer CK during the service encounters. Also, in many cases, the middle managers for the frontline employees consider as the primary source of the knowledge for the customer that help the frontline employees do their jobs and to understand knowledge from the customer during the service encounters.

In this vein, the centralisation dimension of the hierarchy structure impacted on the ability of the middle managers to motivate frontline employees to engage in KB during service encounter. Most of the participants pointed out that because of the high centralisation and lack of empowering the branch managers not able to provide a reward to the frontline employees when they capture and share knowledge from the customers during the service encounters to the organisation.

These findings supported by the study of Al Saifi *et al.* (2016a) Who found that the middle managers play a significant role with regard creating opportunities for employees to learn and share their knowledge when they are affected by lack of knowledge. Also, the findings confirm the argument of the MacNeil (2003) and MacNeil (2004) who emphasise the vital role of the line managers as a facilitator of KS between employees and organisation and in particular tacit knowledge. As well, this finding of the critical role of the middle manager with respect to KB of the CK consistent with the study of the Radaelli and Sitton-Kent (2016) who highlighted the major role of the middle managers concerning the translation of new ideas.

6.3.2 Individual-Level Factors

The second set of factors that influence KB through frontline employees during service encounters stems from the individual level. The data analysis from the three cases reveals that individual-level factors influence the frontline employees in engaging in CK brokering between the organisation and the customer. These factors include workload, self-efficacy, lack of awareness of the importance of CK, prior knowledge, job experience, and ability to understand customer knowledge . All of the participants from the three banks confirm that these four individual-level factors play a significant role in encouraging or inhibit the frontline employees in working as knowledge brokers for the customer and the organisation during service encounters.

Workload during the Service Encounter

The first in the set of individual-level factors is the frontline employees' workload during service encounters. Collectively, data from the three banks reveals that high and low workload levels influence KB through frontline employees during service encounters. The frontline employees in the three banks face a lack of time due to

heavy workloads, and this lack of time is considered a barrier for capturing and sharing knowledge from the customers and for the customers during service encounters. These findings are in line with many of the previous studies, which have considered the lack of time to be a barrier for KS, whether collecting or donating knowledge (e.g. Szulanski, 1996; Riege, 2005; Kukko, 2013). This finding is also consistent with Lawson (2001), who demonstrated that heavy workloads impede employees' learning due to the time pressure.

This study indicates that a moderate frontline workload during service encounters helps the frontline employees to fulfil the role of KB between the organisation and the customers, while heavy or light frontline workloads hinder success in this role. Frontline employees, through their interaction with a large number of customers, are able to learn knowledge from the customer, and they will be able to provide knowledge for the customers during the service encounters. The findings of this research support the study of Ye *et al.* (2012), who argued that heavy or light frontline workloads hinder frontline learning mechanisms, while moderate frontline workloads foster frontline learning.

Prior Customer Knowledge

The second in the set of individual-level factors is the having *Prior Customer Knowledge*. As we mentioned previously, KB through frontline employees during service encounters is divided into two main integrative activities, namely, KB for the customer and KB for the organisation. Collectively, data from the three banks suggests that frontline employees possessing prior knowledge for the customer is a prerequisite for successful KB in both ways. Conversely, a lack of prior CK or experience hinders frontline employees in engaging in brokering CK during service encounters.

Moreover, it is found that the frontline employees possessing high levels of absorptive capacity are more able to work as knowledge brokers for the customers (to obtain knowledge from the organisation and provide knowledge for the customer) and then for the organisation (to obtain knowledge from the customers and then transfer this knowledge to the organisation). These findings are also consistent with

the study by Parjanen *et al.* (2011), which suggested high levels of absorptive capacity help knowledge brokers to bridge the structural holes.

According to the absorptive capacity theory, the cognitive structure at the individual level is crucial for the ability to assimilate and utilise external knowledge in the organisation, the prior-related knowledge is considered a prerequisite for the success of absorptive capacity processes, such as recognising, assimilating, and using the new knowledge (Cohen and Levinthal, 1990). The findings related to the having prior CK are consistent with the previous research. For example, Szulanski (1996) suggested that a lack of absorptive capacity formed a primary barrier for internal knowledge transferring within the organisation. Similarly, the study of Kang and Lee (2016) found the absorptive capacity of employees to positively influence KS, while the lack of absorptive capacity inhibits transferring knowledge within the organisation (Alavi and Leidner, 2001).

Ability to understand customer knowledge

The third factor in the set of individual-level factors is the *Ability to understand CK*, the analysis of the findings from the three cases study revealed that frontline employees with high ability to understand customer knowledge that generated during service encounters more able to act as knowledge brokers. On the other hand, the low ability to understand CK is considered as one of the main barriers that impede frontline employees to engage in KB process.

The findings of this research also support the study of Verbeke *et al.* (2010), who argued that the frontline employees, such as salespeople, are becoming knowledge brokers, and they need sufficient cognitive abilities that help them absorb knowledge in order to transfer this knowledge to the customers.

Job Experience

The fourth factor in the set of individual-level factors is *Job experience* of the frontline employees. Collectively, data analysis reveals that job experience of the frontline employees influences role of the frontline employees as knowledge brokers between organisation and customers. Most of the participants pointed out that frontline employees with excellent job experience are more able to capture and

sharing CK. Moreover, the findings of this research revealed that frontline employees in particular with high job experience are capable of getting tacit customer knowledge such as customer experiences. These findings are consistent with several past research that stressed on the positive impact of the job experience on understanding tacit knowledge (e.g. Griffith and Sawyer,2010). Also, these findings are in line with the work of Boateng and Agyemang (2016) who found out that the experience level of employees is one of the significant factors influencing knowledge sharing.

Self-Efficacy

The fifth factor in the set of individual-level factors is the *self-efficacy* of frontline employees. The analysis of the data reveals that the lack of self-efficacy in frontline employees impedes them in engaging in KB during service encounters, either for the customers or the organisation. The majority of the participants from the three banks argue that the lack of self-efficacy, with respect to possessing CK, is the main reason why frontline employees are unwilling to transfer knowledge from the organisation to the customer or from the customer to the organisation.

The empirical evidence of this research is consistent with many previous studies, which have found individuals with high self-efficacy to be more willing to contribute their knowledge. For example, Bock and Kim (2001) and Lin (2007a) considered self-efficacy as intrinsic motivation that encourages the individual to engage in KS. Similarly, Hsu *et al.* (2007) found self-efficacy to positively influence KS behaviour. Moreover, Marrone *et al.* (2007) argued that self-efficacy is necessary for boundary-spanning behaviour, and it provides the employees with confidence in their capabilities to fulfil the role of boundary-spanning.

Moreover, as we mentioned before, the majority of the CK generated during service encounters is tacit knowledge, and the frontline employees need to share this tacit CK in order to engage in KB during service encounters. Hence, frontline employees' self-efficacy is crucial for motivating them to share tacit CK within the organisation. Thus, the finding of this research provides empirical support to the study of Lee Endres *et al.* (2007), who proposed that self-efficacy is essential motivation for sharing tacit knowledge. Also, the research findings are in line with Marinova *et*

al. (2017) study that suggested that frontline employees with high self-efficacy are more able understand CK.

Employees' Awareness of the Value of Knowledge from the Customer

The sixth factor in the set of individual-level factors is *low awareness of the value of knowledge from the customers*. The cross-case analysis of the data reveals that low frontline employee awareness of the value of knowledge from the customer form a major barrier for engaging the frontline employees in KB for the organisation during service encounters. The majority of participants argue that the frontline employees possess a higher awareness of the value of the knowledge about the customer and knowledge for the customer compared to the knowledge from the customer. Prior studies have suggested that low awareness of the value of possessed knowledge comprises one of the main barriers for sharing knowledge within the organisation (e.g. Riege, 2005; Kukko, 2013). Unfortunately, the empirical findings suggest that lack of awareness concerning the value of knowledge from the customers inhibits frontline employees in collecting knowledge from the customers in order to transfer this knowledge to the organisation.

6.3.3 Knowledge-Level Factors

The third set of factors that influence KB through frontline employees during service encounters is grounded in the nature of the CK, namely, tacit or explicit knowledge. The empirical findings of this research confirm this. The majority of the participants argue that in many cases, frontline employees are not able to capture all of the kinds of knowledge from the customer during service encounters, and even if they do, they may not be able to code this knowledge. Furthermore, they also highlight that not all of the explicit CK, which is quite often knowledge for the customer, is easy to understand and share with the customer during service encounters.

The empirical findings of this research are consistent with the KS literature, which has shed light on the significant impact of the nature of knowledge on the success of KS. For example, Ipe (2003) proposed that the nature of knowledge (tacit and explicit) forms a significant factor that influence KS between employees within the organisation.

Moreover, the findings of this research are also in line with prior studies that have stressed the difficulty of coding and sharing tacit CK at the individual level. For example, Ye *et al.* (2012) argued that most of the knowledge generated during service encounters is tacit knowledge. Zhang *et al.* (2015) demonstrated that understanding customer needs is tricky, because quite often, it is tacit knowledge. Furthermore, Wang (2015) argued that employees face challenges in sharing CK because most of the CK possessed by employees is tacit knowledge. Hence, one of the most important kinds of knowledge from the customers is their perception of service quality, and this is classified as tacit knowledge that resides in his mind (Chen, and Su, 2006).

This in line with prior studies that have argued that the frontline employees' ability to read the customers' need, which might include explicit or tacit CK, helps the organisations to enhance the services for the customers. In addition, they will also be more able to create ideas that will help the organisation to improve service quality (Donavan *et al.*, 2004; Lages and Piercy, 2012).

6.3.4 Technology-Level Factors

The fourth set of factors that influence KB through frontline employees during service encounters are technology-level factors. Empirical findings from the three banks identify that ICT is critical for this role. Frontline employees need effective information systems that assist them in acquiring knowledge for the customers and storing knowledge about and from the customers during service encounters. Collectively, the three banks did not apply full CRM systems (operational, analytical, and collaborative), and they instead just used operational CRM systems. The majority of the participants argue that the lack of the three CRM systems inhibits the frontline employees in serving as knowledge brokers during service encounters. In addition, they argue that CRM systems will help frontline employees to obtain knowledge for the customers that will help them to capture knowledge from the customers. They further argue that it will reduce the workload because it gives the frontline employees plenty of time to get the full picture about the customers during service encounters.

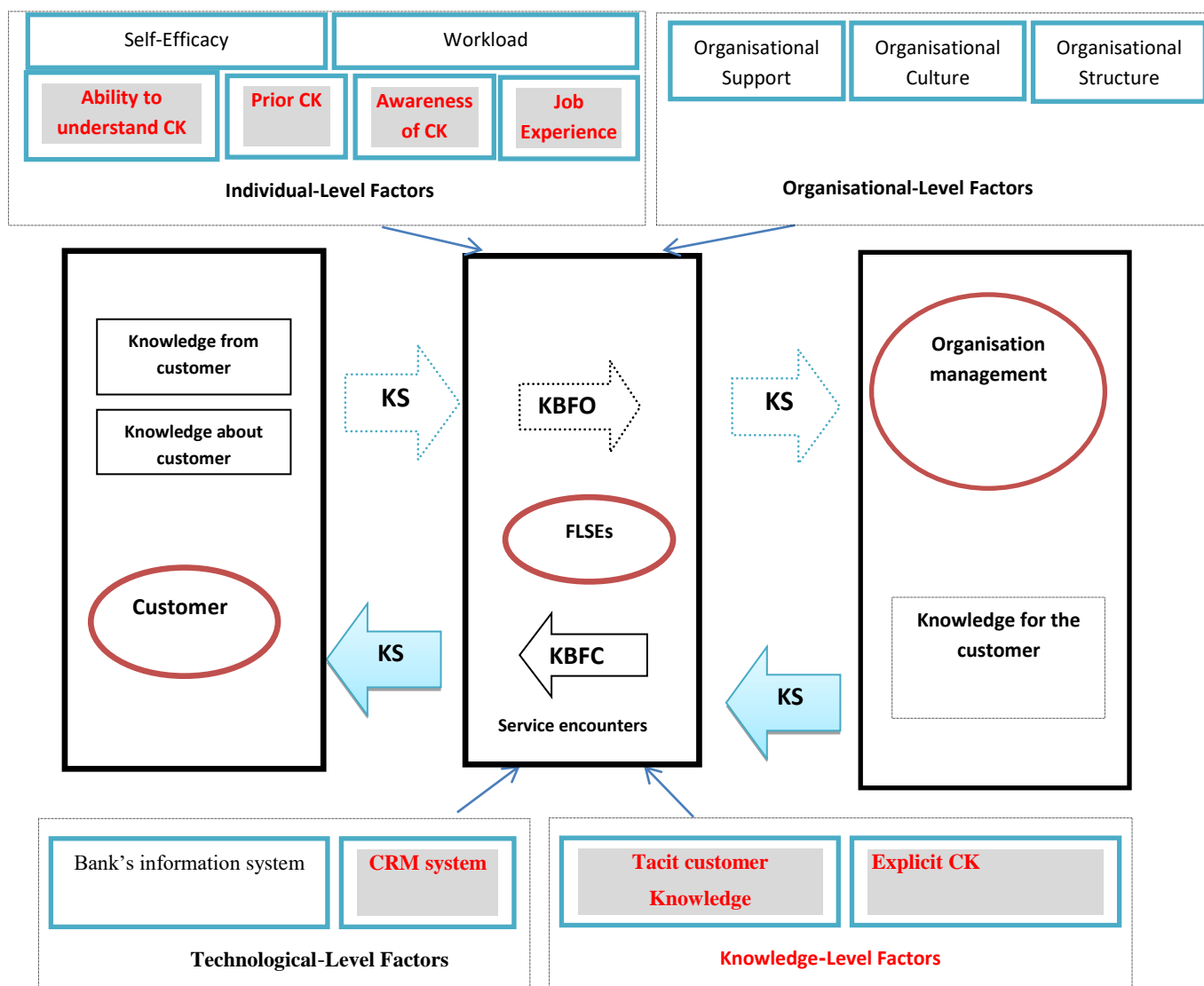
Generally, the findings of this inquiry are consistent with many of the previous studies that have focussed on the impact of information technology on employees' KS capabilities (e.g. Kim and Lee, 2006; Lin, 2007; Al-Alawi *et al.*, 2007; Seba *et al.*, 2012). These findings are also in line with other studies that have considered that lack of appropriate information systems to be a barrier to sharing knowledge within the organisation (e.g. Riege, 2005; Kukko, 2013).

