

Curtin Business School

School of Marketing

**The Role of Integrated Customer Relationship Management in Generating
and Using Knowledge in Service Industry: A Study on Commercial Banks of
Bangladesh**

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of

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DECLARATION

To the best of my knowledge and belief, this thesis contains no material previously published by any other person except where due acknowledgement has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Md. Alamgir.

(Mohammed Alamgir)

21November 2014

DEDICATION

TO

My loving family

*My parents, brothers and sister, and
parents-in-law*

My wife: Kaniz

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In the name of Allah, the Most Gracious and the Most Merciful

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ABSTRACT

Customer relationship management (CRM) has become a topic of utmost importance to researchers and practitioners in recent years. However, the literature reveals that CRM is commonly conceptualized as a software package and/or technology without an in-depth understanding of the issues of integrating people, processes and technology across the organizational context. This limited focus has resulted in a shortfall in delivering strategic value and fostering durable customer relationships. Customer relationship management (CRM), as an emerging concept, will remain underdeveloped until its key dimensions have been explored and implemented. The existing literature rarely sheds light on the multidimensionality of CRM and its impact on CRM success, and thus lacks a theoretically grounded and empirically validated multidimensional model of CRM. With this backdrop, the present study aims to develop a research model that conceptualizes CRM as a multidimensional and integrated concept. To address the equivocal effect of CRM, this study further advances the research through investigating the role of mediating variables on the CRM–CRM success (CRMS) link.

This thesis develops and validates an integrated multidimensional CRM model (ICRM) grounded on the resources-based view (RBV) and knowledge-based view (KBV). The ICRM model includes CRM-specific resources, namely, customer orientation, customer-centric management system, CRM technology and CRM people. The literature suggests that CRM, as a cross-functional process, focuses on maintaining and enhancing relationships with customers. The previous literature also reveals that the organization's ability to generate customer knowledge depends on its ability to combine knowledge about and knowledge from customers. This research thus proposes relationship maintenance and customer knowledge generation as outcomes of ICRM and also antecedents of CRM success. This study further explores and tests the mediating role of relationship maintenance and customer knowledge generation. The constructs and their hypothesized relationships in the model are conceptualized based on an extensive literature survey and also by examination through the lens of RBV and KBV. As customer relationship management processes and practices are context-specific, the constructs and variables of the initial research model are contextualized and validated through a qualitative field study.

This research adopts the 'mixed method' approach embracing both qualitative and quantitative research methods. In the qualitative phase, data are collected from 11 relationship managers and/or customer service managers from different banks

through face-to face-interviews guided by a semi-structured interview protocol. Data collected from the field study are analysed through the content analysis technique using the NVivo software package. Based on the findings from the content analysis, a field study model is developed. A comprehensive model is then developed comparing the initial conceptual model with the field study model. This comprehensive final model is subject to empirical validation by employing a quantitative research approach to comply with the requirement of mixed methods research. A total of 300 fully completed survey responses are obtained from bank managers and the collected data are analysed by using the partial least squares (PLS)-based structural equation modelling (SEM) technique. This study has used SmartPLS 2.0.M3 software.

The findings of the research confirmed that integrated customer relationship management (ICRM), customer knowledge, service excellence, relationship maintenance and social capital are significant antecedents of CRM success. The findings of the study also reveal that customer relationship management (CRM) is a multidimensional and integrated concept which is reflected by customer orientation, customer-centric management system, CRM people and CRM technology. The mediating role of relationship maintenance along with the sequential and partial mediating role of customer knowledge generation and customer knowledge utilization has also been found to be significant.

This current research has both theoretical and practical implications. Theoretically, the study extends CRM research by referring to the concept as a reflective higher (second) order construct and framing its impact on customer knowledge, relationship maintenance, service excellence and, ultimately, on CRM success in the context of the banking industry of Bangladesh. It is also noted that social capital along with the antecedent factors of CRM success in a single framework is a unique initiative in the literature.

In practical terms, the study provides managers with a comprehensive model for conducting an integrated analysis and design of a CRM success model. The factors and variables obtained from this research will assist managers to become relationship focused through considering CRM as an integrated issue and also by placing more emphasis on customer knowledge, relationship maintenance and social capital in order to become successful. Overall, this study makes a significant contribution to achieving more customer patronage for banks through a better and more reliable service experience for customers in the context of Bangladesh. The study's implications are also important for other countries in a similar institutional and industrial setting.

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LIST OF ABBREVIATIONS

ADC	alternative delivery channel
AVE	average variance extracted
AVP	assistant vice president
BDT	Bangladeshi taka (the country's currency)
CBSEM	covariance-based structural equation modelling
CFA	confirmatory factor analysis
CI	confidence interval
CK	customer knowledge
CKG	customer knowledge generation
CKM	customer knowledge management
CKU	customer knowledge utilization
CMV	common method variance
CR	composite reliability
CR	customer retention
CRM	customer relationship management
CRMP	customer relationship management people (the employees)
CRMS	customer relationship management success
CRMT	customer relationship management technology
CS-US	cross-selling and up-selling
EFA	exploratory factor analysis
f^2	effect size
GDP	gross domestic product
HCMs	hierarchical component models
ICRM	integrated customer relationship management
IoF	Institute of Microfinance
IT	information technology
KBV	knowledge-based view
KM	knowledge management
OLS	ordinary least squares
PC	personal connection
PLS	partial least squares
Q^2	predictive relevance
R^2 , R-squared	coefficient of determination
RBV	resource-based view
RM	relationship maintenance

RO	research objective
RQ	research question
SC	social capital
SE	service excellence
SEM	structural equation modelling
SI	social interaction
SPSS	Statistical Package for the Social Sciences (software)
T	Trust
VAF	variance accounted for
VIF	variance inflation factor

CHAPTER 1 INTRODUCTION

1.1 OVERVIEW

Historically, market leadership as well as success were dominated and determined by production efficiency resulting in the capability to sell products and services at a lower price. However, in the current business setting, this has often proved not to be durable since the strategies were easily imitable over a short period of time (Nguyen and Mutum, 2012). Today, management recognizes that customers are the core of a business and that a company's success largely depends on effective management of its relationships with them. Thus, firms have started to shift from a transaction-based selling platform to a more relationship-based approach (Boulding et al., 2005; Bull and Adam, 2011; Frow and Payne, 2009). In this regard, scholars have argued that maintaining a long-term relationship with customers rather than a transaction-oriented approach is more beneficial for firms (Jayachandran et al., 2005; Morgan and Hunt, 1994). Consequently the concept of customer relationship management (CRM) has emerged. However, after reviewing the literature on the concept of CRM, it can be argued that scholars are not yet in accord about a clear conceptual framework of CRM (Garrido-Moreno and Padilla-Melendez, 2011; Sin et al., 2005). Moreover, building and maintaining customer relationships is much more complex and simply placing the focus on customers is no longer adequate (Nguyen and Mutum, 2012). Relationships that are underpinned by substantial customer knowledge and social bonds are difficult to imitate and result in firm success (Mitussis et al., 2006; Khodakarami and Chan, 2014). Thus, it is expected that CRM implementation supported by social capital should considerably facilitate knowledge generation as well as relationship building and maintenance effort, and also enhance CRM success.

In the contemporary business environment, customers are considered to be the building block of all marketing actions and thus management of customer relationships has become a top priority for many companies (Becker et al., 2009; Karakostas et al., 2005; Payne and Frow, 2005). The current competitive business environment is characterized by financial challenges and competitiveness (Garrido-Moreno et al., 2014) and therefore it is essential to know the contributing factors of success and failure. Customer relationship management (CRM) has gained momentum and firms worldwide are implementing it to improve customer services and satisfaction (Li and

Mao, 2012). Business firms, regardless of their size and the nature of their operation, are spending billions of dollars in CRM applications (Ahearne et al., 2007). In fact, the consultancy firm Gartner noted that a total of more than \$20.4 billion was spent on CRM software in 2013 worldwide (Gartner, 2013). Some academic researchers have provided evidence of the positive relationship between CRM and performance (success); however, many academics and business reports have presented disappointing results (Chen and Wang, 2006; Finnegan and Currie, 2010; Foss et al., 2008; Mendoza et al., 2006; Richards and Jones, 2008; Ryals, 2005). Moreover, only 10% of business and information technology (IT) executives strongly agree that they have achieved an expected outcome after implementing CRM (technology-focused). It is noteworthy that a good number of academics and business practitioners consider CRM merely as a software package or IT (Garrido-Moreno et al., 2014; Richards and Jones, 2008). In connection with this, it has been reported that many CRM technology infrastructures adopted by firms have failed to fully comply with customer needs due to several factors, for instance, lack of capable and relationship-focused staff, lack of knowledge, misaligned processes, poorly designed systems and also the inability to integrate the CRM technology infrastructure with existing and dynamic business process (Shang and Lin, 2010). Researchers (e.g. Richards and Jones, 2008; Roberts et al., 2005; Wang and Fang, 2012) have also reported that the factors behind CRM success are not adequately illustrated in the literature. Therefore, it is essential to identify the factors behind CRM success and also the measures of success of CRM efforts in a way that supports management's decision making.

Customer relationship management (CRM) has been recognized as having a positive impact on business performance (Sin et al., 2005). However, in many cases, CRM implementation (with a technology orientation) has ended up with mixed results (Ahearne et al., 2007) and many firms have failed to realize the desired benefits (Ryals, 2005; Foss et al., 2008; Chang et al., 2010). Moreover, what constitutes CRM in general and in the banking industry in particular is an issue of considerable debate (Eid, 2007; Sin et al., 2005; Krasnikov et al., 2009). Some scholars have also argued that the connotation of CRM is not always clear in the literature (Parvatiyar and Sheth, 2001). This is in line with the notion that CRM is poorly understood and that total CRM is yet to develop (Coltman, 2007). In addition, academics and practitioners have perceived CRM as a technological solution or software package (Finnegan and Currie, 2010; Reinartz et al., 2004; Rigby et al., 2002; Ryals and Payne, 2001) rather than an integrated and multidimensional issue where a more expansive and holistic approach

is required (Becker et al., 2009; Chang et al., 2010). Hence, a comprehensive understanding of the issues of integration, focusing on customer orientation, people and technology within and across the organizational context is required to support CRM success.

Customer knowledge generation is very much required for the success of the organization, but scholars have devoted little attention to it (García-Murillo and Annabi, 2002) and very few studies have addressed the role of integrated customer relationship management (ICRM) in customer knowledge generation (Xu and Walton, 2005; Mithas et al., 2005). In addition, previous research has paid less attention to investigating the mediating role of customer knowledge generation and knowledge utilization as well as that of relationship maintenance on CRM success.

Therefore, the objectives of this study are to propose a framework describing how integrated customer relationship management (ICRM) facilitates customer knowledge generation (CKG) and also customer relationship management (CRM) success. In particular, this study discusses the components and outcomes of ICRM. A clear understanding of the components and outcomes of ICRM helps an organization to improve performance as well as to achieve CRM success. The proposed model also suggests that customer knowledge functions as a mediator as effective utilization of customer knowledge generated by ICRM supports CRM success.

The structure of the rest of the thesis is as follows: first, a review of the literature related to the focal constructs of interest and the relationships among them on the basis of theory and extant literature is presented. This is followed by a detailed discussion of the research method employed in this study and the presentation of results via partial least squares (PLS)-based structural equation modelling (SEM) using SmartPLS 2.0.M3 software. Finally, this thesis concludes with a discussion and presents the implications of the findings of the study.

1.2 RESEARCH PROBLEM

The factors behind customer relationship management success (CRMS) and also what constitutes CRM have become an issue of considerable debate (Keramati et al., 2011; Krasnikov et al., 2009; Eid, 2007; Sin et al., 2005). Even though there are some impressive records of success, the failure rates of CRM projects are high (Mendoza et al., 2007; Ryals, 2005; Zablah et al., 2004) and evidence suggests that many organizations are finding it hard to realize business benefits from its application

(Finnegan and Currie, 2010). In a similar vein, Garrido-Moreno and Padilla-Melendez (2011) have argued that an integrated conceptual framework is still required to guide companies towards achieving CRM success. These paradoxical results could be one of the reasons why CRM is still an emerging field of inquiry (Richard and Jones, 2008) and, hence, needs further investigation to determine the factors related to CRM success. Thus, one of the goals of this study is to investigate the antecedents of CRM success.

Academics and practitioners have perceived CRM as an IT solution and technology for a marketing strategy (Ryals and Payne, 2001; Rigby et al., 2002; Peppard, 2000; Reinartz et al., 2004; Jayachandran et al., 2005) which results in poor performance. Similarly, Becker et al. (2009) argued that the literature has primarily talked about the influence of single CRM activities, emphasizing either investment in software (Reinartz et al., 2004); or technological (Jayachandran et al., 2005); organizational (Sabherwal et al., 2006); or strategic aspects (Payne and Frow, 2005) rather than a multidimensional issue where a more expansive and holistic approach is required (Chang et al., 2010). Likewise, Coltman (2007) argued that CRM is poorly understood and that total CRM is yet to develop. The review of the earlier literature indicated that CRM needs to be focused as a multidimensional construct which not only includes technology, but also requires a cross-functional integration of people, process and operations where IT acts as an enabler (Payne and Frow, 2005; Chang et al., 2010). The development of such an integrated multidimensional CRM model will be unique as existing studies fall short of developing an integrated CRM framework (Coltman, 2007; Chang et al., 2010). This study, thus, seeks to address the existing gap in the CRM literature by developing an integrated multidimensional CRM model (ICRM).

There is a debate in the literature about the antecedents of CRM success. Some researchers consider CRM-supporting components as antecedents (Meyer and Kolbe, 2005) while others simply provide a list of critical success factors without showing the interactions between them (King and Burgess, 2008). Researchers (e.g. Finnegan and Currie, 2010; Mitussis et al., 2006; Nguyen and Mutum, 2012; Xu and Walton, 2005) further argue that CRM implementation often ignores the underlying interdependencies of relationship maintenance, customer knowledge and socio-technical aspects which enable or inhibit CRM success. The existence of this debate in the literature opens an opportunity to investigate the antecedent factors of CRM success.

Customer knowledge generation and customer knowledge utilization are highly required for the success of the organization, but scholars have devoted little attention to these areas (García-Murillo and Annabi, 2002) and very few studies have addressed the role of ICRM in customer knowledge generation (Xu and Walton, 2005; Mithas et al., 2005). Most of the prior knowledge management (KM) and CRM literature proposes the view that customer knowledge is embedded (Sin et al., 2005; Garrido-Moreno and Padilla-Melendez, 2011) within the CRM system/process. Relatively few discussions have occurred on the relationship between ICRM and customer knowledge generation (Xu and Walton, 2005; Mithas et al., 2005). In addition, the previous research has paid less attention to investigating the mediating role of customer knowledge generation and customer knowledge utilization on CRM success.

Social capital (SC) can enhance an organization's ability to improve performance (Okoli and Oh, 2007; Kogut and Zander, 1996). Moreover, social capital influences the development and maintenance of relationships (Nguyen and Mutum, 2012; Yli-Renko et al., 2001). With the increasing importance of the role of networks (personal and professional) in improving a firm's competitive advantage, the social capital-performance relationship has appeared as a prominent strategic management research area (Koka and Prescott, 2002; Kotabe et al., 2003; Uzzi and Gillespie, 2002). Despite the importance of the influence of social capital on success, the link between social capital and CRM initiatives as well as CRM success is yet to be tested by empirical research. Moreover, the mediating role of relationship maintenance on the link between social capital and CRM success (CRMS) has received little or no attention. Hence, this study seeks to address this gap in the literature through investigating the direct effect of social capital on CRM success and the mediating role of relationship maintenance on the SC-CRMS link.

Resources can be of various kinds, but is it possible to interpret ICRM components and outcomes such as customers and customer relationships, and customer-centric management as resources? Relationships, in general, are considered to be resources (Hall, 1992) and thus customer relationships, one of the most important components of ICRM, can also be considered as important resources (Bharadwaj et al., 1993). Very few studies have considered how those resources contribute to success (Morgan et al., 2009). Based on the resource-based view (RBV), this study argues that effective coordination, management and utilization of these resources may influence firm performance. More specifically, this study investigates how firm resources such as

customer orientation, a customer-centric management system, CRM people and CRM technology (components of ICRM) can be deployed to achieve success.

The extension of the business area of global financial institutions, the deregulation of the financial industry and the diversified requirements for financial services have brought severe competition into the retail banking industry which, in turn, could make banking operations more challenging and complex (Peppard, 2000; Kim et al., 2010). Banks need to compete through superior customer-relating capabilities; however, a good number of banks are operating with almost undifferentiated services and equal prices, giving customers multiple options to switch between banks. In addition, many banks fail to effectively and efficiently deploy and manage their CRM programs and, as a result, managers are becoming deeply concerned about deteriorating customer satisfaction and loyalty as competitors take away their customers. This backdrop essentially calls for a more individualized, integrated and interactive approach to CRM to attain the maximum benefits in the context of the banking industry.

A paradigm shift is clear in the banking industry in Bangladesh (Nguyen et al., 2010) which is reflected by a growing number of banks, the volume of business and the nature of the business operation. While many have emphasized the significance and contribution of CRM, very few studies have considered the issues in the context of the banking industry of Bangladesh. For example, in the Bangladesh context, Rahaman (2011) tried to determine the role of CRM in profitability but CRM was poorly sketched and narrowly focused as merely a technology solution.

1.3 RESEARCH QUESTIONS AND OBJECTIVES

Based on the discussion in Sections 1.1 and 1.2, this study analyses a number of theoretical perspectives to empirically explore the factors behind CRM success as well as their direct and indirect effect on CRM success in the context of the banking industry of Bangladesh. Hence, this research attempts to investigate the following research questions (RQs):

RQ 1: What are the antecedents of CRM success for the banking industry in Bangladesh?

RQ 2: How does customer knowledge (CK) mediate the relationship between integrated customer relationship management (ICRM) and CRM success in the banking industry in Bangladesh?

RQ 3: How does customer relationship maintenance (RM) mediate the relationship between social capital (SC) and CRM success in the banking industry in Bangladesh?

Based on the above research questions, the following specific research objectives (ROs) have been developed:

RO 1: To investigate the role of the integrated CRM (ICRM) process on customer knowledge generation (CKG) and customer relationship maintenance (RM) and also on CRM success.

RO 2: To investigate the role of social capital (SC) in customer knowledge generation (CKG), customer relationship maintenance (RM) and on CRM success.

RO 3: To investigate the mediating role of customer knowledge (CK) between ICRM and CRM success

RO 4: To investigate the mediating role of customer relationship maintenance (RM) on the relationship between social capital (SC) and CRM success.

1.4 SIGNIFICANCE OF RESEARCH

1.4.1 Theoretical Contribution

Few studies focus on the antecedents of CRM success (Foss et al., 2008; Coltman, 2007; Roh et al., 2005; Roberts et al., 2005). Moreover, evidence suggests that many firms are finding it difficult to comprehend the business benefits from its application (Finnegan and Currie, 2010). In connection with this, Garrido-Moreno and Melendez (2011) argued that there is a need for an explanatory model for CRM success based on knowledge.

Researchers (e.g. Coltman, 2007; Finnegan and Currie, 2010; Becker et al., 2009) have emphasized the urgency of CRM having an integrated and holistic focus. Hence, this study conceptualizes CRM as an integrated and multidimensional aspect and offers a higher-order notion of ICRM which consists of four first-order components, namely, customer orientation, a customer-centric management system, CRM people and CRM technology. The development of such a multidimensional concept is unique as the existing literature falls short of developing an integrated CRM framework.

This study sheds light on some CRM-specific resources such as customer orientation, a customer-centric management system, CRM people and CRM technology and also expects that these resources, along with other resources like relationship maintenance

and social capital, will positively influence the effectiveness of CRM implementation as well as CRM success. This study also expects that customer knowledge generation, customer knowledge utilization, social capital and relationship maintenance will play direct as well as mediating roles on CRM success.

1.4.2 Practical Contribution

This study has made a number of practical contributions. Firstly, the findings will have significant implications for relationship managers as well as higher-level managers in banks. The findings will enable them to better understand, serve and satisfy their customers in a profitable way, emphasizing their needs and expectations. Customer relationship management success (CRMS) is better achieved when CRM is practised in an integrated way. Relationship managers should persuade higher-level management to focus on customer relationship to make the bank the ultimate choice of the customers.

Secondly, it is expected that integrated customer relationship management will help in customer knowledge generation. This knowledge will eventually assist managers to have better understanding of customers, for example, responding to changing customer needs, customer complaints and customer expectations through the effective implementation of integrated CRM. Adequate customer knowledge enables bank managers to design and customize their products and services in accordance with customers' needs which eventually will help managers to develop and maintain a happy, loyal and profitable customer base.

1.5 DEFINITION OF TERMS

Customer knowledge (CK): According to Nonaka (1994), knowledge is information that has been processed by people. In this context, it can be noted that customer knowledge is information that has been processed by the customer. This definition is also supported by Gwinner et al. (2005) where they conceptualize the measure for customer knowledge as the breadth of customer attribute information held by employees. This notion is further elaborated by Rowley (2002) where he argued that customer knowledge is: (a) knowledge about customers, including knowledge about probable customers, customer segments and individual customers; and (b) knowledge possessed by customers.

Customer orientation (CO): Customer orientation is the organization's understanding of the target customers which is sufficiently adequate to be able to generate

continuously augmented products/services to offer greater value to them (Narver and Slater, 1990).

CRM success (CRMS): There is no clear definition of CRM success; however, based on earlier research, various factors such as efficiency, satisfaction, loyalty and profitability all of which bring success to the organization and also enhance organizational performance have been considered as measures of CRM success in banks.

ICRM: Although there are numerous definitions of CRM in the literature, it is silent regarding ICRM. Drawing from the work of Payne and Frow (2005) the following definition of ICRM will be considered for this study:

ICRM is a managerial and strategic approach which entails a cross functional integration of customer orientation, customer-centric management system, CRM technology and CRM people to generate and utilize customer knowledge and to maintain durable relationship with customers and eventually to achieve CRM success.

Relationship maintenance (RM): Relationship maintenance is an interpersonal process which arises just after a relationship has begun and traditionally is thought to involve efforts to continue a relationship in its present state (Montgomery, 1993).

Social capital (SC): Social capital is defined as “the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” (Nahapiet and Ghoshal, 1998, p. 243).

1.6 ORGANIZATION OF THE THESIS

This thesis is organized and presented in eight chapters which are connected to each other. Figure 1.1 demonstrates the structure on a chapter-by-chapter basis. The summary of each chapter is as follows:

Chapter 1 – Introduction

This chapter presents a framework of the study, including an overview of the overall structure of the research, identifying problem statements and setting up the context with respect to customer relationship management (CRM) integration and CRM success. This is followed by statements of the research questions and research

objectives. The research objectives elaborate the research questions to concentrate on the specific areas. This chapter also presents the overall organization of the thesis.

Chapter 2 – Literature Review

Chapter 2 presents an extensive literature review focusing on customer relationship management (CRM), customer knowledge generation and utilization, relationship maintenance, social capital and CRM success and sheds light on areas of theoretical contributions highlighting the overall research gaps. This chapter presents a comprehensive CRM success model considering customer knowledge, relationship maintenance and social capital as antecedents of CRM success and conceptualizes CRM as an integrated and multidimensional aspect (ICRM) to fill the existing gap in the literature. The review also includes the attitude of banks toward the application of CRM. This chapter also incorporates two core theories: the resource-based view (RBV) and the knowledge-based view (KBV). In addition, this chapter briefly describes the banking industry of Bangladesh.

Chapter 3 – Research Methodology

This chapter primarily focuses on determining the appropriate research approach employed to undertake this research and discusses the methodology adopted for this research. The justification of the method used in the study is explained. This chapter also describes the sample selection and data collection processes. Moreover, the underlying principle of data analysis is also outlined in this chapter.

Chapter 4 – Field Study

This chapter presents the process and outcomes of the qualitative field study. The field study was conducted face-to-face through a semi-structured interview protocol with 11 relationship managers and/or customer service managers of different banks in Bangladesh. To analyse the findings of the study, the content analysis technique was employed. Based on the findings from the analyses of the qualitative data, the initial research model was modified and contextualized to develop a comprehensive research model.

Chapter 5 – Hypotheses and Questionnaire Development

The first section of this chapter describes the development of the hypotheses based on the comprehensive model developed in the preceding chapter. A description of the instrument along with the sources of the measurement items in the light of the previous literature is then presented. Finally, a pre-test procedure is described.

Chapter 6 – Quantitative Data Analysis

This chapter presents the findings obtained through analysing the quantitative data. Partial least squares (PLS)-based structural equation modelling (SEM) has been used to analyse the quantitative data. The first section discusses the results of the pilot study followed by the common method bias and non-response bias assessment results. The next section then presents the findings related to the assessment of the measurement model as well as the hypothesized relationships among the constructs in the model (the structural model).

Chapter 7 – Discussion and Implications

This chapter discusses the findings of the PLS results as they correspond to the research objectives. The implications of the research findings are also discussed. More specifically, this chapter provides a discussion of the research findings in the light of their theoretical and practical implications.

Structure	Description	Output
Chapter 1	i) Overview of the thesis ii) Developing research problem	Research questions Research objectives
Chapter 2	i) Theoretical background ii) Discussion about research gap iii) Conceptual framework	Literature review Initial research model
Chapter 3	i) Research design ii) Methodological stance of the study	Methodology adopted for this research
Chapter 4	i) Qualitative field study ii) Content analysis for data examination	Comprehensive research model
Chapter 5	i) Hypotheses along with comprehensive model ii) Questionnaire development	Hypotheses finalization Design survey instrument
Chapter 6	i) Analysing survey data by using partial least squares (PLS) approach	Represents and reports the survey analysis data
Chapter 7	i) Discussion of the findings	Interpretations of the research findings
Chapter 8	i) Conclusion: overview of the research, limitations and future research directions	Summarizes the thesis and proposes future work

Figure 1.1: Summary of the thesis structure

Chapter 8 – Conclusions and Future Research Directions

The final chapter provides an overview of the study and also presents its significant contribution to theory and practice. This chapter also addresses the limitations and weaknesses of the current research and concludes with a brief discussion of the possible future research directions pertaining to the study area.

1.7 SUMMARY

This chapter has demonstrated the background of the current research and established the scope of this study. It has also presented an overview of the existing literature gap and outlined how the gap has been addressed by this research. This chapter has discussed the existing research in the area of customer relationship management, customer knowledge and social capital. It has then defined the research questions and objectives. Finally, this chapter has presented a brief outline of the organization of this research thesis.

CHAPTER 2 LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents the previous studies and relevant theories related to CRM and CRM success to establish the theoretical background of the research. It highlights the areas where detailed analysis has already been done and also reveals the literature gaps which are addressed in the current research. This chapter finds that there is no single model or theory which not only explains and measures CRM success but also extensively explains the factors behind CRM success. Thus, discussing the relevant issues from the theoretical perspective, this section carries out the groundwork to develop an extensive and integrated, if not a complete, model. This chapter represents the research concept used in this study and also proposes the preliminary research model developed through extensive review of relevant literature.

This chapter consists of five main sections. The first section explains the banking industry of Bangladesh. The second section elucidates a review of the CRM/ICRM literature, and the expected outcome and impact on success of CRM/ICRM. The third section deliberates on the concept of social capital (SC), its dimensions and measurement. The fourth section sheds light on the relationship between and among the components. The underlying theories of the resource-based view (RBV) and the knowledge-based view (KBV) are discussed in the fifth section of the chapter.

2.2 BANKING INDUSTRY OF BANGLADESH

The development of global financial institutions and the divergent needs of consumers for financial services have brought extreme competition into the banking industry (Kim et al., 2010; Peppard, 2000). This competition has induced retail banks to transform their philosophy and practice from being product/service-centred to becoming customer-centred or, more precisely, customer relationship-focused (Kim et al., 2010). Hence, CRM has been rapidly adopted by different organizations (Pan et al., 2006) with banks not being an exception (Kim et al., 2010).

Banking is an essential part of the economy and plays a very important role towards the socio-economic development of a country. The banking industry of Bangladesh has developed over the years under the directives of the government and Bangladesh Bank, the central bank of Bangladesh. After independence in 1971, the banking sector of

Bangladesh started its journey with six distinct nationalized banks governed by the central bank of the country (Bangladesh Bank). The central bank is the prime body to oversee the banking sector of Bangladesh. After the immediate start of the sector's journey, bank branches have expanded quickly. Generally, the expansion of bank branches reduces transaction costs related to the transfer of funds, increases savings and also provides opportunities for investment. However, due to mismanagement, lack of experience, lack of skilled professionals, corruption and excessive government interference, many branches failed to meet customer requirements, failed to comply with rules and regulations and, consequently, suffered losses. To overcome these problems, in 1990, the financial sector reform program was introduced which ultimately aimed to create a new avenue for the banking industry of Bangladesh (Nguyen et al., 2011).

In the post-reform stage, the banking sector has significantly changed in numbers, areas of operations, banking policies, etc. Although the sector started its journey with only six nationalized commercial banks, currently 56 scheduled banks are operating throughout the country. Some nationalized commercial banks have been privatized, foreign ownership of banks has been legalized and regularized, and more new commercial banks are allowed to operate under the umbrella of the central bank. In addition, some state-owned specialized banks like the Bangladesh Krishi (agriculture-focused) bank and Bangladesh Development Bank Ltd. are also operating under the supervision of Bangladesh Bank (the central bank). At the end of 2013, these banks had a total number of 8427 branches with deposits of 5396.0 billion Bangladeshi taka (BDT). This sector holds more than 60% share of gross domestic product (GDP). During the past 10 years, total assets grew by 325%, whereas deposits have increased by 327%. This huge increment is due to the involvement of many local people (total population is 166.3 million) in the banking sector (<http://www.bangladesh-bank.org/>). Last year, the central bank approved nine new commercial banks (which make the total number of scheduled banks 56; earlier it was 47) with a view to enhancing the excellence of banking services through increasing competition in the banking sector. Moreover, it was also expected that these new banks would be able to meet the unfulfilled need and demand for credit from the private sector whose demand has grown significantly in accord with Bangladesh's fast-growing economy (www.thefinancialexpress-bd.com). However, this initiative is not free from criticism as some experts argue that new banks will create heavy pressure on the deposits of existing banks which eventually will influence their prevailing loan liabilities including

non-performing loans. This will create a disparity between their deposits and their outstanding amount of credit or loan portfolio (www.thefinancialexpress-bd.com).

Recent estimations from an investigation conducted by the Institute of Microfinance (IoF) reported that 45% of people have access to banks. The competition in the Bangladeshi banking sector seems to be the fiercest of all (archive.thedailystar.net). Competition in this industry is also hitting the capital market. Moreover, this industry badly needs skilled personnel who will not only serve but also gather and disseminate knowledge to facilitate innovation and the development of new products and services to comply with changing customer needs and demands. There are few personnel who continue to focus on deepening relationships with customers to provide the solutions they need to achieve their goals. A good number of banks, especially state-owned commercial banks, simply follow the prominent local private and foreign banks, replicating their products and services without considering current market trends and eventually these banks lose their market share and experience low profit growth. Moreover, relationship management practices are also very limited in those banks. Experts in this arena also argue that banks need to be very vigilant regarding the ever-changing technology and other relevant issues such as relationship management practices (www.archive.thedailystar.net).

Banks finance many other customer needs and also facilitate various economic activities. However, overcrowding the banking sector is not appropriate as it will create problems for the sector. Although there are a good number of banks operating in Bangladesh, there is still so much room for improvement. In this regard, experts have argued that banks should focus on the quality of their operations and also that they need to introduce new and innovative services (Nguyen et al., 2011; Khondaker and Mir, 2011).

Customer satisfaction has become an essential measure of performance, especially in the banking industry. Ensuring customer satisfaction and thereby achieving their loyalty has become a challenge as most banks are offering similar types of products and services. Moreover, customer satisfaction has failed to receive proper attention as a measure of performance in many least developed and developing countries with Bangladesh being no exception. Furthermore, evidence suggests that the service quality of many banks, especially the state-owned banks, is very poor compared to some other private commercial and multinational banks. Another challenge for the banking industry is related to online banking with this challenge generally arising from

operational inefficiency, lack of coordination and also lack of customer awareness. Hence, the identification of problematic areas and implementation of necessary improvements are very much required in this regard with customer relationship management (CRM) able to play a vital role (Khondaker and Mir, 2011).

In Bangladesh, customers in the banking industry are in a strong bargaining position due to the substantial growth of banks. Hence, banks have to ensure quality service and also need to improve their service level to retain customers. In this highly competitive market, it is highly likely that the augmented products and services soon become expected thereby putting pressure on the banks for differentiation. Therefore, to survive, banks need to focus on new strategies with an emphasis on intangible and inimitable resources such as relationships, customer knowledge and social capital. Of the very few research studies (in the Bangladesh context) found in this regard, the authors have mostly focused on quality, satisfaction and loyalty and, in some cases, on internet banking. In addition, in the Bangladesh context, Rahman et al. (2011) have sought to reveal the role of CRM in the profitability of the telecom industry where CRM has been poorly sketched and narrowly focused as a technology solution. Thus, it is imperative to develop a comprehensive CRM success model for the banking industry of Bangladesh as, based on using the available searching options and resources, no prior research, in this regard, has been found.

2.3 CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

Customer relationship management (CRM) has been an area of interest since 1990; however, it is still a topic of high interest for both academics and practitioners (Dimitriadis and Stevens, 2008) owing to its relative uniqueness and growth. Earlier studies have repeatedly argued that businesses across all sectors need to be carried out through relationships, networks and interactions (Lindgreen, 2005). To create and more effectively manage relationships with customers, businesses, regardless of their size and nature, continue to be motivated to adopt CRM.

The terms 'CRM' and 'relationship marketing' have been used nearly interchangeably in the marketing literature (Parvatiyar and Sheth, 2001). The central focus of CRM and relationship marketing themes is around the viewpoints of longitudinal buyer-seller relationships where both parties gain benefit (Sin et al., 2005). Despite the commonalities, some noteworthy dissimilarities between CRM and relationship marketing exist: (a) relationship marketing is comparatively more strategic in nature, whereas CRM is used in a tactical sense (Ryals and Payne, 2001; Zablah et al., 2004);

(b) relationship marketing is more emotional and behavioural (Yau et al., 2000) whilst CRM is more managerial, concerning management efforts in developing, maintaining and improving customer relationships (Sin et al., 2005); and (c) relationship marketing focuses not only on supplier–customer issues (Gummesson, 2002) but also incorporates stakeholders, such as suppliers, internal employees and customers (Morgan and Hunt, 1994) whereas CRM is more devoted to building and maintaining relationships with key customers (Tuominen et al., 2004).

Despite CRM's progressively acknowledged importance, few research studies have focused on the proper implementation of the CRM concept (Sin et al., 2005; Dimitriadis and Stevens, 2008). Customer relationship management (CRM) has been defined, described and conceptualized in many ways which reflects a variety of views of various researchers. Some authors have defined CRM as a process, whilst others consider it to be a philosophy, a deep customer focus (Vandermerwe, 2004), a strategy, a capability, and/or a technological tool (Zablah et al., 2004; Jayachandran et al., 2005; Becker et al., 2009). It is obvious that CRM is more than simply a technology (Dimitriadis and Stevens, 2008; Keramati et al., 2010). However, there is no theoretical framework to outline how this concept could be properly interpreted into a comprehensive set of actual organizational activities related to CRM success (Becker et al., 2009; Coltman, 2011). In addition, researchers have also argued that CRM has yet to develop as a streamlined body of research having an integrated framework (Payne and Frow, 2005). There is still confusion regarding what constitutes CRM: it has also been opined that CRM itself is multifaceted in nature and that the adoption of CRM is not error-free (Frow and Payne, 2009; Harker and Egan, 2006; Reinartz et al., 2004). In a recent study, Finnegan and Currie (2010) argued that CRM is commonly applied with a high focus on a software package instead of having a thorough understanding of process, people, culture and technology within and across the organizational context. Moreover, when compared to the expectations from CRM, in many cases, research has come up with mixed results (Coltman, 2007; Eid, 2007; Frow and Payne, 2009; Finnegan and Currie 2010). Although the literature on CRM discusses, in isolation, the different components of CRM and their impacts, empirical studies which assess the dimensions of CRM in an integrated way are scarce, which is one of the motivations for conducting this study.