According to the literature, CRM systems are computer-based systems that are used to manage the relationship with the customers. Furthermore, they are also one of the sources that provide the organisation with valuable CK in order to maintain a long relationship with the customers (Chen, and Su, 2006). However, most of literature has linked CRM systems with knowledge about the customers, and they have argued that knowledge from the customer needs social interaction, such as face-to-face meetings during service encounters (e.g. Stringfellow *et al.*, 2004; Xu and Walton, 2005). The findings of this research are in line with previous studies that have highlighted the importance of CRM systems for supporting CK acquisition (Xu and Walton, 2005) and CK creation (Khodakarami and Chan, 2014). In addition, using the three kinds of CRM systems helps the organisation to utilise CK (Salojärvi *et al.*, 2010). Marinova *et al.* (2017) argued that CRM systems also work as a complement to FLSEs during service encounters in order to support them in cross-selling. Hence, the frontline employees' ease of access to the organisation database that encompasses the knowledge about the customer, such as CRM systems, facilitates the frontline employees' role of reading the customer needs.

Although the literature on services has recognised that CRM systems are vital to success amongst service organisations, very often, service organisations have continued to struggle with making their frontline employees more active when using the CRM system to obtain the advantages of CK (Hunter and Panagopoulos, 2015).

6.4 A Revised Conceptual Framework

This section provides a revised conceptual framework based on the cross-case analysis of the three cases. Based on the empirical findings, Figure 6.1 below illustrates the revised conceptual framework of CK brokering through frontline employees during service encounters.



- *Factors (in red colour), which were revealed by the empirical data.*
- *The dotted arrow line represents an unproductive process*

Figure 6-1: Revised conceptual framework for knowledge brokering (KB) through frontline employees during service encounters.

The results of the evidence-based analysis of the multiple case studies summarised in the framework (Figure 6.1) suggests that four sets of factors facilitate or impede KB by frontline employees during service encounters, namely, organisational-level factors (organisational culture, organisational structure, and organisational support), individual-level factors (absorptive capacity, self-efficacy, low awareness of the importance of knowledge from the customers, and workload), technological-level factors (a bank's information system and/or the lack of a CRM system), and customer-knowledge-level factors (tacit or explicit). Moreover, it appears that the process of KB during service encounters can be divided into two types: KB for the customer and KB for the organisation. Furthermore, the success of KB for an organisation largely depends on the success of KB for customers.

The findings, which are based on empirical data from the top three banks in Jordan, reveal that during service encounters, frontline bank employees work as knowledge brokers for the customers more than for the organisation. The explanation for this is that the frontline employees have to provide full knowledge for the customers about the service and products during service encounters while transferring knowledge from customer to the organisation is still voluntary, and frontline employees need effective motivation to encourage them to engage in transferring knowledge from the customers to the organisation. The findings of this research argue that KS plays a critical role in successful KB through frontline employees during service encounters. Moreover, the frontline employees' ability to collect and donate CK is the primary impetus for KB in both ways, namely, from the organisation to the customers and from the customers to the organisation.

In addition, the frontline employees' ability to understand and disseminate three kinds of CK is vital for successful KB. Therefore, the frontline employees' absorptive capacity influences their ability to act as brokers for CK. The data analysis also reveals that low awareness concerning the importance of knowledge from the customers significantly influences frontline employees' role as knowledge brokers for organisations. Further, low self-efficacy and high or low workload during

service encounters also impedes the brokering of CK through frontline employees during service encounters.

In addition, organisational culture plays critical role in either supporting or inhibiting frontline employees in serving as knowledge brokers in both ways. The organisational culture that supports KS and learning among employees encourages frontline employees to act as knowledge brokers, while a market culture is viewed as a barrier to KB through frontline employees, particularly from the customer to the organisation. Moreover, the data analysis also implies that organisational support is crucial for encouraging frontline employees to engage in KB. Therefore, a lack of rewards provided to frontline employees when they transfer knowledge from the customer to the organisation forms one of the barriers that impede this role, as does the absence of recognition for the frontline employees as sources of knowledge from the customers. In addition, a lack of training provided to the frontline employees in order to capture knowledge from a customer during service encounters also inhibits brokering knowledge from the customers through frontline employees. The hierarchal organisational structure in the three organisations is considered another barrier for KB in both ways, though the nature of the hierarchy structure means that middle managers play a significant role in supporting frontline employees to fulfil the role of knowledge brokers.

Furthermore, a high degree of tacit knowledge from the customer during service encounters is considered another barrier for successful CK brokering for the organisation. In many cases, frontline employees are not able to capture and share tacit CK generated during service encounters. In addition, the lack of full explicit knowledge for the customers during service encounters also inhibits KB for the customers and the organisation.

Information technology helps the frontline employees to share CK, though the findings of this research suggest that traditional information systems do not support the role of knowledge brokers. Utilising full CRM systems would support the frontline employees to act as knowledge brokers between the organisation and the customers because this provides the frontline employees with adequate knowledge

about and for the customers during service encounters, and this helps them to gain knowledge from the customers.

6.5 Chapter Summary

This chapter presented the cross-case analysis findings of the three case studies, as well as a discussion of these results. The three banks face stiff competition from local and foreign banks, and as a result, CK is considered a source of combative advantage. The analysis of the data gathered from the top three banks in Jordan reveals that in the three organisations, frontline employees serve as knowledge brokers for the customers more than for the organisation. The findings of this research suggest that four sets of factors influence KB through frontline employees during service encounters, namely, individual-level factors, organisational-level factors, technological-level factors, and customer-knowledge-level factors. Based on the empirical findings, this chapter also illustrated the revised conceptual framework for KB through frontline employees during service encounters.

The final chapter of this thesis, Chapter Seven, provides a brief summary of this thesis. In addition, it also presents the conclusion of the study and its contribution through the theoretical and managerial implications. It concludes by offering the limitations and future research directions.

Chapter 7 : Conclusion

7.1 Introduction

This chapter presents the concluding chapter to this study, and it provides a summary of the thesis. Furthermore, it presents the key research findings and research achievements, and highlights the theoretical, methodological and practical contributions. Moreover, the end this chapter offers the research limitations and future research. This chapter is structured as follows: in Section 7.2 is an overview of the research, summarising the key points of each chapter of the thesis. Section 7.3 discusses the achievements of the research aim and objectives. Section 7.4 presents the major findings of the study. Section 7.5 delivers the research contributions, including the theoretical, methodological and practical contributions. This is followed by Section 7.6, which discusses this study's limitations and suggests fruitful directions for future research. Finally, Section 7.7 provides a summary of the chapter.

7.2 Overview of the Study

This research is aimed at investigating the role of frontline employees as knowledge brokers between customers and the organisation during service encounters, as well as identifying the most critical factors influencing this role. To this end, this research proposed a conceptual framework for KB through frontline employees during service encounters, based on an extensive review of the current literature. Using an in-depth multiple case study approach, this study empirically verified this conceptual framework in the context of service organisations and, in particular, banking sectors in the country of Jordan. As a result, a revised conceptual framework was developed, identifying new critical factors that were relatively neglected in the current literature.

This thesis addressed this research through seven chapters. Chapter One forms the introductory chapter for the thesis. This chapter discussed the importance of this research, research background, research problem, research questions and research aim and objectives. It was acknowledged that frontline employees play a critical role as knowledge brokers between customers and the organisation because the nature of

their jobs provides them with a perfect position from which to access, filter and translate the knowledge they obtain from customers. Previous studies have discussed the role of frontline employees as knowledge brokers, but little attention has been afforded to providing a comprehensive understanding of the phenomenon of KB through frontline employees during service encounters.

Chapter Two provided a critical review of the literature concerning KB through frontline employees. This review highlighted the need for a comprehensive conceptual framework to investigate the role of frontline employees as knowledge brokers and to identify the key factors influencing this role.

Chapter Three presented a proposed conceptual framework for KB through frontline employees during service encounters; this proposed conceptual framework was revised in Chapter Six based on the empirical investigation. The proposed conceptual framework drew upon the critical literature review and utilised the organisational knowledge-creation theory and absorptive capacity theory to explain KB through frontline employees.

Chapter Four provided the research methodology. It discussed the main research philosophy stance, research paradigm, research approach and research method. The chapter also presented an introduction to the research strategy, research data analysis, research quality and ethical considerations. Moreover, this chapter provided a justification for adopting the qualitative ‘interpretative’ methodological approach to the analysis of the empirical data collected from the three organisations using an in-depth multiple case study approach.

Chapter Five provided an overview of the case study organisations, as well as demonstrating the main findings of each case separately, based on the within-case study using the qualitative content analysis technique. In addition, before presenting the main findings of each case, an overview of each organisation was provided.

Chapter Six provided an in-depth discussion of cross-case findings. This chapter also provided a revised conceptual framework for KB through frontline employees during services encounters. This revised conceptual framework illustrated that the KB engaged in by frontline employees during service encounters is affected by four sets

of factors, namely organisation level, individual level, technology level and knowledge level.

Chapter Seven (the current chapter) provides an overview of this research and the conclusions, the research achievement, major findings of the study, research contributions, research limitations and recommendations for further research.

7.3 The Achievement of the Research Aim and Objectives

The research aim in Section 1.5 set out to investigate the role of frontline employees as knowledge brokers between customers and organisation during the service encounter, as well as to identify the critical factors influencing this role. This research aim has been achieved by meeting the four research objectives, as this section describes.

The first objective was to review the related existing literature to examine the role of frontline employees as knowledge brokers during service encounters. In order to achieve this objective, the ranked relevant journals in the field of management has been reviewed and critically discussed in Chapter 2 to provide the theoretical background for this research and to identify the gap in the literature, as in Section 2.7.

The second objective was to propose a conceptual framework to explain the role of frontline employees as knowledge brokers between customers and the organisation, as based on the critical review of related literature. This objective has been achieved through Chapter Three, which offered a conceptual framework illustrating the process of knowledge-brokering through frontline employees during these service encounters.

The third objective was to empirically validate the proposed conceptual framework for KB through frontline employees during these service encounters in the context of the Jordanian Banking Sector. This objective has been accomplished through adopting a qualitative 'interpretative' methodological approach to gathering and analysing empirical data. In total, thirty (30) semi-structured interviews with different informants (i.e. managers and employees) from three top commercial banks in Jordan (X, Y, Z) were carried out. All interviews were face-to-face in these

organisations, with six (6) conducted with frontline employees, 17 interviews performed with employees who worked both on the frontline and as managers, such as sales and service manager, and seven (7) conducted with managers. The interviews lasted between 20 and 80 minutes, and all audio-recorded interviews were transformed to written text through transcribing each interview and then translating the interview text from Arabic to English. Thereafter, a back-translation technique was applied through an independent assistant to test the overall accuracy of the translation, as recommended by Douglas and Craig (2007). Thus, in this type of interview, we prepared some questions for the interview and asked various probing questions depending on the discussion and interviewee answers. However, other data sources, including documents and observations, informed the primary data collection.

The fourth objective was to revise proposed conceptual framework based on the collected case study evidence. Consequently, this objective has been reached based on the findings of a cross-case analysis, with the revised conceptual framework provided in Section 6.4. In order to do so, the qualitative content analysis was used in this work to investigate the phenomena of KB through frontline employees. Hence, content analysis has been used widely in analysing interview transcripts in the case study research (Patton, 2002). In addition, qualitative content analysis has been used to gain more in-depth meaning of the qualitative data. Maylor and Blackmon (2005) recommend the use of qualitative content analysis when the researcher's emphasis is placed on searching out underlying themes. The qualitative content analysis process includes three main stages, namely data preparation, data organisation and findings reporting (Elo and Kyngäs, 2008). However, in this research, Zhang and Waltemath (2009)'s eight steps of qualitative content analysis process was followed in order to analyse the research data. Therefore, the first stage was centred on identifying open codes and then axial coding in order to generate central themes regarding the role of frontline employees as knowledge brokers between the organisation and customers, as well as identifying the main factors influencing this role. In this research, a within-cases analysis was applied for each case in order to extract meaning from the categories or themes at the case level, as

Yin (2014) recommended prior to conducting a cross-case analysis. Thus, in this research, attention was directed towards explaining the procedures of the qualitative content analysis used to analyse the data, with a cross-case synthesis following the within-cases analysis carried out in order to represent the findings of the research. Moreover, in this study, NVivo 11 was used to perform a systematic analysis and to assist in organising the process of coding the transcribed data stemming from the semi-structured interviews, documents and observations.

7.4 Major Findings of the Study

The two processes of knowledge brokering during service encounters are integrative, and the frontline employees' success in knowledge brokering for the organisation first depends on the success of the knowledge brokering for the customers. In this vein, the three banks focused on capturing knowledge about the customers and providing knowledge for the customers during service encounters, whilst obtaining knowledge from the customers received less attention from the three banks' management, particularly at Z bank. Banks X and Y designed various initiatives aimed at encouraging knowledge brokering through the frontline employees from the customer to the organisation. However, brokering customer knowledge through frontline employees was not fulfilled to the extent it should have been because of certain barriers inhibiting the process. Collectively, data from the three organisations revealed that there are four sets of factor affecting this role (organisational level, individual level, technology level and knowledge level).

Organisational-level factors include three main factors. First, organisational support, such as system rewards, training, and appreciation of the role of frontline employees as a source of customer knowledge playing a critical role with respect to encouraging or impeding knowledge brokering through frontline employees. Second, organisational culture either encourages or inhibits frontline employees in serving as knowledge brokers for the organisation. Third, organisational structure, where the analysis of the data from the three banks suggests that the hierarchical organisational structure inhibits customer knowledge brokering for the organisation through frontline employees during service encounters. The hierarchical structures in the three banks, which show its features through high centralisation and formalisation,

makes the flow of customer knowledge from the frontline employees to the top management more complicated through multiple layers.

Individual-level factors comprise sub-factors of workload, prior knowledge, job experience, ability to understand customer knowledge, self-efficacy and awareness about the importance of customer knowledge.

This study indicates that a moderate frontline workload during service encounters helps frontline employees to fulfil the role of knowledge brokering between the organisation and customers, whilst heavy or light frontline workloads hinder success in this role. Frontline employees, through their interaction with many customers, are able to garner knowledge from the customer and will be able to provide knowledge for customers during service encounters. The empirical evidence of this research is consistent with many previous studies, which have found individuals with high self-efficacy to be more willing to contribute their knowledge. Most participants argue that frontline employees possess a higher awareness of the value of the knowledge about the customer and knowledge for the customer compared with knowledge from the customer.

Moreover, it has been found that frontline employees possessing prior customer knowledge, job experience and ability to understanding customer knowledge are better able to work as knowledge brokers for customers (when it comes to obtaining knowledge from the organisation and providing knowledge for the customer) and then for the organisation (in obtaining knowledge from the customers and then transferring this knowledge to the organisation).

Technological-level factors: information systems and, in particular, CRM systems play a critical role in helping frontline employees with respect to creating and sharing customer knowledge within organisations. Frontline employees need useful information systems, such as CRM systems, to help them to manage CK that has been created during service encounters.