2.4 CRM SUCCESS (CRMS)

Success, itself, is a complex phenomenon, as many criteria need to be used to evaluate success and, amongst all of these, the most pertinent criteria are perhaps specific to the organizational context and the system under consideration (Drury and Farhoomand, 1998; Martinsons and Chong, 1999). In achieving CRM success, evidence suggests that strategic, organizational and technological issues are all important (Roberts et al., 2005). A clear understanding of what factors guide organizations to CRM success is the significant starting point for effective CRM implementation and deployment (Roh et al., 2005). The success of firms depends on their ability to satisfy customers (Garrido-Moreno et al., 2014): understanding how firms can satisfy customers and make a profit through their customer relationship effort is highly significant.

Customer relationship management (CRM) has extended its momentum and firms worldwide are implementing CRM to ensure better customer service, retention and satisfaction. However, the indecisive findings of the prior research present an enigma regarding the importance and effect of CRM on CRM success (Finnegan and Currie, 2010; Reimann et al., 2010; Mendoza et al., 2007). For instance, Coltman (2007), Chang et al. (2010), Mithas et al. (2005) and Ramani and Kumar (2008) reported the positive impact of CRM on success; however, Hendricks et al. (2007) and Voss and Voss (2008) came up with a negative outcome. On the other hand, some researchers (e.g. Garrido-Moreno et al., 2014; Reimann et al., 2010) depicted a positive outcome in conjunction with intervening variables such as marketing capability, organizational commitment, knowledge management, differentiation and cost leadership. Table 2.1 highlights these issues in detail. Due to these conflicting results, it is argued that the mechanisms through which CRM influences performance are not well understood: thus, it is essential to identify and consider the possible intervening variables that may directly influence and/or mediate the relationship between CRM implementation and CRM success (Reimann et al., 2010). This is the backdrop which sets the scene for where this study attempts to make a contribution.

Table 2.1: Performance implications of CRM

Authors	Factors in conjunction with CRM	Performance variables	Impact of CRM
Coltman (2007)	i) Managerial beliefs	i) Reactive market orientation and proactive market orientation ii) Firm performance	Positive (with the existence of proactive market orientation)

Chang et al. (2010)	i) Marketing capability	i) Market effectiveness ii) Market profitability	Positive
Hendricks et al. (2007)		i) Long-term stock price performance ii) Profitability measures	Insignificant
Garrido-Moreno et al. (2014)	i) Organizational commitment ii) Knowledge management	i) CRM success (profitability, market share, sales income, satisfaction)	Positive (depends on organizational commitment, knowledge management)
Mithas et al. (2005)	i) Customer knowledge ii) Supply chain integration	i) Customer knowledge ii) Customer satisfaction	Significant
Padilla-Melendez and Garrido-Moreno (2013)	i) Organizational readiness	i) Financial measures ii) Customer measures	No direct effect
Ramani and Kumar (2008)		i) Profit performance ii) Relational performance	Significant
Reimann et al. (2010)	i) Differentiation ii) Cost leadership	i) Customer satisfaction ii) Market effectiveness iii) Profitability	Significant (indirect link) Insignificant (direct link)
Roh et al. (2005)		i) Efficiency, customer satisfaction (intrinsic success) ii) Profitability (extrinsic success)	Insignificant (profitability) Significant (efficiency, customer satisfaction)
Sin et al. (2005)		i) Marketing performance (customer satisfaction, trust) ii) Financial performance (return on investment, return on sales)	Positive
Srinivasan and Moorman (2005)	i) Strategic commitment	i) Customer satisfaction	Positive
Voss and Voss (2008)		i) Revenue ii) Expenses iii) Net income	Insignificant (revenue) Negative (expense, income)
Yim et al. (2004)		i) Customer satisfaction ii) Customer retention	Mixed (depends on CRM implementation dimension and dependent variable)

The resource-based view (RBV) and knowledge-based view (KBV) focus on the firm's tangible and intangible resources such as technology, customer knowledge, relationship maintenance, social capital, etc. and suggest that the firm should continually renew, reconfigure and redeploy such resources to achieve success (Belkahl and Triki, 2011). Researchers (e.g. Becker et al., 2009) also suggest that mere implementation of systems is not sufficient to achieve the desired success: interactions between people and processes also need to be considered. In a similar fashion, researchers (e.g. Mitussis et al., 2006; Finnegan and Currie, 2010) have argued that CRM implementation often ignores social dimensions as well as the influence of the socio-technical context, and have emphasized the need for a better framework encompassing all those variables. Based on the earlier research and also drawing on the resource-based view (RBV) and knowledge-based view (KBV), this research considers ICRM, customer knowledge generation, relationship maintenance and social capital as important factors for CRM success. Similarly, it is also important to determine what constitutes CRM success as earlier research studies, although very few in number, focused on different issues mostly in isolation as measures of CRM success. Based on the earlier research, this study conceptualizes efficiency (Krasnikov et al., 2009; Roh et al., 2005); customer satisfaction (Roh et al., 2005; Sin et al., 2005; Jayachandran et al., 2005; Reimann et al., 2010); profitability (Roh et al., 2005; Krasnikov et al., 2009); and customer loyalty (Garrido-Moreno and Padilla-Melendez, 2011; Peelen et al., 2009; Gustafsson et al., 2005) as measures for CRM success.

2.5 INTEGRATED CUSTOMER RELATIONSHIP MANAGEMENT (ICRM)

In connection with the previous discussion, it can be argued that CRM requires a cross-functional integration of processes, people and operations which can be enabled and leveraged through technology (Payne and Frow, 2005). In other words, for successful implementation, CRM needs to be integrated with the overall operations of the firm (Piercy, 2009). The resource-based view (RBV) provides a multidimensional perspective on customer relationship management (CRM) as it attempts to connect superior firm performance with available resources (Coltman, 2007). Langerak and Verhoef (2003) have suggested that CRM theory and practice assimilate three aspects: customer orientation, relationship marketing and database management. Likewise, Zablah et al. (2004) have noted other issues related to CRM such as: (a) a strategy that improves the profitability of the relationship portfolio; (b) a philosophy of customer-centricity for the firm; (c) competence that reveals the quality of customer-firm interactions; (d) a technological tool that incorporates sales and marketing information

systems to nurture relationships with customers; and (e) a procedure that embraces the entire organization and focuses on the development and nurturing of relationships with customers. A holistic model is required as empirically validated and integrated measurement for a multidimensional CRM model remains scarce (Becker et al., 2009; Finnegan and Currie, 2010). Therefore, there is a demand for scholarly investigation to develop an integrated CRM framework that incorporates the basic dimensions of CRM.

2.5.1 Dimensions of ICRM

Most of the prior academic literature has predominantly addressed the influence of single CRM activities (Becker et al., 2009). For instance, Hendricks et al. (2007) and Khodakarami and Chan (2014) reported CRM as a CRM system, whereas others considered CRM to be customer relationship orientation and a customer-centric management system (Jayachandran et al., 2005); customer orientation (Kim and Kim (2009); and CRM software use (McNally (2007)). Table 2.2 highlights these issues in detail. In more recent studies, researchers (e.g. Becker et al., 2009; Chang et al., 2010) have argued that a more expansive and holistic approach is required to successfully implement CRM as, in many cases, CRM implementation brought mixed results (Eid, 2007; Frow and Payne, 2007; Finnegan and Currie, 2010).

Table 2.2: Components of CRM

Authors	CRM components
Coltman (2007)	i) Superior CRM capability
Hendricks et al. (2007)	i) CRM systems
Jayachandran et al. (2005)	i) Customer relationship orientation ii) Customer-centric management system
Kim and Kim (2009)	i) Customer orientation
Luneborg and Nielsen (2003)	i) Inter-firm cooperation ii) IT knowledge
McNally (2007)	i) CRM software use
Mithas et al. (2005)	i) CRM application
Rapp et al. (2010)	i) CRM technology
Reinartz et al. (2004)	i) CRM process at customer-facing level
Roh et al. (2005)	i) Process fit ii) System support iii) Customer information quality
Sin et al. (2005)	i) Key customer focus ii) CRM organization iii) Knowledge management iv) Technology-based CRM
Padilla-Melendez and Garrido-Moreno (2013)	i) Information technology

	ii) KM capabilities iii) Customer orientation
Richards and Jones (2008)	i) CRM (generic)
Garrido-Moreno et al. (2014)	i) CRM technology infrastructure
Khodakarami and Chan (2014)	i) CRM system
Wang and Feng (2012)	i) Customer orientation iii) Customer-centric organizational system iii) CRM technology

Relationships in practice are considered to be resources (Hall, 1993) and thus customer relationships in service firms are also considered to be resources (Bharadwaj et al., 1993). The resource-based view (RBV) provides a multidimensional perspective to customer relationship management (CRM) as it attempts to connect superior firm performance with available resources (Coltman, 2007). In this regard, a synthesis of the extant literature (Payne and Frow, 2005; Reinartz et al., 2004; Zablah et al., 2004; Day, 2003; Crosby and Johnson, 2001; Ryals and Knox, 2001; Sin et al., 2005) suggests that CRM is a multidimensional construct consisting of four components: customer orientation (CO), a customer-centric management system (CCMS), CRM people (CRMP) and CRM technology (CRMT). This is also in line with the conception that CRM success is based on integrating four key areas: process, strategy, people and technology (Fox and Stead, 2001). Likewise, Day (2003) argued that when all four of these components work in an integrated fashion, a superior customer-relating capability emerges. Hence, CRM is best conceptualized as a higher-level process that reflects the relevant CRM components such as customer orientation, a customer-centric management system, CRM people and CRM technology. Thus, ICRM, as a multidimensional construct, includes all the activities that a firm considers significant in the quest of building and maintaining profitable and mutually beneficial customer relationships. The following section sheds light on each dimension and its associated components.

2.5.1.1 Customer Orientation (CO)

Customer orientation (CO) has been recognized as the basis of the relationship marketing concept (Hennig-Thurau, 2003). Generally, customer orientation refers to the adequate understanding of the target customers that enables an organization to offer augmented products and added value to their customers (Narver and Slater, 1990). In other words, the extent to which frontline employees try to satisfy the needs of the customers rather making immediate sales is defined as customer orientation (Saxe and Weitz, 1982). Thus, customer orientation stresses the significance of

determining and addressing the preferences of customers, especially bank customers (Rapp et al., 2010). These authors also argued that a customer-orientated philosophy and practice should guide the organization's attitude towards the development and maintenance of strong customer relationships. Moreover, customer interaction is likely to play an important role in the success of service organizations due to the intangible nature of services and their required level of customer interaction (Henning-Thurau, 2003).

Customer orientation is a culture-based concept which reflects the shared mental approaches, values and behavioural norms that enable a firm to put customers' interests first (Day and Van den Bulte, 2002). The customer orientation of customer contact employees supports the development and maintenance of durable customer relationships which eventually influence the firm's performance (Bove and Johnson, 2000). As a distinctive firm-level resource, customer orientation can directly influence customer relationships (Song et al., 2005; Rapp et al., 2010). According to the resource-based view (RBV) (Wernerfelt, 1984), it can also be argued that customer orientation allows organizations to anticipate changes in the respective market and respond accordingly (Foley and Fahy, 2009). Taking into consideration the resources which facilitate relationships with customers, this study argues that customer orientation (CO), as a distinctive firm-level resource, is an essential part of an ICRM framework.

2.5.1.2 Customer-Centric Management System (CCMS)

A customer-centric management system (CCMS) represents the structure and incentives that enable a firm to build and sustain customer relationships, focusing on customers rather than on functional areas (Day, 2003). Moreover, the usefulness of CRM activities largely depends on how relationship management initiatives are integrated with the firm's existing processes and infrastructure (Boulding et al., 2005). Therefore, this measure assesses the organization and coordination of the firm around customers and their needs and specific incentives that facilitate the firm in focusing on CRM. In connection with this, Plakoyiannaki et al. (2008) argued that employee training and development, focusing on building up necessary skills for learning about customers and sensitivity to customer needs, ensure that employees are prepared and motivated to act in a service-oriented manner which eventually facilitates the value-creation process.

A customer-centric management system is defined as an organizational arrangement aimed at changing the firm's structure, processes and incentive policies to ensure

better and durable customer relationships (Chang et al., 2010; Day, 2003; Jayachandran et al., 2005). This system, as an enabler of CRM success (Raman et al., 2006), should focus on structural aspects to ensure that organizational activities are driven by customer needs and not by internal issues (Jayachandran et al., 2005). In addition, firms need to integrate their relationship initiatives throughout their overall operations (Wang and Feng, 2012). Earlier studies have used different terminologies to label the customer-centric management system, such as customer-centric business process (Chen and Popovich, 2003), CRM organization (Sin et al., 2005) and configuration (Day, 2003). However, it is commonly suggested that this system helps an organization to emphasize customer-centric actions and also to focus on customer interactions (Chang et al., 2010). This is more likely to be attained when the firm is designed around customer groups, the management system is in accordance with customer orientation (Day, 2003) and employees are rewarded for their performance in relationship management-allied activities (Wang and Feng, 2012).

2.5.1.3 CRM People (CRMP)

People (employees) play a critical role in the implementation as well as the success of CRM. This opinion has also been reported by Kim et al. (2010) who, while investigating the role of resources and capabilities of CRM performance, found a positive connection between people and CRM success. Customers often rely on the behaviour of services employees when evaluating services quality due to the intangible and interactive nature of services (Tether, 2005). Observing the reflection and involvement of employees (CRM people) in relationship effort has led to their inclusion as another element of integration.

Employees (CRM people) are the building blocks of customer relationships (McGovern and Panaro, 2004; Ryals and Knox, 2001). Likewise, Reinartz et al. (2004) suggest that successful CRM practice requires a strong focus on employees (CRM people). Frontline employees (people) are directly responsible for face-to-face interaction, customer service, service quality, and customer satisfaction. Most academics and practitioners have agreed that committed CRM people share customer-oriented values and deliver a high level of service quality (Hartline et al., 2000; Singh, 2000). If management wants its employees to do a great job with customers, employees need to be treated as organizational assets (Clark and Barker, 2007; Plakoyiannaki et al., 2008). Lusch et al. (2007) suggested that, if firms act in a consistent manner, they can rejuvenate

themselves as service-oriented firms and develop a service-focused culture by treating employees as important resources.

Employees (CRM people), in many banks known as relationship managers or customer service managers, have the utmost influence in reducing customer defection, and their success essentially determines the effectiveness of CRM implementation (Yim et al., 2004). Accordingly, Krauss (2002) argued that the hardest part of becoming relationship-oriented is not the technology but the people. As CRM initiatives represent a fundamental shift from product orientation to customer orientation, this result in an emphasis on CRM people. To comply with the changing business philosophy, individual employees must come forward to cope with and also to change the way that they view and treat their customers (Chen and Popovich, 2003). Organizations must focus on delivering superior value, better communication, quick delivery and personalized products and services, in all aspects of which CRM people play a vital role. However, some other underlying dimensions surrounding employees are also required for the integration of relationship management practices.

2.5.1.4 CRM Technology (CRMT)

Financial service providers, for example, banks, use information technology (IT) to offer and deliver new financial products or to complement existing ones, such as deposits, investment, credit and card services, and insurance services (Karakostas et al., 2005). Customer relationship management technology (CRMT) is the information technology deployed by the firm for the improved management of customer relationships (Jayachandran et al., 2005; Reinartz et al., 2004). Technology plays a significant role in CRM by adding to firm intelligence (Boyle, 2004).

Customer relationship management technology (CRMT) includes front-office as well as back-office applications. Front-office applications support sales, marketing and other associated services while the back-office applications integrate and analyse data about customers (Wang and Feng, 2012). In addition, the promise of one-to-one relationships and personalized services is now possible due to the effective coordination of front-office and back-office applications. This ultimately transforms the traditional approach to CRM into an integrated and web-enabled approach supported by tools such as customer support systems and call centres (Langerak and Verhoef, 2003; Xu and Walton, 2005). The use of CRM technology is expected to enhance profitable customer relationships through the smooth collection, analysis and dissemination of information which eventually results in effective firm–customer interaction and customization of

responses (Day, 2003; Wang and Feng, 2012). Similarly, this technology also facilitates customer relationships through enabling employees to expand their focus on customers (Rapp et al., 2010). Moreover, it helps companies to gather, analyse and disseminate information for better communication and personalized value offerings (Yim et al., 2004). Many customer-centric activities, for instance, sales force automation, campaign management, contact centre management, telesales and data analysis would be impossible without proper technology (Langerak and Verhoef, 2003; Sin et al., 2005).

Finally, in accordance with earlier researchers (e.g. Kim et al., 2010, Chang et al., 2010; Becker et al., 2009; Coltman, 2007; Eid, 2007; Sin et al., 2005; Jayachandran et al., 2005) and in line with the issues discussed above, CRMT has been considered to be the most appropriate dimension of ICRM and also to be an essential component of successful CRM implementation.

This study considers ICRM as a multidimensional concept and that each dimension can be divided into a collection of components that facilitate the performance of a given task. Based on a review of the relevant literature (e.g. Narver and Slater, 1990; Sin et al., 2005; Jayachandran et al., 2005; Liu and Comer, 2007; Rapp et al., 2010), a group of items has been generated for each dimension of the construct. Initially, 23 items were adopted to measure the four dimensions of ICRM. Table 2.3 highlights these items in detail.

Table 2.3: Dimensions and related components of ICRM

Dimensions	Components	References
Customer Orientation	Priority to customer needs rather than internal needs	Narver and Slater (1990)
	Personalized services for valued customers	Thomas et al. (2001); Sin et al. (2005)
	Ease of access and comfort	Narver and Slater (1990)
	Intention/effort to develop and maintain relationship with customers	Narver and Slater (1990)
	Positive attitude about customer complaints	Rapp et al. (2010); Jayachandran et al. (2005)
	Close attention to after-sales service and communication	Rapp et al. (2010)
	Customer relationship as a valuable	Jayachandran et al. (2005)

	asset	
Customer-centric Management System	Employee training programs for deepening customer relationships	Liu and Comer (2007); Jayachandran et al. (2005); Sin et al. (2005); Becker et al. (2009)
	Monitoring employee performance based on relationship effort	Jayachandran et al. (2005)
	Value-based customer segmentation	Jayachandran et al. (2005)
	Product/service diversification	Jayachandran et al. (2005)
	Coordination of various functional areas and activities	Jayachandran et al. (2005)
CRM People	Employee gives key customers priority	Rapp et al. (2010); Sin et al. (2005)
	Employee interpersonal skill and convincing capability	Henning-Thurau (2004)
	Adequate knowledge about overall service operations	Henning-Thurau (2004)
	Employee willingness to help customers	Sin et al. (2005)
CRM Technology	We have the latest software	Sin et al. (2005)
	Invest in technology to acquire customer information	Reinartz et al. (2004); Jayachandran et al. (2005)
	Dedicated CRM technology in place	Reinartz et al. (2004)
	Extensive use of IT	Jayachandran et al. (2005)
	Customer information integration through CRM technology	Jayachandran et al. (2005); Rapp et al. (2010)
	Individual customers' information is available at every point of contact	Sin et al. (2005); Rapp et al. (2010)
	Use technology to forecast customer preferences	Jayachandran et al. (2005)

2.6 CUSTOMER KNOWLEDGE GENERATION (CKG)

Knowledge is information that has been processed by people (Nonaka, 1994). In this context, it can be argued that customer knowledge is information that has been processed by the customer. This notion is also supported by Gwinner et al. (2005)

where they have conceptualized the measure for customer knowledge as the breadth of customer attribute information captured and stored by employees. Knowledge can be either explicit or tacit and researchers have considered both equally important for the formation of overall knowledge (Chow and Chan, 2008).

Knowledge generation refers to the process in which knowledge is embraced by an organization from external sources as well as from internal sources (Davenport and Prusak, 1998) and made suitable for subsequent use (Holsapple and Singh, 2001). To improve customer service, essential factors include identification of the causes behind customer defection as well as ways of preventing defections, and the generation of knowledge about customers' preferences and behaviour patterns. Knowledge generation in banks should focus on the exchange and sharing of information (Shih et al., 2010). An organization's ability to generate knowledge depends on its capability to convert and combine knowledge from various sources. However, very few studies have been established to address customer knowledge generation in the context of CRM implementation (Iriana and Buttle, 2007; Mithas et al., 2005; Xu and Walton, 2005).

Customer knowledge is a critical asset and generating, managing, sharing and utilizing this asset can be a source of competitive advantage (Garcia-Murillo and Annabi, 2002): therefore, it has become an issue of interest in the domain of CRM and CRM success. Rowley (2002) categorized customer knowledge as: (a) knowledge about customers—which includes knowledge about potential customer segments and individual customers; and (b) knowledge possessed by that customer segments. This notion has been further elaborated by several researchers (e.g. Smith and McKeen, 2005; Garcia-Murillo and Annabi, 2002; Geib et al., 2006; Gable et al., 2008; Khodakarami and Chan, 2014) where they classified customer knowledge into three categories: (a) knowledge about customers which refers to knowledge related to customers' backgrounds, needs, motivations and preferences; (b) knowledge for customers: this knowledge is basically provided to customers to satisfy their queries and includes their need for knowledge regarding products, services and other relevant issues; and (c) knowledge from customers which refers to the knowledge possessed by customers about products, services, latent demand and competitors: the firm can obtain this knowledge through interacting and communicating with their customers by various means.

Earlier researchers have discussed the interaction of CRM systems and customer knowledge with an emphasis on how to gain customer knowledge (knowledge about customers) through CRM systems. Prior studies did not detail the knowledge creation

process which focuses on knowledge from customers (Iriana and Buttle, 2007; Ryals and Payne, 2001). For instance, Xu and Walton (2005) considered analytical CRM systems and explained how such systems could be used to acquire knowledge about existing and prospective customers both internally and externally. In a similar vein, Karakostas et al. (2005) explained the application of CRM tools at the strategic and process levels, and how these tools support communication and business-to-customer (B2C) interactions. In addition, a few studies (e.g. Chen and Su, 2006; Belbaly et al., 2007) have explained the collaboration between knowledge management and customer knowledge. For example, Belbaly et al. (2007) discussed how knowledge from customers was captured by the knowledge creation process (Nonaka, 1994) in the context of new product development. In a recent study, Khodakarami and Chan (2014) explained three categories of CRM systems and their role in knowledge creation process: they considered CRM as a system rather than as a multidimensional subject and hence did not consider the role of customer orientation, customer-centric management and also CRM people in this regard. From the earlier study, it was revealed that the discussion has been restricted to either one CRM system or different categories of CRM systems (Khodakarami and Chan, 2014) and/or one type of customer knowledge (Xu and Walton, 2005; Khodakarami and Chan, 2014). In this context, this study addresses the role of ICRM in the generation of knowledge about and from customers.

Very few studies, even fewer in the domain of CRM, have reported the mediating role of customer knowledge generation. For example, Joshi and Sharma (2004) depicted the mediating role of knowledge between conflict resolution and organizational goals. However, Zheng et al. (2010) explained the mediating role of knowledge generation between organizational effectiveness and organizational structure and, similarly, Mithas et al. (2005) examined the mediating role of customer knowledge in the relationship between CRM application and customer satisfaction. Conceptually, customer knowledge has a positive effect on success and firms with better knowledge about their customers are highly likely to be successful. Hence, there is a need to investigate the mediating role of customer knowledge generation in the relationship between ICRM and CRM success.

2.7 RELATIONSHIP MAINTENANCE

Relationship maintenance is an interpersonal process which arises just after a relationship has begun and traditionally is thought to involve efforts to continue a

relationship in its present state (Montgomery, 1993). Relationship development and maintenance is an ongoing process (Parvatiyar and Sheth, 2000) and improves over time (Gronroos, 2000). Undoubtedly, there is much resemblance between a business and a personal relationship; for instance, in a marriage, two individuals exchange with each other only when the balance of trade is favourable to both (Kumar et al., 1995; Peppers and Rogers, 2004). Hence, it is essential to focus on the fundamental mechanisms pertaining to a strong relationship. In this regard, Aurier and N'Gola (2010) argue that CRM activities are not only devoted to customer retention but also to induce them into cross-buying.

Earlier research on social and personal relationships endeavoured to define relationship maintenance whereas the CRM and marketing literature were silent, instead focusing on the dimensions of relationship maintenance. The conceptions of relationship maintenance differ; however, maintenance traditionally is believed to involve efforts to continue a relationship in its present state. Considering relationship maintenance as an interpersonal process (Baxter, 1990; Rawlins, 1992), earlier researchers emphasized the stability of the relationship (Montgomery, 1993; Parvatiyar and Sheth, 2000). The stability of the relationship also requires the intention to be in the relationship as it continually changes, adapts to, accommodates or transforms the tensions of relational life which eventually offer many benefits. It can be noted that relationship marketing theory considers the role of relationship quality in relationship maintenance (Aurier and N'Gola, 2010) but is silent about the role of CRM initiatives in this regard.

Researchers have defined relationship length and breadth in terms of customer retention and cross-buying, respectively (Bolton, 2004). Customer retention can be viewed as a measure of relationship continuation, while cross-buying can be considered in terms of relationship development (Verhoef, 2003): both have a positive effect on business performance. Similarly, cross-selling (cross-buying from the customer's perspective) emphasizes the extension of relationships with customers (Verhoef and Donkers, 2005). More precisely, customer retention seems to be the outcome of a kind of repetitive decision by customers (Selnes, 1998). Customer retention is concerned with minimizing customer defection whereas cross-selling and up-selling focus on the maintenance of the relationship through its extension (Liu and Wu, 2007); however, the role of ICRM is not adequately addressed in this regard.

Earlier researchers (e.g. Reinartz et al., 2004; Becker et al., 2009) have depicted relationship maintenance as one of the stages of the CRM process. Similarly, Reimann et al. (2010) argued that relationship maintenance is one of the stages of the firm–customer relationship within the premise of CRM. However, other researchers, for example, Tuominen et al. (2004) and Nguyen and Mutum (2012) argued that CRM is devoted to maintaining relationships with customers. Hence, there is a debate whether relationship maintenance is an outcome or a component of CRM. In the CRM literature, it is not always clear what constitutes a good relationship (Nguyen and Mutum, 2012). The prior literature, although only a few studies, mostly addresses the role of single CRM components, for instance, a database (Zablah et al., 2004), a CRM system (Chang, 2007) and customer orientation (Wang and Feng, 2012) in relationship maintenance while ignoring the other components of CRM. Thus, this study attempts to address this gap in the literature through investigating the role of ICRM in customer relationship maintenance. In addition, Becker et al. (2009) reported mixed outcomes of the organizational and technological implementation of CRM on relationship maintenance as well as success while other researchers (e.g. Jayachandran et al., 2005; Reinartz et al., 2004) highlighted the positive impact of relationship maintenance on success. The existence of this debate in the literature opens an opportunity to investigate the role of relationship maintenance in CRM success.

2.7.1 Dimensions of Relationship Maintenance

The relationship maintenance process embraces normal customer relationships such as cross-selling, up-selling and customer retention (Moutot and Bascoul, 2008). In a similar vein, Reinartz et al. (2004) argued that relationship maintenance has distinct dimensions. They suggested that maintenance stage activities emphasize customer retention, cross-selling and up-selling as ways of increasing the profitability of customer relationships. In addition, Becker et al. (2009) suggested that companies need to maintain and intensify customer relationships in such a way that this results in expanded relationships through cross-selling and up-selling. Verhoef (2003) considered customer retention as a measure of relationship maintenance. Similarly, Aurier and N’Gola (2010) and McNally (2007) also suggested customer retention and referral management as dimensions of relationship maintenance. Based on the earlier research, this study considers customer retention, up-selling and cross-selling, and customer referral as dimensions of customer relationship maintenance.

Considering the above discussion, it can be argued that relationship maintenance is a higher-order construct comprising customer retention, cross-selling and up-selling,

and customer referral (Reinartz et al., 2004; Reimann et al., 2010; Aurier and N'Gola, 2010). These researchers also opined that these are the important indicators of the maintenance of successful relationships over time. Expectation of future continuation and willingness to give referrals were identified as the signals of a durable long-term relationship (Reimann et al., 2010; Wong et al., 2007)

2.7.1.1 Customer Retention (CR)

A core idea in CRM is that firms need to make efforts and invest in order to retain existing customers (Ryu and Feick, 2007). In an era of intense competition, many organizations are trying to enhance their efforts to retain customers. Relationship length has an important positive effect on customer retention (Liu and Wu, 2007). In the literature, various approaches have been undertaken to conceptualize customer retention. Some authors have emphasized the repurchase intention, considering this construct as a single item. The use of repeat purchase as a measurement of retention has largely been criticized due to the lack of theoretical basis, as this type of measurement may not necessarily specify an attachment to a particular brand (Day, 2002). On the other hand, some researchers have defined retention as a blend of intentional repurchase behaviour and the psychological attachment of a customer to a particular service provider, such as a bank (Minami and Dawson, 2008). Nowadays, banks have changed from being product-oriented to customer-oriented and have placed emphasis on customer retention and its consequences in their overall strategy (Beerli et al., 2004).

The concept of customer retention is an outcome of relationship management practices (Eid, 2007; Henning-Thurau et al., 2010). For instance, problem management, which encompasses the speed with which complaints are handled and the way in which this is done, plays a significant role in maintaining profitable customer retention (Eisengrich and Bell, 2006; Reinartz et al., 2004). Similarly, companies (e.g. banks) adopting CRM technology have a more customized approach to relationships and more individualized customer service for their customers than those adopting a product-oriented focus which, in turn, helps the former to retain their customers (Frow and Payne, 2009).

2.7.1.2 Cross-selling and Up-selling (CS-US)

Cross-selling and up-selling have been recorded as the most important performance metric of both banks and their employees. Employees normally refer other products and services to their valued customers. For example, when a customer makes a deposit into a personal bank account, the frontline employees or relationship managers may

ask if they are interested in other products such as a home loan, or any other term loan (Avey et al., 2010).

Selling additional products and/or services to existing customers through cross-selling and up-selling is another outcome of CRM (McNally, 2007). The risk associated with cross-selling is that customers will be annoyed if cross-selling becomes aggressive and this could possibly harm customer retention (Vyas and Math, 2006).

2.7.1.3 Customer referral (CRf)

The dynamic and competitive nature of business suggests that new customers are also important, along with existing customers, for the growth of the business. It is generally accepted that, in terms of services and products, services are tougher to evaluate and pose more risks to customers (Murray and Schlacter, 1990). This attribute is applicable only to professional services such as medical, legal and banking services. In professional services, customers perceive greater risk and susceptibility because they lack the experience and knowledge to fully comprehend and confidently assess the service results (Sharma and Patterson, 1999). To lessen the risk related to services, service customers have a declined choice for outright purchase (Murray, 1991). In addition, they participate to a large extent in the information acquisition process when assessing service providers. To do so, customers generally prefer personal sources such as referrals by friends and family members, to impersonal sources such as advertisements, because they have more confidence in personal sources and find them to be more effective than other sources, such as mass media (Schumann et al., 2010).

Customer referral, as a relationship marketing tool, can refer to the situation where a new customer enters into a transaction with a bank (firm) and indicates that the inspiration for the transaction was an existing customer (Kumar et al., 2010). Recently, product-oriented firms as well as a few service-oriented firms have introduced formal programs designed to encourage current customers to recommend new and prospective customers, with the banking industry no exception (Ryu and Feick, 2007; Villanueva et al., 2008; Kumar et al., 2010). However, the role of the components of ICRM in the customer referral process has received less attention in the prior CRM literature. In order to encourage existing customers to recommend new customers, customer relationship managers and/or CRM people must ensure that customers feel secure in their transaction, perceive negligible risk and also feel comfortable in the service relationship (Dagger et al., 2011).

2.8 SOCIAL CAPITAL

Social capital is a key driver of sales-related performance, especially in knowledge-intensive contexts (Ustuner, 2005). The ability to construct social capital across networks has become vital due to the development of the networked economy (Lesser, 2000). With the growing significance of the role of business networks in improving a firm's competitive advantage, the social capital–success link has emerged as a conspicuous strategic management research area (Andersson et al., 2002; Kotabe et al., 2003; Uzzi and Gillespie, 2002). Moreover, conceptual theories generally affirm that social capital positively affects organizational success; however, empirical results have come up with mixed outcomes. Despite the importance of social capital for CRM success, the link between social capital and CRM initiatives as well as CRM success has not yet been adequately tested by empirical research. This is also evident from the work of Mitussis et al. (2006) and Finnegan and Currie (2010) as they argued that the focus on social dimensions and the socio-technical context is missing from most of the CRM initiatives. Hence, this study seeks to address this gap in the literature through investigating the role of social capital, in conjunction with ICRM, in CRM success.

Social capital exists in the relationships between people and also influences the development and maintenance of relationships (Nguyen and Mutum, 2012; Okoli and Oh, 2007; Yli-Renko et al., 2012). This notion can be labelled as goodwill created by the network of social relationships (Adler and Kwon, 2002). In other words, this is about relationships within social networks (Yang et al., 2011). There is a lack of consensus on a clear-cut definition of social capital (Wu, 2008; Nahapiet and Ghosal, 1998), as it is still in the emerging phase of the life cycle (Wu, 2008; Giroux, 2006). For instance, Baker (1990) defined social capital as a resource that actors originate from specific social structures and then use to pursue their interests. On the other hand, Nahapiet and Ghoshal (1998) defined social capital as the amount of real and possible resources entrenched within, available through and resulting from the network of relationships controlled by an individual or social unit. Furthermore, Lappe and Du Bios (1997) precisely characterized the concept as an 'elastic term' as it means many things to many people (Wu, 2008). Moreover, the concept of social capital is a context-specific and dynamic issue (Bjork and Magnusson, 2009; Evers et al., 2010) and the role of social capital is not adequately explored.

In the literature, different conceptualizations of social capital can be found. Prior researchers (e.g. Putnam, 1995; Fukuyama, 1995, 1997) describe social capital as

norms of trustworthiness arising from a social network or informal norms that promote cooperation. Other researchers have emphasized the structural aspects of social networks and have viewed social capital as a network of positive outcome generators (Coleman, 1988). In this regard, Adler and Kwon (2002) characterized the existing definitions of social capital into three different aspects: (a) bridging views, (b) bonding views and (c) neutral views. The bridging views primarily consider social capital as a resource that is embedded in the social network and positioned in the external linkages of a focal actor. The bonding views, on the other hand, consider the internal characteristics of the combined actors, especially those features that provide cohesiveness and thus enable the pursuit of collective goals. In this regard, Coleman (1990) stated that social capital can be defined by its function and that it is not a single entity, instead being a range of different entities with two common characteristics: (a) they all comprise some aspect of social structure and (b) they also enable certain actions of individuals who are within the structure. Similarly, Putnam (1995) labelled social capital as landscapes of social organization with an emphasis on networks, norms and social trust which facilitate organization and cooperation for shared advantage. The third view emphasizes the neutrality in this internal/external dimension. In the literature, the term 'social capital' has been used as a collective attribute of communities or societies and as resources associated with individuals and their social relationships (Pulkkinen et al., 2011). This concept reflects the impact of human relationships on socio-economic activity (Bathelt and Gluckler, 2003; Boggs and Rantisi, 2003; Hauser et al., 2009). Therefore, social capital can be defined as an idea that signifies immaterial liabilities and assets which stimulate situations for cooperation between individuals or organizations eventually enhancing or inhibiting the performance of an organization. Social capital, as an antecedent of CRM success, does not receive much attention in the CRM literature.