Knowledge-level factors: the nature of customer knowledge, namely tacit or explicit, influences frontline employees in acting as knowledge brokers between the organisation and customers. Indeed, due to the fact that the majority of CK being

generated during the service encounter is considered tacit knowledge, frontline employees, in many cases, face a challenge in capturing or sharing this knowledge between customers and the organisation.

7.5 Research Contributions and Implications

This study achieves three kinds of contribution, namely contributions to the knowledge, methodology and practical contribution. First, this study contributes to the literature by presenting a conceptual framework that illustrates the role of frontline employees as knowledge brokers between customers and the organisation, in addition to identifying the main factors that influence this role. Second, this study provides a set of managerial implications for achieving a better understanding of the influential factors inherent in establishing KB, as well as the process carried out when seeking to succeed in KB during the course of frontline bank employees' interactions during service encounters.

7.5.1 Contribution to Theory

This research provides a significant contribution to the body of literature related to the phenomenon of CK brokering through frontline employees and, in particular, to the literature of KM, CKM, KB and KS. This contribution manifests through providing a novel comprehensive framework for KB through frontline employees during service encounters, as illustrated previously in Figure 3.1. This conceptual framework is validated based on the empirical findings using a multiple case study strategy, and is revised based on cross-case findings, as presented in Figure 6.1. In addition, this research contributes to the literature of CKM by using the lens of CKM dimensions (knowledge about, for and from customers) in order to explain the role of frontline employees as knowledge brokers between the organisation and the customers during service encounters.

The review of the literature suggests a lack of studies offering a comprehensive understanding of the role of frontline employees as knowledge brokers during service encounters, as well as the main factors influencing this process. In light of the evolution of the job of frontline employees—which involves more advanced duties, such as transferring knowledge to and from customers—there is a need to

establish a comprehensive framework in order to shed light on the main barriers inhibiting frontline employees in effectively practising this role for the organisation and its customers.

The majority of extant literature has discussed organisations' abilities to manage CK through gathering and utilising this knowledge by means of adopting the absorptive capacity theory (e.g., Foss *et al.*, 2011; Taherparvar *et al.*, 2014; Storey and Larbig, 2017). Furthermore, a great deal of the previous literature has focused on the impact of absorptive capacity on the innovation of organisations (e.g., Vinding, 2006; Chen *et al.*, 2009; Escribano *et al.*, 2009). However, although individuals in organisations are one of the major sources of absorptive capacity, much of the literature has been dedicated to investigating the absorptive capacity of organisations, and they have given less attention to individuals' absorptive capacity (e.g., Cohen and Levinthal, 1990; Zahra and George, 2002). Limited studies have addressed the role of frontline employees' absorptive capacity concerning the transfer of CK between the organisation and customers (e.g., Lam *et al.*, 2016; Chang *et al.*, 2017). The findings of this study extend the absorptive capacity theory through highlighting the importance of frontline employees' prior CK (knowledge for the customer and about the customer) for the success of KB during service encounters. In addition, the empirical findings of this study also suggest that frontline employees' lack of absorptive capacity with respect to understanding knowledge from customers is considered the main barrier inhibiting frontline employees from working as knowledge brokers. However, Zahra and George (2002) divided absorptive capacity into two types: potential and realised absorptive capacity. A potential absorptive capacity includes acquisition and assimilation capabilities, whilst realised absorptive capacity covers transformation and exploitation capabilities. This study also contributes to absorptive capacity theory by shedding light on the importance of frontline employees' potential absorptive capacity in fulfilling the role of knowledge brokers between an organisation and customers during service encounters.

An additional theoretical contribution of this research is provided through distinguishing between two types of KB through frontline employees during service encounters. The findings of this research indicate that frontline employees, through

their position as boundary spanners, can work two types of KB, namely KB for the organisation and KB for the customers. Indeed, most previous studies addressing the role of frontline employees as knowledge brokers have not distinguished between these two types of KB.

Finally, the findings of this research suggest that frontline employees work as knowledge brokers for the customer during service encounters through providing the customer with knowledge (knowledge for the customer) concerning the services and products because this is considered the essence of the frontline employees' role during service encounters. In contrast, their role as knowledge brokers for the organisation, which notably involves capturing and sharing knowledge from the customers and transferring this to the organisation, remains unfulfilled because of a group of barriers existing at multiple levels.

7.5.2 Contributions to Methodology

As mentioned in Chapter Two of this thesis, there is a lack of qualitative studies addressing KB through frontline employees, with most previous studies conceptual or having collected data quantitatively, as illustrated in Table 2-3. Therefore, this study is one of few to adopt a qualitative approach in order to collect rich data concerning KB through frontline employees. Furthermore, the central focus of this research is centred on obtaining knowledge from a management perspective, whilst previous studies have focused solely on the perspective of frontline employees. As explained in Chapter Four, the interpretivism approach is employed to investigate the role of frontline employees as knowledge brokers between customers and organisation, with the qualitative methodology and multiple case studies utilised as a research strategy for data collection.

Moreover, the qualitative content analysis used in this research is based on the deductive interpretation to validate the conceptual framework. Inductive interpretation is also used in the analysis to allow new patterns that previously did not exist in the conceptual framework to emerge. Hence, this research utilises a combination of inductive and deductive approaches during the analysis to gain the full advantages of qualitative content analysis.

7.5.3 Contributions to Practice

The findings of this research propose several practical contributions to service organisations regarding how frontline employees' role as knowledge brokers can be developed in two ways—and, in particular, from the customers to the organisations. In addition, the conceptual framework of this research provides a roadmap for bank managers in Jordan to tap into frontline employees' role as knowledge brokers during service encounters by understanding the main factors influencing KB through frontline employees during service encounters.

Jordanian commercial banks are facing elevated levels of competition from both local banks and foreign banks that work in Jordan. Therefore, possessing CK is considered the primary source of competitive advantage in this troubled environment. To this end, obtaining the CK created during service encounters is crucial for the bank's management to continue improving services and products. The empirical examination of this research suggests that frontline employees in three banks act as knowledge brokers for customers more so than for the organisation. As such, Jordan's banking management needs to overcome the barriers inhibiting frontline bank employees from engaging in KB to the organisation. The findings of this research suggest that organisational support is critical for encouraging the frontline employees to act as knowledge brokers for the organisation. Hence, banks' management must recognise the frontline employees as a primary source of CK and involve them in the early stages of the new service development process. Moreover, the banks' management needs to provide adequate training that helps frontline employees to capture and share knowledge from customers. In addition, managers need to link a system that rewards frontline employees for their contribution of transferring knowledge from the customer to the organisation, because the lack of rewards comprises one of the main barriers that inhibit frontline employees in acting as knowledge brokers to the organisation.

The empirical evidence of this research reveals that frontline employees' potential absorptive capacity plays a vital role with respect to helping them act as knowledge brokers for the customers and then for the organisation. Thus, management has to improve the absorptive capacity of their frontline employees in order to help them to

understand knowledge from customers through providing frontline employees with all of the knowledge for the customers that they require during service encounters. In addition, the results of this research stress that the organisational culture, and KS culture in particular, has a significant influence on CK brokering through frontline employees. In this vein, top management needs to support a KS culture within the organisation, both formally and informally, so as to encourage KB through frontline employees.

Additionally, the findings of this research reveal that a hierarchical organisational structure has a negative impact on the success of KB through frontline employees during service encounters because the multiple layers impede the flow of CK between frontline employees and top management. Hence, having an open communication channel between top management and frontline employees helps to share CK between frontline employees and top management; this, in turn, encourages KB during service encounters.

This study suggests that high and low workloads during service encounters hamper KB through frontline employees, whilst a moderate workload is considered the best setting for successful KB during service encounters. For this reason, bank management needs to appoint an adequate number of frontline employees in order to keep the workload at a moderate level, and it needs to encourage customers to use online and mobile services that decrease workload during service encounters.

Furthermore, this study highlights the importance of CRM systems in helping frontline employees to act as knowledge brokers because CRM systems provide full knowledge about and for customers during service encounters; this will help frontline employees to focus more so on acquiring knowledge from customers. Bank management needs to adopt a full CRM system in order to maintain a long relationship with customers, and using a CRM system will reduce workload during service encounters through providing full prior CK required by frontline employees during service encounters. Overall, the results of this research seek to encourage service organisation managers to give attention to their frontline employees and to reconsider them as valuable sources of knowledge from customers. Moreover, they need to recognise frontline employees' role as knowledge brokers in two ways: for

customers and for the organisation. Beyond this, they need to provide organisational support to employees to develop their absorptive capacity so as to understand the CK created during service encounters.

7.6 Limitations and Directions for Future Research

While this research offers novel contributions to the understanding of the phenomenon of KB during service encounters, it is still subject to some limitations. These limitations stem from several sources, with the first being the interpretive paradigm and qualitative method adopted in this research, as mentioned in Chapter 4. Some criticisms have been associated with this method, such as bias in the interpretation of research data. However, in an effort to minimise the probability of bias in this research, a triangulation strategy was employed throughout the data-collection process. Hence, future studies might be conducted using the quantitative method to collect data through questionnaires with the intention of validating the findings of this research in the Jordanian context.

In addition, the qualitative methodology applied in this research (i.e. multiple case study strategy) is considered a time-consuming methodology compared to other research methods. In this research, gathering and analysing data from three organisations took more than a year to complete, in particular the act of transcribing each interview and then translating the interview text from Arabic to English, ensuring meaning is not missed during translation.

The second limitation concerns the generalisability of these results. This study was conducted in Jordan as a rich developing country context and in particular in the banking sector as a type of service organisation. Although this context might undermine the generalisability of this research, it allowed for controlling for cultural and industrial differences in the analysis. Therefore, conducting future research in other service organisations or public organisations in Jordan or other countries might lead to a more comprehensive understanding of the phenomenon of KB through frontline employees during service encounters.

Third, this study addresses the research problem from organisations' perspective concerning the role of frontline employees as knowledge brokers, as well as

identifying the main factors impacting this role. Future research could focus on customers' perspectives when it comes to the role played by frontline employees as knowledge brokers.

Fourth, the empirical findings of this research reveal that one of the main barriers inhibiting KB through frontline employees is the absence of full CRM systems (operational, analytical, and collaborative) in the three organisations. Therefore, it would be worthwhile for future research to investigate the role of the frontline employees as knowledge brokers in some organisations that have adopted full CRM systems in order to test the extent of their impact on frontline employees' role as knowledge brokers.

Finally, this research does not address the impact of frontline employees' personality traits on their behaviour as knowledge brokers due to time limitations and the purely interpretivist nature of this research. In addition, this study intended to identify the main factors influencing KB through frontline employees during service encounters, excluding personality traits. Therefore, a promising research opportunity is centred on exploring how the five main personality traits (i.e. conscientiousness, extraversion, openness, neuroticism, and agreeableness) affect the KB behaviour of frontline employees.

7.7 Chapter Summary

This is the closing chapter, and it has provided a summary of all of the research stages and highlighted the achievements of the research aim and objectives. Furthermore, it has also presented the conclusion of this study and its contributions, namely theoretical, methodological and practical. Beyond this, this chapter has presented the main limitations that have faced this research, in addition to suggesting the directions for future research.

In summary, this research sought to provide a deep understanding of the phenomenon of KB through frontline employees during service encounters. Furthermore, this research is considered the first step to providing a holistic understanding of the factors influencing frontline employees' role as knowledge brokers for customers and organisations. Thus, the researcher hopes, through the

results of this study, to help service organisations to develop the role of frontline employees as knowledge brokers through overcoming the barriers that inhibit them in fulfilling this role.

References

- Abbate, T. and Coppolino, R. (2011) 'Knowledge creation through knowledge brokers: some anecdotal evidence', *Journal of Management Control*, 22(3), pp. 359-371.
- Agnihotri, R., Rapp, A.A. and Gabler, C.B. (2013) 'Examining the drivers and performance implications of boundary spanner creativity', *Journal of Service Research*, , pp. 1094670513506494.
- Ajlouni, M.I.A. (2013) 'The Relationship between Knowledge Management and Empowerment of Administrative on Organizational Trust', *Eur.J.Bus.Manage*, 5, pp. 230-237.
- Al Saifi, S., Dillon, S. and McQueen, R. (2016a) 'The relationship between management support and knowledge sharing: An exploratory study of manufacturing firms', *Knowledge and Process Management*, 23(2), pp. 124-135.
- Al Saifi, S.A., Dillon, S. and McQueen, R. (2016b) 'The relationship between face to face social networks and knowledge sharing: an exploratory study of manufacturing firms', *Journal of knowledge management*, 20(2), pp. 308-326.
- Al-abedallat, A.Z. (2017) 'The Role of the Jordanian Banking Sector in Economic Development', *International Business Research*, 10(4), pp. 139.
- Al-Alawi, A.I., Al-Marzooqi, N.Y. and Mohammed, Y.F. (2007), "Organizational culture and knowledge sharing: critical success factors", *Journal of Knowledge management*, Vol. 11 No. 2, pp. 22-4
- Alalwan, A.A., Dwivedi, Y.K. and Rana, N.P. (2017) 'Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust', *International Journal of Information Management*, 37(3), pp. 99-110.
- Alavi, M. and Leidner, D.E. (2001) 'Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues', *MIS quarterly*, , pp. 107-136.
- Al-Azzam, A.F.M., 2015. The impact of service quality dimensions on customer satisfaction: A field study of Arab bank in Irbid city, Jordan. *European Journal of Business and Management*, 7(15), pp.45-54.
- Al-Hawamdeh, S. (2003) *Knowledge management: cultivating knowledge professionals*. Elsevier..
- Alhawari, S. (2014) 'Improving decision for banking to support customer knowledge retention: a quantitative study in Jordanian banking sector', *International Journal of Electronic Customer Relationship Management*, 8(1-3), pp. 119-135.
- Al-jazzazi, A., Sultan, P. and Sultan, P. (2017) 'Demographic differences in Jordanian bank service quality perceptions', *International Journal of Bank Marketing*, 35(2), pp. 275-297.
- AlKailani, M. (2016) 'Factors Affecting the Adoption of Internet Banking in Jordan: An Extended TAM Model', *Journal of Marketing Development and Competitiveness*, 10(1), pp. 39.