2.8.1 Dimensions of Social Capital

Social capital dimensions can be broadly categorized into three clusters: (a) structural, (b) relational and (c) cognitive (Nahapiet and Ghoshal, 1998). The structural dimension of social capital is concerned with the pattern of relationships that defines a partnership position in the network. The relational dimension illustrates the level of trust between people that evolves during interactions. The cognitive dimension, on the other hand, is concerned with shared representations and interpretations. Shared understanding is essential for knowledge sharing (Wasko and Faraj, 2005). Table 2.4

summarizes the important literature related to the different dimensions of social capital.

Table 2.4: Social capital factors

Literature	Structural dimension	Relational dimension	Research outcome/Findings
Chua (2002)	Frequency of interaction, social ties	Willingness to help, trust, empathy, openness to sharing	Knowledge creation
Huysman and De Wit (2004)	Network ties and network configuration	Mutual trust, norms	Knowledge sharing
Inken and Tsang (2005)	Network ties, network configuration	Trust	Knowledge transfer
Nahapiet and Ghoshal (1998)	Network ties, network configurations	Trust, norms, obligations and expectations	Knowledge exchange and creation
Requena (2003)	Social relations	Trust, commitment, communication	Career success
Tsai and Ghoshal (1998)	Social interaction	Trust and trustworthiness	Resource exchange and value creation
Yli-Renko et al. (2001)	Social interaction, network ties		Knowledge acquisition and exploitation
Factors considered in this study	Personal connection, social interaction	Trust	Knowledge generation, relationship maintenance, CRM success

The development of long-term relationships is influenced by social aspects (Nguyen and Mutum, 2012; Yli-Renko et al., 2001). Customers may continue with a service provider not only due to superior service or performance, but also because of the commitment or ties that he or she has developed over time to the service provider or their employees. The prior CRM literature has largely ignored the role of the relational dimension of social capital in relationship maintenance.

It is argued that customers' behaviour may be considerably influenced by social interaction with employees such as CRM people (Nitzan and Libai, 2011). The customer-employee personal connection and social interaction, both dimensions of social capital, reduce doubts about the relational outcome and show that the employee is committed to the customer's best interest (Yim et al., 2008). In turn, this motivates

customers to rely on the employee (e.g. CRM people) and also to maintain a relationship. Finally, employee trust, another dimension of social capital, helps to reduce the risks of service exchanges and dynamically develops ongoing connections. From the above discussion, it can be argued that social capital is a multidimensional hierarchical construct comprising trust, personal connection and social interaction (Yli-Renko et al., 2001; Okoli and Oh, 2007; Wu, 2008) which can motivate customers to maintain relationships and also enhance the performance of an organization.

2.8.1.1 Trust (T)

Trust can be defined as the level of integrity, honesty and competence that one party perceives in another. In general, trust is viewed as a critical component in the development of a persistent desire to develop and maintain a long-term relationship (Morgan and Hunt, 1994). The study of trust has resulted in various context-specific contributions; however, there is a common and shared understanding that trust is a feeling of security based on the belief that favourable and positive intentions are planned compared to taking advantage of others (Morgan and Hunt, 1994). Customers will spread negative word of mouth if they have less trust in a firm's behaviour and/or employee behaviour with this basically developing over repeated transactions (Nguyen and Mutum, 2012).

2.8.1.2 Personal Connection (PC)

Personal contact between employees (CRM people) and customers facilitates a strong relationship (Frow and Payne, 2009). The customer's perception of an enjoyable interaction with an employee (CRM people) is represented by his or her personal connection (Gremler and Gwinner, 2000). The employee's personal connection with the customer in banking services reduces uncertainties about the relational outcome and represents the employee's dedication and commitment to the customer's interest; however, personal connection has received very limited attention in the CRM literature (Crosby et al., 1990; Frow and Payne, 2009).

2.8.1.3 Social Interaction (SI)

Social interactions stimulate attraction and social relationships (Emerson, 1987; Yim et al., 2008). The social network ties facilitate employee-customer social interactions and thus provide opportunities to develop, maintain, and nurture personal and professional relationships in a service setting (Inkpen and Tsang, 2005). A manager through his or her own social interactions and personal connections (social capital) can

help his or her firm (Inkpen and Tsang, 2005); however, social interaction has received very little attention in the CRM literature.

2.9 MEASURES OF CRM SUCCESS

Very few studies have focused on the measures of CRM success with most researchers expressing the view that impact on performance is the reflection of CRM success (Garrido-Moreno et al., 2014). Thus, it is essential to determine what constitutes CRM success. One of the success factors in a CRM-supported relationship is a growth in value which benefits both the customer and the bank (firm) (Nguyen and Mutum, 2012). Recent studies have indicated that the performance outcome of CRM is reflected by the creation of value for customers as well as for firms (banks) (Nguyen and Mutum, 2012; Becker et al., 2009). In order to understand how CRM creates value for both customers and firms, this study considers the following different measures of CRM success: customer satisfaction (Shum et al., 2008; Sin et al., 2005); customer loyalty (Shum et al., 2008; Chang et al., 2010); efficiency (Krasnikov et al., 2009; Roh et al., 2005); and profitability (Coltman, 2007; Saini et al., 2010; Sin et al., 2005).

2.9.1 Efficiency

Efficiency is an important and useful measure of performance (Roh et al., 2005). According to Krasnikov et al. (2009), efficiency is a measure of how well a firm uses its resources for production and/or the service delivery process. Success is generally defined in terms of the achievement of some pre-set goals which usually include numerous efficiency parameters such as time, cost and function (Hong and Kim, 2002; Roh et al., 2005). Banks normally invest a significant amount in technology to improve the efficiency of banking services. Researchers have measured efficiency as one of the measures of CRM implementation success in terms of cost reduction, time savings and reduction of relationship management-related workload. This study considers that efficiency reflects the success of CRM which is assisted by ICRM, RM and social capital.

2.9.2 Satisfaction

Satisfaction can be defined as an emotional attachment resulting from a customer's interactions with a service provider, such as a bank, over time (Crosby et al., 1990). In other words, it is the combined outcome of the customer's psychological reaction, perception and evaluation of the consumption experience about a product and/or a service (Fornell, 1992; Yi, 1990). Customer satisfaction is usually considered to be the most useful measurement of system success (Chen et al., 2000). Satisfied customers are

more likely to stay in a relationship: on the other hand, dissatisfied customers are probably looking for substitute options (Gustafsson et al., 2005). The customer relationship with a company is supported when the customer makes a favourable assessment about the firm's service quality: the customer relationship deteriorates when a customer makes negative judgements about the firm's service quality (Zeithaml et al., 1996). As service firms such as banks seek operative ways to measure their customer relationship effort, many firms have voted to use the traditional tool of customer satisfaction. Hence, this study considers customer satisfaction as a measure of CRM success (Gustafsson et al., 2005).

2.9.3 Loyalty

Customer loyalty has been conceptualized as the blend of attitudinal as well as behavioural components. Loyalty can be defined as a commitment to continue business with a company on an ongoing basis. This can also be defined as a state of mind or a set of attitudes and desires which consumers exhibit towards any brand, service or store (Uncles et al., 2003). A company gains benefits from customers' loyal behaviour. At the same time, loyal customers often believe that they receive better service due to their loyalty. Managing customer loyalty is an important issue for the success of the business and customer relationship management (CRM) is concerned with the creation of long-term relationships as well as loyalty (Zineldin, 2006).

2.9.4 Profitability

The last measure of CRM success is the profitability (Roh et al., 2005) of banks. Firms that have sound relationships with customers enjoy higher profitability (Reinartz et al., 2005). Banks with strong CRM practices demonstrate superior profitability in comparison to other banks (Krasnikov et al., 2009). Nevertheless, the impact of CRM implementation on bank profitability has not received sufficient attention (Kumar et al., 2010).

2.10 REVIEW OF THEORIES

As mentioned earlier, the resource-based view (RBV) and the knowledge-based view (KBV) of the firm have laid the theoretical grounding for this study. Considering that the utility of every theory depends on suitable replications and extensions that offer new insights and add to the existing body of knowledge (Santhanam and Hartono, 2003), this study will apply this theoretical grounding to CRM and other associated factors in developing a research model to analyse CRM success.

2.10.1 Resource-based View (RBV) of the Firm

Edith Penrose, one of the first scholars who recognized the significance of resources, argued that a firm's growth depends on how the resources are employed by the firm. Apart from Penrose (1959), Rubin (1973) conceptualized firms as a bundle of resources prior to the formal origins of the resource-based view (RBV) (Wernerfelt, 1984). This work is based on the resource-based view (RBV) which has long been regarded as a central framework for evaluating performance (Mata et al., 1995; Ray et al., 2005). This view provides a foundation for recognizing and explaining why similar or divergent firm resources can result in varied success (Tokarczyk et al., 2007). A firm's CRM resources consist of not only tangible resources, but also a number of intangibles such as customer-oriented people, process, organization and culture; hence, the mere replication of tangibles will not guarantee a similar level of CRM performance (Kim et al., 2010). The intangible resources associated with relationship management should be combined with tangible resources to achieve the firm's sustainable competitiveness (Grant, 1991) with this also directed towards the integrated aspects of relationship management (Kim et al., 2010). In conformity with this, Peppard and Ward (2004) expressed the view that business process and structure should be aligned with the focus on the organization's business and technology and its employees' (people's) attitudes and behaviour. The reason behind this is that the formulation of a particular capability depends on how people are applying their knowledge, networking with others and coordinating their actions (Peppard and Ward, 2004). Briefly stated, the RBV offers a balanced perspective of technology, process and people as vital elements of CRM deployment which, in turn, results in positive performance (Kim et al., 2010).

The resource-based view (RBV) of the firm provides an important framework for explaining the basis of a firm's performance (Berney et al., 2001; Vorhies and Morgan, 2005). The applications of the resource-based view (RBV) in marketing have grown to a great extent (Kozlenkova et al., 2014). The RBV school of thought has spread throughout the literature in the areas of strategic management (Grant, 1996; Wernerfelt, 1984); information systems (IS) (Ray et al., 2005; Rivard et al., 2006); and marketing (Kozlenkova et al., 2014). The resource-based view (RBV) takes a firm-specific perspective on why organizations succeed or fail (Grant, 1996). This view also considers organizations as repositories of resources and tries to identify how these resources drive competitive success (Wernerfelt, 1984). Similarly, this theory suggests that each organization has a distinct set of resources and some resources have greater

impact on performance than others (Song et al., 2007). In dealing with marketplace uncertainty and dynamics, how resources are used by the firm to create customer value (Meyer and Kolbe, 2005) becomes essential. Wernerfelt (1984) argued that the term 'resource' means anything that can be regarded as the strength of a firm and also expressed the view that resources have to be tied permanently or semi-permanently to the firm. Likewise, it has to be acknowledged that only the assets available to the firm can be considered as resources (Gouthier and Schmid, 2003). From the resource-based view (RBV) perspective, the firm is composed of a bundle of resources such as branch location as a strategic physical asset, and customer trust and capabilities as intangible resources (Littler et al., 2000), leading to the differential performance of firms (Barney et al., 2001; Nath et al., 2010). Similarly, Coltman (2007) argued that the RBV provides a multidimensional viewpoint of CRM, especially for banks, as it attempts to link superior bank performance with available resources and capabilities. This view also argues that customer relationships, a significant resource for banks (Coltman, 2007), are treated as an intangible, market-based resource that may be comparatively rare and difficult for rivals to imitate (Srivastava et al., 2001). In a similar vein, Gouthier and Schmid (2003) argued that a specific combination of resources makes a firm unique with banks no exception to this.

Resources can be of numerous kinds: customers, as resources, are not owned or controlled, but are tied semi-permanently to the service firm. Scholars from the areas of business-to-business (B2B) marketing, service management and marketing have considered customers, in general, and customer relationships, in particular, as resources, but this has not occurred within the resource-based perspective (Bitner et al., 1997; Gronroos, 2000). Relationships are commonly considered to be resources (Hall, 1992) and, thus, customer relationships with service firms such as banks can also be considered important resources (Bharadwaj et al., 1993). Therefore, researchers have endeavoured to analyse customers and customer relationships from the resource-based view (RBV) perspective (Hogan and Armstrong, 2001; Hooley et al., 2001; Srivastava et al., 2001).

Intense competition has made banks transform their resources and capabilities from being product-centred or service-centred into customer-centred (Kim et al., 2010). Customers are valuable and rare resources for the firm where relationships with customers are difficult to replicate (Srivastava et al., 2001; Hogan and Armstrong, 2001). These researchers have also expressed the view that the higher the magnitude of customer integration, the higher the possibility of the service customer forming a

resource. Likewise, relationships enable firms to gain each other's resources which can be a source of long-lasting advantages as they are difficult to develop and copy (Hunt, 1997).

Bharadwaj (2000) argued that market leaders are characterized by the synergistic combination of IT resources with other organizational resources and capabilities where the RBV advocates the importance of technical resources such as IT (Wernerfelt, 1984). This was also supported by Ray et al.'s (2005) study as they considered the RBV as a fundamental framework for measuring IT performance. For successful CRM implementation, resource immobility and bundling are required. This also helps prevent one organization from replicating another's CRM initiative, as firms' CRM resources consist of tangible and intangible resources such as hardware, software and, in the customer-oriented approach, people, process, etc. (Kim et al., 2010). These intangible CRM resources are by their nature unique and should be bundled with the rest of the tangible resources (Grant, 1996).

Customer knowledge acquired by integrated CRM is a precious and rare asset for firms which will support them to respond quickly to customer requirements and familiarize themselves with changing market needs (Shi and Yip, 2007). It can be noted that collecting information from and about customers through customer-firm relationships and offering superior value to those customers based on this knowledge will provide a non-imitable advantage (Garrido-Moreno and Padilla-Meléndez, 2011); thus, knowledge can be treated as an important resource for organizations as per the RBV of the firm (Wernerfelt, 1984). The manifestation of a specific capability in a firm depends on people applying their knowledge, assimilating their knowledge and organizing their actions (Peppard, 2000).

The notion of social capital has been defined by Lin (2008) as resources entrenched in a social structure where the network of relationships is a valuable resource (Yli-Renko et al., 2001) that a firm and/or individual can access by virtue of possessing a durable network of relationships (Bourdieu and Wacquant, 1992). In this regard, the RBV argues that organizations characterized by high levels of social capital can be more successful than competitors as relationships, trust and other components of social capital are valuable and difficult to imitate (Nahapiet and Ghoshal, 1998).

This study enriches existing studies of the resource-based view (RBV) through identifying ICRM-related resources (e.g. customer orientation, a customer-centric

management system, CRM people, CRM technology, customer knowledge and social capital) and also examining their role in CRM success.

There is a body of literature that considers the knowledge-based view (KBV) of the firm as a recent extension of the RBV of the firm (Grant, 1996). However, the RBV emphasizes existing knowledge, whereas the KBV of the firm's proposition articulates that the business firm exists to generate, transfer and transform knowledge into competitive advantage (Kogut and Zander, 1996). As customer knowledge generation has been considered as an outcome of ICRM, the knowledge-based view (KBV) has also been used as the other theoretical foundation of the research model.

2.10.2 Knowledge-based View (KBV)

The knowledge-based view (KBV) suggests that services rendered by tangible and intangible resources depend on how they are combined and applied, with this facilitating the generation of the firm's know-how (i.e. knowledge) (Alavi and Leidner, 2001). This view further depicts firms as sources of knowledge and capabilities (Kogut and Zander, 1996; Spender, 1996). The ultimate aim of this view is to enable the firm to effectively apply existing knowledge to generate new knowledge and thus achieve superior performance from knowledge-based assets (Bontis, 1999). The KBV has also argued that the primary task of CRM in banks is to provide data and information to create customer knowledge (Coltman, 2007). This study is also in accordance with this notion with customer knowledge generation the expected outcome of ICRM and also an important antecedent of CRM success in banks. The firm's advantage arises from its superior competence in generating and transferring knowledge (Ghoshal and Moran, 1996). Knowledge acquisition unlocks new opportunities and enhances the firm's ability to exploit these opportunities through sales cost efficiency and maintaining relationships with customers, thus, finally improving the efficiency of the firm's operation (Yli-Renko, 2001). The knowledge-based view (KBV) considers the firm as an establishment for the production of goods and services with the issues of generating, storing and deploying knowledge considered to be the establishment's central activities (Grant, 1996).

The role of knowledge in competitive advantage has been well documented in the literature related to the knowledge-based view (KBV) of the firm (Kogut and Zander, 1992). Moreover, knowledge is fundamental to several research traditions such as organizational learning, the management of technology, etc. Knowledge, which is fundamental to the knowledge-based view (KBV), is the primary source of value (Grant,

1996). The knowledge-based view (KBV) of the firm emphasizes the acquisition and creation of organizational knowledge and customer knowledge (Nonaka, 1994) which is in line with the expected outcome of ICRM. Moreover, the knowledge-based view (KBV) places emphasis on the firm as the organization for managing team production (Grant, 1996) as it considers the integration of the knowledge of many different individuals in that production (Ghoshal and Moran, 1996). The knowledge-based view (KBV) of the firm has two principal implications based on knowledge ownership and relevant knowledge for better decision making. If the most important productive resource of the firm is knowledge, and if knowledge resides in individual customers, one of the elements of ICRM, then the firm contracts with customers for the use of these knowledge resources. The KBV also argues that products and services are the function of the firm's know-how which is commonly embedded in and carried through individual employees, one of the components of ICRM (Hammami and Triki, 2011). On the other hand, the quality of decisions depends on relevant knowledge acquired by the organization (Grant, 1996).

The learning that emerges through customer knowledge generation enables a firm's response to expressed and latent customer needs through better products and services (Slater and Narver, 1995). Customer knowledge, the expected outcome of ICRM, will improve a bank's ability to identify customer needs as well as its performance (Jayachandran et al., 2005).

Thus, it is observed that the components of the research model are well justified by the above theoretical foundations.

2.11 LINKING MAJOR CONSTRUCTS

2.11.1 Integrated Customer Relationship Management (ICRM) and Customer Knowledge Generation (CKG)

Knowledge is embedded in multiple entities, including organizational systems, culture and identity as well as in individual employees (Grant, 1996; Spender, 1996). Drawing on the resource-based view (RBV), Melville et al. (2004) and Peppard and Ward (2004) suggest that to convert the firm's knowledge into core competencies, the business process and structure should be consistent. Moreover, the knowledge-based view (KBV) suggests that, in the current competitive environment, the firm's capability to generate and utilize knowledge has become the most important source of competitive advantage (Grant, 1996). Hence, banks should try to generate knowledge through proper implementation of integrated customer relationship management (ICRM).

Customer-centric activities (Mithas et al., 2005; Xu and Walton, 2005; Rowley, 2004; Minna and Aino, 2005), in general, and salespeople, in particular, can capture some of what the customer knows (Yoon and Nilan, 1999). Minna and Aino (2005) articulated that a customer orientation enhances customer knowledge generation (CKG). Similarly, Homburg et al. (2009) argued that the generation of knowledge regarding a customer's needs depends on activities and initiatives of the frontline employee. In the service relationship, through interaction, CRM people can gather knowledge (Gwinner et al., 2005) about the customer's preferences, competing products and their appealing features and, sometimes, industry trends. In a broader sense, CRM people can come up with additional knowledge regarding the selection or refusal of products and services by a consumer who is considering the issues of functionality, price, convenience, beliefs and conspicuous consumption (García-Murillo and Annabi, 2002).

Customer relationship management technology (CRMT) is also expected to collect, integrate and analyse customer information about customer needs and preferences which ultimately helps to generate knowledge about customers (Chang et al. 2010). Similarly, employees (CRMP) who consider the satisfaction of customers' needs as an important goal will be able to acquire more accurate information (knowledge) regarding their actual needs (Homburg et al., 2009; Gill and Swan, 2004). Frontline employees might not be able to generate knowledge even if they exhibit a customer orientation owing to the lack of required skills (Pettijohn et al., 2002). Hence, employee training, as part of a customer-centric management philosophy, with an emphasis on gathering information (knowledge) about and from customers can significantly assist in this regard (Liu and Comer, 2007).

2.11.2 Customer Knowledge Generation (CKG) and CRM Success (CRMS)

Customer relationship management (CRM) initiatives facilitate the acquisition of different categories of knowledge: knowledge about, knowledge from and knowledge for customers (Gable et al., 2008; Khodakarami and Chan, 2014). This helps banks (firms) to systematically acquire, disseminate and use information (knowledge) from customers to understand their needs and preferences and also to serve them better (Plakoyiannaki et al., 2008). Hence, knowledge (about and from) customers is considered to be a determinant of the success of CRM because a firm (bank) with better knowledge of its customers will be more able to provide benefits and thus to enhance performance (Suntornpithug et al., 2010).

The key outcome of successful CRM is information (knowledge): therefore, the firms with good relational processes in place will have access to customer information and will be able to attain good performance. Fan and Ku (2010) further argued that CRM initiatives could produce measurable benefits only when a firm generated customer knowledge and made use of it wisely for the dual creation of value. In a similar fashion, Jayachandran et al. (2005) argued that if a firm has a good process for acquiring and generating knowledge, that firm is likely to have good performance because knowledge-based resources are typically difficult to imitate. In this regard, the knowledge-based view (KBV) postulates that these knowledge assets may provide a long-term sustainable competitive advantage (Alavi and Leinder, 2001). This view also argues that knowledge generation plays a significant role in sales and cost efficiency (Yli-Renko et al., 2001). Thomas and Sullivan (2005) further reinforced this view in a different context where they showed how an enterprise CRM system organizes and accumulates data from different sources, enabling a firm to generate new knowledge about individual customers and, thus, to enhance the firm's performance. Thus, for a firm, the most important element in CRM implementation is to generate customer knowledge and use it to produce more value (Boulding et al., 2005; Canhoto, 2009).

The knowledge-based view (KBV) of the firm highlights that the firms' (i.e. the banks') ability to generate and utilize knowledge is the most important source of competitive advantage (Grant, 1996; Nonaka, 1991). This theoretical focus reflects the views that, as knowledge-based resources are generally complex and difficult to imitate, they are expected to be the major determinants of superior bank performance (Alavi and Leidner, 2001). Taking this into consideration, researchers (Suntornpithug et al., 2010) have emphasized that the generation of value is a fundamental aspect of CRM and that future approaches to CRM implementation should place emphasis on generating, storing and utilizing customer information (knowledge): hence, this current study investigates the role of ICRM in this regard.

2.11.3 Integrated Customer Relationship Management (ICRM) and CRM Success (CRMS)

A bank's CRM resources consist not only of tangible resources, but also of a number of intangible resources such as customer-oriented people, and the organizational process and culture. In addition, customers and relationships with customers are valuable resources for the bank (Hall, 1992; Bharadwaj et al., 1993; Kim et al., 2010). These intangible resources are, by their nature, unique and difficult to imitate; therefore, they should be bundled with the rest of the tangible resources to create competitive

advantage which is also supported by the resource-based view (RBV). Evidence suggests that CRM success can be achieved only through the integration of strategic, organizational and technological issues (Roberts et al., 2005; Coltman, 2007). A bank should introduce CRM not as an IT solution but rather as a business strategy involving its people (CRM people) as the core of the strategy to reach its ultimate objectives (Kim et al., 2010). At this stage, many relevant studies have revealed that as part of a customer-centric management philosophy, employees (CRM people) need to be trained and updated with expected outcomes and activities on a regular basis which, in turn, will facilitate the success of the relationship effort (Shum et al., 2008; Kim et al., 2010). Considering the previous studies, this study investigates customer relationship management's success based on efficiency (Krasnikov et al., 2009; Roh et al., 2005), customer satisfaction, loyalty and profitability (Peelan et al., 2009).

One of the most important elements in a sound relationship is a growth in value to the benefit of both the customer and the firm (Nguyen and Mutum, 2012). Over the past couple of decades, CRM has proven to be a vital tool in enhancing a firm's profitability through enabling the firm to ascertain the best customers and to satisfy their needs in order to make them remain loyal to the firm's activities (Thomas and Sullivan, 2005).

Managing customer relationships effectively and efficiently offers numerous benefits to firms (Chen and Popovich, 2003; Reimann et al., 2010). Customer relationship management (CRM), as a strategic approach to managing customer relationships, creates customer value (Payne and Frow, 2005) through focusing on customer needs, personalizing the services and also differentiating them from those of competitors (Reimann et al., 2010). This is also supported by the resource-based view (RBV) with RBV studies having found that organizational factors such as IT skills, employee participation, organizational commitment and flexibility, and strategic integration facilitate the performance of a firm. In a similar vein, Thomas and Sullivan (2005) mentioned that CRM has proven to be critical over the past decades in increasing a firm's profitability through satisfying the valued customers and making them loyal to the firm's activities.

The employees' level of customer orientation is considered to be an important factor for service firms' success (Bove and Johnson, 2000; Henning-Thurau, 2004). Firms that act in a customer-oriented way perform better than firms that do not (Donavan et al., 2004). Due to the intangible nature of services and also their high level of customer engagement, customer orientation is expected to play a vital role in the success of the

firm. Customer orientation includes employees' customer-oriented skills and their motivation to serve customers. Researchers have also argued that customer orientation has a positive influence on customer satisfaction.

2.11.4 Integrated Customer Relationship Management (ICRM) and Customer Relationship Maintenance (RM)

The length of the beneficiary relationship depends on the customer's subjective evaluation of the value of a relationship which is constantly modified based on perceptions of earlier experiences (Britton and Rose, 2004). Integrated CRM involves the use of a customer-oriented and customer-centric philosophy supported by relevant technology and people to enhance and maintain quality relationships with customers (Nguyen et al., 2012). Likewise, Reinartz et al. (2004) argued that CRM is deployed for the specific purpose of maintaining relationships with customers.

Relationships, in general, and customer relationships, in particular, are regarded as important resources for service-oriented firms like banks (Hall, 1992; Bharadwaj et al., 1993). Customer relationship management (CRM) commonly increases the length of beneficial customer-firm relationships (Reimann et al., 2010), and customer orientation, more specifically, as a distinctive firm-level resource helps to build long-term relationships (Bentum and Stone, 2005) through offering added value to customers (Narver and Slater, 1990; Garrido-Moreno and Melendez, 2011). This is also supported by the resource-based view (Nath et al., 2010). The literature suggests that firms with higher customer orientation commonly beat less customer-oriented rivals in offering better customer value (Vorhies and Morgan, 2005; Nath et al., 2010). Similarly, information plays an important role in developing and maintaining customer-firm relationships. In addition, the use of CRM technology is anticipated to enhance the ability of a firm (bank) to facilitate firm-customer interaction and to sustain profitable firm-customer relationships through smooth sharing and integration of information (Day, 2003; Jayachandran et al., 2005).

2.11.5 Customer Relationship Maintenance (RM) and CRM Success (CRMS)

Stable bank-customer relationships may offer many benefits including: repeat transactions, deposit growth, asset growth, cross-selling, up-selling, cost reduction, publicity (e.g. word-of-mouth advertisements), customer retention, customer lifetime value, customer's advocacy and less price sensitivity (Lusch et al., 2010; Payne and Frow, 2005; Zeithaml et al., 1996). From the resource-based view perspective, researchers (e.g. Narver and Salter, 1990; Vorhies and Morgan, 2005) have argued that

these value-adding capabilities are not transferable, are less likely to be imitable and, hence, provide the basis for competitive advantage. In this regard, researchers (e.g. Reinartz et al., 2004; Blery and Michalakopoulos, 2006; Kamakura et al., 2003) have suggested that relationship maintenance dimensions have the strongest effect on business performance through revenue raising and cost reduction. Selling additional products and services to existing customers through up-selling and cross-selling facilitates both retention and profitability. There is a debate regarding the relationship between retention and profit (Nitzan and Libai, 2011); however, in general, researchers have agreed on the significance of retention as a key factor of a firm's profitability (Bolton, 2004; Gupta et al., 2006). Researchers have also argued that pursuing long-term relationships with customers is more profitable for firms (Morgan and Hunt, 1994; Jayachandran et al., 2005).

Customer retention, one of the dimensions of relationship maintenance, helps in cost reduction and customer acquisition as well as sales growth. Taking this into consideration, it can be argued that relationships with customers can be regarded as assets (Minami and Dawson, 2008). This is also in line with the resource-based view (Barney, 1991); hence, it can be argued that a long-lasting relationship as a market-based asset provides a source of competitive advantage to the firm (Barney, 1991; Srivastava et al., 1999). A good number of researchers have investigated the role of retention on performance in a scattered way. For instance, some researchers are concerned with how customer retention is related to cost structures while others have focused on the profitability resulting from lower costs associated with customer retention, yet others again have emphasized the importance of cost reduction across the whole management system.

Pursuing long-term relationships with customers is more profitable for firms (Morgan and Hunt, 1994; Jayachandran et al., 2005). Considering this, the banks have gradually changed from being product-oriented to being customer-oriented and have also emphasized customer retention as its outputs are in their business strategy (Beerli et al., 2004). Researchers have suggested that long-term success is subject to customer retention over customer acquisition. They have also argued that developing and maintaining long-lasting relationships with existing customers is more profitable than frequently recruiting new customers to replace lost ones (Grönroos, 1994; Payne and Frow, 2006; Frow and Payne, 2009). It is obvious that, through developing customer loyalty, a stable stream of sales can be achieved over the lifetime of their relationships with the customer (Dibb and Meadows, 2004). In a similar study, researchers also

found that a 2% increase in customer retention results in up to 10% reduction of operating cost which ultimately improves the efficiency and profitability of banks. In this regard, researchers have argued that retention is the fuel of success. The segment features may determine the offer made to customers and the prospects of maximizing profitability through individual cross-selling and up-selling activities. However, companies deploying a customer-based orientation have a more tailored approach to relationships with their customers than those embracing a product focus who still do not offer highly individualized customer service (Frow and Payne, 2009).

2.11.6 Social Capital (SC) and Customer Knowledge Generation (CKG)

The knowledge-based view (KBV) of the firm illustrates firms as being warehouses of knowledge and competencies (Spender, 1996). This view suggests that the competitive advantage of firms will arise from their capability in generating knowledge (Ghoshal and Moran, 1996; Yli-Renko et al., 2001). Knowledge acquisition (Adler and Kwon, 2002; Nahapiet and Ghoshal, 1998), creation and transfer of knowledge (Kogut and Zander, 1996) and access to new sources of knowledge (Adler and Kwon, 2002; Gargiulo and Benassi, 2000; Nahapiet and Ghoshal, 1998; Anand et al., 2002) have been identified as direct benefits of social capital, in general, and relational dimensions (Huysman and Wulf, 2005), in particular. Similarly Doz (1996) argued that trust, as a relational dimension, has an important role within the firm as does interpersonal knowledge transfer and the willingness to share knowledge (Powell et al., 1996). Intensive social interaction facilitates knowledge transfer (Lane and Lubatkin, 1998; Yli-Renko et al., 2001; Zahra et al., 2000) increasing the depth, breadth and efficiency of mutual knowledge exchange (Lane and Lubatkin, 1998) and is also associated with greater knowledge acquisition (Yli-Renko et al., 2001).

From a knowledge perspective, as networks facilitate the flow of information, they also make it likely for a firm to generate knowledge through employees' personal connections and social interactions. This kind of knowledge (information) may be specific to a product/service-market competitive domain or it may refer to another firm, for instance, a firm with which a principal enterprise has no current direct connection. The significance of this kind of knowledge is that it allows a focal firm to build new relationships (Gulati, 1999) as it disseminates highly tacit knowledge about present customers as well as potential customers (Levinthal and Fichman, 1988).

2.11.7 Social Capital (SC) and Customer Relationship Maintenance (RM)

Every interaction provides an opportunity to enhance relationships with customers (Yim et al., 2008). A firm–customer relationship develops as a result of a customer’s successful interactions with not only the non-human aspects of the services, but also with service personnel like frontline employees, the service manager or the relationship manager. As the relationship matures, interactions enhance stronger attachments between participants and results in positive emotional ties (Saavedra and Van Dyne, 1999). Likewise, relationships between firms and customers develop over time through favourable consumption interactions as well as social interactions in a service setting (Yang et al., 2011).

Maintenance of relationships is said to be highly dependent on sales associates and relationship managers (Gummesson, 2002; Crosby et al., 1990) where trust plays an important role in enhancing the scope of the relationship (Selnes, 1998). Employee trust helps reduce the risks of service exchanges and actively supports ongoing relationships. Likewise, trust is also a basis for stable (Garbarino and Johnson, 1999) and successful relationships (Berry, 1995; Morgan and Hunt, 1994). From the previous studies, it is also evident that trust is a significant factor of customer retention and also facilitates the anticipation of future direction (Johnson and Grayson, 2005; Ranaweera and Prabhu, 2003). Researchers have also argued that personal connection, as an important aspect of relationship maintenance, increases a customer’s intention to maintain the relationship (Gremler et al., 2001).

The development of long-term relationships is influenced by social aspects (Nguyen and Mutum, 2012; Yli-Renko et al., 2001). Customers may continue with a service provider not only because of superior service or performance, but also owing to the commitment or connection he or she has developed over time to the service provider or employees. Moreover, strong and stable customer relationships provide positive word of mouth (Verhoef et al., 2010) which ultimately facilitates the customer referral process. In relation to the servicescape, this kind of emotional commitment is based on the customer’s personal connection with service employees. Hence, it can be argued that employees’ ways of interaction with customers positively influence the likelihood of a positive attitude developing towards a service provider.

2.11.8 Social Capital (SC) and CRM Success (CRMS)

Social capital (SC) can enhance an organization’s ability to ensure success (Kogut and Zander, 1996), a view supported by Gremler et al. (2001) as they found enjoyable

interaction and personal connection significantly related to customers' satisfaction and loyalty intentions. Customer–frontline employee relationships include a social dimension which contributes to the positive customer perception of the bank's quality. An increase in social investments seems to lessen the negative effect of poor structural aspects of a service. Moreover, satisfactory customer–employee interactions induce a favourable employee–customer relationship which ultimately strengthens the customer–firm relationship (Yang et al., 2011). A strong and stable relationship also justifies a price premium (Bolton, 2004; Yim et al., 2008), reduces employee training costs thus improving the efficiency of the firm and, finally, leads towards higher profits (Yim et al., 2008).

Personal connection reduces uncertainties about the relational outcomes, and also indicates that the employee is committed to the customer's best interest (Crosby et al., 2000) which, in turn, encourages customers to form trusting relationships with employees (CRM people). In connection with this, Jamal and Adelowore (2008) argued that personal interaction directly affects customer satisfaction. Trust as a relational dimension of social capital contributes largely to reducing feelings of uncertainty and risk which is very much required in the financial services sector in organizations like banks (Morgan and Hunt, 1994; Nguyen and Mutum, 2012).

Building customer loyalty remains a key priority, but also a problem area for many service managers. Perhaps firms fail to develop strong customer loyalty due to their failure to create strong emotional bonds with their customers. Moreover, many firms underestimate the contribution of customer–employee interactions to customer loyalty (Yim et al., 2008). Hence, it can be argued that customers become loyal due to personal connection and enjoyable interaction with frontline employees and it will be difficult for customers to end the relationship when the bond is strong (Yang et al., 2011).

2.12 OVERALL RESEARCH GAP

The CRM domain has gradually diversified as researchers have become interested in topics such as CRM adoption and implementation (Krasnikov et al., 2009; King and Burgess, 2008; Ko et al., 2008; Richard et al., 2007; Wilson et al., 2007); information systems (IS) (Khodakarami and Chan, 2014; Chang, 2007; Chalmeta, 2006; Teo et al., 2006; Torkzadeh et al., 2006; Roh et al., 2005); CRM technology infrastructure (Kim and Kim, 2009; Garrido-Moreno et al., 2014); and the interrelationship between CRM and efficient knowledge management (Reychav and Weisberg, 2009). The past literature reveals that the CRM framework still operates at multiple levels and, thus, the CRM

research has become empirically inconsistent and conceptually complex: the literature also argues that a comprehensive CRM success model has yet to be developed (Coltman, 2007; Ernst et al., 2011; Kim and Kim, 2009; Nguyen and Mutum, 2012). This section summarizes the gap identified in the earlier part of the literature review.

In a recent study, Reimann et al. (2010) argued that the link between CRM and performance is unclear and unlikely to have a direct association. However, earlier research investigating the success of CRM technology infrastructure has come up with contradictory evidence (Kim and Kim, 2009; Garrido-Moreno et al., 2014). In a similar vein, other researchers have also questioned whether CRM in the end would be able to yield positive results (Ernst et al., 2011; Fan and Ku, 2010; Reimann et al., 2010) whereas others have demonstrated its strategic opportunities for achieving competitive advantages (Sin et al., 2005; Eid, 2007). In the wake of these inconclusive findings, it is imperative that researchers should thoroughly investigate in order to determine the factors related to CRM success. Thus, one of the goals of this study is to investigate the antecedents of CRM success.

Customer relationship management (CRM) needs to be treated as an integrated multidimensional construct. The prior academic literature has primarily focused on single CRM activities emphasizing either a CRM system (Khodakarami and Chan, 2014); CRM technology infrastructure (Garrido-Moreno, 2014); or technology (Jayachandran et al., 2005) and ignoring CRM's multidimensional and holistic viewpoint. The review of the earlier literature has indicated that CRM requires a cross-functional integration of people, process, technology and operations (Payne and Frow, 2005; Chang et al., 2010). Therefore, CRM implementation can only be assessed by using a holistic approach and the development of such an integrated multidimensional CRM model is unique as existing studies fall short of developing an integrated CRM (ICRM) framework (Coltman, 2007; Chang et al., 2010). This study thus, seeks to address the existing gap in the extant CRM literature.

The role of ICRM in generating customer knowledge (knowledge about and knowledge from) is not adequately reported in the previous literature. Many prior studies have focused on the comparison between CRM and KM concepts and practices aiming to integrate these concepts (Shang et al., 2011; Toriani and Angeloni, 2011) and to introduce a new concept, customer knowledge management (CKM) (Chen, 2006; Gracia-Murillo and Annabi, 2002; Gebert et al., 2003; Salomann et al., 2005); however, most of these studies have argued the topics conceptually. A few studies only recently

have addressed the role of CRM (Mithas et al., 2005) and CRM systems in the generation of customer knowledge. However, their studies have focused on either technology, an analytical CRM system (Xu and Walton, 2005) or a total CRM system (Khodakarami and Chan, 2014), ignoring other antecedents and dimensions of CRM. Moreover, the study of Xu and Walton (2005) was restricted to one type of knowledge (knowledge about the customer) whereas the latter one focused on three types of knowledge (about, from and for customers). In a similar vein, other prior research, focusing on knowledge about customers, has considered that customer knowledge and knowledge management are embedded within CRM or CRM systems (e.g. Sin et al., 2005; Garrido-Moreno and Padilla-Melendez, 2011) rather than being an outcome of CRM. Considering the above gap in the literature, this study attempts to investigate how ICRM generates knowledge from/about/for customers drawing on the knowledge-based view (KBV). Moreover, previous research has paid less attention to investigating the mediating role of customer knowledge generation on CRM success.

Relationship maintenance, as an outcome of ICRM, has received little or no attention in the prior literature. Some researchers (e.g. Reinartz et al., 2004; Becker et al., 2009) have considered relationship maintenance to be one of the stages of the CRM process while other researchers (e.g. Tuominen et al., 2004; Sin et al., 2005) have argued that CRM is devoted to maintaining relationships with customers. Nevertheless, in the CRM literature, it is not always clear what constitutes a good relationship and the opinion has also been expressed that the development and maintenance of relationships are largely influenced by social aspects (Nguyen and Mutum, 2012; Yli-Renko et al., 2001). Thus, this study attempts to fill this gap through investigating the role of ICRM and social capital in customer relationship maintenance.

Despite the importance of social capital in achieving success, empirical research has paid little or no attention to testing the link between social capital and relationship maintenance as well as to CRM success, which is also evident from the work of Mitussis et al. (2006) and Finnegan and Currie (2010). Previous studies have depicted social capital as a kind of complementary resource that can positively influence performance. With the growing importance of the role of networks (personal and professional) in improving a firm's competitive advantage, the social capital-performance relationship has appeared as a prominent strategic management research area (Kotabe et al., 2003; Uzzi and Gillespie, 2002); however, it has received less attention in the CRM literature. Therefore, this study seeks to address this gap in the literature through investigating the direct link between social capital (SC) and CRM success (CRMS) and also by

examining the mediating role of relationship maintenance in the relationship between SC and CRMS.

2.13 INITIAL RESEARCH MODEL

Based on the gaps in the literature, an initial research model has been developed. By synthesizing the prior research on CRM, knowledge management (KM) and social capital, this current research has proposed that CRM is a multidimensional concept and needs to be practised in an integrated way and that, in order to achieve CRM success, strategic, organizational, social and technological issues play a very significant role. Moreover, ICRM and social capital facilitate customer knowledge generation and relationship maintenance which eventually influence CRM success.

Few studies have concurrently examined various different but relevant variables within a single model. This study develops and tests a model that integrates relationship and relationship management attributes, knowledge attributes and social capital issues in the development of a comprehensive model. In this model, customer knowledge generation is expected to have mediating effects between ICRM and CRM success and relationship maintenance is also expected to have mediating effects between social capital and CRM success. The inclusion of customer knowledge generation and relationship maintenance as mediators in a single model is not common in CRM literature. In the competitive business world, it is also expected that several intervening variables may influence the links between dependent and independent variables and, therefore, this study attempts to study and test the mediating effect of customer knowledge generation and relationship maintenance. Figure 2.1 presents the initial research model for the current research.

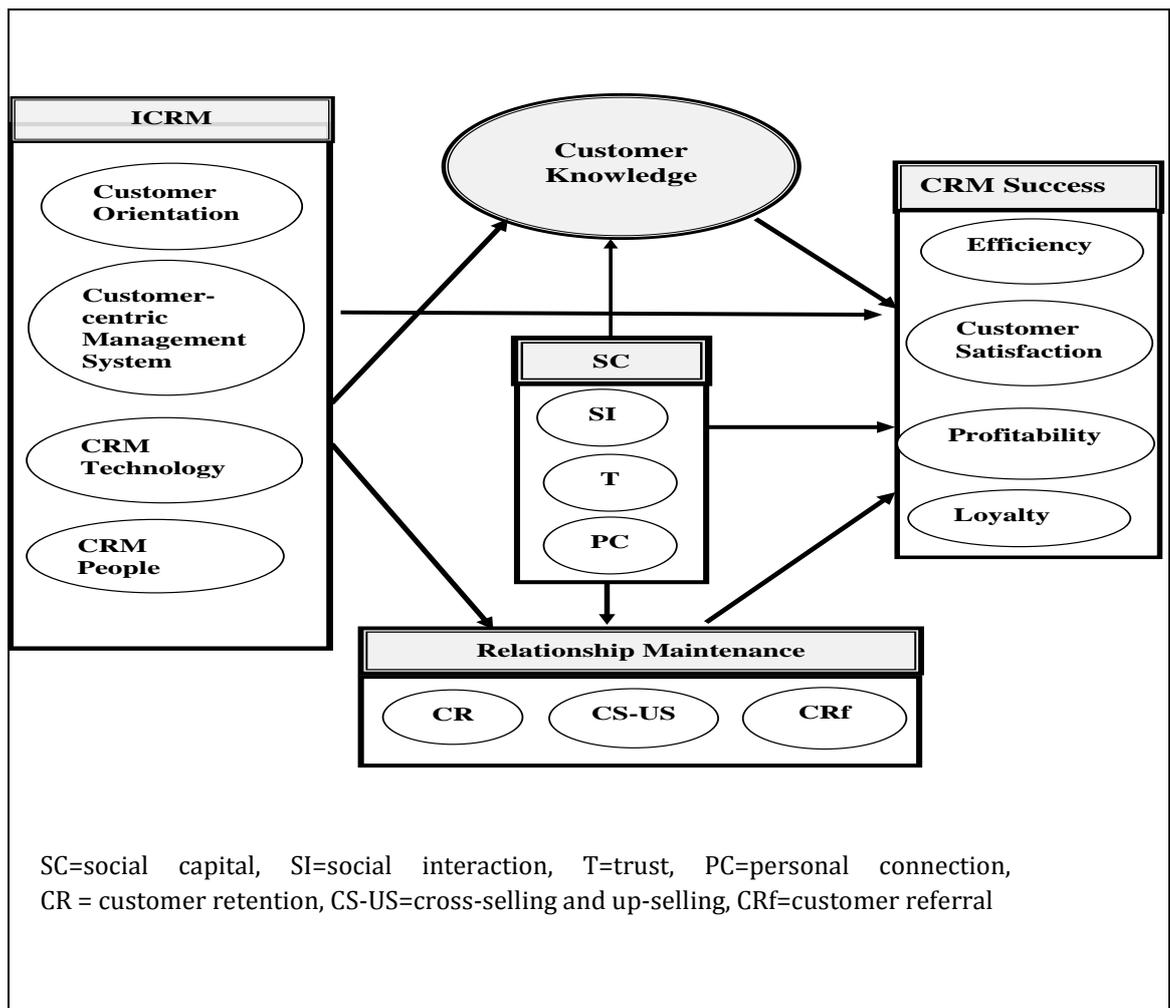


Figure 2.1: Initial Research Model

2.14 SUMMARY

This chapter has presented the literature pertinent to the current research. Literature related to customer relationship management, knowledge management and social capital has been extensively reviewed. An initial research model, describing the factors related to CRM success, dimensions of ICRM and its impact on knowledge generation as well as the role of social capital in this regard, has been developed. Drawing on the resource-based view (RBV) and knowledge-based view (KBV) of the firm, the selected constructs used in this model have been justified. The analyses suggest that strategic, organizational, social and technological issues are all important in achieving CRM success and this is also in accord with the conceptualization of the RBV and the KBV. Grounded on the RBV, this research conceptualizes ICRM as a multidimensional and integrated aspect and extends the outcome perspective of RBV, which is one of the unique contributions of this research.

CHAPTER 3 RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter formulated a preliminary conceptual research model of CRM success based on an extensive literature review. This chapter aims to provide an overview of the multi-phased mixed method research design applied in this study. This approach was undertaken to improve the understanding of the chosen issues and also to enrich the knowledge through implementing new ways of conducting research (Bazeley, 2006). An investigation into the literature reveals that earlier research in the area of customer relationship management (CRM) employed the quantitative method (e.g. Sin et al., 2005; Chang et al., 2010; Reimann et al., 2010), the qualitative method (e.g. Abbott et al., 2001), extant literature review as well as conceptual studies (e.g. Frow and Payne, 2009; Nguyen and Mutum, 2012). Multi-phased mixed research, a combination of qualitative and quantitative methods, is not largely available in the CRM literature. Moreover, CRM is context-specific (Jayachandran et al., 2005; Boulding et al., 2005) which signifies the need for qualitative study to identify relevant factors important for CRM success. For high contextualization of different constructs, qualitative research is also necessary. Furthermore, qualitative research can facilitate quantitative research through identifying important variables, selecting an appropriate sampling design and also explaining the quantitative findings. Hence, to contextualize and validate the research model, to collect and analyse data, and also to verify the causal relationships among different factors, a combination of qualitative and quantitative approaches was applied.

This study embraces the positivist research philosophy and adopts a survey research approach in the quantitative phase. This chapter elaborates the details of the overall research design. In the first section, the research paradigm corresponding to this study is explained which addresses the explanation of the research methods adopted in this study and justification of those methods. The next section explains the research process for the qualitative field study followed by that for the quantitative study. The final section presents a summary of the chapter.

3.2 RESEARCH PARADIGM

The research paradigm refers to a conceptual framework and basic guidelines through which a research study is structured and conducted. In other words, it is a set of basic

beliefs that guide the action of the researchers by indicating their role in the research process (Guba and Lincoln, 1994). In a similar fashion, Willis (2007) defined the research paradigm as a comprehensive outline which guides the research and practice in a particular field. Various authors have mentioned a number of paradigms for conducting research: for instance, Guba and Lincoln (1994) introduced four different paradigms, namely, positivism, post-positivism, critical theory and constructivism. They later added another paradigm, participatory, to their list of alternative inquiry paradigms. Similarly, Creswell (2003) fragmented the paradigmatic stances of knowledge as post-positivism, constructivism, pragmatic and participatory. However, in a broad sense, the paradigm of research can be divided into two views: positivist and interpretivist (Onwuegbuzie and Leech, 2005). Although there are numerous paradigms to guide research, the basic views of behavioural science are founded on positivism (Willis, 2007) which is also consistent with the suggestions of Guba and Lincoln (1994).

A positivist paradigm generates understanding that is based on experience gathered from confirmable empirical evidence in support of theories and hypotheses (Denzin and Lincoln, 2005). A research study can be called positivist if it is guided by a formal proposition, deals with the quantification and measurement of variables, formulates and tests hypotheses and draws inferences about a phenomenon from the sample of a particular population. Moreover, the positivist approach relies on the assumption that a phenomenon has an objective reality which can be articulated in causal relationships and measured in a representative and accurate manner (Straub et al., 2004; Johnson and Onwuegbuzie, 2004). The underlying assumption is that the data and the analysis are free from subjective interpretation and do not change, as reality is independent from the investigator (Krauss, 2005). In addition, positivist researchers do not reach any conclusion from their own cognition or rationale: instead, they usually maintain a distance from the respondent(s) and what is being researched (Johnson and Onwuegbuzie, 2004). It is worth mentioning that, in terms of research design, positivist researchers elaborate research questions and formulate research hypotheses based on the theoretical background and previous studies, and employ quantitative research methods to test hypotheses (Creswell, 2003; Mustamil, 2010).

From the paradigmatic aspect, the second view of a paradigm in conducting research is an interpretivist paradigm (Onwuegbuzie and Leech, 2005) which aims to draw inferences through social interpretation of a reality (Newman, 2003). Interpretivist researchers give more attention to understanding individuals' perceptions about the

phenomenon, assuming that the individual nature of social constructs can be extracted and refined through the interaction of researchers (Lincoln and Guba, 1994; Krauss, 2005). Thus, to gain a better understanding of a phenomenon, in the interpretivist paradigm, the best way to investigate and view the phenomenon is in its own context. In contrast with the positivist approach, the interpretivist approach rejects the separation of researcher and participant, assuming that the researcher should interact and affect the issues being investigated (Creswell, 2003, 2009). In other words, the interpretivist approach uses subjective interpretation and reasoning with an emphasis on words, observations and meanings rather than facts and numbers (Creswell, 2003). Interpretivist researchers usually adopt qualitative research as their research design (Mustamil, 2010). The following table, Table 3.1, presents the differences between the interpretivist and positivist research paradigms

Table 3.1: Interpretivist versus positivist paradigm

Assumption	Interpretivist	Positivist
Ontological: Nature or reality	Reality is subjective	Reality is objective
Epistemological: Relationship of the researcher and the issue being researched	Subjective involvement of the researcher that affects the issue being researched	The researcher is free from what is being researched: that is why it is value-free
Axiological: Roles of values	Scientific study is value-laden and biased	Scientific study is value-free and unbiased
Rhetorical: Language of research	Usually informal and qualitative terminologies are used	Formal and quantitative terminologies are used
Methodological: Process of research	Based on idealism, uses a number of methods to obtain different perceptions of the phenomenon	Based on realism, focus is on formulation of objectives and hypotheses

Source: adapted from Creswell (2003)

In order to determine the paradigm and method for the current research, the objective, nature and research context were reviewed. The purpose of this research was to formulate a model of CRM success in the context of the banking industry of Bangladesh. It is worth mentioning that all the previous studies and major models in this area have been conducted in the Western country perspective (Chang et al., 2010). Thus, this

study aimed to explore the measurable and observable role of ICRM on customer knowledge generation, customer relationship maintenance and, eventually, on CRM success. The objectives, nature and research context facilitate the determination of the research paradigm and research method. This research provides evidence of hypotheses, quantifiable measures of variables, hypotheses testing and also draws inferences based on the statistical analysis of data collected from samples. Thus, the positivist research paradigm seemed to be appropriate for building a conceptual model based on theory and subsequently for testing the model.

Another important issue that needs to be considered is related to the existing literature in this area. As mentioned above, almost all the major studies and major models in this area have been conducted from the Western country perspective (Chang et al., 2010). It is important to keep in mind that any kind of behavioural research is issue-sensitive and context-specific as many social factors are engaged. Therefore, it is important for the research to capture exactly what is happening in the real world (Mustamil, 2010). In this regard, this study collected, recorded, and analysed qualitative data for a better understanding of CRM success factors in the context of the banking industry of Bangladesh. The qualitative method shows a tendency towards a constructivist interpretive paradigm due to the contextual factors and the participants' perspectives considered in the research (Willis, 2007). The quantitative method, on the other hand, shows a tendency towards a positivist paradigm through analysing quantitative data by using statistical techniques before making generalizations and conclusions (Creswell, 2003; Mustamil, 2010). Therefore, this research uses a mixed method research design under positivist paradigm using Qual → Quan approach suggested by Johnson and Onwuegbuzie (2004), Tashakkori and Teddlie (2003).

3.3 RESEARCH METHOD

As mentioned above, this study adopts a 'mixed method' research design (Tashakkori and Teddlie, 1998; Teddlie and Tashakkori, 2012). The application of mixed methods research in this study can be justified with a number of arguments. The factors and variables related to CRM success in the context of a developing country such as Bangladesh have not yet been adequately explored. Hence, an exploratory study on CRM success is required to go deeper into the theme which will eventually supplement the existing concepts and theories. Moreover, the applicability and practices of CRM are, to some extent, context-dependent (Chang et al., 2010; Zhou et al., 2012): hence, the factors and variables discussed in relation to CRM success need to be verified by a

group of relationship managers and/or customer service managers to contextualize the research model. Furthermore, it is not unlikely that the research will explore new factors related to CRM success in the context of the banking industry of Bangladesh. The above discussion justifies the application of the qualitative method in this research. The identified factors and variables related to ICRM, CRM success, etc., along with their relationships, need to be verified and validated statistically by collecting quantitative data through a structured questionnaire-administered survey: thus, this also rationalizes the application of the quantitative method in this research.

Mixed method research facilitates the bridging of the qualitative and quantitative methods at different stages of the research (Teddlie and Tashakkori, 2006). Most importantly, this approach offers a great opportunity to the researchers to have a better understanding of research problems and complex aspects than would occur if using the qualitative or quantitative method alone (Creswell and Plano Clark, 2007). Moreover, researchers can be more confident regarding the validity of the results when they combine the use of different methods to examine the phenomenon of interest (Johnson and Onwuegbuzie, 2004). The reason is that each method, either qualitative or quantitative, has its own limitations (Creswell, 2003). The mixed method is also beneficial for researchers who want to use research techniques that are highly documented and used in practice (Johnson and Onwuegbuzie, 2004). Researchers (e.g. Collins et al., 2006; Teddlie and Tashakkori, 2012; Johnson et al., 2007) also argued that mixed method research benefits the researchers in a range of different research issues, namely, participant enrichment, instrument fidelity, treatment integrity and significant enhancement: thus, mixed method research is becoming increasingly popular. Researchers can give equal priority to both qualitative and quantitative research or can emphasize one over the other: they can also consider data collection for both qualitative and quantitative methods in either a parallel or sequential phase (Tashakkori and Teddlie, 1998). As both research methods support each other when used together and enhance the validity of research (Creswell, 2003), mixed methods seem appropriate in this study.

There are four types of mixed method research design: (a) the triangulation design, (b) the embedded design, (c) the explanatory design and (d) the exploratory design (Creswell, 2003, 2009). The triangulation design, introduced by Campbell and Fiske (1959), facilitates a better understanding of one set of results with the other set thereby enhancing the validity of inferences (Creswell and Plano Clark, 2007). Like triangulation design, embedded design is a process which includes the collection of

both qualitative and quantitative data with one of the data sets playing an auxiliary role within the overall design (Creswell, 2003). On the other hand, the explanatory design recommends the collection and analysis of quantitative data followed by the collection and analysis of qualitative data to support the quantitative findings. In contrast with explanatory design, the exploratory design starts with the qualitative phase of data collection to explore a theme and is then followed by the quantitative phase to validate the theme (Creswell, 2003).

It is essential to determine the appropriate type of mixed method for a particular research study with research objectives also playing a very significant role. The focal objective of this study is to develop a model of CRM success and also to explore the role of ICRM along with other antecedents on CRM success. To do so, an initial research model (Figure 2.1) was developed based on the extensive literature survey. A field study-based qualitative study was also carried out to ensure the validity and applicability of the model in a particular context. A comprehensive model was then developed based on the conceptual model and field study model. Following the field study, a structured questionnaire-administered quantitative survey was employed to validate the comprehensive model. Hence, triangulation of the qualitative method followed by the quantitative method seemed appropriate in this research setting.

The unit of analysis (UoA) considered for this study is bank, but represented by relevant managers (Saparito et al., 2004). This UoA has been followed in both qualitative and quantitative phase of data collection.

3.4 RESEARCH PROCESS

The current research has followed a mixed method approach where the qualitative method was employed in the exploratory phase and the quantitative approach was deployed in the confirmatory phase. The overall research process of this study is shown on Figure 3.1.

Step1: Literature Review and Development of Initial Research Model

The research started with an extensive review of current literature related to customer relationship management, services marketing, knowledge management and social capital. In addition, two relevant theories, namely, the resource-based view (RBV) and the knowledge-based view (KBV) were considered as the foundation of the model. The literature review included every possible and available knowledge source, including journals, seminar proceedings, books and working papers. The widespread literature

review facilitated the research in finding the past and contemporary related research works as well as in identifying the current literature gap. In addition, consideration of the resource-based view (RBV) and knowledge-based view (KBV) justified the theoretical framework for the proposed model developed in this study. Hence, it can be argued that the focal constructs and the link between and among the constructs of the proposed model were conceptualized and established on strong theoretical foundations (see Chapter 2).

An initial research model of CRM success, focusing on ICRM, customer knowledge, social capital and other relevant issues was developed based on the review of the relevant literature (see Figure 2.1). The constructs, sub-constructs and the links between and among constructs of the initial research model were refined and justified based on the current research.

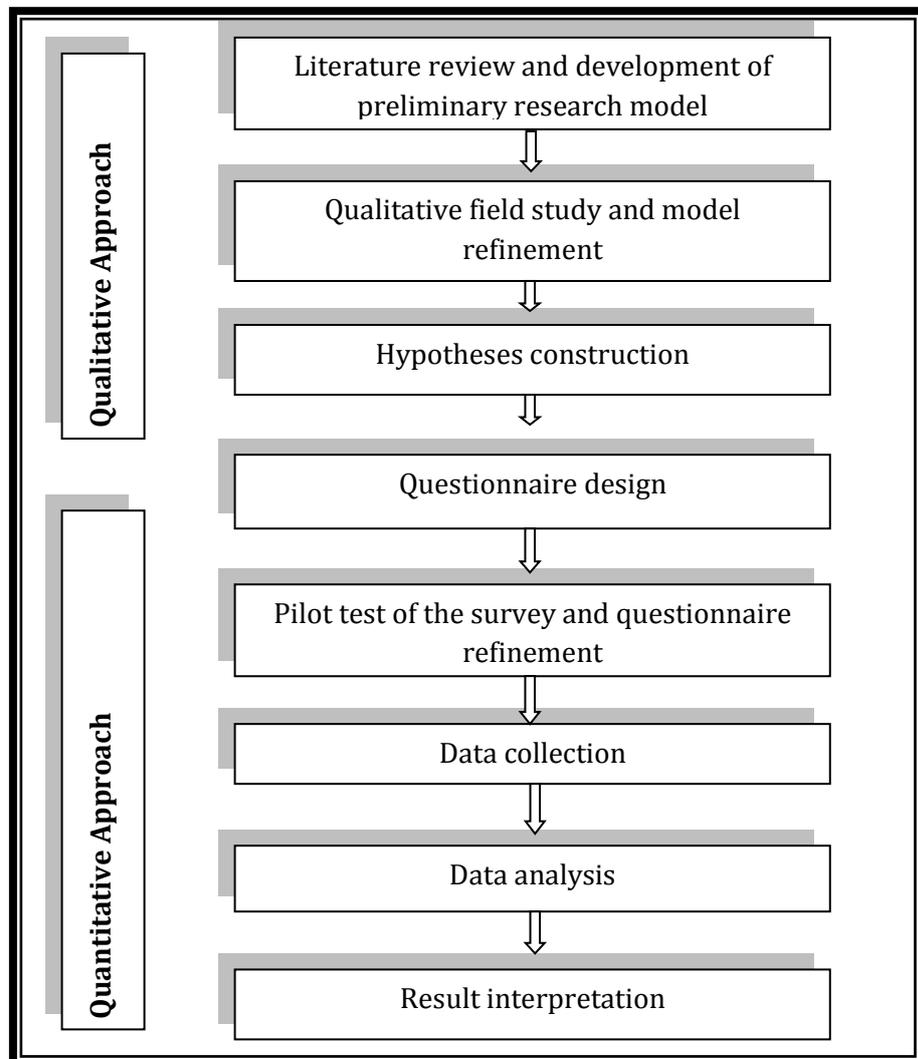


Figure 3.1: The sequential presentation of the research process

Step 2: Qualitative Field Study and Model Refinement

After developing the initial research model, field study through semi-structured questionnaire-administered interviews was then conducted with 11 relationship managers. The objectives of the interviews were to: (a) search for and determine factors or procedures that might not have received attention in the literature; and (b) contextualize and validate the themes identified through the literature review. The interview scripts were transcribed by the researcher. The content analysis technique was employed to analyse the qualitative data. Each interview transcript, following the content analysis, was carefully analysed to identify the factors and sub-factors. Interview transcripts were then compared and analysed to integrate all the individual variables, factors and their relationships to generate the combined model. Chapter 4 describes the details of the field study.

The initial research model was refined based on the results from the qualitative data analysis and the literature review. Based on these findings, it was necessary to add items and constructs (e.g. dedicated relationship managers, local employees and local language ability, etc. as items, and target achievement and service excellence as constructs). Each selected construct and dimension were justified based on the theories and previous research work. After refinement, a research model was finalized with this shown on Figure 4.2 in Chapter 4.

Step 3: Hypotheses Construction

Based on the careful review of theories and the final research model, hypotheses were constructed. In this process, 13 hypotheses were developed for testing and validating in a quantitative fashion. The detailed discussion of the hypotheses construction procedure is provided in Chapter 5.

Step 4: Questionnaire Design

Based on the constructs, sub-constructs and relevant hypotheses, an initial questionnaire was designed. The measurement items for each construct were identified mostly from the prior literature to ensure content validity. Some of the items were also developed from the field study as those items were very relevant to the context. Hence, a tentative questionnaire was designed by using a six-point Likert scale (Matell and Jacoby, 1972; Zikmund 2003). The details of the questionnaire design are furnished in Chapter 5. This tentative questionnaire was then evaluated and refined through a pre-testing procedure to affirm the reliability and validity of the measurement items.

Step 5: Pre-testing the Questionnaire

The primary questionnaire was pre-tested to refine the questions before it was widely disseminated. The pre-testing procedure was conducted with 10 respondents. Based on the feedback from pre-testing, a refined questionnaire was developed.

Step 6: Pilot Study and Questionnaire Refinement

To ensure the applicability of the data, a pilot survey was conducted. From the relationship managers being considered for data collection, 75 respondents were interviewed for this purpose.

Prior to the actual national survey, the initial questionnaire was refined based on the pre-test outcome. The final questionnaire was thus ready to be distributed among the respondents of the survey.

Step 7: Data collection

The quantitative data were collected through the questionnaire-administered face-to-face interviews with relationship managers and customer service managers of different banks. Respondents were selected by a convenience sampling method. A total of 321 responses was collected.

Step 8: Data Analysis

Data collected through the national survey were analysed by using Statistical Package for the Social Sciences (SPSS) and partial least squares (PLS), a variance-based structural equation modelling (SEM) technique (Ringle et al., 2012; Chin et al., 2003). This study used SmartPLS 2.0.M3 software (Ringle et al., 2005). The SPSS analyses produced descriptive statistics while PLS-SEM was used for testing item reliability, internal consistency, convergent validity, discriminant validity and hypotheses.

Step 9: Interpretation of Results and Discussion

The final step of the research process was the interpretation and discussion of the results obtained from both qualitative and quantitative data analyses.

In this research, a conceptual model was initially developed based on the literature review, which was further contextualized, validated and tested through qualitative research followed by quantitative research. The details of the qualitative and quantitative phases of the research are discussed and elaborated in the following section.

3.5 QUALITATIVE FIELD STUDY

This phase of the research aimed to explore the factors and variables of CRM success. Due to the exploratory nature of this phase, a qualitative field study was considered more appropriate to examine, confirm and validate the factors and variables identified through the literature review (Zikmund 2003; Creswell, 2003). The purpose of conducting the field study was to contextualize and to assess suitability of the preliminary research model which was shown in Figure 2.1. The other purpose of this study was to determine the factors along with their associations. As qualitative methods allow the researcher to study a selected issue in depth and detail, a semi-structured questionnaire-administered interview approach was used to ensure a better understanding of the research area. In addition, the interview technique has been demonstrated to be a very effective and widely used method for generating qualitative data (Malhotra, 2004). In order to comply with the positivist stance of this research, the field study has been conducted without being constrained by predetermined outcomes but instead relying on openness (Patton, 1990). Based on the outcome of the qualitative study, the preliminary research model was then adjusted, which has been shown in chapter 4, section 4.5.

3.5.1 Sample Selection for Qualitative Field Study

A field study, as with other research methods, entails a sample selection from the study population either through a random or non-random method (Xu and Quaddus, 2005, Zikmund, 2003). The sampling method used for this study was a convenience non-random type. The respondents were selected based on the position of the respondents and the type of banks (local private and/or multinational). Eleven (11) relationship managers/customer service managers were selected for interviews. The study focused on the customer relationship management (CRM) practices and customer relationship management success (CRMS) factors of the banking industry of Bangladesh: hence, relationship managers and/or customer service managers (playing a similar role to that of relationship managers) were preferred for the interviews. Other employees were not considered as they act as facilitators and are mostly involved in administrative or sales-related activities rather than relational issues and practices.

In total, 11 interviews were conducted consisting of interviews with eight relationship managers/customer service managers from eight different local private banks and three from multinational banks. As the saturation level of the data was reached, no further interviews were needed at this stage (Guest et al., 2006). The number of cases

recommended by researchers differs. Some researchers recommend an open-ended number of cases, whereas others suggest a restricted range. Four to eight interviews are considered suitable for a qualitative study (Eisenhardt, 1989, Perry, 1998). In a similar vein, McCracken (1988) argued that at least eight respondents are essential to generate meaningful themes from in-depth interviews. Thus, 11 interviews seemed enough for this study. The selection of all interviewees was based on personal contacts. Therefore, purposive sampling was employed in this regard (Corbin and Strauss, 2008). Likewise, this technique provides the means to approach the participants more easily and conveniently (Cavana et al., 2001).

3.5.2 Data Collection Methods for Qualitative Field Study

After selecting the sample companies, the interviewees were approached through telephone calls and/or personal visits to set their interview schedule. The responses were positive as all prospective respondents had agreed to take part in the interview. The approximate required time frame for the interview was around one hour to an hour and a half and the respondents were invited to set the schedule according to their convenience. After receiving verbal consent from the respondents, a confirmation letter stating the date and time, and including a brief idea about the interview, was sent to each respondent. The letter also mentioned and assured that the participation of the interviewees was entirely voluntary and would be kept confidential. A semi-structured questionnaire was used to obtain data on CRM success. The benefit of conducting a semi-structured interview is that it allows an interviewer to concentrate on specific issues and topics and also makes it appropriate to explain the answers from the initial question (Rubin and Rubin, 2005). Each interview started with a “grand tour” question (Leech, 2002) on the respondent’s understanding of CRM, present practices and expected outcomes from CRM. To explore further details, follow-up questions were asked which is very consistent with the “laddering” approach (Durgee, 1985). The interviews were recorded with the consent of the respondents and notes were also taken during the interview. The data were transcribed immediately after the interview to maintain the sense and tune of the respondents. Moreover, to reduce interviewer bias, all interviews were conducted, recorded and transcribed by the same researcher (Strauss and Corbin, 1990). The details are described in Chapter 4 in the field study section of this research.

3.5.3 Data Analysis Techniques for Qualitative Field Study

As this phase of the study was more exploratory in nature, content analysis was considered appropriate for conducting the qualitative data analysis (Siltaoja, 2006; Berg and Lune, 2004). Content analysis is now accepted as a good technique and has been widely utilized in previous research. For instance, Akter et al. (2013) and Xu and Quaddus (2005) employed this technique to examine the applicability of the conceptual model in a particular research setting. Content analysis facilitates the exploration of factors and variables and also their associated relationships in a particular research setting. Content analysis can be used in numerous ways (Siltaoja, 2006); however, this study employed the two-step process, namely, inductive and deductive (Berg and Lune, 2004; Xu and Quaddus, 2005) to probe and validate the theme and sub-themes from the field study data to satisfy the objective of the exploratory study. Figure 4.1 presents the sequential steps of the qualitative data analysis process in this study.

The inductive phase (the first phase of analysis) consisted of exploring factors, sub-factors and variables. The interview contents were coded very carefully and a number of free nodes were identified that contained individual concepts. Afterward, tree nodes were developed from a set of relevant free nodes with a similar concept. Each tree node thus considered a prospective construct. The findings were frequently reviewed and checked time and again to ensure reliability. This process also helped to double-check whether any theme or sub-theme was missed or even if the classification had been appropriately done. The findings from each interview were compared and a comprehensive field study model was then developed (Figure 4.2) through incorporating all constructs, dimensions and sub-factors.

After completing the inductive stage of content analysis, the second phase, deductive analysis, began. This phase was very critical for the researcher as, at this stage, the model of the field study and the initial model (Figure 2.1) were reviewed. In this stage, three steps were involved: first, the field model and the initial model were compared to assess the significance of the constructs and variables. Second, the findings from the field study were revisited and the constructs were selected based on commonality. Third, justification of the field study findings based on the literature review was carried out to finalize the constructs. Finally, based on the review of the field study model and the initial model, a comprehensive refined model was developed which is shown in Figure 4.1.

3.6 QUANTITATIVE STUDY

After developing the comprehensive research model through an extensive literature review and qualitative field study, the next step was the confirmation and/or rejection, and validation of the factors and variables and the links between and/or among the constructs by applying quantitative analysis. As this phase was more confirmatory than exploratory, a quantitative method was considered most appropriate. This phase comprised hypotheses and questionnaire development, questionnaire pre-testing, conducting a pilot study, sampling technique determination, quantitative data collection, and data analysis through PLS-based structural equation modelling (SEM) using SmartPLS software.

3.6.1 Hypotheses and Questionnaire Development

Based on the literature review and the comprehensive research model, a total of 14 relevant research hypotheses were developed for examining the different links between and/or among the constructs. In accordance with the research model, a preliminary questionnaire was developed to explore the important factors and sub-factors and to test the hypothesized relationships among the constructs. This study deployed closed-ended questions in the design of the survey instrument for which the indicators used were collected from the literature and the field study. The questionnaire also included demographic information about the respondents. This study adopted a six-point Likert scale to collect data based on the extent to which the respondents agreed or disagreed with each statement (1=strongly disagree and 6=strongly agree or 1 =extremely low and 6=extremely high). The advantage of selecting a six-point scale was that it avoided a central tendency error because, in the context of Asian countries, the pattern to choose the 'neutrality' answer is a common phenomenon during data collection (Mattel and Jacoby, 1972; Trompenaars and Hampden-Turner, 1998; Zhou et al., 2012). In a similar vein Blumberg et al. (2008) argued that the respondent's intention to choose the middle response would lead to a central tendency error. Thus, the middle point for a seven-point Likert scale "neither agree nor disagree" was eliminated with the result being that a six-point Likert scale was used for measurement. It can also be argued that the six-point Likert scale is easy to prepare and interpret, and is also simple for respondents to answer (Zikmund et al., 2003).