-
- Alnsour, M.S. and Al-Hyari, K.H.A.L.I.L., 2011. Internet banking and Jordanian corporate customers: issues of security and trust. *Journal of Internet Banking and Commerce*, 16(1), pp.1-14.
- Altarawneh, I. (2009), 'Training and development evaluation in Jordanian banking organisations', *Research and Practice in Human Resource Management*, 17, 1, 1-23.
- Al-Zyadat, A.Y. 'Reviewing the Quality of Banking Services in Jordanian Commercial Banks', .
- Amayah, A. (2013). Determinants of Knowledge-sharing in a Public Sector Organisation. *Journal of Knowledge Management*, 17(3), pp. 454–471
- Anaza, N.A. and Nowlin, E.L. (2017) 'What's mine is mine: A study of salesperson knowledge withholding & hoarding behavior', *Industrial Marketing Management*, .
- Angur, M.G., Nataraajan, R. and Jahera Jr, J.S. (1999) 'Service quality in the banking industry: an assessment in a developing economy', *International journal of bank marketing*, 17(3), pp. 116-125.
- Anthony K. Tjan Listen to Your Frontline Employees. Available at: <https://hbr.org/2012/04/listen-to-your-frontline-emplo.html> (Accessed: 01/08 2016).
- Association of Banks in Jordan (2017). Available at: <http://abj.org.jo/ABJs-Booklets> (Accessed: 07/20 2017).
- Azzam, K. (2014) 'The Impact of Customer Relationship Management on Customer Satisfaction in the Banking Industry–A Case of Jordan', *European Journal of Business and Management*, 6(32).
- Baker, M.J. and Foy, A. (2008) *Business and management research: how to complete your research project successfully*. Westburn Publishers.
- Bandura, A. (1986) 'The explanatory and predictive scope of self-efficacy theory', *Journal of social and clinical psychology*, 4(3), pp. 359-373.
- Bartol, K.M. and Srivastava, A. (2002) 'Encouraging knowledge sharing: The role of organizational reward systems', *Journal of Leadership & Organizational Studies*, 9(1), pp. 64-76.
- Bazeley, P. and Jackson, K. (2013) *Qualitative data analysis with NVivo*. Sage Publications Limited.
- BBC (2017) Jordan country profile. Available at: <http://www.bbc.co.uk/news/world-middle-east-14631981> (Accessed: 20/3/2017 2017).
- Beck, C.T. (1993) 'Qualitative research: The evaluation of its credibility, fittingness, and auditability', *Western journal of nursing research*, 15(2), pp. 263-266.
- Beesley, L.G. and Chalip, L. (2011) 'Seeking (and not seeking) to leverage mega-sport events in non-host destinations: The case of Shanghai and the Beijing Olympics', *Journal of Sport & Tourism*, 16(4), pp. 323-344.

-
- Benbasat, I., Goldstein, D.K. and Mead, M. (1987) 'The case research strategy in studies of information systems', *MIS quarterly*, , pp. 369-386.
- Berg, W.E., Verbeke, W., Bagozzi, R.P., Worm, L., Jong, A.A. and Nijssen, E. (2014) 'Salespersons as internal knowledge brokers and new products selling: Discovering the link to genetic makeup', *Journal of Product Innovation Management*, 31(4), pp. 695-709.
- Bhat, S.A. and Darzi, M.A. (2016) 'Customer relationship management: An approach to competitive advantage in the banking sector by exploring the mediational role of loyalty', *International Journal of Bank Marketing*, 34(3), pp. 388-410.
- Bitner, M.J., Brown, S.W. and Meuter, M.L. (2000) 'Technology infusion in service encounters', *Journal of the Academy of marketing Science*, 28(1), pp. 138-149.
- Blumberg, B.F., Cooper, D.R. and Schindler, P.S. (2014) *Business research methods*. McGraw-hill education.
- Boari, C. and Riboldazzi, F. (2014) 'How knowledge brokers emerge and evolve: The role of actors' behaviour', *Research Policy*, 43(4), pp. 683-695.
- Boateng, H. and Agyemang, F.G. (2016) 'A qualitative insight into key determinants of knowledge sharing in a public sector institution in Ghana', *Information Development*, 32(1), pp. 35-43.
- Bock, G. and Kim, Y. (2001) 'Breaking the myths of rewards: An exploratory study of attitudes about knowledge sharing', *Pacific 2001 proceedings*, , pp. 78.
- Bock, G., Zmud, R.W., Kim, Y. and Lee, J. (2005) 'Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate', *MIS quarterly*, , pp. 87-111.
- Boeije, H. (2010) *Analysis in Qualitative Research*. London: Sage Publications.
- Bogdan, R.C. and Biklen, S.K. (1998) 'Foundations of qualitative research in education', *Qualitative research in education: An introduction to theory and methods*, , pp. 1-48.
- Bourini, F., Khawaldeh, K. and Al-Qudah, S. (2013) 'The Role of Knowledge Management in Banks Sector (Analytical Study-Jordan)', *Interdisciplinary Journal of Contemporary Research in Business*, 5(3), pp. 53-77.
- Bowen, D.E. (2016) 'The changing role of employees in service theory and practice: An interdisciplinary view', *Human Resource Management Review*, 26(1), pp. 4-13.
- Bretschneider, U. and Zogaj, S. (2016) 'Exploring Strategies for Capturing Customer's Tacit Knowledge in Customer Integration Methods', *International Journal of Knowledge Management (IJKM)*, 12(2), pp. 1-19.
- Bryman, A. (2016) *Social research methods*. Oxford university press.
- Bryman, A. and Bell, E. (2015) *Business research methods*. Oxford University Press, USA.

-
- Burgess, N. and Currie, G. (2013) 'The knowledge brokering role of the hybrid middle level manager: The case of healthcare', *British Journal of Management*, 24(S1).
- Burt, R.S. (2004) 'Structural holes and good ideas', *American journal of sociology*, 110(2), pp. 349-399.
- Busch, P. (2008) *Tacit knowledge in organizational learning*. Igi Global.
- Cabrera, A., Collins, W.C. and Salgado, J.F. (2006) 'Determinants of individual engagement in knowledge sharing', *The International Journal of Human Resource Management*, 17(2), pp. 245-264.
- Cabrera, E.F. and Cabrera, A. (2005) 'Fostering knowledge sharing through people management practices', *The international journal of human resource management*, 16(5), pp. 720-735.
- Cadwallader, S., Jarvis, C.B., Bitner, M.J. and Ostrom, A.L. (2010) 'Frontline employee motivation to participate in service innovation implementation', *Journal of the Academy of Marketing Science*, 38(2), pp. 219-239.
- Caimo, A. and Lomi, A. (2014) 'Knowledge-sharing in Organizations A Bayesian Analysis of the Role of Reciprocity and Formal Structure', *Journal of Management*, , pp. 0149206314552192.
- Calantone, R., Cavusgil, S. & Zhao, Y. (2002). Learning Orientation, Firm Innovation Capability, and Firm Performance. *Industrial Marketing Management*, 31(6), pp. 515–524.
- Cameron, K.S. and Quinn, R.E. (2005) *Diagnosing and changing organizational culture: Based on the competing values framework*. John Wiley & Sons.
- Campbell, A.J. (2003) 'Creating customer knowledge competence: managing customer relationship management programs strategically', *Industrial marketing management*, 32(5), pp. 375-383.
- Carlile, P.R. (2004) 'Transferring, translating, and transforming: An integrative framework for managing knowledge across boundaries', *Organization science*, 15(5), pp. 555-568.
- Casey, V., Crooks, V., Snyder, J. and Turner, L. (2013). Knowledge brokers, companions, and navigators: a qualitative examination of informal caregivers' roles in medical tourism. *International Journal for Equity in Health*, 12(1), p.94.
- Casimir, G., Lee, K. and Loon, M. (2012) 'Knowledge sharing: influences of trust, commitment and cost', *Journal of knowledge management*, 16(5), pp. 740-753.
- Cavaliere, V. and Lombardi, S. (2015) 'Exploring different cultural configurations: how do they affect subsidiaries' knowledge sharing behaviors?', *Journal of Knowledge Management*, 19(2), pp. 141-163.
- Celuch, K., Robinson, N.M. and Walsh, A.M. (2015) 'A framework for encouraging retail customer feedback', *Journal of Services Marketing*, 29(4), pp. 280-292.
- Central Bank of Jordan (2017) *Financial Sector Directory*. Available at: <http://www.cbj.gov.jo/> (Accessed: 25/7/2017 2017).
-

-
- Chaffey, D. and Wood, S. (2005). *Business Information Management*. Pearson Education UK.
- Chang, S., Way, S.A. and Cheng, D.H. (2017) 'The Elicitation of Frontline, Customer-Contact, Hotel Employee Innovative Behavior: Illuminating the Central Roles of Readiness for Change and Absorptive Capacity', *Cornell Hospitality Quarterly*, pp. 1938965517734940.
- Chen, C. and Huang, J. (2007). How organizational climate and structure affect knowledge management—The social interaction perspective. *International Journal of Information Management*, 27(2), pp.104-118.
- Chen, I.J. and Popovich, K. (2003) 'Understanding customer relationship management (CRM) People, process and technology', *Business process management journal*, 9(5), pp. 672-688.
- Chen, J. and Wu, S. (2016) 'The impact of customer relationship management and internal marketing on business performance: a comparison of lodging industries', *Total Quality Management & Business Excellence*, 27(1-2), pp. 17-33.
- Chen, W. and Cheng, H. (2012) 'Factors affecting the knowledge sharing attitude of hotel service personnel', *International Journal of Hospitality Management*, 31(2), pp. 468-476.
- Chen, Y. and Su, C. (2006) 'A Kano-CKM model for customer knowledge discovery', *Total Quality Management & Business Excellence*, 17(5), pp. 589-608.
- Chen, Y., Lin, M.J. and Chang, C. (2009) 'The positive effects of relationship learning and absorptive capacity on innovation performance and competitive advantage in industrial markets', *Industrial Marketing Management*, 38(2), pp. 152-158.
- Choi, B. and Lee, H. (2003) 'An empirical investigation of KM styles and their effect on corporate performance', *Information & Management*, 40(5), pp. 403-417.
- Chow, W. and Chan, L. (2008) 'Social network, social trust and shared goals in organizational knowledge sharing' *Information & Management*, 45(7), pp.458-465.
- Chua, A.Y. and Banerjee, S. (2013) 'Customer knowledge management via social media: the case of Starbucks', *Journal of Knowledge Management*, 17(2), pp. 237-249.
- Cillo, P. (2005) 'Fostering Market Knowledge Use in Innovation:: The Role of Internal Brokers', *European Management Journal*, 23(4), pp. 404-412.
- Coelho, F.J., Lages, C.R. and Sousa, C.M. (2016) 'Personality and the creativity of frontline service employees: linear and curvilinear effects', *The International Journal of Human Resource Management*, , pp. 1-28.
- Cohen, W.M. and Levinthal, D.A., 1990. Absorptive capacity: A new perspective on learning and innovation. *Administrative science quarterly*, pp.128-152.

-
- Collis, J. and Hussey, R. (2009) *Business research: A practical guide for undergraduate and postgraduate students*. Palgrave macmillan.
- Conklin, J., Lusk, E., Harris, M. and Stolee, P. (2013) 'Knowledge brokers in a knowledge network: the case of Seniors Health Research Transfer Network knowledge brokers', *Implementation science : IS*, 8, pp. 7-5908-8-7.
- Connelly, C.E. and Kevin Kelloway, E. (2003) 'Predictors of employees' perceptions of knowledge sharing cultures', *Leadership & Organization Development Journal*, 24(5), pp. 294-301.
- Creswell, J. (1998). 'Qualitative inquiry and research design'. Thousand Oaks, Calif.: Sage Publications.
- Creswell, J.W. (2002) *Educational research: Planning, conducting, and evaluating quantitative*. Prentice Hall Upper Saddle River, NJ.
- Creswell, J.W. (2009) *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Currie, G. and White, L. (2012) 'Inter-professional barriers and knowledge brokering in an organizational context: the case of healthcare', *Organization Studies*, 33(10), pp. 1333-1361.
- Daneshgar, F. and Bosanquet, L. (2010) 'Organizing customer knowledge in academic libraries', *Electronic Journal of Knowledge Management*, 8(1), pp. 21-32.
- Daneshgar, F. and Parirokh, M. (2012) 'An Integrated Customer Knowledge Management Framework for Academic Libraries1', *The Library*, 82(1).
- Davenport, T.H. and Prusak, L. (1998) *Working knowledge: How organizations manage what they know*. Harvard Business Press.
- Davenport, T.H., Harris, J.G. and Kohli, A.K. (2001) 'How do they know their customers so well?', *MIT Sloan Management Review*, 42(2), pp. 63.
- De Long, D. and Fahey, L. (2000) 'Diagnosing cultural barriers to knowledge management', *The Academy of management executive*, 14(4), pp. 113-127.
- Delmestri, G. and Walgenbach, P. (2005) 'Mastering techniques or brokering knowledge? Middle managers in Germany, Great Britain and Italy', *Organization Studies*, 26(2), pp. 197-220.
- Deshpandé, R. and Webster, F.E. (1989), "Organizational culture and marketing: defining the research
- Disterer, G. (2001) 'Individual and social barriers to knowledge transfer', *System Sciences*, 2001. Proceedings of the 34th Annual Hawaii International Conference on. IEEE, 7 pp.
- Dobbins, M., Robeson, P., Ciliska, D., Hanna, S., Cameron, R., O'Mara, L., DeCorby, K. and Mercer, S. (2009) 'A description of a knowledge broker role implemented as part of a randomized controlled trial evaluating three knowledge translation strategies', *Implementation science*, 4(1), pp. 23.

-
- Donaldson, L. (1999) 'The normal science of structural contingency theory', *Studying Organizations: Theory and Method*. Thousand Oaks, Calif: Sage, , pp. 51-70.
- Donavan, D.T., Brown, T.J. and Mowen, J.C. (2004) 'Internal benefits of service-worker customer orientation: Job satisfaction, commitment, and organizational citizenship behaviors', *Journal of Marketing*, 68(1), pp. 128-146.
- Dougherty, D. (1992) 'A practice centered model of organizational renewal through product innovation', *Strategic Management Journal*, 13(S1), pp. 77-92.
- Douglas, S.P. and Craig, C.S. (2007) 'Collaborative and iterative translation: An alternative approach to back translation', *Journal of International Marketing*, 15(1), pp. 30-43.
- Drisko, J.W. and Maschi, T. (2015) *Content analysis. Pocket Guides to Social Work R*.
- Drucker, P.F. (1959) 'Long-Range Planning-Challenge to Management Science', *Management Science*, 5(3), pp. 238-249.
- Dubé, L. and Paré, G. (2003) 'Rigor in information systems positivist case research: current practices, trends, and recommendations', *MIS quarterly*, , pp. 597-636.
- Easterby-Smith, M., Thorpe, R. and Jackson, P.R. (2015) *Management and business research*. Sage.
- Edvinsson, L. and Malone, M.S., 1997. *Intellectual Capital: Realizing Your Company's True Value by Finding Its Hidden Brainpower*.
- Eisenberger, R., Huntington, R., Hutchison, S. and Sowa, D. (1986) 'Perceived organizational support.', *Journal of Applied Psychology*, 71(3), pp. 500.
- Eisenhardt, K.M. (1989) 'Building theories from case study research', *Academy of management review*, 14(4), pp. 532-550.
- Ellinger, A.E., Elmadağ, A.B. and Ellinger, A.D. (2007) 'An examination of organizations' frontline service employee development practices', *Human Resource Development Quarterly*, 18(3), pp. 293-314.
- Ellram, L.M. (1996) 'The use of the case study method in logistics research', *Journal of business logistics*, 17(2), pp. 93.
- Elo, S. and Kyngäs, H. (2008) 'The qualitative content analysis process', *Journal of advanced nursing*, 62(1), pp. 107-115.
- Emerson, R.M. (1976) 'Social exchange theory', *Annual review of sociology*, 2(1), pp. 335-362.
- Engen, M. and Magnusson, P. (2015) 'Exploring the role of front-line employees as innovators', *The Service Industries Journal*, 35(6), pp. 303-324.
- Erden, Z., von Krogh, G. and Nonaka, I. (2008). The quality of group tacit knowledge. *The Journal of Strategic Information Systems*, 17(1), pp.4-18.