3.6.2 Pre-testing the Questionnaire

Prior to conducting the actual survey, the preliminary questionnaire was pre-tested to identify any problems with the survey instrument. The respondents were also asked for suggestions regarding the clarity and inclusion or exclusion of any question. This process considered a convenience sample of 10 relationship managers who also participated in the field study. The objectives of the pilot study were to examine the understandability and the viability of the selected indicators and dimensions used in the survey instrument. Based on the opinions of the respondents, a modified questionnaire was then finalized by making the necessary adjustments. Chapter 5 describes further details about the pre-testing procedure.

3.6.3 Pilot Study

Based on the refined questionnaire, a pilot survey was conducted to test the applicability of the questionnaire and to identify any further problems from the respondents' feedback. The relationship managers were the target respondents. In some banks, where the position of relationship manager does not exist, the customer service manager usually carries out a similar role and was communicated with for the pilot study. The respondents were approached either by phone or personal visit in order to inform them about the purpose of the research. The relationship managers or customer service managers who agreed to take part were selected for the pilot study data collection. Seventy five (75) managers were approached about an appointment and 69 agreed to participate in the pilot survey. From the 69 respondents, 62 completed and usable questionnaires were collected. The descriptive statistics of the pilot study data were analysed to check the viability of the questionnaire. Section 6.2 of Chapter 6 describes further details about the pilot study.

3.6.4 Population and Sampling Technique for Quantitative Data Collection

The population in this research included all banks (i.e. government-owned, local private and multinational banks) operating under Bangladesh Bank, the central bank of Bangladesh. The aim of this research was to develop a CRM success model in the context of the banking industry of Bangladesh.

The final survey was conducted through face-to-face interviews with relationship managers or customer service managers of different local private and multinational banks situated mostly in Chittagong and Dhaka and also in some other parts of the country. A total of 353 respondents were contacted over the phone, and personal visit.

Of 353 targeted respondents, 321 relationship managers/customer service managers took part in the study which is considered sufficient for PLS-based SEM analysis.

3.6.5 Sample Size Determination

For any statistical analysis to generate the expected explanatory power of a model, the number of observations is vital. This study adopted a PLS-based structural equation modelling (SEM) approach to measure different dimensions and to test different hypotheses in the proposed model. Hence, a sample size needed to be carefully determined in this research setting. Sample size requirements vary across analytic approaches (Lowry and Gaskin, 2014); for instance, scholars often defend their use of PLS highlighting its ability to handle a small sample size (Marcoulides and Saunders, 2006). Moreover, PLS path modelling avoids small sample size problems and thus can be applied in some cases where other methods can not (Henseler et al., 2009). In this regard, Chin and Newsted (1999) provided evidence that the PLS path modelling approach can deliver information about the pertinence of indicators at a sample size as low as 20. One common practice for determining the sample size for PLS is to multiply 10 times the number of items within the most complex, formative construct of the model or to multiply 10 times the largest number of structural paths directed towards a particular construct in the structural model (Chin et al., 1996; Gefen et al., 2000). Based on the second part of this rule of thumb, the minimum sample size requirement for this study is 50 responses (the largest number of structural paths = $5 \times 10 = 50$). The total usable sample in this study was 300 which is more than the minimum required sample size.

3.6.6 Quantitative Data Analysis by SEM

This study applied, as mentioned earlier, partial least squares (PLS)-based SEM for quantitative data analysis. This technique offers extensive, scalable and flexible causal modelling capabilities and also has the ability to handle a large number of variables and facilitate the researcher's work with a simultaneous run of several regression equations. The reasons and benefits for using SEM are discussed in the following sections.

3.6.6.1 Why Use SEM?

One of the key benefits of SEM is the ability to include unobserved variables in causal models (Lowry and Gaskin, 2014). Hence, researchers can develop a model comprising many indicators and each one of them is a reflection or a dimension of the latent

construct. Structural equation modelling (SEM) also enables the researcher to estimate the complete causal network. In addition, SEM offers several benefits such as: i) it has the flexibility to assess the measurement properties of a construct under the different theoretical settings in which they are entrenched; ii) it deals explicitly with measurement error; and iii) it facilitates the researchers' work with other benefits, for example, multiple regressions, principal component analysis and cluster analysis (Barclay et al., 1995) which are not available with first-generation techniques. Furthermore, (Barclay et al., 1995) expressed the view that first-generation statistical analysis has some limitations that inhibit both creativity and the depth of analysis. However, the second-generation tool based on the SEM method allows the researchers to answer a number of related research questions in a particular, systematic, and comprehensive analysis by concurrently modelling the relationships among different independent and dependent constructs (Gefen et al., 2000; Lowry and Gaskin, 2014). The research model in this study has a large number of constructs and variables which cannot be comprehensively analysed by first-generation regression-based analysis. As a result, SEM, a second-generation data analysis technique is best suited for this study.

3.6.6.2 Justification for Using PLS for this Study

Previous studies show that there are two forms of SEM: one is covariance-based (CBSEM) (with popular applications: LISREL, AMOS) and the other one is component-based and represents constructs through components (PLS). Partial least squares (PLS) can provide advantages over the CBSEM technique in theory building (Lowry and Gaskin, 2014). Moreover, PLS-based SEM is suitable for exploratory research, whereas covariance-based SEM is endorsed for confirmatory analysis and needs more solid observance of distributional assumptions (Hair et al., 2011; Ringle et al., 2012; Chin, 1995).

This research was exploratory in nature as it attempted to explore the factors behind CRM success in the banking industry context. Partial least squares (PLS) path modelling is recommended at an early stage of theoretical development in testing and validating exploratory models. Another advantage of PLS path modelling is that it is suitable for estimate-oriented research and thus supports researchers who emphasize the clarification of endogenous constructs. In addition, PLS provides latent variable scores, that is, proxies of the constructs: it also ignores the problem of small sample size and thus can be applied in some cases where other methods may not be applicable. In addition, PLS path modelling can deal with a very complex model with many latent and manifest variables and is also free from assumptions about the distribution of

variables and error terms. Another advantage of PLS-based SEM is that it can simultaneously handle both reflective and formative measurement models (Henseler et al., 2009) (for details, see Table 3.2). The comprehensive model developed in this research included a large number of constructs and the model is indeed complex. Hence, based on the above argument, it can be inferred that PLS-based SEM is the appropriate data analysis method for this research.

Table 3.2: Philosophical differences between CBSEM and component-based SEM (PLS)

Criterion	PLS (Component-based SEM)	CBSEM (LISREL, AMOS)
Objective	Prediction-oriented	Parameter-oriented
Approach	Variance-based	Covariance-based
Assumptions	Predictor specification (non-parametric)	Usually multivariate normal distribution and independent observations (parametric)
Parameter estimates	Consistent when indicators and sample size increase (i.e. consistency at large)	Consistent
Number of latent variables	Any number	Limited numbers (max. eight)
Latent variable scores	Explicitly estimated	Indeterminate
Epistemic relationship between a latent variable and its measures	Can be modelled in either formative or reflective mode	Usually only with reflective indicators
Implications	Best for prediction accuracy	Best for parameter accuracy
Model complexity	High complexity	Moderate to low complexity
Sample size	Power analysis based on the portion of the model with the largest number of predictors. Minimal recommendations range from 30 to 100 cases.	Preferably based on power analysis of specific model. Minimal recommendations range from 200 to 800 cases.

Source: Chin and Newsted (1999), in Rick Hoyle (Ed.), *Statistical Strategies for Small Sample Research*, Sage Publications, pp. 307-341

3.6.6.3 Partial Least Squares Procedure

Two procedures are involved in the PLS-based SEM analysis: (i) the assessment of the measurement model and (ii) the assessment of the structural model (Hair et al., 2011, 2012). In assessing the measurement model, the specification of the causal relationship between the manifest variables and the latent variable is very important (Jarvis et al., 2003). Two types of measurement models are available that consider the causal relationship between the latent variable and the indicators: (a) the reflective model and (b) the formative model (Hair et al., 2011; Jarvis et al., 2003). The assessment of the measurement model is different for reflective and formative models. The proposed

model in this study included reflective measurement; therefore, the assessment of the measurement model was conducted through the examination of indicator reliability, internal consistency, average variance extracted (AVE), multi-collinearity and discriminant validity, aligned with the guidelines of Hair et al. (2011) and Becker et al. (2011). The structural model was evaluated through analysing the explanatory power of endogenous constructs as well as examining the *t*-values of each path coefficient corresponding to the hypotheses. Table 3.3 presents the systematic procedures for SEM analysis.

Table 3.3: Systematic procedures for SEM analysis

Stage	Type of Item	Type of Measurement	Decision parameter
Assessment of Measurement Model	Reflective	Convergent validity	
		Item reliability	≥ 0.6 , and <i>t</i> value > 1.65
		Internal consistency	≥ 0.7
		Average variance extracted (AVE)	≥ 0.5
		Discriminant validity	
		AVE analysis	Square root of the AVE of a construct is larger than its correlation with other constructs
		Cross-loading matrix	Loading of an item within a construct is greater than its loading within any other construct
	Formative	Indicator weight	Review construct conceptualization and <i>t</i> -value=1.65 ($p=0.1$)
		Multi-collinearity	Variance inflation factor (VIF) ≤ 10 or ≤ 5
Assessment of Structural Model	Reflective and Formative	Structural model for collinearity issues	VIF < 5 :tolerance > 0.20
		Test of hypotheses	Significant <i>t</i> -value=1.65
		Coefficient of	$R^2 \geq 0.25$

		determination	
		Assess the effect sizes f^2	0.02 (small), 0.15 (medium), 0.35 (large)
		Assess the predictive relevance Q^2	0.02 (small), 0.15 (medium), 0.35 (large)

Sources: adapted from Hair et al. (2013), Lowry and Gaskin (2014)

3.6.6.4 Specification of Reflective or Formative Measurement

The selection of measurement mode (formative or reflective) for any construct needs theoretical deliberations (Coltman et al., 2008; Jarvis et al., 2003). In some cases, this choice is easier because the causal priority between the construct and the indicators is very clear. However, in other cases, choosing correctly between reflective vs. formative measures can be difficult (Hulland, 1999; Diamantopoulos and Siguaw, 2006). In this regard, Jarvis et al. (2003) developed a set of conceptual criteria that can be used as a guideline for determining the choice from either a reflective or formative measurement perspective. The decision rules are summarized in Table 3.4.

Based on the conceptualization, reflective items are deemed to be caused by the latent variable (see Figure 3.2). Due to the causal nature of the relationship between each item and the latent variable, any change in the construct would result in changes in the items. Moreover, a reflective measurement model indicates that the measures are manifestations of constructs, that is, all the measures under a construct share a common theme (Jarvis et al., 2003; Polites et al., 2012). Thus, there are high correlations between items (Fornell and Bookstein, 1982; Jarvis et al., 2003).

Table 3.4: Decision rules for reflective or formative measures

	Reflective model	Formative model
1. Direction of causality between construct and measures	Direction of causality is from construct to items	Direction of causality is from items to construct
Whether the measurement items are defining characteristics or manifestations of the construct	Measurement items are manifestations of the construct	Measurement items are defining characteristics of the construct
Whether or not changes in the measurement items cause changes in the construct	Changes in the measurement items should not cause changes in the construct	Changes in the measurement items should cause changes in the construct
Whether changes in the	Changes in the construct	Changes in the construct do not

construct cause changes in the measurement items	cause changes in the measurement items	cause changes in the measurement items
2. Interchangeability of the measurement items	The measurement items should be interchangeable	The measurement items need not be interchangeable
Should the measurement items have the same or similar content?	The measurement items should have the same or similar content	The measurement items need not have the same or similar content
Do the measurement items share a common theme?	The measurement items should share a common theme	The measurement items need not share a common theme
Whether dropping one of the domains of the construct items alters the conceptual domain of the construct	Dropping an item should not alter the conceptual domain of the construct	Dropping an item may alter the conceptual domain of the construct
3. Whether there is any covariation among the items	Items are expected to covary with each other	Not necessary for items to covary with each other
Whether a change in one of the indicators is associated with changes in the other indicators	Yes	Not necessarily
4. Nomological net of the construct indicators	Nomological net for the indicators should not differ	Nomological net for the indicators may differ
Whether the measurement items are expected to have the same antecedents and consequences	Items are required to have the same antecedents and consequences	Items are not required to have the same antecedents and consequences
Source: Jarvis et al. (2003)		

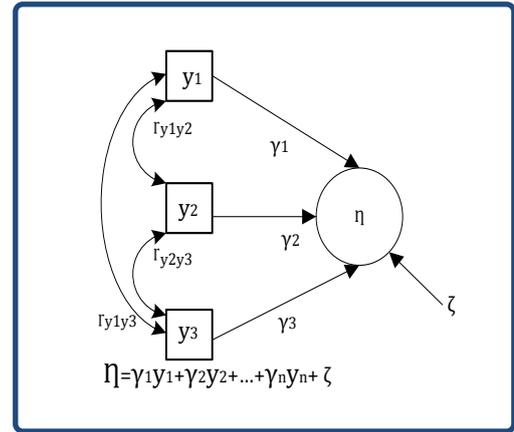
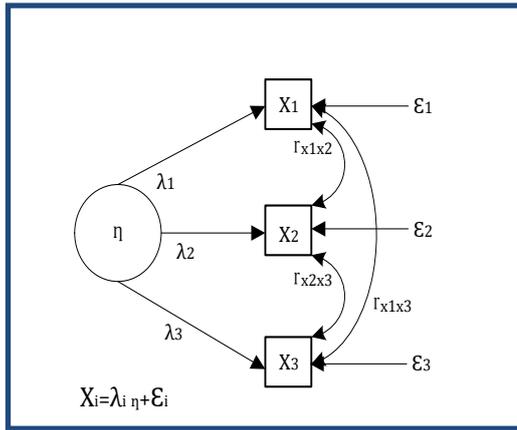


Figure 3.2: Reflective measurement model **Figure 3.3:** Formative measurement model

η: latent variable
 λ: loading
 x: reflective indicator
 ε: measurement error on level of indicators
 r: correlation between indicators

η: latent variable
 γ: weight
 y: formative indicator
 ζ: measurement error on level of the latent variable
 r: correlation between indicators

Figures 3.2 and 3.3 portray the relationship between the latent variable and its manifest variables in the case of both reflective and formative measurement models. Following the guidelines of Coltman et al. (2008), Wetzels et al. (2009) and other studies, the items and constructs used in this study were modelled as reflective. With reference to prior literature and field study outcomes, all constructs were considered as reflective in nature.

3.6.6.5 Assessment of Reflective Measurement Model

It is essential to evaluate the measurement model to assess the validity of a construct or the extent to which the indicators reflect their underlying constructs (Santosa et al., 2005; Henseler et al., 2009). To assess the adequacy of the measurement model, the general procedures followed under the PLS framework are assessing individual item reliability, internal consistency and discriminant validity (Barclay et al., 1995; Hulland 1999; Santosa et al., 2005). Likewise, in the reflective measurement model, both convergent validity and discriminant validity are assessed (Santosa et al., 2005; Henseler et al., 2009). Convergent validity is assessed by calculating item reliability, internal consistency and average variance extracted (AVE), whereas discriminant validity is ensured by examining item cross-loadings of the construct and comparing inter-construct correlations with the square root of AVE (Fornell and Larcker, 1981; Hair et al., 2011). Table 3.3 presents the steps of the measurement model assessment

and the following sections will discuss in detail about item reliability, discriminant validity and convergent validity.

Item reliability

Item reliability, the first assessment of the measurement model, evaluates the loading of each item with the constructs to assess how well each item is related to the respective construct. In other words, it refers to the analysis of measuring the amount of variance in each individual item that occurred due to the construct (Barclay et al., 1995). Item reliability, which is sometimes referred as simple correlations, indicates the strength of the item in measuring a particular construct. Likewise, Nunnally (1978) argued that low loading items indicate low correlation between the items and the constructs whereas items with a high loading indicate high correlation. In PLS, reflective item reliability can be assessed by evaluating the item loading scores and their significance (Hair et al., 2011; Ringle et al., 2012); however, researchers differ in their opinion regarding the acceptable value of item loading. Hair et al. (2011) expressed the view that the item loading value should be higher than 0.7 whereas Barclay et al. (1995) recommended 0.707 as the threshold for item loading. They also suggested that items with a loading less than 0.707 should be eliminated from the construct. On the other hand, some researchers, for example, Chin (1998) and Hulland (1999) accept the item loading threshold as being 0.5. The justification for requiring a higher item loading is that items with a lower loading value have a random error element that exceeds the explanatory element. Dropping the items with lower loading values would result in improved item reliability as well as improved estimates of the true relationships between the constructs (Nunnally, 1978). Scholars have suggested that items with extremely low loading values should be carefully analysed and reviewed, especially if the items have been taken from a strong theoretical background (Nunnally, 1978). The literature's advice is that low loading values are attributed to several causes, including: inappropriate wording in the questionnaire, misunderstanding by the respondents, using improper items to measure constructs or applying questions from one context to another context (Hulland, 1999). Taking into consideration all the recommendations from the previous literature and also to maximize the convergent validity of the measurement model, the item loading threshold level was considered as being 0.6.

Internal consistency

The conventional criterion for measuring internal consistency is Cronbach's alpha that offers an estimate of the reliability based on the inter-correlations of the observed indicator. Cronbach's alpha considers that all the indicators are equally reliable having equal outer loadings in the construct. However, PLS-based SEM emphasizes the indicators according to their individual reliability. Similarly, Cronbach's alpha is sensitive to the number of items in the scale. Hence, it may be used as a conventional measure of internal consistency reliability (Hair et al., 2013). As Cronbach's alpha is not free from limitations, a different measure of internal consistency, referred to as composite reliability, is considered appropriate for measuring internal consistency reliability. This type of reliability considers the different outer loadings of the indicator variables and is calculated using the following formula:

$$\text{Internal consistency} = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + \sum \text{Var}(\epsilon_i)}$$

Where λ_i = the factor loading which represents the simple correlation between the item and its constructs, and $\text{Var}(\epsilon_i) = 1 - \lambda_i^2$, the unique/error variance.

The composite reliability varies between 0 and 1, where higher values indicate higher levels of reliability. The review of the previous literature revealed that the minimum threshold for composite reliability is 0.7 (Hair et al., 2011; Barclay et al., 1995; Nunnally and Bernstein, 1994). Composite reliability values between 0.6 and 0.7 are acceptable in exploratory research (Nunnally and Bernstein, 1994; Henseler et al., 2009) and values between 0.7 and 0.9 are acceptable in more advanced stages of research (Nunnally and Bernstein, 1994). Composite reliability values less than 0.6 indicate a lack of internal consistency (Hair et al., 2013). Therefore, the threshold value for composite reliability (internal consistency) considered in this study was 0.7.

Convergent validity

Convergent validity is the magnitude to which a measure correlates positively with alternative measures of the same construct. Indicators of a reflective construct are treated as dissimilar approaches to measure the same construct. Thus, the items that are indicators of a specific construct should share a high proportion of variance. To

establish convergent validity, researchers need to examine the average variance extracted (AVE).

Average variance extracted (AVE)

A widespread measure to ascertain the convergent validity on the construct level is the average variance extracted (AVE) which measures the variance explained by a particular construct with respect to its indicators (Fornell and Larcker, 1981; Hair et al., 2011). This principle is defined as the grand mean value of the squared loadings of the indicators related to the construct (Hair et al., 2013). The suggested acceptable value for AVE is 0.5 (Fornell and Larcker, 1981) which is also supported by Hair et al. (2011), Hair et al. (2012) and Henseler et al. (2009). An AVE value of 0.5 or higher refers to satisfactory convergent validity as the latent variable is able to explain more than half of the variance of its indicators, on average (Hair et al., 2013). On the contrary, an AVE of less than 0.50 refers to the fact that more error remains in the items than the variance explained by the construct (Hair et al., 2013). The average variance extracted (AVE) can be calculated by using the following formula:

$$\text{Average variance extracted (AVE)} = \frac{\sum \lambda_i^2}{\sum \lambda_i^2 + \sum \text{Var}(\epsilon_i)}$$

Where λ_i factor loading denotes the simple correlation between the item and its constructs (item loading), and $\text{Var}(\epsilon_i) = 1 - \lambda_i^2$ (the variance).

Discriminant validity

The next phase for measurement model evaluation is the analysis of discriminant validity which is the magnitude to which a construct is really distinct from other construct. Hence, establishing discriminant validity entails finding that a construct is unique and captures a phenomenon not represented by other constructs in the model. Referring to Hair et al. (2013); Barclay et al. (2011); and Henseler et al. (2009), two measures of discriminant validity have been proposed. The first method for assessing discriminant validity refers to the examination of the cross loadings of the indicators.

The second and more conservative approach to measure discriminant validity is the Fornell-Larcker criterion (Hair et al., 2012).

To satisfy the criteria of discriminant validity through the cross-loading matrix, Hair et al. (2011); Barclay et al. (1995); Henseler et al. (2009); and Chin (1998b) suggest that the loading value of an item with the related construct should be greater than all of its loadings in other constructs. The existence of cross loadings that exceed the indicator's loadings represent a discriminant validity issue. On the other hand, the Fornell–Larcker criterion matches the square root of the AVE values with the latent variable correlations. Specifically, the off-diagonal elements (the correlation of latent variables) should be less than or equal to the diagonal elements (square root of the AVE) in the corresponding rows and columns (Hair et al., 2011; Barclay et al., 1995; Fornell and Larcker, 1981; Henseler et al., 2009).

3.6.6.6 Assessment of Hierarchical and Multidimensional Constructs

In some cases, the constructs that researchers intend to examine are complex and theoretically can be operationalized as hierarchical. Higher-order models commonly involve testing second-order structures that include two layers of components (Ringle et al., 2012; Wetzels, 2009). In other words, this can be referred to as a multidimensional construct as it has more than one dimension (Wetzels et al., 2009; Jarvis et al., 2003). Likewise, Law et al. (1998) define a construct as multidimensional when it contains a number of correlated dimensions and subsists in a multidimensional domain. For conceptualizing and operationalizing a particular construct as multidimensional, theoretical justification is essential. Theory should indicate the number of dimensions or sub-factors and their association to the higher-order construct (Johnson et al., 2012; MacKenzie et al., 2011). To avoid poor model fit, proper specification of a multidimensional construct is also essential (Thatcher et al., 2011; Jarvis et al., 2003). Once the focal construct has been carefully defined, it is essential to answer the question as to whether the construct has more than one conceptually distinguishable sub-dimension. It is also important to define each of the sub-dimensions of a multidimensional construct with due care (MacKenzie et al., 2011).

The three key reasons for considering hierarchical component models (HCMs) in PLS-based SEM are: firstly, HCMs help to reduce the number of relationships in the structural model to make the PLS path model more parsimonious and easier to grasp; secondly, for highly correlated constructs, HCMs prove valuable; and, thirdly, a HCM is required when formative indicators exhibit high levels of collinearity.

Levels and modes of hierarchical construct

Hierarchical and multidimensional concepts are characterized by: (i) the number of levels in the model (e.g. second-order or third-order level); and (ii) the relationships (formative vs. reflective) between the constructs in the model (Ringle et al., 2012; Becker et al., 2012). A higher-order construct is reflective (type I and III in Figure 3.4) if the higher-order concept is manifested by several specific dimensions that are unobserved whereas a higher-order construct is formative (type II and IV in Figure 3.4) if it is a combination of several specific (latent) dimensions (Wetzels et al., 2009). A higher-order construct may be at different levels, for example, second-order, third-order or even fourth-order; however, the second-order level is the most widely observed hierarchical model in the literature. A second-order hierarchical latent variable model can be classified into four types based on the relationships among: (i) the first-order latent variables and their manifest variables, and (ii) the second-order latent variable and the first-order latent variables (Ringle et al., 2012; Wetzels et al., 2009; Jarvis et al., 2003) which is illustrated on Figure 3.4.

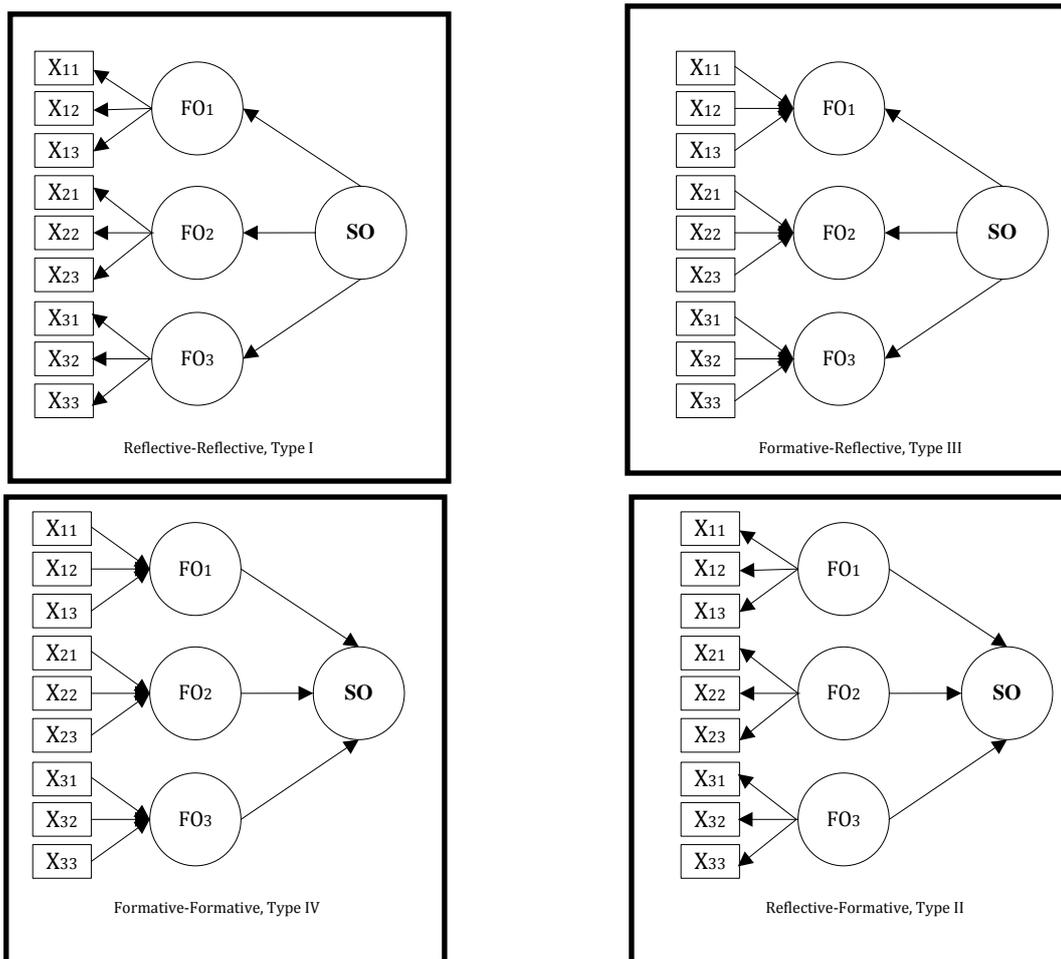


Figure 3.4: The four types of hierarchical latent variable models

The reflective–reflective hierarchical component model specifies a reflective relationship between the higher-order component and lower-order components where each of the constructs is measured by reflective indicators. The reflective–reflective (type I) model is most appropriate if the objective of the study is to find the common factor of several related, yet distinct reflective constructs. On the other hand, the reflective–formative (type II) model indicates relationships between lower-order components and the higher-order components where each construct is measured by reflective indicators and forms a general concept. The formative–reflective (type III) model is useful if a higher-order construct represents the common part of several indices that are supposed to measure the same thing. In the formative–formative (type IV) model, the lower-order constructs are measured by formative indicators and the formative indices eventually form a general concept at a higher-order level (Becker et al., 2012; Chin, 1998a).

Higher-order (second-order) reflective construct in the study model

The conceptual explorations and the findings of the field study confirmed that integrated customer relationship management (ICRM), relationship maintenance (RM), social capital (SC) and CRM success (CRMS) are second-order reflective–reflective type constructs. At the second-order level, ICRM is measured by the first-order constructs: customer orientation (CO), customer-centric management system (CCMS), CRM people (CRMP) and CRM technology (CRMT) as a reflective model (Sin et al., 2005; Chen and Popovich, 2003; Jayachandran et al., 2005). The extant research on CRM (Coltman, 2007; Eid, 2007; Kim et al., 2010; Chang et al., 2010) and measurement model specification (Wetzels et al., 2009; Petter et al., 2007; Jarvis et al., 2003) also supports this kind of hierarchical observation. Relationship maintenance (RM) is measured by the first-order constructs: customer retention, cross-selling and up-selling, and customer referral (Reinartz et al., 2004; Reimann et al., 2010; Aurier and N’Gola, 2010). Similarly, another second-order multidimensional construct, social capital (SC), was measured by the first-order constructs of trust, personal connection and social interaction (Inkpen and Tsang, 2005; Tsai and Ghoshal, 1998; Yli-Renko et al., 2001). The other second-order construct, CRM success, was measured by the first-order constructs of target achievement, efficiency, satisfaction, loyalty and profitability (Shum et al., 2008; Sin et al., 2005; Coltman, 2007; Saini et al., 2010). It can be contended that there is a high interdependence among the reflective first-order constructs. Considering the above-mentioned issues and in line with the decision rule

of Jarvis et al. (2003), it is logical to model ICRM, RM, SC and CRMS as reflective higher-order constructs.

Approaches to measure hierarchical constructs

Hierarchical latent variables can be measured by using three approaches: (i) the repeated indicator approach (Lohmoller, 1989); (ii) the two-stage approach (Ringle et al., 2012; Wetzels et al., 2009); and (iii) the hybrid approach (Wilson and Henseler, 2007). In the repeated indicator approach, a higher-order latent variable is constructed by postulating a latent variable that represents all the items of the underlying lower-order latent variables (Lohmoller, 1989; Becker et al., 2012). The two stage approach estimates the latent variable scores of the first-order constructs in a first-stage model and subsequently uses these scores as indicators for the higher-order latent variable in a distinct second-stage analysis (Wetzels et al., 2009; Wilson and Henseler, 2007). The linear composites from the items used to measure each first-order construct are operationalized as the proxy of first-order constructs to measure second-order constructs (Rai et al., 2006). Latent variable scores, factor scores or multivariate means can be used to compute linear composites (Hair et al., 2011). Likewise, latent variable scores are used as the proxy of first-order constructs as they maximize the R^2 value estimation of the endogenous latent constructs (Lohmoller, 1989). The hybrid approach splits the items of each first-order construct and uses one half to estimate the first-order construct and the other half to estimate the second-order construct (Wilson and Henseler, 2007).

The two-stage approach has the advantage that it estimates a complex higher-order model in a more parsimonious way without needing the lower-order constructs (Becker et al., 2012). Moreover, to operationalize a hierarchical model with formative first-order and formative second-order constructs, the two-stage approach generates less measurement bias (Becker et al., 2012). Hence, the two-stage approach has been deployed in this study to operationalize the complex hierarchical model.

3.6.6.7 Assessment of Structural Model

Once the evaluation of the measurement model is completed and it is confirmed as reliable and valid, the next step addresses the assessment of the structural model results (Hair et al., 2011; Henseler et al., 2009; Fornell and Larcker, 1981). Researchers (Hair et al., 2011; Santosa et al., 2005; Barclay et al., 1995) mentioned that the structural model assessment examines the statistical significance of the hypothesized relationships between constructs by examining the path loadings and path coefficients

among the latent constructs. Moreover, this analysis involves examining the model's predictive capabilities and the relationship between the constructs (Hair et al., 2013).

The first phase of the structural model assessment begins with the examination of the structural model for collinearity. As the estimation of path coefficients in the structural model is based on ordinary least squares (OLS) regressions of each endogenous latent construct on its corresponding predecessor variables, the path coefficient might be biased if the estimation entails significant levels of collinearity among the predictor constructs (Hair et al., 2013).

After assessing collinearity, the next step is the assessment of the path coefficients and *t*-values of the hypothesized relationships following the guidelines of Hair et al. (2011) to determine the significance of relationships among constructs in the model. Studies in line with partial least squares (PLS)-based SEM suggest two non-parametric approaches to test the relationship between constructs, namely, jackknife and bootstrap techniques (Santosa et al., 2005; Gefen et al., 2000). Partial least squares (PLS)-based SEM relies on a non-parametric bootstrap procedure (Davison and Hinkley, 2003). In bootstrapping, a large number of sub-samples are drawn from the original sample with replacement. A review of the earlier literature also supports the view that both methods have advantages and disadvantages (Chin 1998a); however, in this research, the bootstrapping procedure is considered for data analysis as it is considered to be a more sophisticated approach than the jackknife procedure (Chin, 1998b).

The third phase for the assessment of the structural model is the measurement of the coefficient of determination (R^2 value). Partial least squares (PLS)-based SEM is effective for prediction and estimation of the coefficient of determination (R^2 value) which is usually used to measure the predictive accuracy of the model (Ringle et al., 2012; Hair et al., 2011). Following the guidance of Hair et al. (2011), the structural model of this research has been assessed by examining the explanatory power of the proposed model. The explanatory power of the proposed model with respect to each construct can be assessed by R^2 values for each construct (Hair et al., 2011). The coefficient of determination (R^2 value) is calculated as the squared correlation between a specific endogenous construct's actual and predicted values where the coefficient represents the exogenous latent variable's combined effects on the endogenous latent variable (Hair et al., 2013). The coefficient of determination (R^2 value) can be obtained from the bootstrapping result of the PLS run. The coefficient of determination (R^2

value) ranges between 0 and 1 where the higher levels indicate higher levels of predictive accuracy. The R^2 values depend on the model complexity and the research discipline; thus, it is difficult to get rules of thumb for acceptable R^2 values. For instance, the R^2 value of 0.20 is considered high in a discipline like consumer behaviour whereas in success-driver studies, researchers expect 0.75 and above. In scholarly research which focuses on marketing issues, R^2 values of 0.75, 0.50 or 0.25 for endogenous latent variables can be described, as a rough rule of thumb, as substantial, moderate or weak, respectively (Hair et al., 2013; Hair et al., 2011; Henseler et al., 2009). Conversely, a substantial number of studies (e.g. Santosa et al., 2005) support even lower R^2 values as acceptable value.

Nomological validity

Nomological validity is assessed to investigate whether the items of the focal construct are related to the measures of other constructs specified in the construct's theoretical network (MacKenzie et al., 2011). The nomological validity of the focal construct's indicators can be attained through the test of statistical significance of the path coefficients for endogenous to exogenous constructs (MacKenzie et al., 2011; Akter et al., 2013). The statistical significance of the path coefficients implies that the focal construct relates to the constructs specified in the nomological network and, thus, increases confidence in the validity of the indicators (MacKenzie et al., 2011; Akter et al., 2013).

The nomological validity of a construct can also be examined by further evaluating the adequacy of the multidimensional structure of the focal construct (Edwards, 2001). In the case of an endogenous multidimensional focal construct with reflective indicators, this can be conducted by evaluating the direct effect of the antecedent construct on the sub-dimensions of the focal construct and the indirect effect that this antecedent construct has on the sub-dimensions through the focal construct itself (Edwards, 2001; MacKenzie et al., 2011). If the indirect effects of the antecedent on the sub-dimensions of the focal construct are substantially larger than the direct effects of the antecedent on the sub-dimensions, it can be inferred that the dimensions of the multidimensional construct are valid (MacKenzie et al., 2011).

Predictive validity

The predictive sample reuse technique (Q^2) can be used to ensure predictive validity (Chin, 2010). The Q^2 measure evaluates the predictive relevance of a large complex

model based on the blindfolding procedure using PLS. The predictive relevance for a particular construct can be calculated based on the following formula:

$$\text{Predictive relevance (Q}^2\text{)} = 1 - \frac{\sum_D E_D}{\sum_D O_D}$$

Where, E = the sum of squares of prediction error; O = the sum of squares error using the mean for prediction; and D = the omission distance.

Two different types of prediction techniques, namely, (a) cross-validated communality and (b) cross-validated redundancy can be used to estimate the Q² value. This study estimated the cross-validated redundancy to estimate the predictive relevance of the endogenous constructs (CK, RM and CRMS) in the model. The Q² measure can generally be calculated by using an omission distance of 5–10 using existing PLS software packages. The rule of thumb specifies that a cross-validated redundancy of Q² > 0.5 is considered as a predictive model (Chin, 2010; Akter et al., 2013).

Effect size

Researchers can also calculate the f² effect size along with the calculation of the coefficient of determination (R² value) of all endogenous constructs. In practice, the f² effect size estimates the role of a specific exogenous latent construct in predicting the endogenous constructs. The rules of thumb for assessing f² values are 0.02, 0.15 and 0.35 for small, medium and large effect sizes, respectively. The f² effect size can be determined by using the following formula:

$$f^2 = \frac{R_{\text{included}}^2 - R_{\text{excluded}}^2}{1 - R_{\text{included}}^2}$$

Where f²= effect size; R² included= value of R² after including control variables; and R² excluded= value of R² without including control variables.

3.7 SUMMARY

This chapter has described the research methodology used in this study. The research paradigm and the issues associated with quantitative and qualitative methods were discussed in the earlier section of the chapter. In addition, the rationale for choosing the mixed method approach was discussed. This chapter highlighted the systematic overview of the research method and tools used for this research. Finally, this chapter offered a brief summary of the research process.

CHAPTER 4 FIELD STUDY AND COMPREHENSIVE RESEARCH MODEL

4.1 INTRODUCTION

A mixed method paradigm, as discussed earlier, has been adopted for this study. Thus, a field study-based qualitative research analysis was conducted. This chapter elucidates the analysis of the data collected from the field study. The field study was conducted through semi-structured interviews with 11 relationship managers/customer service managers from 11 different banks operating in Bangladesh.

The qualitative approach has been adopted, primarily, to cross-examine the factors and variables and also to fine-tune the initial research model as shown in Figure 2.1 and, secondarily, to develop an extensive model for the SEM analysis as shown in Figure 4.2. This research has been conducted on the banking industry of Bangladesh. However, the theories, factors and variables that aided the framing of an initial research model have been derived from the literature review which is based on a different context, mostly from a Western country perspective. Hence, the field study is required to ensure that the model is valid and justified and that it is also applicable in this particular research context. Moreover, the field study aimed to evolve new factors and/or variables to explore the pervasiveness of the constructs relevant to the model. The identified factors and variables have been confirmed by the existing literature in the subsequent stages.

This chapter starts with the overview of the field study followed by the findings of the content analysis considering both the inductive and deductive stages. Based on the field study data, a field study model was developed and then it was compared with the initial research model. Finally, an extensive and refined research model of CRM success was established. A detailed discussion of the process of developing the comprehensive research model from the interviews is presented in the next section.

4.2 OVERVIEW OF THE FIELD STUDY

4.2.1 Research Paradigm

A mixed method research approach involves generating both numeric information (e.g. with instruments) and text information (e.g. through interviews) so that the final data set encompasses both qualitative and quantitative data (Creswell, 2003). Figures/numbers can be very convincing to the policy makers, whereas stories can easily be remembered and recalled for descriptive purposes (Gorard et al., 2004). In a similar vein, Creswell (2003) argued that both qualitative and quantitative approaches need to be applied if the research is to be fully effective.

This study has adopted a mixed method approach and, thus, a field study has been conducted in the qualitative phase of the research (Akter et al., 2013; Quaddus and Xu, 2005). The research was conducted to explore the antecedents of CRM success in the banking industry; therefore, as addressed in the literature, the field study approach was the appropriate method to gain insight (Malhotra et al., 2004). Data from a field study can be collected through different methods (Malhotra et al., 2004). In this current research, the field study was conducted through a semi-structured questionnaire administered through in-depth interviews (Quaddus and Xu, 2005) with 11 relationship managers/customer service managers of different banks operating in Bangladesh. The instruments for the interview questions were derived from the extensive review of the current and relevant literature with some contextual factors also created which were confirmed and modified during the field study. After finalizing the data collection method, the next step was selecting the samples. A purposive (convenience non-random) sample selection was employed which is common with most qualitative research (Farquhar and Panther, 2008; Miles and Huberman, 1994). Selection was limited to the major cities of Bangladesh, focusing on large national, local private and multinational banks as they offer the range of financial products sought by most consumers, for instance, savings, loans and mortgages.

The significance of the field study was to develop a refined model of CRM success. Based on this refined model, a quantitative study was conducted by undertaking a structured questionnaire survey on the banking industry of Bangladesh. The details of the field study research process are discussed in the following sections.

4.2.2 The Development of the Interview Questionnaire

Thirteen (13) questions were included in the field study interview protocol focusing on five themes to integrate the important aspects of the model: integrated customer relationship management (ICRM); CRM success, customer knowledge (CK), relationship maintenance (RM) and social capital (SC). Table 4.1 presents the themes along with the pertinent concept covered through the field study. Appendix 1 shows the field study interview questions.

Table 4.1: Themes and issues covered in the field study

Theme	Issues covered
Customer relationship management	<ul style="list-style-type: none"> • Understanding and practices of CRM • Important factors to set up CRM • Expectations from present CRM practices and actual outcome(s)
CRM success	<ul style="list-style-type: none"> • Understanding of CRM success • Measures of CRM success
Customer knowledge	<ul style="list-style-type: none"> • CRM in customer knowledge generation (CKG) • Storage and use of customer knowledge • Role of customer knowledge in CRM success • Customer knowledge and bank performance
Relationship maintenance	<ul style="list-style-type: none"> • Indicators of stable and long-term customer relationship • Impact of stable and long-term customer relationship on CRM success
Social capital	<ul style="list-style-type: none"> • Understanding of social capital and how it is being used • Impact of social capital on customer knowledge generation (CKG) and relationship maintenance (RM) as well as on CRM success

The first theme explored the concept of customer relationship management (CRM) and its practice, in general, and integrated customer relationship management (ICRM), in particular: questions 1, 2 and 3 were designed in this regard. The respondents were asked about their understanding of CRM and how it is being practised in their banks. The respondents were also asked to mention the technological and non-technological factors which are essential for banks to maintain their relationship with customers. They were further asked to mention their expectations from the current CRM practices along with the actual outcome(s).

The second theme investigated CRM success (CRMS) issues to gain an insight into this concept. Corresponding to this theme, questions 4 and 5 were designed. Specifically,

question 4 investigated the respondents' understanding of CRMS and also explored the essential and influential factors of CRMS. Similarly, question 5 was designed to investigate how the bank measures CRMS.

The third theme looked into the process and practice of customer knowledge generation (CKG) and customer knowledge utilization (CKU) and also the role of ICRM, with questions 6, 7, 8 and 9 designed in this regard. Question 6 enquired about the method and practice of CKG and the role of CRM. Question 7 explored the knowledge storage mechanism and the use of generated knowledge. Question 8 investigated whether customer knowledge played a significant role in CRM success. Question 9 further investigated whether the generated and collected knowledge helped to improve the bank's performance with example(s) sought.

The fourth theme focused on relationship maintenance (RM) issues from the banking industry perspective with questions 10 and 11 designed correspondingly. The respondents were asked to indicate the indicator(s) of a stable and long-term relationship. They were further asked about the relationship and non-relationship factors that make this possible. Question 10 was basically designed around those issues. In addition, question 11 investigated the role of stable and long-term relationships on CRM success.

The fifth and final topic shed light on social capital (SC) and its relationship with customer knowledge generation (CKG), relationship maintenance (RM) and finally with CRM success. Question 12 was planned to gain an insight into the understanding, dimensions and use of social capital (SC) from the bankers' and banking organizations' perspective. In addition, question 13 investigated the role of social capital (SC) in customer knowledge generation (CKG), relationship maintenance (RM) as well as in CRM success (CRMS).

As the questions were developed mainly from the literature, a pilot study was conducted to check the usability and understandability of the questions before finalizing the interview guide. The pilot study helped to discover other relevant issues which might not receive adequate attention during the initial stage of question selection. Three participants consisting of two bankers and one researcher, who had substantial knowledge about the banking industry of Bangladesh, took part in the pilot study. The pilot study respondents from the banks were contacted and interviewed over the telephone. All the questions seemed applicable; however, minor modifications were made based on the feedback of the pilot study respondents. For example, before

modification, question 2 was designed as: “what factors do you think are most important to set CRM in order to maintain relationships with customers?” However, later on, the question was extended to read “what factors (both technological and non-technological) do you think are most important to set CRM in order to maintain relationships with customers? Please give example(s)”. Thus, the final interview questions were finalized for the field study interview. It is worth mentioning that the interview and questions were approved by the Curtin University Human Research Ethics Committee.

An in-depth idea about the sub-dimensions, factors and variables related to integrated customer relationship management (ICRM), customer knowledge generation (CKG), relationship maintenance (RM), social capital (SC) and CRM success (CRMS) was gained based on the responses and feedback from the field study respondents. The subsequent sections discuss the relationships between and among the constructs which were derived from the field study.

4.2.3 Sample Selection

Researchers differ in their opinions regarding the number of cases appropriate for a field study. Some researchers have argued for an open-ended number of cases, whereas others have suggested a restricted range of respondents; however, the most suitable range falls between four and eight respondents (Eisenhardt, 1989, Perry, 1998). In a similar vein, McCracken (1988) argued that at least eight participants are required to generate insightful themes from in-depth interviews. For this study, 11 customer relationship managers were chosen for interviews. The selection of the respondents was based on personal contact and convenience and, as in many qualitative studies, purposive sampling rather than random sampling was employed in this research (Corbin and Strauss, 2008; Malhotra, 2004). A total of 11 in-depth interviews were conducted before the saturation of themes occurred which meant to the point where no new information arose from new interviews (Corbin and Strauss, 2008; Shum et al., 2008). To make it easier for the respondents to understand, a copy of the interview questions, including a detailed information sheet regarding the study objectives, was given to them. Table 4.2 presents the demographic information of the respondents.

4.2.4 Respondents' Description

Eleven (11) relationship managers/customer service managers from 11 different local and multinational banks participated in the study. To get an insight into the theme,

both local and private banks were considered. The interviewees were sufficiently experienced in the field of customer management as well as relationship management having eight to 12 years of service experience in the banking industry. All the selected banks and the respondents were somewhat familiar with CRM issues; however, the policies, practices and the use of technology varied from bank to bank. Table 4.2 represents the profile of the respondents who participated in the field study.

Table 4.2: Background information of the interviewees

Participants	Position	Bank type	CRM practice	Service experience (General) in years	Service Experience (RM/CSM) in years
R1	RM	LPB	Yes	10	3
R2	RM	MB	Yes	10	2.5
R3	CSM	LPB	Yes	12	3.5
R4	CSM	LPB	Yes	11	2.5
R5	RM	LPB	Yes	9	2
R6	RM	MB	Yes	8	2
R7	RM	MB	Yes	10	4
R8	CSM	LPB	Yes	13	4
R9	RM	LPB	Yes	11	3
R10	RM	LPB	Yes	12	3.5
R11	CSM	LPB	Yes	13	4

R= respondent; RM=Relationship Manager; CSM=Customer Service Manager; LPB=local private bank; MB= multinational bank

4.2.5 Data Collection

After finalizing the sample, the interviewees were contacted either through telephone or by personal visit to set the interview schedule. Initially, 13 respondents were approached of whom 11 managers showed a very willing attitude and agreed to participate in the interview. The interview schedule was set at the convenience of the participants. The interviews were conducted in person, face-to-face and on a one-to-one basis. The average interview duration was one hour and ten minutes. The interviews were recorded with the permission of the respondents and notes were also taken throughout the interview. These short notes helped the interviewer to note down a prompt question to be asked at a later time without interrupting the participant. To reflect the sense and tone of the interviewees, the interviewer immediately transcribed the recorded data. In addition, all interviews were conducted, recorded, transcribed and analysed by the same researcher to reduce interviewer bias (Strauss and Corbin, 1990; Corbin and Strauss, 2008).

4.2.6 Data Analysis

As this phase of the study was more exploratory than confirmatory in nature, content analysis was found to be the most appropriate method for analysing the qualitative data (Siltaoja, 2006; Berg, 2004). Content analysis has developed into a good technique and researchers (e.g. Akter et al., 2013; Xu and Quaddus, 2005) have employed it to investigate the applicability of a conceptual model in a particular research setting. The relationships between and among different constructs were explored through content analysis. The data were then transcribed into electronic files and managed with the qualitative data analysis software, NVivo-10 (Leech and Onwuegbuzie, 2011). This program was used to assist the data analysis process as it is a useful tool for managing, searching, linking and exploring the pattern of data and ideas (Bazeley, 2006; Welsh, 2002). When using NVivo, the process of data reduction begins with the identification of 'nodes' and the coding of data passages. Content analysis can be used in numerous ways (Siltaoja, 2006); however, this study employed the two-step process, namely, inductive and deductive (Berg, 2004; Quaddus and Xu, 2005) to probe and validate the theme and sub-themes from the field study data to satisfy the objective of the exploratory study.

The factors, sub-factors and variables were identified in the inductive phase of the analysis. The interview contents were coded very carefully followed by analysis and identification of individual nodes and patterns of interrelationships between nodes to determine broad themes within the data. Subsequently, tree nodes were developed from a set of relevant free nodes with a similar concept. Each tree node was thus considered as a prospective construct. The findings of the analysis were studied, discussed, reviewed and checked time and again by the researcher to ensure reliability and credibility (Lincoln and Guba, 1994). For instance, when respondents were asked regarding the relevant and essential issues of customer relationship management (CRM), they identified 32 variables (free nodes). By merging similar variables into one, 26 variables came up as distinct but related variables. Subsequently, those 26 variables were grouped into four tree nodes, namely, "customer orientation", "customer-centric management system", "CRM people" and "CRM technology". Following this procedure, a field study model (Figure 4.2) was developed based on all significant constructs.

The second phase was deductive analysis which began after completing the inductive phase. This phase was critical for the researcher as in this phase the field study model and the preliminary model were reviewed based on the literature review. Finally, an

extensive and final research model was developed. Figure 4.1 presents the steps followed for the qualitative phase of this research.

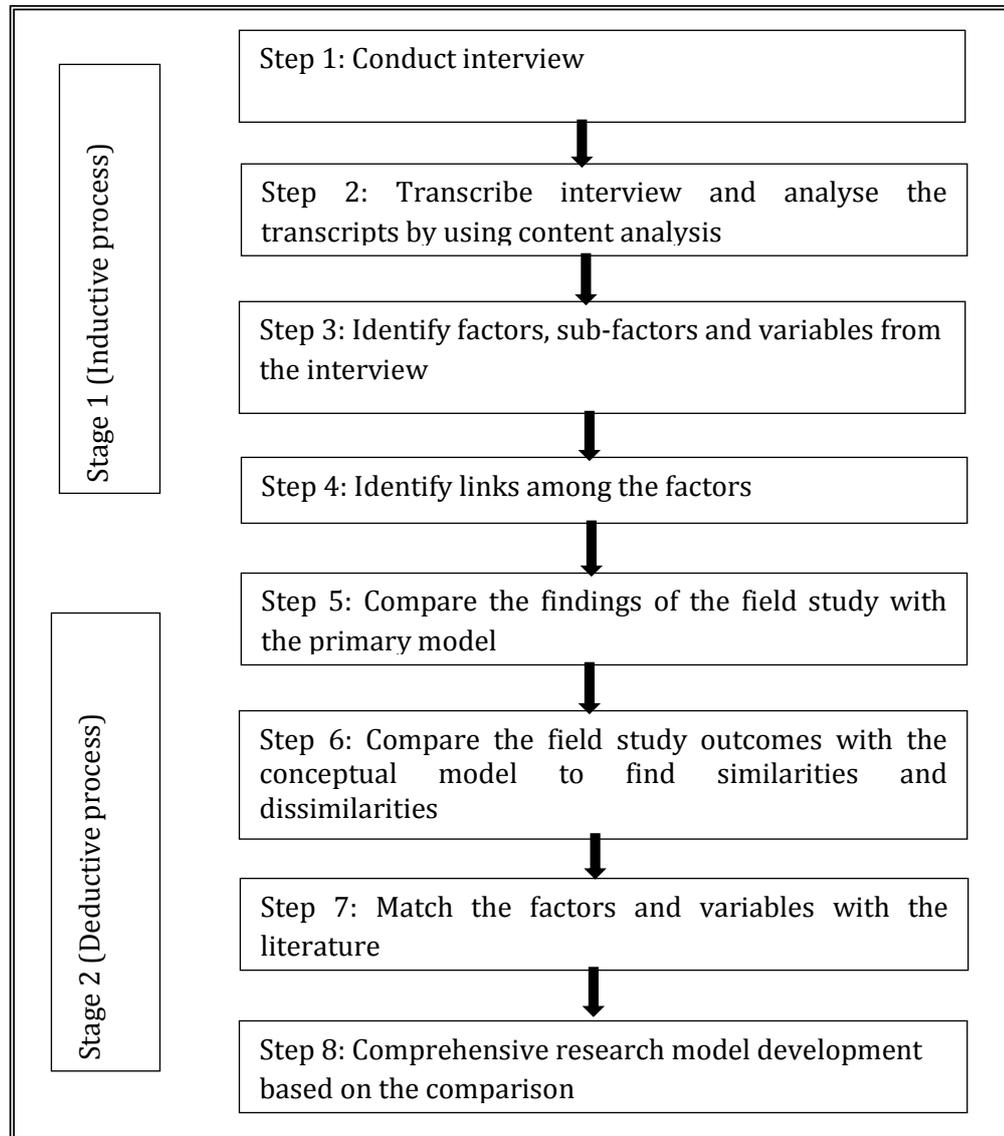


Figure 4.1: Data analysis process of the field study

4.3 FINDINGS OF THE FIELD STUDY (INDUCTIVE ANALYSIS)

This section enumerates the findings from the field study analysis on the basis of the first part of the content analysis which is generally referred to as inductive analysis. The findings of the inductive analysis are presented in three subsections each of which describes a stage of the analysis. In the first stage, each interview transcript was individually examined to reveal how CRM was applied and the respondent's opinion regarding the antecedents for CRM along with actual and potential outcome(s). The second phase explored the relationship between and/or among the variables. The final stage involved the construction of the modified research model.

Following the above procedure, the researcher systematically organized and coded over 150 pages of interview transcripts taking into consideration six broad themes: (a) integrated customer relationship management (ICRM), (b) customer knowledge generation (CKG) and customer knowledge utilization (CKU), (c) relationship maintenance (RM), (d) service excellence (SE), (e) social capital (SC) and (f) CRM success (CRMS).

4.3.1 Factors and Variables

4.3.1.1 Integrated Customer Relationship Management (ICRM)

Customer relationship management is a multidimensional construct (Sin et al., 2005; Finnegan and Currie, 2010). From the field study, it was revealed that the customer relationship needs to be managed and practised in an integrated way. For instance, respondent 3 opined that, *“[a] sound relationship with the customer is highly required...we emphasize three issues, namely our people (employees), our service and our technology to nurture relationship with [the] customer”* (R3). In a similar fashion, respondent 6 stated that, *“[w]ithout technology, CRM is impossible, but at the same time non-technological issues are also playing a very significant role in relationship management practices...Those factors have complementary impact”* (R6). This statement emphasizes the importance of an integrated effort to make the relationship management practice successful. When probed deeper regarding the factors or components of CRM, it was revealed that some of the respondents talked about people and technology, while others stressed customer-focused management along with technology and employees: a number of participants also emphasized customer orientation. The notable thing was that all respondents agreed that CRM needs to be practised in an integrated way, focusing on customers, management practice, people (employees) and relevant technology, and either on a few of these factors or components or, to get maximum benefits, all of them if possible. Details of the study findings regarding the factors associated with integrated customer relationship management (ICRM) are given in the subsequent sections.

Customer orientation

Customer orientation refers to the predisposition of employees and the organization to meet customers' needs which eventually positively influences employee performance and satisfaction (Brown, 2001; Donovan et al., 2004). It was evident from the field study that a customer-oriented approach was very much required to establish and maintain a sound relationship with customers. Customer-oriented issues included:

giving priority to customer needs (N=6); offering personalized services to valued customers (N=8); providing an easily accessible and comfortable service experience (N=5); making efforts to develop and maintain relationships (N=7); showing a positive attitude towards customer complaints (N=6); paying close attention to after-sales service (N=8); viewing the relationship as a valuable asset (N=5), etc. Respondent 1 stated that “...[m]y simple opinion is for long lasting business, CRM is a must and it can be applied anywhere including banks...”(R1). Identification of customers’ needs and providing value-based service were considered crucial for the success of the relationship. In this regard, two respondents opined that “...we try to give priority to the customer needs based on their level of involvement, urgency, etc. and thus introduced priority banking and/or select service centres” (R3); and “... where bank focus has [been] given on some selected customers with relative need-based initiative to satisfy them...” (R7). A complaint management process is important in influencing customers’ perception of the service failure experience and customers’ satisfaction (Lo et al., 2007) as well as customers’ purchase intention and referral process (McAlister and Erffmeyer, 2003). For example, one respondent opined that, “...whenever I receive any complaint I try to learn more about the issue and follow the problem until I have done everything I can...” (R3). Another participant stated that “...since there is not much difference in the deposit rate, we rather now focus on customer-based services rather than rates; however, sometimes we offer personalized rate for our valued customers ...” (R6). “...A good employee never misses the opportunity to create or maintain [a] relationship with a customer...” (R5).

Customer-centric Management System

A customer-centric management system can be defined as an organizational structure geared towards altering the firm’s structure, processes and incentive system by placing the emphasis on the customer relationship (Day, 2003; Jayachandran et al., 2005). A number of customer-centric management issues were reported by the respondents, for example: emphasis on employee training program (N=7); employee performance measurement based on relationship effort (N=5); monitor employee performance based on the service operation (N=8); dedicated relationship manager (R=8); value-based segmentation (R=7); product/service diversification (N=8); and coordination of various functional areas (R=8) (see Table 4.3). Banks not only take care of the regular customer; they also try to know more about their less frequent customers. In connection with this, another respondent indicated that “we try to communicate with non-transacting or low transacting customers to identify the problems ... whether the

problem is from [the] customer's end or [the] banker's end and, if it is with our end, we try to restore it as quickly as possible..." (R8). The respondents also pointed out that employee training plays a very significant role in customer relationship management practice. For instance, respondent 5 mentioned that *"we need to attend at least one training program every month which is basically designed around the relationship issues, based on the feedback from valued customers ... Some other training programs are associated with the upcoming changes in policies and procedures to comply with the policies of the central bank as well as changing customer demand"* (R5).

CRM People

Employees who are relationship-focused and committed to customers are more likely to exhibit constructive behaviour and positive attitudes towards customers. Respondents reported some people-related issues, for instance, priority to the key customer (N=8); employing local people (N=5); good interpersonal skills and convincing capability of CRM people (N=7); adequate knowledge about overall service operations (N=6); and sincere willingness to help customers (N=6). Emphasizing employee willingness to help, respondent 9 expressed that, *"teller usually asks whether customer needs any changes or big note is ok for them ... Is there anything else that I can do or you, which reflects their intention to help customers"* (R9). Furthermore, respondent 9 added that *"our bank always tries to involve capable and passionate employees for relationship development and maintenance"* (R9). A good number of respondents reported the importance of employee knowledge about products and services and, corresponding to this, respondent 7 articulated that, *"[y]ou (employees) have to be knowledgeable...You need to know about the products, services and offering of your bank as well as some other competing banks. So that you can give them clear idea and guide them to take the right decision"* (R7). Aligned with this, respondent 10 added that, *"[s]ometimes we might need to refer our customers to another bank for some reasons ... Since we know that they come to us to get actual and beneficial information... they also rely on us...sometimes we have to act as a financial adviser for our valued customers"* (R10).

CRM technology

Customers knowingly or unknowingly are enjoying the benefits of technology as technology-assisted services have now become expected by customers rather than augmented services offered by the bank. Technology facilitates ready access to relevant information throughout the organization. Different types of technological issues may

affect customer relationship management (CRM) practices, expectations and outcomes in banks. Respondents revealed different technology-related factors. These included: latest software facilities (N=9); investment in technology to acquire and manage customer information (N=6); dedicated CRM technology (N=7); extensive use of IT (N=7); integrating customer information through technology (N=5); ensuring information availability at every point of contact through technology (N=8); and technology to forecast customer preferences (N=4). Corresponding to these factors, respondent 2 said that, “foreign (multinational) banks are doing good business, though they have less branches, lower deposit interest rate and higher loan interest rate, only because of better and modern technology” (R2). In this connection, respondent 5 argued in a slightly different way, “[w]ithout technology, CRM is impossible, but at the same time, non-technological issues are also playing a very significant role in relationship management practices. Both have complementary impact” (R5). One respondent (R3) placed emphasis on the dissemination of information throughout the organization to ensure prompt service and mentioned that “[w]e normally try to make customer data available to those involved in sales, operations and service.”

Table 4.3 reveals that respondents of the field study confirmed that the issue of customer relationship management (CRM) should be focused in a broader way, taking into consideration, in an integrated way, customer orientation, a customer-centric management system, customer relationship management people (CRMP) and relevant technology to achieve a better relationship outcome.

Table 4.3: Factors and variables of integrated customer relationship management

Factor	Variable	Respondents										
		1	2	3	4	5	6	7	8	9	10	11
1. ICRM (A) Customer Orientation	1. Giving priority to customer needs rather than internal needs	√		√	√		√		√		√	
	2. Personalized services for valued customers	√		√		√		√	√	√	√	√
	3. Ease of access and comfort	√	√		√	√					√	
	4. Intention/effort to develop and maintain relationship with customers	√	√	√	√		√		√		√	
	5. Positive attitude about customer complaints	√		√	√		√	√			√	
	6. Close attention to after-sales service and communication	√	√		√	√	√	√	√			√
	7. Customer relationship		√		√			√		√		√

	as a valuable asset											
(B) CCMS	1. Employee training programs for deepening customer relationships	√		√	√		√	√			√	√
	2. Monitoring employee performance based on relationship effort	√		√	√		√	√				
	3. Monitoring employee performance based on service operation	√	√		√	√	√	√	√		√	
	4. Dedicated relationship manager	√		√	√		√	√		√	√	√
	5. Value-based customer segmentation	√	√	√	√		√	√				√
	6. Product/service diversification	√		√	√		√	√	√	√	√	
	7. Coordination of various functional areas and activities	√	√	√	√	√				√	√	√
(C) CRM People	1. Employee gives key customer priority	√	√	√	√		√	√		√		√
	2. Local employees and local language ability	√			√		√		√		√	
	3. Employee's interpersonal skills and convincing capability	√		√	√	√		√		√	√	
	4. Adequate knowledge about overall service operations		√		√		√			√	√	√
	5. Employee willingness to help customers	√		√		√	√	√		√		
(D) CRM Technology	1. We have the latest software	√		√	√	√	√	√		√	√	√
	2. Invest in technology to acquire customer information	√		√	√			√		√	√	
	3. Dedicated CRM technology in place	√		√	√		√			√	√	√
	4. Extensive use of IT		√		√	√		√	√		√	√
	5. Customer information integration through CRM technology		√			√		√	√		√	
	6. Individual customer information is available at every point of contact	√	√	√	√		√	√		√		√
	7. Use technology to forecast customer preferences.		√				√	√		√	√	

Note: CCMS=customer-centric management system

4.3.1.2 Customer Knowledge Generation and Utilization

All banks proactively collect information from and about potential customers. They do this by maintaining regular and interactive communication with customers; monitoring and maintaining customer information regularly; collecting information about customer needs and trends; having store-relevant information; recording new knowledge, analysing collected information (knowledge) to have a clear idea about the customer; using acquired knowledge with great care in product/service design; introducing new products and/or services based on acquired knowledge; and modifying products and/or services based on customer knowledge. In response to this question “How do you collect customer information (knowledge)?”, respondent 6 stated that “[w]e just talk to the actual and potential customers. Sometimes customer gives clues...at the same time also give us some information about our competitors” (R6). Regarding the information (knowledge) about customer needs and trends, respondent 8 stated that “the knowledge we gather from and about our customers helps us to determine the effective ways of communication with right products” (R8). Corresponding to knowledge storage and dissemination, respondent 6 said that, “we maintain [a] good record of our valued customers’ needs, preferences and other relevant issues so that we can either offer new products and/or services or modify existing ones to comply with their changing needs and preferences. Last week, a couple of our existing customers informed [us] that another bank is going to offer a credit card with lots of features and flexibility. We conveyed this message to higher level ... higher authority replied...inform our customers that within one week, they will get better facilities than our competitors” (R6). Further details are presented in Table 4.4

Table 4.4: Variables related to customer knowledge generation and utilization

Factor	Variable	Respondents										
		1	2	3	4	5	6	7	8	9	10	11
Customer Knowledge Generation	1.Regular and interactive communication with customers	√			√		√		√		√	√
	2. Monitor and maintain customer information frequently	√		√		√		√	√	√	√	
	3. Information about customer needs and trends	√	√			√		√			√	
	4. Storing important socio-demographic and psychographical data	√		√	√		√		√		√	
	5. New knowledge	√		√			√	√		√		√

	acquired at various contact points is recorded											
	6. Complete understanding of key customers through collected knowledge	√	√		√	√		√	√			√
Customer Knowledge Utilization	1. New knowledge is used in product/service design	√		√	√			√		√	√	√
	2. New product/service has been introduced based on customer knowledge	√		√	√			√	√			
	3. Product/service modification has been done based on customer knowledge	√	√		√			√	√		√	√

4.3.1.3 Findings Regarding Relationship Maintenance

Maintaining long-term relationships with customers is essential for every business with banks being no exception. By way of illustration, one respondent stated that, “if you (people/bank) want to hold your customer ... want to do good business with him, you need to focus on nurturing the existing relationship” (R3). From the content analysis, it was shown that a number of indicators reflecting stable and durable relationships with customers had been explored such as customer retention (N=8), cross-selling and up-selling (N=7) and customer referral (N=9) (see Table 4.5).

Customer Retention

All of the banks are offering more or less similar services at a similar price: as a result, retaining customers is one of the major challenges of bankers and is an area where relationship effort plays a vital role. It is important to ensure existing customers are retained and encouraged to return (Lo et al., 2010). Corresponding to this, one respondent (R4) expressed that: “why people will come to me (bank) repeatedly (to do more business)... only if I can offer him something beyond his expectation, like service excellence, effective communication and follow up ... which eventually helps me (bank) to retain him”. In a similar fashion, another respondent (R8) opined that, “I am here (this branch) for two and a half years and I used to manage more than two hundred customers... I found only 8–10 customers who are irregular in their transaction and this is because of our service, dedication and relationship effort”. From the content analysis, it was shown that a number of indicators related to customer retention had been

explored such as maintaining a long-term relationship (N=7); maintaining a good business (N=8); and reduction in the switching rate (N=7).

Cross-selling and Up-selling

The customer database as well as customer data can be used for cross-selling and up-selling. A sound relationship with customers makes it easy and in connection with this, respondent 2 mentioned that *“most of our branch sales are the results of cross-sell[ing] and up-sell[ing] to our existing customers”* (R2). In a similar vein, respondent 8 articulated that, *“it depends on length of relationship, need-based products and services...we have a good number of clients [to] whom we sell a couple of products one after another or sometimes one with another depending on [the] client’s financial strength.”* From the field study, it is evident that good relationship practices make cross-selling and up-selling easy (N=8): this is also reflected by a systematic approach to a mature relationship (N=6), good volume of business (N=7) and incentives for cross-buying and up-buying (N=8). With respect to a systematic approach to a mature relationship, one respondent (R1) illustrated this by saying: *“customers who are very regular in their payment and financially sound and asked for early settlement of any loan or up gradation of any loan, we try to process it as quickly as we can with minimum charges”*. Most respondents stated that they also offer incentives for returning customers as well as for those who want to expand business through cross-buying and up-buying.

Customer referral

A positive reference from an existing customer to a potential customer is often the most plausible method for firms to stimulate business (Gremler et al., 2001). A good number of respondents expressed the view that a customer’s willingness to refer (N=6); a good number of customers through references (N=7); and incentives for referring a new customer (N=5) reflect the impact of present relationship practices on the active management of the referral process (N=8).

Table 4.5: Factors and variables related to relationship maintenance

Factor	Variable	Respondents										
		1	2	3	4	5	6	7	8	9	10	11
Customer Retention	1. Most of the customers maintain a long-term relationship with us	√		√	√		√		√		√	√
	2. Most of the customers maintain good business with us	√		√		√		√	√	√	√	√

	3. Switching/migration rate has been reduced	√	√		√	√		√		√	√	
Cross-selling and Up-selling	1. Relationship efforts make cross-selling and up-selling easy for the employees	√		√	√		√	√		√	√	√
	2. Systematic approach to mature relationship for cross-selling and up-selling	√		√	√		√		√		√	
	3. Good volume of business through cross-selling and up-selling	√	√		√	√		√	√		√	
	4. Incentives to customers willing to strengthen business	√	√	√	√		√	√		√		√
Customer Referral	1. Active management of the referral process	√		√	√		√		√	√	√	√
	2. Existing customer willingly refers us to others	√	√		√		√		√		√	
	3. Good number of new customers through existing customers	√		√	√	√		√		√	√	
	4. Incentives to current customers to acquire new customers		√				√	√			√	√

4.3.1.4 Findings Regarding Service Excellence

Satisfaction is a judgement, whereas emotions, like delight and joy, are human effects which are the consequences of judgements about satisfaction with a service (Oliver, 1997). An expression of a high level of satisfaction is the result of surprisingly good performance (excellent service). Similarly, respondent 4 stated that, *“if we can offer extra care to our customers, show empathy and provide good service, customer will leave the place with WOW feelings and will realize that some is really different here”* (R4). The respondents of the field study focused on a number of service excellence issues, facilitated by the relationship management practices that affect the performance of their banks. *“Our relationship management practice and philosophy [are] solely based on excellent customer service supported by the management system, people and technology”* (R3) was articulated by respondent 3. Through the introduction and implementation of effective CRM technology and additional delivery channels, most of the banks were able to provide some of their services 24 hours a day, seven days a week. Most respondents agreed that service excellence is one of the important outcomes of relationship practice and is also essential for relationship success. The service excellence issues that drew most attention from the respondents were: service delivery as per the promised schedule (N=9); quick response (N=8); extended service hours (N=5); prompt service

(N=6); politeness and friendliness of the staff (N=7); efficient and effective complaint management (N=4); pre- and post-sale follow-up (N=5); and quality of customer interaction (N=7).

Customers want to receive service as per the promised schedule. If anyone can fulfil the service before the schedule, that is much more appreciated; however, any delay is totally unacceptable in a service-oriented philosophy. On this point, respondent 5 narrated that “[w]e try to follow the idea of simple math—quicker, easier and smoother ... We prioritize customer service, respond quickly to any query and deliver promised service on or before the promised schedule” (R5). To a further extent, respondent 3 expounded that, “[t]o make our customer happy, we need to give value of their time, provide complete attention, and behave properly with honour ... those will reflect excellence in service” (R3).

Proper customer dealings, complaint management, quality customer interaction and pre- and post-sale communication are also important in ensuring service excellence. The field study revealed that most respondents talked about those issues more or less and also exercised them to a various extent. The elements and process of consumer complaint management were considered important in influencing customers’ perception of the service experience. A good number of respondents agreed regarding the practice and procedures for handling customer complaints, concluding that the most effective practice included a system for logging and disseminating details of the complaints to the respective department and follow-up to warrant quick and satisfactory resolutions. As respondent 6 said, “[c]ustomers want quick and hassle-free service along with good behaviour” (R6). Similarly, respondent 8 mentioned, “[c]ustomers also want follow-up information, i.e., right information at the right time and activities in line with the information which also reflects excellence in service” (R8). Based on the above quotations and content analysis, a consolidated picture of service excellence can be obtained from Table 4.6.