-
- Escribano, A., Fosfuri, A. and Tribó, J.A. (2009) 'Managing external knowledge flows: The moderating role of absorptive capacity', *Research policy*, 38(1), pp. 96-105.
- Fernandez, R.M. and Gould, R.V. (1994) 'A dilemma of state power: Brokerage and influence in the national health policy domain', *American journal of Sociology*, 99(6), pp. 1455-1491.
- Fernie, S., Green, S.D., Weller, S.J. and Newcombe, R., (2003). ' Knowledge sharing: context, confusion and controversy'. *International Journal of Project Management*, 21(3), pp.177-187.
- Fey, C. and Furu, P. (2008). Top management incentive compensation and knowledge-sharing in multinational corporations. *Strat. Mgmt. J.*, 29(12), pp.1301-1323.
- Fisher, H.R. (2001) 'The needs of parents with chronically sick children: a literature review', *Journal of advanced nursing*, 36(4), pp. 600-607.
- Fitzpatrick, R. and Boulton, M. (1994) 'Qualitative methods for assessing health care', *Quality in health care : QHC*, 3(2), pp. 107-113.
- Flick, U. (2014) *An introduction to qualitative research*. Sage.
- Ford, D., Myrden, S. and Jones, T. (2015). Understanding “disengagement from knowledge sharing”: engagement theory versus adaptive cost theory. *J of Knowledge Management*, 19(3), pp.476-496.
- Foss, N.J., Laursen, K. and Pedersen, T. (2011) 'Linking customer interaction and innovation: The mediating role of new organizational practices', *Organization Science*, 22(4), pp. 980-999.
- Friesl, M., Sackmann, S.A. and Kremser, S. (2011) 'Knowledge sharing in new organizational entities: The impact of hierarchy, organizational context, micro-politics and suspicion', *Cross Cultural Management: An International Journal*, 18(1), pp. 71-86.
- Gagnon, M.L. (2011) 'Moving knowledge to action through dissemination and exchange', *Journal of clinical epidemiology*, 64(1), pp. 25-31.
- Garcia-Murillo, M. and Annabi, H. (2002) 'Customer knowledge management', *Journal of the Operational Research society*, 53(8), pp. 875-884.
- Garrido-Moreno, A. and Padilla-Meléndez, A. (2011) 'Analyzing the impact of knowledge management on CRM success: The mediating effects of organizational factors', *International Journal of Information Management*, 31(5), pp. 437-444.
- Gebert, H., Geib, M., Kolbe, L. and Brenner, W. (2003) 'Knowledge-enabled customer relationship management: integrating customer relationship management and knowledge management concepts [1]', *Journal of knowledge management*, 7(5), pp. 107-123.
- Gebert, H., Geib, M., Kolbe, L. and Riempp, G. (2002) 'Towards customer knowledge management: Integrating customer relationship management and

-
- knowledge management concepts', *The Second International Conference on Electronic Business (ICEB 2002)*, , 296-298.
- Gerrish, K., McDonnell, A., Nolan, M., Guillaume, L., Kirshbaum, M. and Tod, A. (2011) 'The role of advanced practice nurses in knowledge brokering as a means of promoting evidence-based practice among clinical nurses', *Journal of advanced nursing*, 67(9), pp. 2004-2014.
- Ghuri, P.N. and Grønhaug, K. (2010) *Research methods in business studies: A practical guide*. Pearson Education.
- Giannakis, M., (2008) 'Facilitating learning and knowledge transfer through supplier development'. *Supply Chain Management: An International Journal*, 13(1), pp.62-72.
- Gibbert, M., Leibold, M. and Probst, G. (2002)' Five Styles of Customer Knowledge Management, and How Smart Companies Use Them To Create Value. *European Management Journal*, 20(5), pp.459-469.
- Gibbert, M., Ruigrok, W. and Wicki, B. (2008) 'What passes as a rigorous case study?', *Strategic Management Journal*, 29(13), pp. 1465-1474.
- Goh, S.C. (2002) 'Managing effective knowledge transfer: an integrative framework and some practice implications', *Journal of knowledge management*, 6(1), pp. 23-30.
- Gohary, A. and Hamzeli, B. (2016) 'Modeling customer knowledge management to make value co-creation', *Business Information Review*, 33(1), pp. 19-27.
- Golafshani, N. (2003) 'Understanding reliability and validity in qualitative research', *The qualitative report*, 8(4), pp. 597-606.
- Gomezelj Omerzel, D. and Antoncic, B. (2008) 'Critical entrepreneur knowledge dimensions for the SME performance', *Industrial Management & Data Systems*, 108(9), pp. 1182-1199.
- Gould, R.V. and Fernandez, R.M. (1989) 'Structures of mediation: A formal approach to brokerage in transaction networks', *Sociological methodology*, , pp. 89-126.
- Graneheim, U.H. and Lundman, B. (2004) 'Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness', *Nurse education today*, 24(2), pp. 105-112.
- Green, J. and Thorogood, N. (2014) *Qualitative methods for health research*. Sage.
- Griffiee, D.T. (2005) 'Research tips: Interview data collection', *Journal of Developmental Education*, 28(3), pp. 36.
- Griffith, T.L. and Sawyer, J.E. (2010) 'Multilevel knowledge and team performance', *Journal of Organizational Behavior*, 31(7), pp. 1003-1031.
- Grimpe, C. and Sofka, W. (2009) 'Search patterns and absorptive capacity: Low-and high-technology sectors in European countries', *Research Policy*, 38(3), pp. 495-506.

-
- Grimpe, C. and Sofka, W. (2009) 'Search patterns and absorptive capacity: Low-and high-technology sectors in European countries', *Research Policy*, 38(3), pp. 495-506.
- Guba, E.G. and Lincoln, Y.S. (1981) *Effective evaluation: Improving the usefulness of evaluation results through responsive and naturalistic approaches*. Jossey-Bass.
- Guba, E.G. and Lincoln, Y.S. (1994) 'Competing paradigms in qualitative research', *Handbook of qualitative research*, 2(163-194), pp. 105.
- Haas, A. (2015) 'Crowding at the frontier: boundary spanners, gatekeepers and knowledge brokers', *Journal of Knowledge Management*, 19(5), pp. 1029-1047.
- Hackney, R., Desouza, K.C. and Irani, Z. (2008) 'Constructing and sustaining competitive interorganizational knowledge networks: An analysis of managerial web-based facilitation', *Information Systems Management*, 25(4), pp. 356-363.
- Hall, C.M. and Williams, A., 2008. *Tourism and innovation*. Routledge.
- Hallin, C.A. and Marnburg, E. (2008) 'Knowledge management in the hospitality industry: A review of empirical research', *Tourism Management*, 29(2), pp. 366-381.
- Hammami, H., Amara, N. and Landry, R. (2013) 'Organizational climate and its influence on brokers' knowledge transfer activities: A structural equation modeling', *International Journal of Information Management*, 33(1), pp. 105-118.
- Han, T., Chiang, H. and Chang, A. (2010) 'Employee participation in decision making, psychological ownership and knowledge sharing: mediating role of organizational commitment in Taiwanese high-tech organizations', *The International Journal of Human Resource Management*, 21(12), pp. 2218-2233.
- Hansen, H. (2003) 'Antecedents to consumers' disclosing intimacy with service employees', *Journal of services marketing*, 17(6), pp. 573-588.
- Hargadon, A. and Sutton, R.I. (1997) 'Technology brokering and innovation in a product development firm', *Administrative Science Quarterly*, , pp. 716-749.
- Hargadon, A.B. (2002) 'Brokering knowledge: Linking learning and innovation', *Research in Organizational behavior*, 24, pp. 41-85.
- Hargadon, A.B., 1998. *Firms as knowledge brokers: lessons in pursuing continuous innovation*. *California management review*, 40(3), pp.209-227.
- Hau, Y., Kim, B., Lee, H. & Kim, Y. (2013). *The Effects of Individual Motivations and Social Capital on Employees' Tacit and Explicit Knowledge Sharing Intentions*. *International Journal of Information Management*, 33(2), pp. 356-366.
- Hawryszkiewicz, I. (2009) *Knowledge Management: Organizing Knowledge Based Enterprises* Author: Igor Hawryszkiewicz, Publisher: Palgrave Macmillan P',

-
- Helkkula, A. and Pihlström, M. (2010) 'Narratives and metaphors in service development', *Qualitative Market Research: An International Journal*, 13(4), pp. 354-371.
- Hendriks, P. (1999). Why Share Knowledge? The Influence of ICT on the Motivation for Knowledge Sharing. *Knowl. Process Mgmt.*, 6(2), pp. 91–100.
- Hew, K.F. and Hara, N. (2007) 'Knowledge sharing in online environments: A qualitative case study', *Journal of the Association for Information Science and Technology*, 58(14), pp. 2310-2324.
- Hicks, B., Culley, S., Allen, R. and Mullineux, G. (2002) 'A framework for the requirements of capturing, storing and reusing information and knowledge in engineering design', *International Journal of Information Management*, 22(4), pp. 263-280.
- Hislop, D. (2013) *Knowledge management in organizations: A critical introduction*. Oxford University Press.
- Holden, M.T. and Lynch, P. (2004) 'Choosing the appropriate methodology: understanding research philosophy', *The marketing review*, 4(4), pp. 397-409
- Holzmann, V. (2013) 'A meta-analysis of brokering knowledge in project management', *International Journal of Project Management*, 31(1), pp. 2-13.
- Homburg, C., Wieseke, J. and Bornemann, T. (2009) 'Implementing the marketing concept at the employee–customer interface: the role of customer need knowledge', *Journal of Marketing*, 73(4), pp. 64-81.
- Hong, D., Suh, E. and Koo, C. (2011) 'Developing strategies for overcoming barriers to knowledge sharing based on conversational knowledge management: A case study of a financial company', *Expert Systems with Applications*, 38(12), pp. 14417-14427.
- Hsieh, H. and Shannon, S.E. (2005) 'Three approaches to qualitative content analysis', *Qualitative health research*, 15(9), pp. 1277-1288.
- Hsu, D.H. and Lim, K. (2014) 'Knowledge brokering and organizational innovation: Founder imprinting effects', *Organization Science*, 25(4), pp. 1134-1153.
- Hsu, M., Ju, T.L., Yen, C. and Chang, C. (2007) 'Knowledge sharing behavior in virtual communities: The relationship between trust, self-efficacy, and outcome expectations', *International journal of human-computer studies*, 65(2), pp. 153-169.
- Hu, H., Parsa, H., Chen, C. and Hu, H. (2016) 'Factors affecting employee willingness to report customer feedback', *The Service Industries Journal*, 36(1-2), pp. 21-36.
- Hung, S., Durcikova, A., Lai, H. and Lin, W. (2011) 'The influence of intrinsic and extrinsic motivation on individuals' knowledge sharing behavior', *International Journal of Human-Computer Studies*, 69(6), pp. 415-427.

-
- Hung, S., Durcikova, A., Lai, H. and Lin, W. (2011) 'The influence of intrinsic and extrinsic motivation on individuals' knowledge sharing behavior', *International Journal of Human-Computer Studies*, 69(6), pp. 415-427.
- Hunter, G.K. and Panagopoulos, N.G. (2015) 'Commitment to technological change, sales force intelligence norms, and salesperson key outcomes', *Industrial Marketing Management*, 50, pp. 162-179.
- Huysman, M. and De Wit, D. (2002) *Knowledge-sharing in practice*. Springer Science & Business Media.
- Huysman, M. and De Wit, D. (2004) 'Practices of managing knowledge sharing: towards a second wave of knowledge management', *Knowledge and process management*, 11(2), pp. 81-92.
- Ipe, M. (2003). *Knowledge Sharing in Organisations: A Conceptual Framework*. *hum resource dev rev*, 2(4), pp. 337–359.
- Jackson, N. (2003). *Engaging and changing higher education through brokerage*. Aldershot, Hants, England: Ashgate.
- Jang, S. and Nemeh, A. (2017) 'Salespeople knowledge search behavior and sales performance: An investigation of printing equipment industry', *Technological Forecasting and Social Change*, 120, pp. 323-333.
- Jashapara, A. (2004) *Knowledge management: an integrated approach*. Pearson Education.
- Johri, A. (2008) 'Boundary spanning knowledge broker: An emerging role in global engineering firms', *Frontiers in Education Conference, 2008. FIE 2008. 38th Annual. IEEE*, S2E-7-S2E-12.
- Kang, M. and Lee, M. (2016). Absorptive capacity, knowledge sharing, and innovative behaviour of R&D employees. *Technology Analysis & Strategic Management*, pp.1-14.
- Kankanhalli, A., Tan, B.C. and Wei, K. (2005) 'Contributing knowledge to electronic knowledge repositories: an empirical investigation', *MIS quarterly*, , pp. 113-143.
- Karatepe, O.M., Uludag, O., Menevis, I., Hadzimehmedagic, L. and Baddar, L. (2006) 'The effects of selected individual characteristics on frontline employee performance and job satisfaction', *Tourism Management*, 27(4), pp. 547-560.
- Khodakarami, F. and Chan, Y.E.,(2014)' Exploring the role of customer relationship management (CRM) systems in customer knowledge creation'. *Information & Management*, 51(1), pp.27-42.
- Kidwell, D.K. (2013) 'Principal investigators as knowledge brokers: A multiple case study of the creative actions of PIs in entrepreneurial science', *Technological Forecasting and Social Change*, 80(2), pp. 212-220.
- Kim, S. and Lee, H. (2006) ' The Impact of Organizational Context and Information Technology on Employee Knowledge-Sharing Capabilities', *Public Administration Review*, 66(3), pp.370-385.

-
- Kim, S., Suh, E. and Jun, Y. (2011) 'Building a Knowledge Brokering System using social network analysis: A case study of the Korean financial industry', *Expert Systems with Applications*, 38(12), pp. 14633-14649
- Kimble, C., Grenier, C. and Goglio-Primard, K. (2010) 'Innovation and knowledge sharing across professional boundaries: Political interplay between boundary objects and brokers', *International Journal of Information Management*, 30(5), pp. 437-444.
- King, W.R., Marks Jr, P.V. and McCoy, S. (2002) 'The most important issues in knowledge management', *Communications of the ACM*, 45(9), pp. 93-97.
- Kivrak, S., Arslan, G., Tuncan, M. and Birgonul, M.T. (2014) 'Impact of national culture on knowledge sharing in international construction projects', *Canadian Journal of Civil Engineering*, 41(7), pp. 642-649.
- Korhonen-Sande, S. and Sande, J.B. (2016) 'Improving customer knowledge transfer in industrial firms: how does previous work experience influence the effect of reward systems?', *Journal of Business & Industrial Marketing*, 31(2), pp. 232-246.
- Kramer, D.M. and Wells, R.P. (2005) 'Achieving buy-in: building networks to facilitate knowledge transfer', *Science Communication*, 26(4), pp. 428-444.
- Krefting, L. (1991) 'Rigor in qualitative research: The assessment of trustworthiness', *American journal of occupational therapy*, 45(3), pp. 214-222.
- Krippendorff, K. (2004) *Content analysis: An introduction to its methodology*. Sage.
- Kukko, M. (2013) 'Knowledge sharing barriers in organic growth: A case study from a software company', *The Journal of High Technology Management Research*, 24(1), pp. 18-29.
- Kumar, P., Dass, M. and Topaloglu, O. (2014) 'Understanding the Drivers of Job Satisfaction of Frontline Service Employees Learning From “Lost Employees”', *Journal of Service Research*, , pp. 1094670514540981.
- Lages, C.R. and Piercy, N.F. (2012) 'Key drivers of frontline employee generation of ideas for customer service improvement', *Journal of Service Research*, 15(2), pp. 215-230.
- Lam, S.K., Sleep, S., Hennig-Thurau, T., Sridhar, S. and Saboo, A.R. (2017) 'Leveraging Frontline Employees' Small Data and Firm-Level Big Data in Frontline Management An Absorptive Capacity Perspective', *Journal of Service Research*, , pp. 1094670516679271.
- Larivière, B., Bowen, D., Andreassen, T.W., Kunz, W., Sirianni, N.J., Voss, C., Wunderlich, N.V. and De Keyser, A. (2017) '“Service Encounter 2.0”: An investigation into the roles of technology, employees and customers', *Journal of Business Research*, 79, pp. 238-246.
- Lawson, M.B. (2001) 'In praise of slack: Time is of the essence', *The Academy of Management Executive*, 15(3), pp. 125-135.

-
- Lee Endres, M., Endres, S.P., Chowdhury, S.K. and Alam, I. (2007) 'Tacit knowledge sharing, self-efficacy theory, and application to the Open Source community', *Journal of knowledge management*, 11(3), pp. 92-103.
- Lee, C. & Al-Hawamdeh, S. (2002). Factors Impacting Knowledge Sharing. *Journal of Information & Knowledge Management*, 01(01), pp. 49–56.
- Lee, D. and Ahn, J. (2007) 'Reward systems for intra-organizational knowledge sharing', *European Journal of Operational Research*, 180(2), pp. 938-956.
- Lee, N. and Lings, I. (2008) *Doing business research: a guide to theory and practice*. Sage.
- Lefika, P.T. and Mearns, M.A. (2015) 'Adding knowledge cafés to the repertoire of knowledge sharing techniques', *International Journal of Information Management*, 35(1), pp. 26-32.
- Leonard, D. and Sensiper, S. (1998) 'The role of tacit knowledge in group innovation', *California management review*, 40(3), pp. 112-132.
- Lewis, S. (2015) 'Qualitative inquiry and research design: Choosing among five approaches', *Health promotion practice*, 16(4), pp. 473-475.
- Lichtenthaler, U. (2009) 'Absorptive capacity, environmental turbulence, and the complementarity of organizational learning processes', *Academy of management journal*, 52(4), pp. 822-846.
- Lin, H. (2006) 'Impact of organizational support on organizational intention to facilitate knowledge sharing', *Knowledge Management Research & Practice*, 4(1), pp. 26-35.
- Lin, H. (2007a) 'Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions', *Journal of Information Science*, 33(2), pp. 135-149.
- Lin, H. (2007b) 'Knowledge sharing and firm innovation capability: an empirical study', *International Journal of manpower*, 28(3/4), pp. 315-332.
- Lin, H. and Lee, G. (2006) 'Effects of socio-technical factors on organizational intention to encourage knowledge sharing', *Management decision*, 44(1), pp. 74-88.
- Lin, M., Hung, S. & Chen, C. (2009). Fostering the Determinants of Knowledge Sharing in Professional Virtual Communities. *Computers in Human Behavior*, 25(4), pp. 929–939.
- Lin, T. and Huang, C. (2010) 'Withholding effort in knowledge contribution: The role of social exchange and social cognitive on project teams', *Information & Management*, 47(3), pp. 188-196.
- Lin, W. (2008) 'The effect of knowledge sharing model', *Expert Systems with Applications*, 34(2), pp. 1508-1521.
- Loew, R., Bleimann, U. and Walsh, P. (2004) 'Knowledge broker network based on communication between humans', *Campus-Wide Information Systems*, 21(5), pp. 185-190.

-
- Lomas, J. (2007). The in-between world of knowledge brokering. *BMJ*, 334(7585), pp.129-132
- Louise Barriball, K. and While, A. (1994) 'Collecting Data using a semi-structured interview: a discussion paper', *Journal of advanced nursing*, 19(2), pp. 328-335.
- Loveman, G.W. (1998) 'Employee satisfaction, customer loyalty, and financial performance an empirical examination of the service profit chain in retail banking', *Journal of Service Research*, 1(1), pp. 18-31.
- Lowik, S., Kraaijenbrink, J. and Groen, A.J. (2017) 'Antecedents and effects of individual absorptive capacity: a micro-foundational perspective on open innovation', *Journal of knowledge management*, 21(6), pp. 1319-1341.
- Lund Vinding, A. (2006) 'Absorptive capacity and innovative performance: A human capital approach', *Economics of innovation and New Technology*, 15(4-5), pp. 507-517.
- Lupton, N. and Beamish, P. (2014) 'Organizational structure and knowledge-practice diffusion in the MNC', *Journal of Knowledge Management*, 18(4), pp. 710-727.
- Luria, G., Gal, I. and Yagil, D. (2009) 'Employees' willingness to report service complaints', *Journal of Service Research*, 12(2), pp. 156-174.
- Ma, Z. and Qi, L. (2009) 'Toward an integrated customer knowledge management model: A process-based approach', *Management and Service Science*, 2009. MASS'09. International Conference on. IEEE, 1-4.
- MacNeil, C. (2004) 'Exploring the supervisor role as a facilitator of knowledge sharing in teams', *Journal of European Industrial Training*, 28(1), pp. 93-102.
- MacNeil, C.M. (2003) 'Line managers: facilitators of knowledge sharing in teams', *Employee Relations*, 25(3), pp. 294-307.
- Malhotra, N., Mavondo, F., Mukherjee, A. and Hooley, G. (2013) 'Service quality of frontline employees: A profile deviation analysis', *Journal of Business Research*, 66(9), pp. 1338-1344.
- Marinova, D., de Ruyter, K., Huang, M., Meuter, M.L. and Challagalla, G. (2017) 'Getting Smart: Learning From Technology-Empowered Frontline Interactions', *Journal of Service Research*, 20(1), pp. 29-42.
- Marrone, J.A., Tesluk, P.E. and Carson, J.B. (2007) 'A multilevel investigation of antecedents and consequences of team member boundary-spanning behavior', *Academy of Management Journal*, 50(6), pp. 1423-1439.
- Marshall, M.N. (1996) 'Sampling for qualitative research', *Family practice*, 13(6), pp. 522-526.
- Massingham, P. (2014) 'Knowledge sharing: what works and what doesn't work: a critical systems thinking perspective', *Systemic Practice and Action Research*, , pp. 1-32.
- Matthews, R. and Ross, E. (2010) 'Research methods: A practical guide for the social sciences', Essex: Pearson,.

-
- Matthing, J., Sandén, B. and Edvardsson, B. (2004). New service development: learning from and with customers. *Int J of Service Industry Mgmt*, 15(5), pp.479-498.
- Maxwell, J. (1992) 'Understanding and validity in qualitative research', *Harvard educational review*, 62(3), pp. 279-301.
- Maxwell, J.A. (2008) 'Designing a qualitative study', *The SAGE handbook of applied social research methods*, 2, pp. 214-253.
- Maxwell, J.A. (2012) *Qualitative research design: An interactive approach: An interactive approach*. Sage.
- Maylor, H. and Blackmon, K. (2005) *Researching business and management: A roadmap for success*. Palgrave Macmillan.
- McDermott, R. and O'dell, C. (2001) 'Overcoming cultural barriers to sharing knowledge', *Journal of knowledge management*, 5(1), pp. 76-85.
- McNabb, D.E. (2002) *Research methods in public administration and nonprofit management*. ME Sharpe.
- Melton, H.L. and Hartline, M.D. (2010) 'Customer and frontline employee influence on new service development performance', *Journal of Service Research*, 13(4), pp. 411-425.
- Mendoza, L.E., Marius, A., Pérez, M. and Grimán, A.C. (2007) 'Critical success factors for a customer relationship management strategy', *Information and software technology*, 49(8), pp. 913-945.
- Meyer, M. (2010). *The Rise of the Knowledge Broker*. *Science Communication*, 32(1), pp.118-127.
- Michaels, S. (2009) 'Matching knowledge brokering strategies to environmental policy problems and settings', *Environmental Science & Policy*, 12(7), pp. 994-1011.
- Miles, M.B. and Huberman, A.M. (1994) *Qualitative data analysis: An expanded sourcebook*. sage.
- Minbaeva, D., Pedersen, T., Björkman, I., Fey, C.F. and Park, H.J. (2003) 'MNC knowledge transfer, subsidiary absorptive capacity, and HRM', *Journal of International Business Studies*, 34(6), pp. 586-599.
- Moh'd Al-Tamimi, K.A. 'MEASURING QUALITY OF BANKING SERVICES IN JORDANIAN COMMERCIAL BANKS FROM CUSTOMERS PERSPECTIVES: A FIELD STUDY', .
- Motamarri, S., Akter, S. and Yanamandram, V. (2017) 'Does big data analytics influence frontline employees in services marketing?', *Business Process Management Journal*, 23(3).
- Mulhall, A. (2003) 'In the field: notes on observation in qualitative research', *Journal of advanced nursing*, 41(3), pp. 306-313.
- Myers, M.D. (2013) *Qualitative research in business and management*. Sage.

-
- Nätti, S., Halinen, A. and Hanttu, N. (2006) 'Customer knowledge transfer and key account management in professional service organizations', *International Journal of Service Industry Management*, 17(4), pp. 304-319.
- Nonaka, I. & Takeuchi, H. (1995). *The Knowledge-creating Company*. New York: Oxford University Press.
- Nonaka, I. & Toyama, R. (2005). The Theory of the Knowledge-creating Firm: Subjectivity, objectivity and synthesis. *Industrial and Corporate Change*, 14(3), pp. 419–436.
- Nonaka, I. (1994) 'A dynamic theory of organizational knowledge creation', *Organization science*, 5(1), pp. 14-37.
- Nonaka, I., Toyama, R. and Konno, N. (2000) 'SECI, Ba and leadership: a unified model of dynamic knowledge creation', *Long range planning*, 33(1), pp. 5-34.
- Nonaka, I., Von Krogh, G. and Voelpel, S. (2006) 'Organizational knowledge creation theory: Evolutionary paths and future advances', *Organization Studies*, 27(8), pp. 1179-1208.
- Oldham, G. and McLean, R. (1997) 'Approaches to knowledge-brokering', *International Institute for Sustainable Development*, 23(06).
- Oliveira, M., Curado, C., Maçada, A. and Nodari, F. (2015). Using alternative scales to measure knowledge sharing behavior: Are there any differences?. *Computers in Human Behavior*, 44, pp.132-140.
- Orlikowski, W.J. and Baroudi, J.J. (1991) 'Studying information technology in organizations: Research approaches and assumptions', *Information systems research*, 2(1), pp. 1-28.
- Oxford English Dictionary (2017). Available at: <http://www.oed.com/view/Entry/23644?rskey=soTOKe&result=1#eid> (Accessed: 18/3/2017 2017).
- Pan, Y., Xu, Y.C., Wang, X., Zhang, C., Ling, H. and Lin, J. (2015) 'Integrating social networking support for dyadic knowledge exchange: A study in a virtual community of practice', *Information & Management*, 52(1), pp. 61-70.
- Pappas, J.M. and Wooldridge, B. (2007) 'Middle managers' divergent strategic activity: An investigation of multiple measures of network centrality', *Journal of Management Studies*, 44(3), pp. 323-341.
- Parjanen, S., Melkas, H. and Uotila, T. (2011) 'Distances, knowledge brokerage and absorptive capacity in enhancing regional innovativeness: A qualitative case study of Lahti region, Finland', *European Planning Studies*, 19(6), pp. 921-948.
- Pass, M.W., Evans, K.R. and Schlacter, J.L. (2004) 'Sales force involvement in CRM information systems: Participation, support, and focus', *Journal of Personal Selling & Sales Management*, 24(3), pp. 229-234.
- Pattni, I., Soutar, G.N. and Klobas, J.E. (2007) 'The impact of a short self-management training intervention in a retail banking environment', *Human Resource Development Quarterly*, 18(2), pp. 159-178.