Table 4.6: Service excellence factors

Factor	Variable	Respondents										
		1	2	3	4	5	6	7	8	9	10	11
Service Excellence	1. Providing promised service as per the schedule	√			√		√		√		√	√
	2. Quick response to customer issues	√		√		√		√	√	√	√	
	3. Extended service hours	√	√			√		√			√	

	4. Customers can expect prompt service	√		√	√		√		√		√	
	5. Politeness and friendliness of staff	√		√			√	√		√		√
	6. Efficient and effective handling of complaints	√	√		√	√		√	√			√
	7. Continuous follow-up	√	√		√		√	√		√	√	√
	8. Business processes are designed around customer to enhance the quality of customer interaction											

4.3.1.5 Findings Regarding Social Capital

Social capital is a notion that apprehends the effect of relationships on business performance (Hauser et al., 2007) and hence can be defined as a thought that represents immaterial assets that influence the conditions for cooperation between individuals or firms (Eklinder-Frick et al., 2014). Social capital is treated as an undifferentiated mixture of multiple independent social dimensions” (Hauser et al., 2007). However, of all the social capital elements that firm can have in terms of relationships with other actors, the customer relationship is the most dominant to their profit-making purpose (Gupta et al., 2006; Srivastava et al., 1999; Yli-Renko and Janakiraman, 2008). Through social relationships such as personal connections and social interaction along with trust between the parties, social capital creates a primary link to resources that are necessary for firm survival and growth (Kwon and Arenius, 2010; Zahra, 2010). Social capital enhances the performance of firms directly through providing access to information and competitive capabilities (Stam and Elfring, 2008). From the content analysis undertaken in this study, it was revealed that social capital also plays a significant role in relationship maintenance, customer knowledge generation and also in the performance of banks.

Trust

Relationships with customers depend on many issues with trust being one of the most important factors. *“Banking is all about trust...if we (banker) cannot create [a] trustworthy relation[ship] with customers, we won’t survive”* (R5), stated by respondent 5. Consistent with this, another respondent (R9) stated that *“...he (Mr X)is one of my oldest customers while I was in another bank and still maintaining [the] relationship even if I have changed bank; this is only because of trust”*. In banking relationships, trust

between the parties is very important. For instance, respondent 9 stated that, “[c]ustomer will share information and continue relationship with us only when they rely on us” (R9). From the content analysis, a number of trust-related issues have been explored such as sharing financial secrets (N=7); acting as a financial adviser (N=6); and assisting in non-financial decision making (N=7).

The participants agreed that mutual trust is highly required and, in connection with this, one respondent said that, “[i]f customers realize that I am ignoring their interest in bank interest, they will never come to me again” (R5). Respondent 8 mentioned that “people usually do not disclose their financial matters with us, unless they trust us” (R8). Once mutual trust has been established, the banker may find himself guiding the customer in financial decision making as would a member of his (the customer’s) family, as stated by respondent 3. Based on the length and level of the relationship and mutual trust, the banker’s involvement in non-financial decision making is not unusual, a view which was expressed by respondent 1 (R1).

Personal Connection

Personal connection simply refers to connecting to work on a personal level. People normally buy from people and, in many cases, people are the initial contact point and, with the passage of time and the motive of caring, this initial contact turns into personal connection. When a bank or any business ignores the significance of personal connection, the firm runs the risk of losing the customer to someone else. In this regard, one participant (R9) highlighted that “banks give value to the personal connection and thus in many cases prefer to recruit local people so that they can use their local connection to achieve their target”. From the field study, a number of personal connection-related issues emerged, such as: a good bond with customers (N=5); seeking a preferred employee (N=7); proper customer care (N=5); and accepting a customer’s invitation (N=8). Emphasizing the importance of personal connection, respondent 5 illustrated that, “[w]e communicate with our valued customers in every occasion...we greet our valued customers on every occasion like birthday, anniversary, etc. and our customers also invite us on many occasions which reflect ties, care and personal connection between us that eventually bring [a] positive result (business) for us as well as for the bank” (R5). To deal with the issue of customer care, one respondent (R4) remarked that “to reflect our caring tendency to our customer, we need to establish a kind of belief like: ‘we are always with you (customer) to take care of any kind of your financial issues’”.

Social Interaction

Social interaction is a dynamic and changing progression of social actions between individuals or groups. Banks organize several events throughout the year to communicate and interact with valued customers. In connection with this, respondent 6 articulated that, “[o]ur bank organizes micro-marketing events in every quarter with our valued customers to know about their opinion, suggestions, complaints (if they have any)...We found this kind of interaction very useful to develop ties and attachment with customers...we can also have much [more] idea about their feelings about us and their requirements as well as their viewpoints regarding our competitors” (R6).

From the above discussion and content analysis, a summary of social capital-related factors and variables has been drawn up and is presented in Table 4.7.

Table 4.7: Social capital factors and variables

Factor	Variable	Respondents										
		1	2	3	4	5	6	7	8	9	10	11
Trust	1. Customers share their financial secrets with CRM people	√		√	√		√	√	√		√	
	2. CRM people act as a financial adviser of the valued customer	√		√		√		√			√	√
	3. CRM people assist customers in non-financial decision making	√	√		√	√			√	√	√	
Personal Connection	1. Good bond between CRM people and customer	√		√			√			√		√
	2. Customer visits the branch, looks forward to seeing particular CRM people for any banking issue	√		√	√		√	√	√		√	
	3. We strongly care about our customers		√		√	√		√			√	
	4. We accept customer invitations	√	√	√	√		√	√		√		√
	5. Try to maintain lengthy personal relationship											
Social Interaction	1. Maintain close social relationships with customers	√		√	√		√		√	√		√
	2. CRM people have membership of different clubs		√		√		√		√			

4.3.1.6 Findings regarding CRM Success

Respondents were asked about their understanding of CRM success. Identifying factors and indicators of CRM success was important due to its high engagement in the overall study. Thus, one would argue that meeting performance expectations would be a top priority for banks. From the content analysis, it was revealed that respondents vary in their opinions regarding the measure of CRM success; however, some of the factors and indicators are similar and related to each other. As an instance, respondent 2 mentioned that, *"[w]e measure success through business growth, which is basically the outcome of satisfaction and loyalty...we also emphasize on-target achievement as [a] measure of success"* (R2). Similarly, respondent 6 stated that, *"We are all doing good...basically the bank measures success through target achievement and profit"* (R6). These statements reflect the different factors and indicators that were associated with CRM success measurement. When probed deeper about the measures of CRM success, it was revealed that some respondents talked about profitability; a number emphasized satisfaction and target achievement; a few cited efficiency; while others talked about loyalty (see Table 4.8).

Target Achievement

A target, sometimes referred to as a sales target, is a goal set for the branch for a year or sometimes for a quarter which is measured in terms of asset (loan products) and liability (deposit products) sales. Respondent 10 mentioned that *"...we always try to follow up this target ..."* (R10). Relationship effort for target achievement (N=7), satisfactory target achievement rate (N=6) and incentives for target achievement (N=7) were supported by the respondents with the details presented in Table 4.8. From the field study, it was also evident that target achievement requires combined effort and should be facilitated by all parts of the organization with employees through their personal relationship effort, connection, social interaction and other relevant factors playing a vital role. In relation to this, respondent 10 opined that, *"[a]t present the customer, the business or the profit that I am bringing in, is basically the result of my relationship effort and personal connection"* (R10). Target achievement is not easy all the time and requires extra effort and, in this regard, respondent 1 stated that, *"[w]e always try to follow up...sometimes extra efforts, from various departments, are also required to achieve the target"*. Most respondents mentioned that banks generally give incentives for target achievement and also offer special rewards for the highest target achiever.

Profitability

The measure most frequently mentioned by the respondents was profitability through increasing sales from existing as well as new customers. One respondent argued that, *“profitability is one of the important indications of our relationship effort...if customers do not continue business (relationship), we won’t be able to make profit”*. Through providing needs-based products and/or services assisted by customer knowledge and also ensuring quality, CRM practice enables banks to serve their customers more effectively and efficiently. From the content analysis, a number of indicators as measures of profitability were explored such as: growth in terms of volume (N=4); customer growth (N=5); rise in per-employee profit (N=4); achieving financial goals (N=3); and the rise in overall profit (N=7).

The respondents mentioned that if their bank could attract more customers and, at the same time, they could sell more to their existing customers through up-selling and cross-selling, the volume of business would definitely go up which eventually would result in higher profit. *“From [the] branch perspective, we measure success through [a] profitable relationship which is reflected by sales growth, deposit growth and also profit growth”* was the view expressed by respondent 5 (R5). Another respondent (R9) happily stated that: *“[b]ecause of our excellent service and relationship effort and good customer base, we are enjoying the highest profit growth in the market.”* In a similar fashion, respondent 3 stated that, *“[a]ctually, we emphasize growth...based on the number of customers and existing products, there [will] always be an organic growth of 8–10% each year, but our expectation is higher than this...”* (R3).

Some participants stressed per-employee profit as a measure of relationship success. Nowadays, a good number of banks consider this technique as an easy way to track their performance. As an example, respondent 8 conveyed that, *“nowadays, [the] bank usually emphasizes per-employee profitability... it is very easy to calculate...”* (R8).

Efficiency

Success, in many cases, is defined in terms of the achievement of goals which normally include some efficiency parameters, such as time and cost. Efficiency is an imperative measure of performance which is sometimes referred to as success (Roh et al., 2005). Efficiency as a measure of CRM success commonly focuses on ease of work, cost reduction, time saving and reduction of workload. Factors related to efficiency, such as: ease of relationship management; reduction in serving time; operating cost reduction;

and reduction in employee workload were revealed by the respondents. They also expressed their opinions regarding the application of CRM in achieving efficiency. For instance, corresponding to time reduction, respondent 1 mentioned that “... we are trying to introduce technology-assisted service points like a good number of ATMs, online banking, mobile banking, kiosks, automated deposit machines, call centre, etc. aiming to provide hassle-free service which eventually reduces transaction time, serving time and also customer’s travel time through avoiding [a] branch visit...” (R1). It was apparent that initial CRM implementation cost was high; however, through effective and efficient customer management, banks could also save per-customer transaction costs. For example, respondent 2 expressed that, “...customers can deposit a certain amount of money through [an] automated deposit machine positioned either in the branch or in kiosks located at different key locations which save customers time and also reduce customer pressure in the branch and eventually less employee involvement which in turn saves money...” (R2).

Satisfaction

As a customer-oriented and customer-driven concept, CRM allows customers to gain control over the system. Customer satisfaction is generally referred to as one of the most useful measurements of success (Reimann et al., 2010; Sin et al., 2005). Customer satisfaction depends heavily on the role and performance of relationship effort and practice (Roh et al., 2005). Customers’ relationships with the bank will be durable when they make a positive assessment of the bank’s service. The field study respondents revealed some indicators of satisfaction which they considered to be measures of CRM success, such as: an increase in friendly interaction (N=7); fulfilling customers’ expectations (N=6); reduction in customer complaints (N=8); customers overlooking minor mistakes (N=4); customers’ positive attitudes towards banks (N=8); growth in sales (N=7); and increase in overall satisfaction (N=6). These factors were considered to help measure levels of customer satisfaction. According to the field study participants, a good relationship with customers enhances the customer satisfaction level. Consistent with this, respondent 9 stated that, “customer relationship is another important issue... I always prefer to go with a win-win deal through which I can make my customers happy” (R9). “I will never suggest anything which is not beneficial to my customers, and, because of this kind of trust, they sometimes overlook minor mistakes” was stated by respondent (R1). In a similar fashion, a respondent (R1) added that, “we are taking care of our customers and we want to keep them happy...”.

Loyalty

Academics and business practitioners have generally agreed that customer loyalty is essential to success, and that service excellence, service quality and trust are key loyalty determinants (Han et al., 2008). Earlier research on loyalty has focused on repeat purchase behaviour and, consistent with this, the field study respondents also explored: the reduction in number of customers leaving the bank (bank leavers) (N=7); strong ties with banks (N=3); expansion of business with existing customers (N=6); recommending bank to friends and family members (N=8); considering this bank as their primary bank (N=5); and being ready to pay even more to stay with the bank (N=4) as indicators of loyalty. Respondent 6 stated that “...as I said before, customers sacrifice their profits and [are] even ready to pay even a bit more charge/fees only because of emotional involvement or relationship reflecting true loyalty towards us.” (R6). With respect to expansion of customers’ business and recommendations to others, respondent 8, for example, mentioned that “we got a lot of compliments from our customers which eventually reflects that they like to bank with us and it is highly likely that they will recommend others to us” (R8).

Table 4.8 depicts target achievement, profitability, efficiency, satisfaction and loyalty as measures of CRM success (CRMS) which is basically influenced by integrated customer relationship management (ICRM), service excellence (SE), customer knowledge (CK) and social capital (SC).

Table 4.8: Factors and variables of CRM success

Factor	Variable	Respondents										
		1	2	3	4	5	6	7	8	9	10	11
Target Achievement	1. Present relationship effort and system help us to fulfil target	√		√	√		√		√		√	√
	2. Satisfactory target achievement rate	√		√		√		√		√	√	
	3. Incentive based on target achievement	√	√		√	√			√		√	√
Profitability	1. Increase in business growth in terms of volume	√		√			√					√
	2. Increase in customer growth	√		√	√			√			√	
	3. Achieving financial goal		√			√	√				√	
	4. Growth in per-employee profit	√			√					√		
	5. Overall profitability is increasing after implementing CRM	√	√	√			√	√	√			√

Efficiency	1. Relationship management becomes easier	√	√	√	√		√	√		√		√
	2. Use of technology and alternative delivery channels (ADCs) reduce serving time	√			√		√		√		√	
	3. Value-based customer service helps to reduce operating cost	√		√	√	√		√		√	√	
	4. CRM practices reduce employee workload		√		√		√			√	√	√
	5. Reduced per-customer transaction cost through identifying low-value or problem customers	√		√		√	√	√		√		
Satisfaction	1. Friendly interaction with customers	√		√	√		√	√			√	√
	2. Fulfil customers' expectations	√		√	√			√		√	√	
	3. Decrease in customer complaints	√		√	√		√		√	√	√	√
	4. Happy customers overlook minor mistakes		√		√	√			√			
	5. Positive attitudes of customers	√	√			√	√	√	√	√	√	
	6. Customers buy more products and services offered by the bank	√		√	√		√	√		√		√
	7. Increase in overall satisfaction level		√			√	√	√		√	√	
Loyalty	1. Number of customers leaving the bank (bank leavers) reduced		√	√		√		√	√		√	√
	2. Strong ties with bank	√					√			√		
	3. Expansion in customer's business	√	√		√	√		√		√		
	4. Recommending friends and family members	√		√	√			√	√	√	√	√
	5. Considering this bank as their primary bank		√		√		√	√		√		
	6. Ready to pay even more to continue relationship		√				√	√			√	

4.3.2 Relationships among the Factors

The development of relationships among the factors is considered significant during qualitative analysis (Xu, 2003). Consistent with this, the following matrix (Table 4.9), showing the relationship among the factors, is a precise illustration of the explored relationships among the factors derived from the qualitative analysis. The relationships

extracted from the field study laid the foundation for developing hypothesized relationships among the constructs which were further verified with support from the relevant literature. From the qualitative analysis, several motivating and significant relationships among the variables were explored which are discussed in the following section.

Table 4.9: Relationship among the factors explored from the qualitative analysis

Causal link	Participants										
	1	2	3	4	5	6	7	8	9	10	11
ICRM → SE	√	√	√			√	√		√	√	√
ICRM → CKG	√		√		√		√		√		√
ICRM → RM	√		√	√	√		√	√		√	
CKG → CKU	√	√		√		√	√	√	√	√	
CKU → CRMS	√	√	√		√	√	√	√		√	√
SE → CRMS	√			√	√						
CKG → RM		√		√	√	√	√		√	√	√
ICRM → CRMS	√	√	√	√	√	√	√	√	√		√
SC → CKG		√			√			√	√	√	
SC → RM	√	√	√	√		√	√	√	√		√
SC → CRMS	√	√	√		√	√		√	√	√	√
RM → CRMS		√		√		√	√	√	√		√

Abbreviation for:

ICRM = integrated customer relationship management

CKG = customer knowledge generation

CKU = customer knowledge utilization

CRMS = CRM success

SE = service excellence

RM =relationship maintenance

SC =social capital

Table 4.9 has been developed from the findings of the in-depth analysis of the field study interviews, presented in the preceding sections. The table represents the relationships between factors derived from the field study findings. For instance, the notion ICRM → SE presents the relationship between ICRM and service excellence (SE). Most participants either directly or indirectly indicated the importance and effect of ICRM on SE. One respondent (R1) opined that “... so the bottom line is, we have to be honest, knowledgeable, quick and accurate in service to make our customer happy and also achieve our target...” revealing the relationship between service excellence and CRM success. Respondent 5, by stating that “...one of my friends (customer’s friends) was thinking about some loan...when I came to know, I told him about you since I’ve known

you for [a] long [time]..." (R5), indicates the relationship between relationship maintenance (RM) and CRMS. Where it was not possible to draw a relationship from direct comments, detailed data analysis was carried out. For example, some factors emerged from casual comments of the respondents, *"basically you have to start with the relationship"* and *"..you have to bank on that relationship..."* explored the importance of RM which has been perceived as an antecedent factor for CRM success. Similarly, to explore other antecedent factors of CRM success, the judgements of the respondents have been considered: *"... to continue (a relationship) you have to earn trust..."*, *"offer excellent service to make them (customer) happy..."* and *"give value to customer information (knowledge) and make use of them..."*.

From the content analysis, the extraction of the relationships between social capital (SC) and CRM success, and between SC and relationship maintenance (RM) is worth mentioning. Most field study respondents pointed out these links and affirmed the relationship between SC and RM and between SC and CRMS. They opined that trust, personal connection and social interaction (dimensions of social capital) play a very significant role in relationship maintenance as well as in CRM success. In this connection with this, respondent 7 stated that *"...you know what ... the most interesting thing is, this year I didn't collect the largest fund by myself, one of my old customers referred another customer to me with this huge fund"* (R7).

4.4 THE FIELD STUDY MODEL

Factors, sub-factors and relationships among the factors have been identified through content analysis. A field study model has been developed using these factors, sub-factors and their interrelationships (see Figure 4.2). In the field study model, a number of factors have been introduced and linked with reference to integrated customer relationship management (ICRM) and CRM success (CRMS). The qualitative data provide a unique contribution through introducing some new variables, factors and links associated with CRM success. The model also shows that some factors, variables and links, although common in the literature, have a combination and association with CRM success that is unique in this research setting. Apart from the factors conceptualized in the initial model, as shown in Figure 2.1, there are two other factors: customer knowledge utilization and service excellence and one sub-factor: target achievement that have been explored from the field study analysis.

As a whole, the model portrays a comprehensive structural relationship among different factors of CRM success. Moreover, it has established the dimensionality of the

constructs (ICRM, RM and SC) in the model which are valid and reliable from theoretical and contextual viewpoints. The result of the field study model indicates the complete analysis of the inductive stage; thus, the next phase comprises the deductive stage of qualitative analysis.

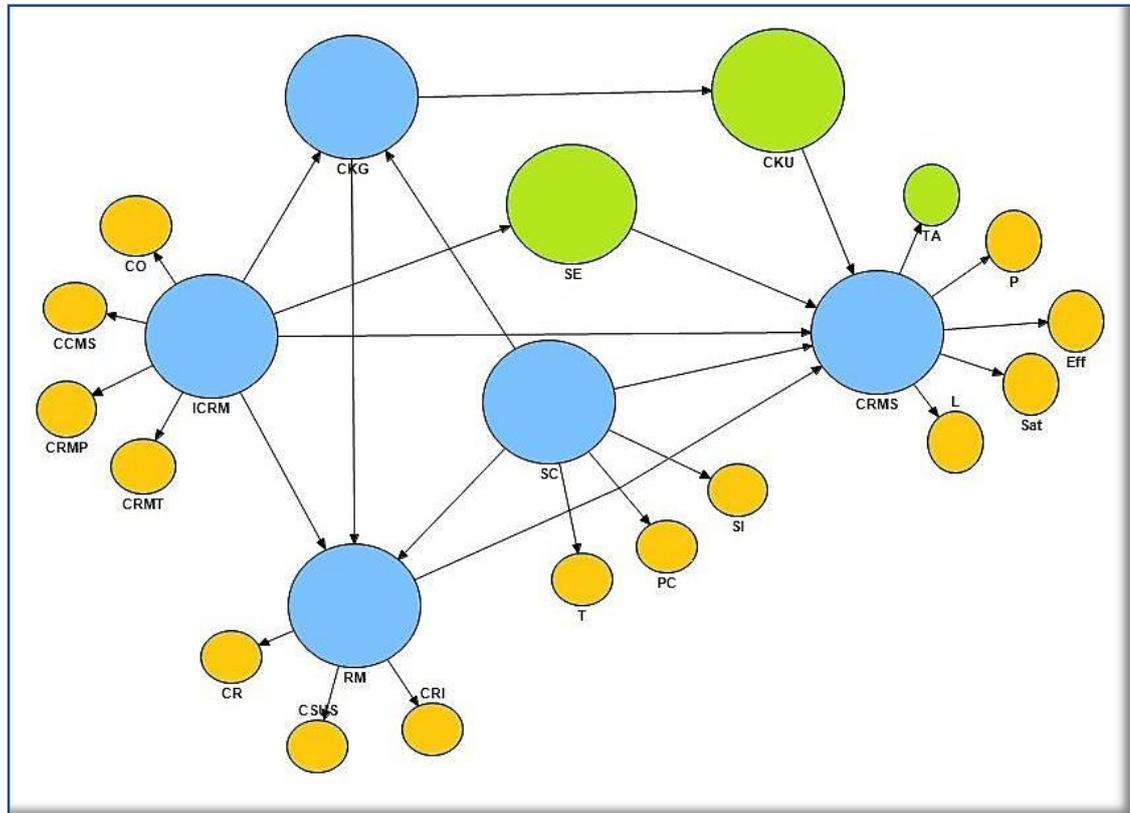


Figure 4.2: Field study model

ICRM=integrated customer relationship management; CO=customer orientation; CCMS=customer-centric management system; CRMP=CRM people; CRMT=CRM technology
 RM=relationship maintenance; CR=customer retention; CS-US=cross-selling, up-selling; CRf=customer referral
 SC=social capital; T=trust; PC=personal connection; SI=social interaction
 SE=service excellence; CKG=customer knowledge generation; CKU=customer knowledge utilization
 CRMS=CRM success; TA=target achievement; P=profitability, Eff=efficiency; Sat=satisfaction; L=loyalty

4.5 COMPARISON BETWEEN FINDINGS OF THE FIELD STUDY AND THE INITIAL MODEL (SECOND STAGE: DEDUCTIVE MODEL)

In the wake of developing a comprehensive model for this study, a comparison between the conceptual model and the field study model has been conducted in this phase.

This phase starts with the comparison between the initial model and the field study model. The constructs associated with CRM success and the sub-constructs related to integrated customer relationship management (ICRM), relationship maintenance (RM) and social capital (SC) were verified. In addition, the relationships among the factors were also reviewed. As a whole, this comparison confirmed the applicability of the initial model in the current setting. In the next step, further analysis was carried out.

In the next phase, all the constructs and sub-constructs along with their relationships were evaluated in accordance with the field study and literature review. It is worth mentioning that most factors and variables mentioned by the interviewees were supported by the literature. In addition, all the constructs included in the conceptual model were supported by the field study outcome. Hence, no construct was subject to deduction; however, some new factors and variables appeared in the field study which were later included in the comprehensive model (see Figure 4.2). These newly extracted constructs were ‘customer knowledge utilization (CKU)’ and ‘service excellence (SE)’ as antecedents of CRM success (CRMS). ‘Target achievement (TA)’, as a measure of CRM success, was also extracted from the field study.

The final step included justification of the constructs and sub-constructs as well as dimensions derived from the second phase through the existing literature. Tables 4.10 to 4.15 present the literature support of each variable under the specific constructs and sub-constructs.

4.6 LITERATURE SUPPORT FOR THE JUSTIFICATION OF THE FINDINGS

This section articulates the validation of the constructs, sub-constructs and variables extracted from the field study on the basis of the literature. The variables, constructs and sub-constructs were separated and clustered on the basis of commonality and relevance. Thus, the justification proved the adequacy and competency of the constructs, sub-constructs and associated variables in accordance with the literature. The following tables (Tables 4.10 to 4.15) present the final selection of factors, sub-factors and variables with appropriate literature support.

Table 4.10: Sub-factors and variables of integrated customer relationship management

Sub-factors	Variables	Sources
Customer Orientation	1. Giving greater priority to customer needs than internal needs	Narver and Slater (1990); Field study
	2. Personalized services for valued	Thomas et al. (2003); Sin

	customers	et al. (2005); Field study
	3. Ease of access and comfort	Narver and Slater (1990); Field study
	4. Always positive about customer complaints	Narver and Slater (1990); Field study
	5. Intention/effort to develop and maintain relationship with customers	Rapp et al. (2010); Jayachandran et al. (2005); Field study
	6. Close attention to after-sales service and communication	Rapp et al. (2010); Field study
	7. In our bank, customer relationships are considered to be a valuable asset	Jayachandran et al. (2005); Field study
Customer-centric Management System	1. Employee training programs for deepening customer relationships	Liu and Comer (2007); Jayachandran et al. (2005); Sin et al. (2005); Becker et al. (2009); Field study
	2. Monitoring employee performance based on relationship effort	Jayachandran et al. (2005); Field study
	3. Monitoring employee performance based on service operation	Field study
	4. Dedicated relationship manager	Field study
	5. Value-based customer segmentation	Jayachandran et al. (2005); Field study
	6. Product/service diversification	Jayachandran et al. (2005); Field study
	7. Coordination of various functional areas and activities	Jayachandran et al. (2005); Field study
CRM People	1. Employee gives key customers priority	Rapp et al. (2010); Sin et al., (2005)
	2. Local employees and local language ability	Field study
	3. Employee's interpersonal skills and convincing capability	Henning-Thurau (2004); Field study
	4. Adequate knowledge about overall service operations	Henning-Thurau (2004); Field study
	5. Employee willingness to help customers	Sin et al. (2005); Field study
CRM Technology	1. We have the right software to serve the customer	Sin et al. (2005); Field study
	2. Our bank invests in technology to acquire and manage customer information and feedback.	Reinartz et al. (2004); Jayachandran et al. (2005); Field study
	3. We have a dedicated CRM technology in place	Reinartz et al. (2004); Field study
	4. Use of IT to facilitate customer relationship	Jayachandran et al. (2005); Field study
	5. CRM technology is capable of integrating customer information from different contact points (e.g. telephone, mail, web, fax, etc.)	Jayachandran et al. (2005); Rapp et al.(2010); Field study
	6. CRM technology enables individual customer information to be available	Sin et al. (2005); Rapp et al. (2010); Field study

	at every point of contact	
	7. Use of technology helps us to forecast customer preferences	Jayachandran et al. (2005); Field study

Table 4.11: Customer knowledge generation and utilization

Factors	Variables	Sources
Customer Knowledge Generation	1. Regular and interactive communication	Becker et al. (2009); Field study
	2. Monitor and maintain customer information	Sin et al. (2005); Becker et al. (2009); Field study
	3. Information on customer needs and trends	Yli-Renko et al. (2001); Field study
	4. Store important socio-demographic and psychographic data	Sin et al. (2005); Becker et al. (2009); Field study
	5. Record new knowledge acquired at various contact points	Sin et al. (2005); Field study
	6. Analyse collected information.	Sin et al. (2005); Becker et al. (2009); Field study
Customer Knowledge Utilization	1. Use of knowledge in product/service design	Sin et al. (2005); Becker et al. (2009); Field study
	2. Introduce new product and/or service based on customer knowledge	Sin et al. (2005); Yli-Renko, (2001); Field study
	3. Modify product/service based on customer feedback/customer knowledge.	Sin et al. (2005); Field study

Table 4.12: Relationship maintenance factor

Factors	Variables	Sources
Customer Retention	1. Most of the customers maintain long-term relationships with us	Becker et al. (2009); Venetis and Ghauri (2004); Field study
	2. Most of the customers maintain good business with us	Field study
	3. Reduction in customer migration/switching	Becker et al. (2009); Field study
Cross-selling and Up-selling	1. Relationship efforts make cross-selling and up-selling easy for employees	Field study
	2. We have organized approaches to mature relationships with high-value customers in order to facilitate cross-selling or up-selling	Reinartz et al. (2004); Field study
	3. Good volume of business through cross-selling and up-selling	Field study
	4. Incentives to customers willing to strengthen their business	Reinartz et al. (2004); Field study
Customer Referral	1. Present CRM practices help to actively manage the customer referral process	Reinartz et al. (2004); Field study
	2. Existing customers willingly refer us to others	Gremler and Gwinner (2000); Field study
	3. Good number of new customers through	Gremler and Gwinner

	existing customers	(2000); Field study
	4. Incentives to current customers to acquire new customers	Reinartz et al. (2004); Field study

Table 4.13: Variables related to service excellence

Factors	Variables	Sources
Service Excellence	1. Providing promised service as per the schedule	Johnston (2004); Field study
	2. Quick response to customer issues	Johnston (2004); Field study
	3. Extended service hour	Sureshchandar et al. (2001); Field study
	5. Politeness and friendliness of staff	Jones (2004); Field study
	6. Efficient and effective handling of complaints	Jones (2004); Field study
	4. Customers can expect prompt service	Sin et al. (2005); Field study
	7. Continuous follow-up	Field study
	8. Business processes are designed around customer to enhance the quality of customer interaction	Jayachandran et al. (2005); Sin et al. (2005); Field study

Table 4.14: Factors and variables related to social capital

Factors	Variables	Sources
Trust	1. Customers share their financial secrets with CRM people	Fine and Holyfield (1996)
	2. CRM people act as a financial adviser of the valued customer	Johnson and Grayson (2005)
	3. CRM people sometimes act like customer's family member in decision making	Field study
Personal Connection	1. Good bond between CRM people and customer	Gremler and Gwinner (2000); Field study
	2. Customer visits the branch looking forward to seeing particular CRM people for any banking issue	Gremler and Gwinner (2000); Field study
	3. We strongly care about our customers	Gremler and Gwinner (2000); Field study
	4. We accept customer invitations	Gremler and Gwinner (2000); Field study
	5. Try to maintain lengthy personal relationship	Bell et al. (2005); Field study
Social Interaction	1. Bank maintains close social relationships with key customers	Yli-Renko (2001); Field study
	2. Membership of different social clubs	Field study

Table 4.15: Factors and variables related to CRM success

Factors	Variables	Sources
Target Achievement	1. Present relationship effort and system help us to fulfil target	Li and Mao (2012); Field study

	2. Satisfactory target achievement rate	Field study
	3. Incentive based on target achievement	Li and Mao (2012); Field study
Efficiency	1. Makes relationship management easier	Roh et al. (2005); Field study
	2. Use of technology and alternative delivery channels (ADCs) reduce serving time	Krasnikov et al. (2009); Roh et al. (2005); Field study
	3. Value-based customer service helps to reduce operating cost	Roh et al. (2005); Field study
	4. CRM practices reduce employee workload	Roh et al. (2005); Field study
	5. Our present CRM system helps us to identify low-value or problem customers which eventually reduces per-transaction cost	Reinartz et al. (2004); Field study
Satisfaction	1. Friendly interactions with customers are increasing	Roh et al. (2005); Field study
	2. Fulfil customers' expectations	Henning-Thurau (2004); Bettencourt (1997); Field study
	3. Decrease in customer complaints	Roh et al. (2005); Field study
	4. Our customers' overlook minor mistakes/problems	Henning-Thurau (2004); Field study
	5. Positive attitude of customers	Han et al.(2008); Han and Ryu (2009)Field study
	6. Compared with other banks, most of our customers use more of the products and services offered by our bank	Han et al. (2008); Field study
	7. Overall customer satisfaction level is increasing	Roh et al. (2005); Field study
Profitability	1. Increase in business growth in terms of volume	Reinartz et al. (2004); Field study
	2. Increase in customer growth	Roh et al. (2005); Field study
	4. Present CRM system helps to lift the per-employee profit	Reinartz et al. (2004); Field study
	3. Reach financial goals	Vorhies and Morgan (2005); Field study
	5. Overall profitability is increasing after implementing CRM	Roh et al. (2005); Field study
Loyalty	1. Strong ties	Han et al. (2008); Field study
	2. Expansion in customer's business	Field study
	3. Recommending friends and family members	Han et al. (2008); Field study
	4. Most of our customers consider our bank as their primary bank	Han et al. (2008); Field study
	5. Because of our relationship effort, customers are even willing to pay more to continue their relationship with our bank	Han et al. (2008); Field study

4.7 THE COMPREHENSIVE RESEARCH MODEL

To justify the constructs and variables, a comparison was performed in the earlier section between the conceptual model and the findings of the field study. This section now introduces the comprehensive model for this study. Figure 4.3 illustrates this comprehensive model.

The comprehensive research model “CRM success” argues that integrated customer relationship management is obviously a primary requirement for the success of banks. Other factors are directly or indirectly associated with CRM success, namely, customer knowledge generation and utilization, service excellence, relationship maintenance and social capital. Integrated customer relationship management is reflected by four dimensions: customer orientation, a customer-centric management system, CRM people and CRM technology. Similarly, relationship maintenance is reflected and measured by the dimensions: customer retention, cross-selling and up-selling, and customer referral. Social capital is reflected and measured by trust, personal connection and social interaction. Customer knowledge generation and utilization and service excellence are the other antecedent constructs of CRM success. Moreover, customer knowledge generation, service excellence and relationship maintenance are depicted as outcome constructs of integrated customer relationship management. This study argues that integrated customer relationship management facilitates customer knowledge generation and also supports customer knowledge utilization which eventually supports CRM success. From the field study, it was also evident that banks can offer excellent service and maintain durable relationships with customers when they practise relationship management in an integrated way. The role of social capital, as an organizational factor, on CRM success was also explored from the field study. Furthermore, as is evident from the analysis, one single construct is not enough to measure CRM success. All the constructs and sub-constructs were discussed in Chapter 2 with the exception of the newly extracted constructs from the field study (service excellence, customer knowledge utilization and target achievement as shown in Table 4.16).

Service Excellence

Service excellence, as newly extracted from the field study findings, has been included in the comprehensive model as an outcome construct of integrated customer relationship management. With a few exceptions, the CRM literature did not shed sufficient light on investigating the role of CRM in achieving service excellence whereas

this was highly reflected in other journals, for instance, services marketing journals, journals of service quality, etc. Banks have acknowledged that service excellence helps to retain and satisfy customers through continuous improvement. Moreover, customers derive satisfaction from both the service encounter and the qualities of the banks' offerings (Al-Hawari and Ward, 2006).

Service excellence is about exceeding customer expectations which ultimately enables the firm to develop and maintain long-term profitable relationships with customers. To establish the philosophy of service excellence, organizations (i.e. banks) need to develop a sense of customer intimacy through which they understand customers' needs and expectations, and also customers' perception about the organization (i.e. bank) (Clark and Baker, 2007). As firms are keen to understand what drives service excellence, the literature, in this regard, has argued that this is related to the integrated approach of a business in which the firm places the customer at the centre of everything it does. To be a truly service-excellent organization, firms need to adopt a holistic approach where each employee plays a unique role in enabling the organization to deliver and manage all that they do in order to provide the best customer service which ultimately ensures the success of the organization.

A clear understanding of the key ingredients of service excellence guides an organization towards future success. Employee training and development facilitate the achievement of service excellence (Plakoyiannaki et al., 2008). In this regard, researchers have argued that the focus should be on your people (employees) as they deliver the service. It is worth mentioning that this study has shown that employee training programs are one of the important components of customer-centric management systems under integrated customer relationship management. To create differential advantage through added value has become a significant factor, and service excellence is a significant source of that value. In accordance with the resource-based view, it can be argued that service excellence as an exemplar of superior capabilities answers the question of why firms differ in performance (McIvor, 2009). Banks have acknowledged that service excellence helps to retain and satisfy customers (Al-Hawari and Ward, 2006). In a similar fashion, Padmavathy et al. (2012) opined that service excellence is one of the key factors in selecting private banks.