-
- Patton, M.Q. (2002) 'Qualitative Research and Evaluation Methods', Sage Publications, Thousand Oak.
- Pawlowski, S.D. and Robey, D. (2004) 'Bridging user organizations: Knowledge brokering and the work of information technology professionals', *MIS quarterly*, , pp. 645-672.
- Perry, C. (1998) 'Processes of a case study methodology for postgraduate research in marketing', *European journal of marketing*, 32(9/10), pp. 785-802.
- Phillips, E. and Pugh, D. (2015) *How to get a PhD: A handbook for students and their supervisors*. McGraw-Hill Education (UK).
- Pierce, R. (2008) 'Research methods in politics: a practical guide', USA, Michigan University: SAGE Publications Ltd, .
- Polanyi, M. (1966). *The Tacit Dimension*. London: Routledge&Kegan Paul 15 – Langer, A.(2005). *IT and Organisational Learning*. New York: Routledge.
- Pope, C., Ziebland, S. and Mays, N. (2000) 'Qualitative research in health care. Analysing qualitative data', *BMJ (Clinical research ed.)*, 320(7227), pp. 114-116.
- Radaelli, G. and Sitton-Kent, L. (2016) 'Middle Managers and the Translation of New Ideas in Organizations: A Review of Micro-practices and Contingencies', *International Journal of Management Reviews*, 18(3), pp. 311-332.
- Rahimi, R. and Kozak, M. (2016) 'Impact of Customer Relationship Management on Customer Satisfaction: The Case of a Budget Hotel Chain', *Journal of Travel & Tourism Marketing*, , pp. 1-12.
- Rapp, A., Bachrach, D.G., Panagopoulos, N. and Ogilvie, J. (2014) 'Salespeople as knowledge brokers: a review and critique of the challenger sales model', *Journal of Personal Selling & Sales Management*, 34(4), pp. 245-259.
- Rhoades, L. and Eisenberger, R. (2002) 'Perceived organizational support: a review of the literature.', *Journal of applied psychology*, 87(4), pp. 698.
- Rhodes, J., Hung, R., Lok, P., Ya-Hui Lien, B. and Wu, C. (2008) 'Factors influencing organizational knowledge transfer: implication for corporate performance', *Journal of knowledge management*, 12(3), pp. 84-100.
- Riege, A. (2005), 'Three-dozen Knowledge-sharing Barriers Managers must Consider', *Journal of Knowledge Management*, Vol. 9 No. 3, pp. 18–35.
- Ritchie, J., Lewis, J., Nicholls, C.M. and Ormston, R. (2013) *Qualitative research practice: A guide for social science students and researchers*. Sage.
- Roberts, N., Galluch, P.S., Dinger, M. and Grover, V. (2012) 'Absorptive Capacity and Information Systems Research: Review, Synthesis, and Directions for Future Research.', *MIS quarterly*, 36(2), pp. 625-648.
- Rogers, J.D., Clow, K.E. and Kash, T.J. (1994) 'Increasing job satisfaction of service personnel', *Journal of services Marketing*, 8(1), pp. 14-26.

-
- Rolfe, G. (2006) 'Validity, trustworthiness and rigour: quality and the idea of qualitative research', *Journal of advanced nursing*, 53(3), pp. 304-310.
- Rolls, K., Kowal, D., Elliott, D. and Burrell, A. (2008). Building a statewide knowledge network for clinicians in intensive care units: Knowledge brokering and the NSW Intensive Care Coordination and Monitoring Unit (ICCMU). *Australian Critical Care*, 21(1), pp.29-37.
- Rowley, J. (2002) 'Eight questions for customer knowledge management in e-business', *Journal of knowledge management*, 6(5), pp. 500-511.
- Salojärvi, H., Sainio, L. and Tarkiainen, A. (2010) 'Organizational factors enhancing customer knowledge utilization in the management of key account relationships', *Industrial Marketing Management*, 39(8), pp. 1395-1402.
- Salojärvi, H., Sainio, L. and Tarkiainen, A. (2010) 'Organizational factors enhancing customer knowledge utilization in the management of key account relationships', *Industrial Marketing Management*, 39(8), pp. 1395-1402.
- Sandelowski, M. (1986) 'The problem of rigor in qualitative research.' *Advances in nursing science*, 8(3), pp. 27-37.
- Santos-Vijande, M.L., López-Sánchez, J.Á. and Rudd, J. (2016) 'Frontline employees' collaboration in industrial service innovation: routes of co-creation's effects on new service performance', *Journal of the Academy of Marketing Science*, 44(3), pp. 350-375.
- Saunders, M., Lewis, P. and Thornhill, A. (2009). *Research methods for business students*.
- Seba, I. and Rowley, J. (2010) 'Knowledge management in UK police forces', *Journal of Knowledge Management*, 14(4), pp. 611-626.
- Seba, I., Rowley, J. & Delbridge, R. (2012). Knowledge Sharing in the Dubai Police Force. *Journal of Knowledge Management*, 16(1), pp. 114–128.
- Serban, A.M. and Luan, J. (2002) 'Overview of knowledge management', *New Directions for Institutional Research*, 2002(113), pp. 5-16.
- Sharratt, M. and Usoro, A. (2003) 'Understanding knowledge-sharing in online communities of practice', *Electronic Journal on Knowledge Management*, 1(2), pp. 187-196.
- Shenton, A.K. (2004) 'Strategies for ensuring trustworthiness in qualitative research projects', *Education for Information*, 22(2), pp. 63-75.
- Shi, W., Markoczy, L. and Dess, G.G. (2009) 'The role of middle management in the strategy process: Group affiliation, structural holes, and tertius iungens', *Journal of management*, 35(6), pp. 1453-1480.
- Siau, K., Erickson, J. and Nah, F.F. (2010) 'Effects of national culture on types of knowledge sharing in virtual communities', *IEEE Transactions on Professional Communication*, 53(3), pp. 278-292.

-
- Singh Sandhu, M., Kishore Jain, K. and Umi Kalthom bte Ahmad, Ir (2011) 'Knowledge sharing among public sector employees: evidence from Malaysia', *International Journal of Public Sector Management*, 24(3), pp. 206-226.
- Small, C. T. & Sage, A. P. (2006). Knowledge Management and Knowledge Sharing: A review. *Information, Knowledge, Systems Management*, 5(3), pp. 153–169.
- Soltani, Z. and Navimipour, N.J. (2016) 'Customer relationship management mechanisms: A systematic review of the state of the art literature and recommendations for future research', *Computers in Human Behavior*, 61, pp. 667-688.
- Staples, D. & Webster, J. (2008). Exploring the Effects of Trust, Task Interdependence and Virtualness on Knowledge Sharing in Teams. *Information Systems Journal*, 18(6), pp. 617–640.
- Storey, C. and Larbig, C. (2017) 'Absorbing customer knowledge: how customer involvement enables service design success', *Journal of Service Research*, , pp. 1094670517712613.
- Stringfellow, A., Nie, W. and Bowen, D.E. (2004) 'CRM: Profiting from understanding customer needs', *Business horizons*, 47(5), pp. 45-52.
- Su, C., Chen, Y. and Sha, D. (2006) 'Linking innovative product development with customer knowledge: a data-mining approach', *Technovation*, 26(7), pp. 784-795.
- Suleiman Awwad, M and Moh'd Al-adaileh, R. (2012) 'Factors Determining Customer Relationship Management Practices: The Context of Jordanian Commercial Banks', *Jordan Journal of Business Administration*, 8(1), pp. 208-220.
- Suppiah, V. and Singh Sandhu, M. (2011) 'Organisational culture's influence on tacit knowledge-sharing behaviour', *Journal of knowledge management*, 15(3), pp. 462-477.
- Sverrisson, A. (2001) 'Translation networks, knowledge brokers and novelty construction: Pragmatic environmentalism in Sweden', *Acta sociologica*, 44(4), pp. 313-327.
- Swan, J., Newell, S., Scarbrough, H. and Hislop, D. (1999) 'Knowledge management and innovation: networks and networking', *Journal of Knowledge management*, 3(4), pp. 262-275.
- Szulanski, G. (1996) 'Exploring internal stickiness: Impediments to the transfer of best practice within the firm', *Strategic Management Journal*, 17(S2), pp. 27-43.
- Tadajewski, M. (2004) 'The philosophy of marketing theory: Historical and future directions', *The Marketing Review*, 4(3), pp. 307-340.
- Taherparvar, N., Esmaeilpour, R. and Dostar, M. (2014) 'Customer knowledge management, innovation capability and business performance: a case study of the banking industry', *Journal of knowledge management*, 18(3), pp. 591-610.

-
- Tang, T.W., Wang, M.C.H. and Tang, Y.Y., 2015. Developing service innovation capability in the hotel industry. *Service Business*, 9(1), pp.97-113.
- Taylor, W. and Wright, G. (2004) 'Organizational Readiness for Successful Knowledge Sharing', *Information Resources Management Journal*, 17(2), pp.22-37.
- Teh, P. and Sun, H. (2012) 'Knowledge sharing, job attitudes and organisational citizenship behaviour', *Industrial Management & Data Systems*, 112(1), pp. 64-82.
- The Jordan Times (2015) Investment in human capital behind Jordan's success. Available at: <http://www.jordantimes.com/news/local/investment-human-capital-behind-jordan%E2%80%99s-success-%E2%80%94-king> (Accessed: 20/5/2017 2017).
- The Jordan Times (2016) Jordan's illiteracy rate, at 9.1%, remains among lowest in region. Available at: <http://www.jordantimes.com/news/local/jordan%E2%80%99s-illiteracy-rate-91-remains-among-lowest-region%E2%80%99> (Accessed: 20/8/2017 2017).
- Tortoriello, M. (2015) 'The social underpinnings of absorptive capacity: The moderating effects of structural holes on innovation generation based on external knowledge', *Strategic Management Journal*, 36(4), pp. 586-597.
- Tortoriello, M., Reagans, R. and McEvily, B. (2012) 'Bridging the knowledge gap: The influence of strong ties, network cohesion, and network range on the transfer of knowledge between organizational units', *Organization Science*, 23(4), pp. 1024-1039.
- Tsai, W. (2001) 'Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance', *Academy of management journal*, 44(5), pp. 996-1004.
- Tseng, S. (2012) 'Correlations between external knowledge and the knowledge chain as impacting service quality', *Journal of Retailing and Consumer Services*, 19(4), pp. 429-437.
- Tseng, S. (2016) 'Knowledge management capability, customer relationship management, and service quality', *Journal of Enterprise Information Management*, 29(2), pp. 202-221.
- Tseng, S.M. and Wu, P.H., 2014. The impact of customer knowledge and customer relationship management on service quality. *International journal of quality and service sciences*, 6(1), pp.77-96.
- United Nations Development Programme (UNDP) (2017) About Jordan. Available at: <http://www.jo.undp.org/content/jordan/en/home/countryinfo.html> (Accessed: 15/6/2017 2017).
- Van den Hooff, B. and Huysman, M. (2009). Managing knowledge sharing: Emergent and engineering approaches. *Information & Management*, 46(1), pp.1-8.

-
- Van der Heijden, Gielis AH, Schepers, J.J., Nijssen, E.J. and Ordanini, A. (2013) 'Don't just fix it, make it better! Using frontline service employees to improve recovery performance', *Journal of the Academy of Marketing Science*, 41(5), pp. 515-530.
- Van der Spek, R. and Spijkervet, A. (1997) 'Knowledge management: dealing intelligently with knowledge', *Knowledge management and its integrative elements*, , pp. 31-59.
- Van Teijlingen, E.R. and Hundley, V. (2001) 'The importance of pilot studies', .
- Venkitachalam, K. and Bosua, R. (2014). Roles enabling the mobilization of organizational knowledge. *J of Knowledge Management*, 18(2), pp.396-410.
- Verbeke, W., Dietz, B. and Verwaal, E. (2011) 'Drivers of sales performance: a contemporary meta-analysis. Have salespeople become knowledge brokers?', *Journal of the Academy of Marketing Science*, 39(3), pp. 407-428.
- Von Malmborg, F. (2004) 'Networking for knowledge transfer: towards an understanding of local authority roles in regional industrial ecosystem management', *Business Strategy and the Environment*, 13(5), pp. 334-346.
- Voss, C., Tsikriktsis, N. and Frohlich, M. (2002) 'Case research in operations management', *International journal of operations & production management*, 22(2), pp. 195-219.
- Walsh, G., Northington, W.M., Hille, P. and Dose, D. (2015) 'Service employees' willingness to report complaints scale: Cross-country application and replication', *Journal of Business Research*, 68(3), pp. 500-506.
- Wang, M. (2015) 'Learning climate and customer-oriented behaviors: the mediation of customer knowledge', *Journal of Managerial Psychology*, 30(8), pp. 955-969.
- Wang, S. and Noe, R.A. (2010) 'Knowledge sharing: A review and directions for future research', *Human Resource Management Review*, 20(2), pp. 115-131.
- Ward, V., House, A. and Hamer, S. (2009) 'Knowledge brokering: the missing link in the evidence to action chain?', *Evidence & policy: a journal of research, debate and practice*, 5(3), pp. 267-279.
- Waring, J., Currie, G., Crompton, A. and Bishop, S. (2013) 'An exploratory study of knowledge brokering in hospital settings: Facilitating knowledge sharing and learning for patient safety?', *Social science & medicine*, 98, pp. 79-86.
- Watson, S. and Hewett, K. (2006) 'A multi-theoretical model of knowledge transfer in organizations: Determinants of knowledge contribution and knowledge reuse', *Journal of management studies*, 43(2), pp. 141-173.
- Webster Jr, F.E. (1988) 'The rediscovery of the marketing concept', *Business horizons*, 31(3), pp. 29-39.
- Wei, J., Stankosky, M., Calabrese, F. and Lu, L. (2008) 'A framework for studying the impact of national culture on knowledge sharing motivation in virtual teams', *Vine*, 38(2), pp. 221-231.

-
- WEISS, L.M. (1999) 'Collection and connection: The anatomy of knowledge sharing in professional service firms.', *Academy of Management Proceedings*. Academy of Management, A1-A6.
- Wenger, E. (1998) *Communities of practice: Learning, meaning, and identity*. Cambridge university press.
- Werner, K., Dickson, G. and Hyde, K.F. (2015) 'Learning and knowledge transfer processes in a mega-events context: The case of the 2011 Rugby World Cup', *Tourism Management*, 48, pp. 174-187.
- Wiig, K.M. (1997) 'Knowledge management: where did it come from and where will it go?', *Expert Systems with Applications*, 13(1), pp. 1-14.
- Wilde, S. (2011) *Customer Knowledge Management: improving customer relationship through knowledge application*. Springer Science & Business Media.
- Willem, A. & Buelens, M. (2006). Knowledge Sharing in Public Sector Organisations: The Effect of Organisational Characteristics on Interdepartmental Knowledge Sharing. *Journal of Public Administration Research and Theory*, 17(4), pp. 581–606.
- Willem, A. & Buelens, M. (2009). Knowledge Sharing in Inter-unit Cooperative Episodes: The impact of organisational structure dimensions. *International Journal of Information Management*, 29(2), pp. 151–160.
- Willem, A. and Scarbrough, H. (2006) 'Social capital and political bias in knowledge sharing: An exploratory study', *Human relations*, 59(10), pp. 1343-1370.
- Wilson, J. (2010) *Essentials of business research: A guide to doing your research project*. Sage.
- Wirtz, J., Kuan Tambyah, S. and Mattila, A.S. (2010) 'Organizational learning from customer feedback received by service employees: A social capital perspective', *Journal of Service Management*, 21(3), pp. 363-387.
- Witherspoon, C.L., Bergner, J., Cockrell, C. and Stone, D.N. (2013) 'Antecedents of organizational knowledge sharing: a meta-analysis and critique', *Journal of Knowledge Management*, 17(2), pp. 250-277.
- Woisetschlager, D.M., Hanning, D. and Backhaus, C. (2016) 'Why frontline employees engage as idea collectors: An assessment of underlying motives and critical success factors', *Industrial Marketing Management*, 52, pp. 109-116
- Wong, C.U. and McKercher, B., 2011. Tourist information center staff as knowledge brokers: The case of Macau. *Annals of Tourism Research*, 38(2), pp.481-498.
- Wood, R. and Bandura, A. (1989) 'Social cognitive theory of organizational management', *Academy of management Review*, 14(3), pp. 361-384.
- World Finance (2015) Jordan's banking sector holds up the economy. Available at: <https://www.worldfinance.com/banking/jordans-banking-sector-holds-up-the-economy> (Accessed: 1/3/2017 2017).

-
- Wu, J., Guo, B. and Shi, Y. (2013) 'Customer knowledge management and IT-enabled business model innovation: A conceptual framework and a case study from China', *European management journal*, 31(4), pp. 359-372.
- Xu, M. and Walton, J. (2005) 'Gaining customer knowledge through analytical CRM', *Industrial management & data systems*, 105(7), pp. 955-971.
- Yang, C., Fang, S. and Lin, J.L. (2010) 'Organisational knowledge creation strategies: A conceptual framework', *International Journal of Information Management*, 30(3), pp. 231-238.
- Yang, H. and Wu, T.C. (2008) 'Knowledge sharing in an organization', *Technological Forecasting and Social Change*, 75(8), pp. 1128-1156.
- Yang, J. (2007) 'Knowledge sharing: Investigating appropriate leadership roles and collaborative culture', *Tourism Management*, 28(2), pp. 530-543.
- Yang, S. and Farn, C. (2009) 'Social capital, behavioural control, and tacit knowledge sharing—A multi-informant design', *International Journal of Information Management*, 29(3), pp. 210-218
- Yavas, U. and Babakus, E. (2010) 'Relationships between organizational support, customer orientation, and work outcomes: A study of frontline bank employees', *International Journal of Bank Marketing*, 28(3), pp. 222-238.
- Ye, J., Marinova, D. and Singh, J. (2012) 'Bottom-up learning in marketing frontlines: conceptualization, processes, and consequences', *Journal of the Academy of Marketing Science*, 40(6), pp. 821-844.
- Yin, R.K. (2014) *Case study research and applications: Design and methods*. Sage publications.
- Zahra, S.A. and George, G., 2002. Absorptive capacity: A review, reconceptualization, and extension. *Academy of management review*, 27(2), pp.185-203
- Zhang Y. & Wildemuth B.M. (2009) 'Qualitative analysis of content'. In *Applications of Social Research Methods to Questions in Information and Library Science* (B.M. Wildemuth ed.), pp. 308–319. Libraries Unlimited, Westport, CT.
- Zhang, H., Wu, F. and Cui, A.S. (2015) 'Balancing market exploration and market exploitation in product innovation: A contingency perspective', *International Journal of Research in Marketing*, 32(3), pp. 297-308.
- Zhang, X., de Pablos, P. & Xu, Q. (2014). Culture Effects on the Knowledge Sharing in Multi-national Virtual Classes: A mixed method. *Computers in Human Behavior*, 31, pp. 491–498.
- Zhang, Z. (2011) 'Customer knowledge management and the strategies of social software', *Business Procernal*, 17(1), pp. 82-106.

Appendices

Appendix (I) Ethical approval letter



College of Business, Arts and Social Sciences Research Ethics Committee
Brunel University London
Kingston Lane
Uxbridge
UB8 3PH
United Kingdom
www.brunel.ac.uk

21 January 2016

LETTER OF APPROVAL

Applicant: Mr Nayel Al Hawamdeh
Project Title: Knowledge-sharing through internal Knowledge brokering in retail banking sector
Reference: 1675-LR-Jan/2016-1373

Dear Mr Nayel Al Hawamdeh

The Research Ethics Committee has considered the above application recently submitted by you.

The Chair, acting under delegated authority has agreed that there is no objection on ethical grounds to the proposed study. Approval is given on the understanding that the conditions of approval set out below are followed:

- The agreed protocol must be followed. Any changes to the protocol will require prior approval from the Committee by way of an application for an amendment.

Please note that:

- Research Participant Information Sheets and (where relevant) flyers, posters, and consent forms should include a clear statement that research ethics approval has been obtained from the relevant Research Ethics Committee.
- The Research Participant Information Sheets should include a clear statement that queries should be directed, in the first instance, to the Supervisor (where relevant), or the researcher. Complaints, on the other hand, should be directed, in the first instance, to the Chair of the relevant Research Ethics Committee
- Approval to proceed with the study is granted subject to receipt by the Committee of satisfactory responses to any conditions that may appear above, in addition to any subsequent changes to the protocol.
- The Research Ethics Committee reserves the right to sample and review documentation, including raw data, relevant to the study.
- You may not undertake any research activity if you are not a registered student of Brunel University or if you cease to become registered, including abeyance or temporary withdrawal. As a deregistered student you would not be insured to undertake research activity. Research activity includes the recruitment of participants, undertaking consent procedures and collection of data. Breach of this requirement constitutes research misconduct and is a disciplinary offence.

Professor James Knowles

Chair

College of Business, Arts and Social Sciences Research Ethics Committee
Brunel University London

Appendix (II) Invitation letter



College of Business,
Arts and Social Sciences
Brunel Business School

Brunel University London
Kingston Lane
Uxbridge
UB8 3PH
United Kingdom
www.brunel.ac.uk

To whom it may concern

This letter to certify that Mr. Nayel Aish Al Hawamdeh is a PhD student at Brunel University London, conducting research for his PhD degree in the concept of internal knowledge brokering and sharing.

I would be most grateful if you could consider an informal collaboration to assist his fieldwork objectives.

Please be reassured that Nayel is required to comply with Brunel University London code of research when conducting his project and will ensure total confidentiality of any data collected.

For more information or any concerns with respect to Nayel's research please do not hesitate to contact me.

Yours sincerely

Ray Hackney

Professor Raymond A Hackney, PhD, MA, BSc (Hons),
Cert Ed, FTC, FHEA

Chair in Business Systems
Brunel University London
College Business, Arts & Social Sciences
Business School, UK

ray.hackney@brunel.ac.uk

Appendix (III) Interview Protocol

Interview guide

An Investigation of the Role of Knowledge Brokers during Service Encounters: the context of Jordanian Commercial Banks

<i>Interviewee name</i>		<i>Code</i>	
<i>Organisation name</i>		<i>Data/Time</i>	
Interview Opening :			
<ul style="list-style-type: none"> • Giving thanks to the interviewees for their acceptance of our invitation to participate in this research. • Provide a summary of the purpose of the research and the importance of participation in this study. • Providing the interviewees with a copy of participant information sheet and then get their acceptance by signing the consent form. • Asking to get the interviewee's permission to record the interview 			
Section (1) Background			
<ul style="list-style-type: none"> • Please indicate your current job title? 			
<input type="radio"/>	President/ CEO	<input type="radio"/>	R&D manager
<input type="radio"/>	Sales Manager	<input type="radio"/>	Branch manager
<input type="radio"/>	Frontline employee	<input type="radio"/>	Customer care employee
Other (please specify):			
<ul style="list-style-type: none"> • Please indicate your gender : 			
<input type="radio"/>	Male	<input type="radio"/>	Female
<ul style="list-style-type: none"> • Please tick your age category : 			
<input type="radio"/>	18-29	<input type="radio"/>	30-39
<input type="radio"/>	40-49	<input type="radio"/>	50-59
<input type="radio"/>	60 over		
<ul style="list-style-type: none"> • Please indicate your education : 			
<input type="radio"/>	Some collage	<input type="radio"/>	Bachelor
<input type="radio"/>	Master Degree	<input type="radio"/>	PhD
<input type="radio"/>	Other		

• Please indicate your Experience:				
<input type="radio"/> less than one year	<input type="radio"/> 1-5 years	<input type="radio"/> 5-10 years	<input type="radio"/> 10-15 years	<input type="radio"/> 15 or more years
<ul style="list-style-type: none"> • Can you give me a summary about your job? 				
Section (2): Overview of importance Customer knowledge for the organisation.				
<ul style="list-style-type: none"> • In your opinion, to what extent does your organisation acknowledge the importance of the customer knowledge that is obtained during service encounters? • How does your organisation gain access to the customer knowledge that is generated during service encounters? • In your opinion, to what extent does your organisation exploit the customer knowledge that is generated during service encounters to improve services and products? • Who is responsible for capturing and sharing knowledge about and from customers in your organisation? 				
Section (3): Overview of the role of frontline employees				
<ul style="list-style-type: none"> • Does the banking sector still require frontline bank employees given that the majority of banks are adopting digital branches? • In your opinion, what is the importance of the organisation's frontline employees as a source of customer knowledge? • How can your organisation benefit from frontline bank employees' position between the organisation and customers in terms of gaining customer knowledge? 				

- **In your opinion, to what extent do frontline bank employees realise the importance of capturing customer knowledge and transferring it to the organisation?**
- **In your opinion, to what extent are frontline bank employees involved in the service and product development program?**
- **In your opinion, to what extent do frontline bank employees contribute to improving service quality through sharing knowledge obtained from customers?**
- **To what extent do frontline employees contribute to your organisation's knowledge?**

Section (4): Customer knowledge brokering through frontline employees

- **How can your organisation improve its services or products based on the customer feedback provided through frontline employees?**
- **In your opinion, are frontline bank employees able to act as knowledge brokers between the customers and the organisation?**
- **In your organisation, how can frontline employees deliver customer knowledge to the organisation?**
- **What is practised most by frontline employees: knowledge brokering to the organisation (sharing customer knowledge from customers) or the customer (sharing knowledge about the service and products from an organisation)?**
- **In your opinion, do frontline bank employees prefer to transfer positive or negative customer feedback to the bank's management?**

Section (5): Factors that influence knowledge brokering through frontline employees.

- **How do you share customer knowledge within your organisation?**
- **To what extent does your organisation invest resources in providing training to frontline employees concerning how to better share customer knowledge?**

- **What kinds of training does your organisation provide its frontline employees? Does it train them to act as knowledge brokers?**
- **How does the organisational environment affect the role of frontline employees in terms of acting as knowledge brokers between customers and organisation?**
- **Does your organisation hold formal meetings with frontline employees concerning knowledge about customer needs?**
- **In your opinion, does your organisation provide a trusting and open environment for knowledge sharing?**
- **What are the roles of organisational culture and trust between employees and management in encouraging employees to act as knowledge brokers and to transfer customer knowledge?**
- **What, in your opinion, is the primary barrier that prevents routine service employees from acting as knowledge brokers between the organisation and customers ?**
- **In your opinion, what is the effect of job tenure on the role played by frontline employees as knowledge brokers between customers and the organisation? How does frontline employees' experience affect their willingness to act as knowledge brokers?**
- **When frontline employees contribute to the organisation's knowledge through transferring knowledge from or about customers, what kind of rewards do they receive?**
- **In your opinion, do you think that rewards will encourage the frontline employee to act as knowledge brokers?**
- **Can frontline employees directly contact management in order to transfer knowledge obtained from customers?**
- **In your opinion, does your organisation's structure affect frontline employees' ability to act as knowledge brokers between the organisation and customers?**

- **Do high workloads limit the ability of frontline bank employees to act as knowledge brokers between the organisation and customers?**
- **Does your organisation's information system provide the knowledge about and for customers that frontline employees require during service encounters?**
- **In your organisation, is the call centre integrated with the organisation's core system?**
- **Does your organisation use a customer relationship management system (CRMS)?**
- **How can your organisation encourage its frontline employees to act as knowledge brokers between the organisation and customers?**

Section (6): Others

- **If you were to become the CEO of your organisation, how would you promote the role of frontline employees as knowledge brokers?**

Section (7): Closing the interview

- **Give an opportunity to the interviewees to ask any question(s) they may have concerning the interview.**
- **Thank the interviewees for their participation in this research.**

Appendix (IV) Consent Form



Brunel
University
London

College of Business, Arts and Social Sciences, Business School

CONSENT FORM

An investigation of the role of frontline service employee as internal knowledge broker during service encounter to improve services quality

The participant should complete the whole of this sheet		<i>Please tick the appropriate box</i>	
		YES	NO
Have you read the Research Participant Information Sheet?			
Have you had an opportunity to ask questions and discuss this study?			
Have you received satisfactory answers to all your questions?			
Who have you spoken to?			
Do you understand that you will not be referred to by name in any report concerning the study?			
Do you understand that you are free to withdraw from the study:			
<ul style="list-style-type: none"> • at any time? • without having to give a reason for withdrawing? • (where relevant, adapt if necessary) without affecting your future care? 			
(Where relevant) I agree to my interview being recorded.			
(Where relevant) I agree to the use of non-attributable direct quotes when the study is written up or published.			
Do you agree to take part in this study?			
Signature of Research Participant:			
Date:			
Name in capitals:			
<u>Witness statement</u> (if required – adapt where necessary):			
I am satisfied that the above-named has given informed consent.			
Witnessed by:			
Date:			
Name in capitals:			
Researcher name:		Signature:	
Supervisor name:		Signature:	

Appendix (V) Example from the open coding stage (NVivo (11) screenshot).

The screenshot displays the NVivo software interface during an open coding stage. The top menu bar includes FILE, HOME, CREATE, DATA, ANALYZE, QUERY, EXPLORE, LAYOUT, and VIEW. Below the menu is a search bar with the text 'Look for' and 'Nodes'. The left sidebar shows a 'Nodes' list with various categories like 'Absence of the Organization', 'Bank investment in new techn', 'Bank's Regulations', etc. The main text area shows interview transcripts with highlighted segments. The right sidebar displays a 'Coding Density' chart with various codes applied to the text, such as 'Lack of CRM', 'LACK OF CUSTOMER KNOWLEDGE', and 'Lack of awareness about customer services'.

Name	Sources	Referen
Absence of the Organization	1	2
Bank investment in new techn	3	146
Bank system and lack of CRM	7	13
Bank's Regulations	2	218
Bank's information system d	3	3
Barriers	1	1
external knowledge broke	1	1
Create new customer knowle	1	1
Difference between teller and	1	1
face to face interaction	1	1
Frontline employee job	6	13
get the feedback direct from	1	1
Individual -level factors	0	0
Absorptive capacity	0	0
Assimilate Customer	6	8
Experiences of the Fro	5	8
Prior Knowledge	5	7
lack of awareness about c	8	15
Self-efficacy	1	2
Workload during service e	8	14
justice	1	1
knowledge broker	6	10
knowledge broker for the cus	4	6
knowledge brokering during	6	9
Knowledge for the customer	2	3
Knowledge for the customer i	2	2
lack of customer services	2	4
lack of CRM	7	11
LACK OF CUSTOMER SATISFA	1	2
link knowledge about the cus	1	1
New customer services deap	1	1
New Node	1	1
Organisational-level factors	0	0
Middle Manager Role	5	10