Furthermore, service excellence, streamlined services and innovative products are the key factors in selecting private banks (Padmavathy et al., 2012). This is slightly different from the field study outcome as they have argued that, without being a customer, it is

hard to measure the service unless having been referred by an existing customer. They also argued that a new customer starts their relationship from a limited aspect in terms of their lack of familiarity with everything and also in gauging service standard: once they find it extraordinary, they decide to expand their business and continue their relationship with the bank. This eventually reflects the impact of service excellence on relationship maintenance.

Customer Knowledge Utilization

The comprehensive model includes customer knowledge utilization as a newly developed construct from the field study findings. The literature has revealed that knowledge utilization, also called knowledge implementation, refers to the process that is concerned with the actual use of knowledge (Zheng et al., 2010; Gold et al., 2001) generated from customers and other sources through integrated customer relationship management and social capital. Knowledge utilization can be described in terms of the extent to which the organization uses knowledge from various sources, such as customers, competitors, external research organizations, consultants, etc. in its product and/or service development (Laursen and Salter, 2006). Knowledge utilization is an important forecaster of the benefits of producing highly and moderately innovative products (Zhang et al., 2009). New products include completely new products/services, new product lines and product/service modifications (Li and Atuahene-Gima, 2001), which is also in line with the field study findings. Researchers have also argued that knowledge utilization is likely to result in better product innovation (Zhang et al., 2009).

The knowledge-based view (KBV) of the firm embraces the perspective that the firm's capability to generate and utilize knowledge is the most significant source of sustainable competitive advantage (Grant, 1996; Nonaka, 1991). Similarly, the resource-based view (RBV) of the firm suggests that both product development and knowledge utilization can be regarded as distinctive intangible resources which are difficult to imitate and thus provide competitive advantage (Barney, 1991). Knowledge utilization enables a firm to develop new products resulting in a greater likelihood of success (Calantone et al., 2006) However, this largely depends on the extent to which a firm (i.e. a bank) can generate and integrate knowledge from its network as well as being able to use that knowledge. Here, the knowledge-based view has been united with the resource-based view with regard to knowledge utilization on product development and modification as well as on success.

Target Achievement

In relation to the measures of CRM success, in addition to the constructs mentioned in the conceptual model, the comprehensive model includes target achievement which is also newly extracted from the field study findings. The respondents identified target achievement as an important measure of relationship management effort. Thus, along with efficiency, satisfaction, profitability and loyalty, target achievement is also considered as a reflection of CRM success in the banking industry of Bangladesh.

Target achievement can be assessed by a number of factors such as target achievement through relationship effort, target achievement rate and incentive-based target. From the field study as well as the literature, it has been shown that management has set monthly targets as well as an annual performance target for relationship managers, as well as for the entire branch (Li and Mao, 2012). Sales representatives were also required to submit a monthly performance report. The performance of sales representatives was not only measured by the closing of sales, but also by the interim results of every stage of the sales process. These interim results helped managers to have a general understanding of employees' work status and project progression. These results also provided an idea about their relationship effort in different stages, and any shortfalls and areas for improvement in order to develop and maintain relationships with customers. It is also evident from the literature that the relational dimensions of ICRM play a significant role in this regard as IT-supported customer orientation and a customer-centric management system enable banks to identify and target customer segments on the basis of transactional and relationship duration data (Reinartz et al., 2004; Jayachandran et al., 2005).

Table 4.16: New findings from the field study

New Factors	Variables
Target achievement	Satisfactory target achievement rate
	Incentives based on target achievement
Service excellence	Continuous follow-up
	Extended service hours
Knowledge utilization	Use of generated knowledge in service inception, development and modification
New Variables	
Monitoring employee performance based on service operation	
Dedicated relationship manager	
Local employees and local language ability	
Relationship efforts make cross-selling and up-selling easy for employees	
Involvement of CRM people in non-financial decision making	
Membership of different social clubs	

Relationships among factors
ICRM→SE
CKG→RM
ICRM→CKG→CKU→CRMS
SC→RM→CRMS

Table 4.16 presents the new factors: service excellence, customer knowledge utilization and target achievement that were extracted from the field study findings. Apart from the new factors, a number of new variables were identified: employee performance based on service operation; a dedicated relationship manager; local employees with local language ability; maintaining good business with us; continuous follow-up; involvement of CRM people in non-financial decision making; membership of different social clubs; target achievement rate; target achievement-based incentives; and expansion in customers' business. It is also worth mentioning that the field study findings explored the relationships from integrated customer relationship management to service excellence; customer knowledge generation to customer knowledge utilization; customer knowledge utilization to CRM success; service excellence to relationship maintenance; and service excellence to CRM success. Based on the review of the explored factors as well as the identified links in the conceptual model and also in the field study model, a comprehensive model has been developed which is presented as Figure 4.3.

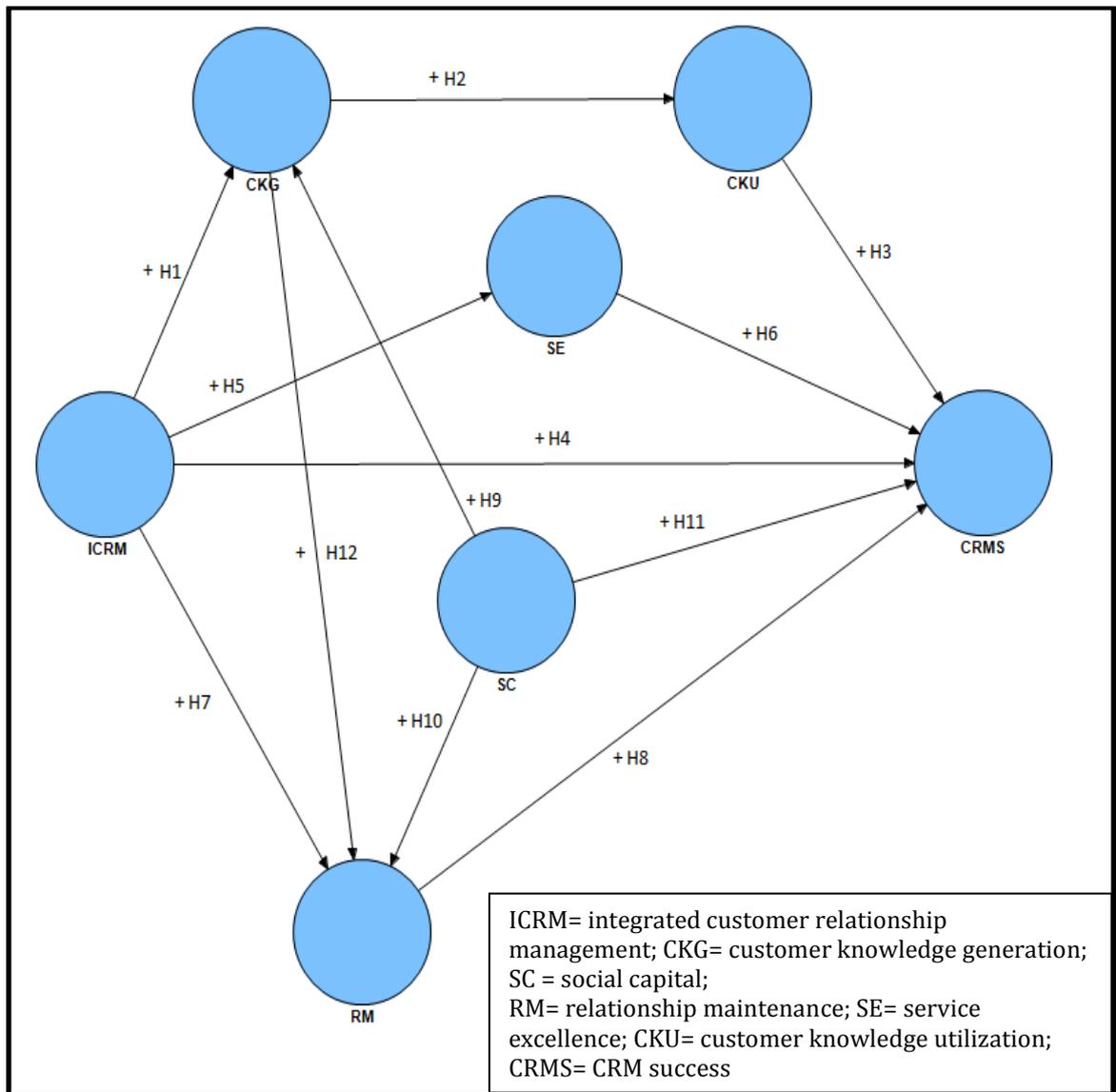


Figure 4.3: A comprehensive model for CRM success

4.8 SUMMARY

This chapter has presented the findings of the qualitative field study and has proposed a comprehensive research model in the light of the field study findings and the review of the relevant literature. The primary objective of the field study was to test the applicability of the conceptual research model derived from the review of the literature on customer relationship management and also to explore the dimensionality of the related constructs. Qualitative data were collected from 11 respondents from 11 different banks in Bangladesh, who were employed as either relationship managers or customer service managers. To analyse the qualitative data, a content analysis technique consisting of inductive and deductive phases was employed. Factors and variables along with their relationships related to integrated customer relationship

management, social capital and CRM success were explored with these further scrutinized in the light of the relevant literature. A comprehensive research model was developed based on the conceptual model and the field study model. This model exhibits the dimensions and relationships among integrated customer relationship management, customer knowledge, service excellence, relationship maintenance, social capital and finally CRM success. In the following chapter (Chapter 5), hypotheses are developed from this comprehensive model, which are further investigated with quantitative data in Chapter 6.

CHAPTER 5 RESEARCH HYPOTHESES AND QUESTIONNAIRE DEVELOPMENT

5.1 INTRODUCTION

The previous chapter shed light on the development and construction of the final comprehensive research model. This comprehensive and integrative model has been derived from the extensive literature review and the qualitative data analysis. This chapter shows the development of hypotheses and quantitative research instruments in reference to the relationships among the factors described in the proposed research model (Figure 4.3 in Chapter4). This chapter first illustrates the hypotheses and the subsequent sections then present the development of the research instruments. The hypotheses developed in this chapter are: integrated customer relationship management (ICRM) to customer knowledge generation (CKG); ICRM to service excellence (SE); ICRM to relationship maintenance (RM); ICRM to CRM success (CRMS); CKG to customer knowledge utilization (CKU); CKU to CRMS; social capital (SC) to CKG; SC to RM; SC to CRMS; CKG to RM; SE to CRMS; and RM to CRMS. This chapter also discusses the development of the measurement instruments for the constructs and sub-constructs used in this research. Most of the instruments have been derived from the literature; however, they have been contextualized within the context of the current research setting. In a similar vein, the items extracted from the field survey were also verified with the existing literature. The survey instruments, as derived and developed, facilitated the measurement of constructs and tested the hypotheses.

5.2 HYPOTHESES DEVELOPMENT

5.2.1 Hypothesis relating Integrated Customer Relationship Management (ICRM) to Customer Knowledge Generation (CKG)

Through relationship management practices such as customer-centric activities (Mithas et al., 2005; Xu and Walton, 2005; Rowley, 2004; Minna and Aino, 2005), in general, and the salesperson, in particular, firms can capture some of what the customer knows (Yoon and Nilan, 1999). Minna and Aino (2005) articulated that customer orientation enhances customer knowledge generation. Similarly, Homburg et al. (2009) argued that the generation of knowledge regarding customers' needs depends on activities and initiatives of the frontline employee. In addition, CRM technology enables the collection of information by firms from different contact points which eventually help them to build knowledge about consumers' behaviour, need

pattern and preferences that are crucial for effective relationship management (Zablah et al., 2004; Chen and Popovich, 2003; Salojarvi and Sainio, 2010). Researchers have also argued that technology alone should not receive maximum attention, as successful CRM implementation depends on successful integration with other actors such as people and processes across the firm (the bank) (Chen and Popovich, 2003). In the service relationship, through interaction, CRM people can gather knowledge (Gwinner et al., 2005) about customers' preferences, competing products and their appealing features, and sometimes industry trends. In a broader sense, CRM people can come up with additional knowledge regarding the selection or refusal of products and services by a consumer who is considering the issues of functionality, price, convenience, beliefs and conspicuous consumption (García-Murillo and Annabi, 2002). Similarly, CRM technology enables the organization to communicate much better with its customers, helps customers manage their own needs and also helps the organization to capture information from large numbers of customers (Jayachandran et al., 2005) which helps the organization to build its customer knowledge base. In a recent study, Khodakarami and Chan (2014) found empirical evidence regarding the positive role of CRM systems in the customer knowledge creation process. Considering the knowledge-based view (KBV) of the firm, it can be observed that knowledge represents a critical asset for a firm, and that tangible and intangible resources such as technology, people, software, processes and systems need to be combined and applied to generate customer knowledge. Based on the above discussion, it is observed that ICRM enables better knowledge generation and pushes the firm towards a more effective application of customer knowledge which leads this study to the development of the following hypothesis:

Hypothesis 1 (H1): There is a positive relationship between integrated customer relationship management (ICRM) and customer knowledge generation (CKG).

5.2.2 Hypothesis regarding Customer Knowledge Generation (CKG) and Customer Knowledge Utilization (CKU)

Knowledge utilization refers to the process that is oriented towards the actual use of generated knowledge (Zheng et al., 2010; Gold et al., 2001). A suitable CRM structure allows firms to identify beneficial customers and to develop differentiated strategies based on the available knowledge generated from customers (Roberts et al., 2005; Salojarvi and Sainio, 2010). Knowledge acquisition will enhance knowledge utilization as well as product and/or service development (Yli-Renko et al., 2001). Effective CRM also improves a firm's (a bank's) ability to nurture profitable customer relationships

through gathering and analysing knowledge about and knowledge from valued customers and induces firms (banks) to utilize that knowledge for the customization of services and offerings (Wang and Feng, 2012). Nowadays, customers are increasingly becoming involved in the co-production of value-based services (Lusch et al., 2007; Bendapudi and Leone, 2003) through sharing their experiences, expectations and expertise (Lusch et al., 2007).

Knowledge utilization can also be described in terms of the extent to which the firm (the bank) uses knowledge from various sources, like customers, competitors, external research organizations and consultants in its product and/or service development (Laursen and Salter, 2006). It is also expected that knowledge generation will accelerate the knowledge exploitation process through speeding up new product development (Yli-Renko et al., 2001). New products include completely new products/services, new product lines and product/service modifications (Li and Atuahene-Gima, 2001) which is also in line with the field study findings. Researchers have also argued that knowledge utilization is likely to result in better product innovation (Zhang et al., 2009).

Drawing on the knowledge-based view (KBV), it can be argued that the firm's ability to generate and utilize knowledge results in a sustainable competitive advantage for that firm (Grant, 1996). Similarly, the resource-based view (RBV) of the firm suggests that both product development and knowledge utilization can be regarded as distinctive intangible resources which are difficult to imitate and thus offer competitive advantage (Barney, 1991). Finally, it can be argued that the knowledge-based view converges with the resource-based view of the firm in regard to knowledge utilization on product/service development and modification (Calantone et al., 2006). The above arguments lead to the development of following hypothesis:

Hypothesis 2 (H2): There is a positive relationship between customer knowledge generation (CKG) and customer knowledge utilization (CKU).

5.2.3 Hypothesis regarding Customer Knowledge Utilization (CKU) and CRM Success (CRMS)

Knowledge utilization can be described in terms of the extent to which the firm uses knowledge from various sources in its product and service development (Laursen and Salter, 2006). The knowledge-based view (KBV) highlights that, in the present competitive business environment, the firm's capability of utilizing knowledge has turned into the most important source of competitive advantage (Grant, 1996).

Likewise, the resource-based view (RBV) of the firm suggests that both product development and knowledge utilization can be regarded as distinctive intangible resources which are difficult to imitate and thus provide competitive advantage (Barney, 1991).

Firms link together resources that they really value: knowledge and relationships and/or organizational competencies and customers. Competition is all about knowledge creation and application in the service operation (Lusch et al., 2007). To achieve success, a firm needs to utilize newly generated knowledge in designing and/or making or modifying products and services which ultimately help the firm to comply with customers' changing needs and, in turn, leads to customer satisfaction (Vargo and Lusch 2004; Lusch and Vargo, 2006).

Firms can offer their customers a variety of products and services, lower prices and personalized services through utilizing the knowledge acquired through ICRM, especially from using information technology (IT) (Karakostas et al., 2005). The effective management of knowledge, which is critical to the concept of CRM, is important for tailor-made products and service innovations and also for having a single and consolidated view of the customer, for designing and developing personalized transactions.

Knowledge utilization is an important predictor of benefits: it can be described in terms of the extent to which it generates knowledge from various sources and uses this knowledge for product and service development (Zhang et al., 2009; Laursen and Salter, 2006). Researchers have also argued that knowledge utilization is likely to result in better product innovation (Zhang et al., 2009). Likewise, Zheng et al. (2010) and Calantone et al. (2006) have argued that knowledge utilization enables a firm to develop new products and services resulting in a greater likelihood of success. The knowledge-based view (KBV) of the firm suggests that the firm's competence in utilizing knowledge is one of the most important sources of competitive advantage for the firm (the bank) (Grant, 1996; Kogut and Zander, 1992; Prahalad and Hamel, 1990). The level of success largely depends on the extent to which a bank is able to generate knowledge from the network and also its ability to utilize this knowledge. In this perspective, the knowledge-based view (KBV) converges with the resource-based view (RBV) of the firm regarding knowledge utilization on product and service development and modification as well as on success (Calantone et al., 2006). Knowledge generation and utilization help organizations to modify products and services, and also to

personalize the relationship with the customer focusing on their current needs and preferences (Garrido-Moreno et al., 2014) which eventually leads to customer satisfaction as well as profitability (Nejatian et al., 2011).

Most of the earlier CRM research focused on technological aspects whereas the critical role of customer knowledge generation and utilization as determinants of CRM success is now being recognized (Nejatian et al., 2011). Similarly, Campbell (2003) suggested the importance of connecting knowledge-based competencies while implementing CRM, as this knowledge enables firms to develop customer-focused strategies. This leads to the development of the following hypothesis:

Hypothesis 3(H3): Customer knowledge utilization (CKU) will be positively related to customer relationship management success (CRMS).

5.2.4 Hypothesis relating Integrated Customer Relationship Management (ICRM) to CRM Success (CRMS)

If customer relationship management can be practised in an integrated way, this can benefit the organizations (banks in this case) in many ways (Mithas et al., 2005). For instance, CRM benefits the customers as well as firms through increasing the efficiency and effectiveness of marketing activities as well as the firms' profitability (Plakoyiannaki et al., 2008). Moreover, CRM includes the design, development and delivery of products and services that are essential for satisfying customer needs and preferences (Payne and Frow, 2005). Customer relationship management (CRM) reveals a long-term commitment of the firm to creating superior value through dealing closely with customers in order to explore latent demands (Payne and Frow, 2005; Reimann et al., 2010) and is also expected to harvest a profitable outcome (Minami and Dawson, 2008). Customer relationship management (CRM) captures customer feedback regarding employee performance and also guides employee behaviour to fit the expectations of customers (Plakoyiannaki et al., 2008, Reinartz et al., 2004).

Customer relationship management (CRM), in general, increases the length of beneficial customer-firm relationships (Reimann et al., 2010), and customer orientation, in particular, helps to build long-term relationships (Bentum and Stone, 2005) through offering added value to customers (Narver and Slater, 1990; Garrido-Moreno and Melendez, 2011). In a similar vein, Plakoyiannaki et al. (2008) argued that organizations, for instance, banks and other service-oriented firms should devote effort and time to promoting customer-oriented behaviour and strengthening the success of CRM. Due to the intangible nature of services and the way in which they maximize the

level of customer interaction and integration, customer orientation is expected to play a vital role in the long-term success of service firms (e.g. banks): this is also largely acknowledged in the marketing literature (Henning-Thurau 2003). In connection with this, Bove and Johnson (2000) have argued that the customer orientation of employees (service people) strongly influences a service firm's performance (Chang et al., 2010). Hence, customer orientation is an essential component for achieving CRM success.

Various researchers (Hogan and Armstrong, 2001; Hooley et al., 2001; Srivastava et al., 2001) have illustrated customers and customer relationships from the RBV perspective. Integrated customer relationship management (ICRM) also includes the delivery of increasing levels of satisfaction through the maintenance and promotion of relationships (Lindgreen et al., 2006). Likewise, the use of CRM technology is expected to boost the ability of an organization to facilitate firm–customer interaction and to sustain profitable customer relationships through smooth sharing and integration of information (Day, 2003; Jayachandran et al., 2005). Customer relationship management (CRM) technology, as a key component of ICRM, enables firms to offer customized service with good quality and at a reasonable cost (Sin et al., 2005). Organizations must have the right technology to ensure customer-centric service which, in turn, leads to success (Chalmeta, 2006). Customer-centric management, on the other hand, facilitates CRM success through ensuring customer needs drive organizational activities (Chang et al., 2010; Jayachandran et al., 2005; Raman et al., 2006).

On the basis of above discussion, the following hypothesis is derived:

Hypothesis 4(H4): Integrated customer relationship management (ICRM) positively influences customer relationship management success (CRMS).

5.2.5 Hypothesis relating Integrated Customer Relationship Management (ICRM) to Service Excellence (SE)

Services must be viewed as interdependent and interactive systems and not as disconnected pieces or parts. A typical service orientation should focus on four major components: contact/frontline employee actions, back-office contact employee actions, customer actions and support systems (Zeithaml et al., 2006). To establish the philosophy of service excellence, organizations need to develop a sense of customer intimacy through which they understand customers' needs and expectations, and also customers' perceptions about the bank. For many organizations, the quality and history

of the relationships that staffs (relationship people or frontline employees) have with customers remain the most unique aspect of their business.

Today, service-based organizations recognize that their employees (CRM people) are a capital asset whose inherent value can be grown, and this is reflected in their approach to employee (people) management. It is acknowledged by firms that employee behaviour, whether it directly or indirectly influences customers, plays a vital role in measuring the level of service excellence that is experienced by customers (Clark and Barker, 2007). As part of the customer-centric management system, employees need to be trained and guided on a regular basis with the aim of preparing and motivating them to act in a service-oriented manner by focusing on customer needs. These training and development programs facilitate the achievement of service excellence through facilitating the value-creation process (Yim et al., 2008). Considering this, Plakoyiannaki et al. (2008) emphasized employee training programs as part of firms' customer-centric management system (CCMS) philosophy and argued that training and development help to achieve service excellence through offering superior value to customers. In a similar fashion, they also argued that employees need firm support to offer excellent service. In the light of the above argument, it can be proposed that:

Hypothesis 5 (H5): There is a positive relationship between integrated customer relationship management (ICRM) and service excellence (SE).

5.2.6 Hypothesis relating Service Excellence (SE) to Customer Relationship Management Success (CRMS)

Service as a process of providing benefits (Lusch et al., 2007) creates differential advantage through added value, with service excellence being a significant source of that value (Clark and Barker, 2007). Researchers (e.g. Karakostas et al., 2005) have argued that commercial relationships built on service excellence also facilitate profitability through providing a competitive advantage. Similarly, the key mechanism used to satisfy customers and turn them into loyal customers of the firm is service excellence (Clark and Barker, 2007). Moreover, a clear understanding of the key ingredients of service excellence guides an organization towards future success (Clark and Barker, 2007). Service excellence influences customers' level of satisfaction with the company and affects their willingness to either remain with (stay loyal) or defect from the organization.

Banks have acknowledged that service excellence helps to satisfy customers. They have also observed that bank customers derive satisfaction from the service encounter as

well as from the qualities of the offering (Al-Hawari and Ward, 2006; Farquhar and Panther, 2008). Service excellence, streamlined services and innovative products are the key factors in selecting private banks (Padmavathy et al., 2012). This view differs slightly from the field study outcome as the authors argued that without being a customer it is hard to measure the service unless being referred by an existing customer. They also argued that new customers start their relationship in a limited way as they are neither familiar with everything nor able to gauge the service standard: once they find the service is extraordinary, they decide to expand their business and to continue their relationship with the bank. This eventually reflects the impact of service excellence on customer relationship management success. Considering the above arguments, it can be proposed that:

Hypothesis 6 (H6): There is a positive relationship between service excellence (SE) and customer relationship management success (CRMS).

5.2.7 Hypothesis relating Integrated Customer Relationship Management (ICRM) to Relationship Maintenance (RM)

Customer relationship management (CRM) shows the long-term commitment of the firm to generating superior customer value through continuous learning about markets and working closely with customers in order to determine their latent needs which is essential for customer retention (Payne and Frow, 2005; Reinartz et al., 2004; Zablah et al., 2004). Researchers have argued that customer retention is a relational outcome (Henning-Thurau et al., 2010) and have suggested that, through CRM, firms (banks) can increase customer retention (Minami and Dawson, 2008; Boulding et al., 2005). In a similar fashion, researchers (e.g. Plakoyiannaki et al., 2008; Reinartz et al., 2004) have suggested that CRM ensures and provides opportunities for improving customer retention, cross-selling/up-selling and customer referral.

Customer relationship management (CRM) as a cross-functional organizational process centres on establishing, maintaining and enhancing long-term relationships with beneficial customers (Payne and Frow, 2005; Parvatiyar and Sheth, 2001). In a similar fashion, Morgan et al. (2009) have argued that CRM activities used in an integrated way reflect organizational processes and skills that help to identify, initiate and maintain relationships with attractive customers exchanging these relationships into customer-level profits (Wang and Feng, 2012). This is also supported by the work of Rapp et al. (2010) as they argued that technology-assisted customer orientation enables firms to maintain durable relationships. Customer information plays a significant role in

developing and maintaining customer relationships and the use of CRM technology is likely to boost the ability of an organization to facilitate firm–customer interaction, through smooth sharing and integration of information, and to sustain profitable customer relationships (Day, 2003; Jayachandran et al. 2005). Customer orientation is expected to play a vital role in developing and maintaining long-term customer relationships due to the level of customer interaction and integration being maximized in a service setting (Henning-Thurau, 2003). Moreover, customer orientation will guide a firm’s attitude towards an emphasis on the initiation and maintenance of customer relationships (Chang et al., 2010).

Based on the above argument, it can be hypothesized that:

Hypothesis 7 (H7): There is a positive relationship between integrated customer relationship management (ICRM) and relationship maintenance (RM).

5.2.8 Hypothesis relating Relationship Maintenance (RM) to Customer Relationship Management Success (CRMS)

Close relationships with customers can contribute to the success of CRM which is basically reflected to a large extent in the strategic orientation of the firm towards customers (Yim et al., 2008; Plakoyiannaki et al., 2008). Maintaining long-term relationships with customers, instead of a transaction-oriented approach, is more profitable for firms (Jayachandran et al., 2005; Sin et al., 2005; McNally, 2007; Chang et al., 2010) as acquiring new customers is much more expensive than retaining existing customers. In this regard, researchers (e.g. Payne and Frow, 2006; Frow and Payne, 2009) have suggested that long-term success is conditional upon customer retention over customer acquisition. They also stressed that developing and retaining long-term relationships with present customers is more profitable than continually recruiting new customers to replace lost customers.

It is evident from the literature that acquiring new customers involves a large cost (Hoffman and Novak, 2000; Jayachandran et al., 2005) whereas retaining existing customers results in the profitability of the organization thus disclosing the significant correlation between customer retention and profitability (Minami and Dawson 2008; Eid, 2007). Moreover, customer retention helps in cost reduction and customer acquisition as well as sales growth. Considering this, it can be argued that relationships with customers can be regarded as assets (Minami and Dawson, 2008) and this is also in line with the resource-based view (Barney, 1991). Hence, it can be argued that

customer relationships as a market-based asset provide a source of competitive advantage to the firm (Barney, 1991; Srivastava et al., 1998).

Customer retention, as a dimension of relationship maintenance, can be considered to be the key antecedent construct in measuring a bank's performance. In other words, customer retention can be a major determinant of a bank's profitability. This is a commonly mentioned outcome of the employee–customer relationship or the buyer–seller relationship. Retaining customers is important for business. It is always cheaper to keep current customers than to find new ones (Hoffman and Novak, 2000). Most importantly, it is cost saving to sell to current customers rather than to new customers and, hence, it can be argued that customer retention is positively linked with the efficiency of the firm. Retaining customers is not only less costly: rather, it is also more profitable than finding new customers for the firm.

There is a debate regarding the relationship between customer retention and profit (Nitzan and Libai, 2011); however, in general, researchers have agreed on the significance of customer retention as a key factor of a firm's profitability (Bolton, 2004; Gupta et al., 2006). Researchers have also argued that customer retention is based on the overall assessment of past transactions and may not involve any increase in sales (Liu and Wu, 2007). However, the literature has also revealed that acquiring new customers involves major costs (Hoffman and Novak, 2000; Jayachandran et al., 2005), whereas retaining customers results in the profitability of the organization thus disclosing the previously mentioned significant correlation between customer retention and profitability (Minami and Dawson 2008; Eid, 2007). Based on the above debate, it is expected that:

Hypothesis 8 (H8): There is a positive relationship between relationship maintenance (RM) and customer relationship management success (CRMS).

5.2.9 Hypothesis relating Social Capital (SC) to Customer Knowledge Generation (CKG)

Firms gather information from both internal and external sources (e.g. personal connections, social interaction, firm's intelligence, etc.) and use it to create the profile of their target customers for target marketing purposes which help the firm to achieve its goal. In fact, social capital affects knowledge acquisition (Yli-Renko et al., 2001). Knowledge acquisition (Adler and Kwon, 2002; Nahapiet and Ghoshal, 1998), creation and transfer of knowledge (Kogut and Zander, 1996) and access to new sources of knowledge (Adler and Kwon, 2002; Gargiulo and Benassi, 2000; Nahapiet

and Ghoshal, 1998; Anand et al., 2002) have been identified as a direct benefit of social capital, in general, and the relational dimension (Huysman and Wulf, 2005), in particular. Similarly, Doz (1996) argued that trust, as a relational dimension, has an important role within the firm as does interpersonal knowledge transfer and the willingness to share knowledge (Powell et al., 1996). Intensive social interaction facilitates knowledge transfer (Lane and Lubatkin, 1998; Yli-Renko et al., 2001; Zahra et al., 2000), increasing the depth, breadth and efficiency of mutual knowledge exchange (Lane and Lubatkin, 1998) and is also associated with greater knowledge acquisition (Yli-Renko et al., 2001).

Trust facilitates the acquisition and dissemination of customer information which enables the organization to create and deliver value to customers (Plakoyiannaki et al., 2008). As networks (social) facilitate the flow of information, they also make it possible for a firm to acquire knowledge via employee personal connections and social interaction as well as directly from customers (Huysman and Wulf, 2005; Zahra et al., 2000). This knowledge perhaps specific to a product-market competitive field or it may refer to another firm, like a firm where a focal enterprise has no current direct connection. Based on the above argument, it can be argued that:

Hypothesis 9 (H9): There is a positive relationship between social capital (SC) and customer knowledge generation (CKG).

5.2.10 Hypothesis relating Social Capital (SC) to Relationship Maintenance (RM)

The development of long-term relationships is influenced by social aspects (Nguyen and Mutum, 2012; Yli-Renko et al., 2001). Customers may continue with a service provider not only because of superior service or performance, but also due to the commitment or ties he or she has developed over time to the service provider or its employees.

Trust is commonly considered to be the key element of successful and durable relationships (Morgan and Hunt, 1994). Trust as a relational dimension of social capital reduces feelings of uncertainty and risk and thus increases cooperation and relationship duration between employees and customers as well as from customers to the firm (Morgan and Hunt, 1994; Nguyen and Mutum, 2012). Similarly, personal connection with employees positively develops the likelihood of a positive approach towards a service provider.

Extra organizational factors such as social capital (Mitussis et al., 2006) support customer retention as an outcome of relationship management practices (Eid, 2007; Henning-Thurau et al., 2010). If customers have less trust in a firm's behaviour, they will convey negative messages and perhaps discontinue their relationship with the firm (bank). Thus, successful implementation of CRM requires that firms should consider the issue of trust as an important enabler of long-term relationships with customers (Boulding et al., 2005).

Hypothesis10 (H10): There is a positive relationship between social capital (SC) and relationship maintenance (RM).

5.2.11 Hypothesis relating Social Capital (SC) to Customer Relationship Management Success (CRMS)

Social capital can enhance a firm's ability to improve its performance (Kogut and Zander, 1996). Many firms recognize the value of customer–employee relationships for favourable service experiences; however, in many cases, they underestimate the contribution of customer–employee interactions to customer loyalty (Bendapudi and Leone, 2003; Palmatier et al., 2007). This link was also supported by Gremler et al. (2001) as they found that enjoyable interaction and personal connection were significantly related to customers' satisfaction and loyalty intentions. Similarly, Yim et al. (2008) have argued that customers feel love towards service firms when they experience successful interactions and become loyal because they have personal connections with employees. In connection with this, Jamal and Adelowore (2008) have argued that personal interaction directly affects customer satisfaction.

Many firms misjudge the contribution of customer–employee interactions to customer loyalty. However, while they acknowledge the value of customer–employee relationships for positive service experiences, many discourage employees from developing and maintaining strong relationships with customers owing to the fear that such relationships might divert customer loyalty from the firm to the staff (Bendapudi and Leone, 2003; Palmatier et al., 2007).

Trust as a relational dimension of social capital contributes largely to reducing feelings of uncertainty and risk: this is highly required for the financial services sector firms, such as banks (Morgan and Hunt, 1994; Nguyen and Mutum, 2012). In a similar fashion, Clark and Barker (2007) have argued that employee trust and organizational trust support the lowering of the risks of service exchanges and actively build ongoing connections. Customers are increasingly keen to do business with the firm they trust

and who they feel have their interests at heart. The above arguments lead to the development of following hypothesis:

Hypothesis 11 (H11): There is a positive relationship between social capital (SC) and customer relationship management success (CRMS).

5.2.12 Hypothesis regarding Customer Knowledge Generation (CKG) and Relationship Maintenance (RM)

Knowing the customer is the essential element of the firm–customer relationship and is a determinant of the quality of a sound and efficient relationship (Blanchard et al., 2000). In relationship marketing, proper customer knowledge has often been regarded as a significant element of the relationship between a service provider and its customers (Paulin et al., 2000). Adequate and relevant customer knowledge is highly required as this knowledge provides an opportunity to the bank and to CRM people to have an idea about the expressed and latent demand of customers and therefore they are prepared which will eventually create a positive impression in the minds of customers. The researchers have also suggested that customer knowledge can be regarded as an antecedent of relationship quality and of a long-lasting relationship. Knowledge needs to be generated in such a way so that banks have a deeper understanding of each customer’s preferences, needs and behaviours which eventually will facilitate customer retention and cross-selling and up-selling (Ngai et al., 2007; Dagger et al., 2011). Considering the above argument, it can be proposed that:

Hypothesis 12 (H12): There is a positive relationship between customer knowledge generation (CKG) and relationship maintenance (RM).

5.2.13 Hypotheses related to Mediation Relationship

5.2.13.1 Mediating Role of Relationship Maintenance (RM) between Social Capital (SC) and Customer Relationship Management Success (CRMS)

The development of long-term relationships is influenced by social aspects (Nguyen and Mutum, 2012; Yli-Renko et al. 2001). Customers may continue with a service provider not only because of superior service but also due to the commitment or ties he or she has developed over time to the service provider or its employees which eventually enhance the service provider’s performance in terms of customer satisfaction and loyalty, as well as profitability. In connection with this, researchers have also argued that social capital can improve organizations’ performance through enhancing customer satisfaction and loyalty intentions (Kogut and Zander, 1996;

Gremler et al., 2001). In a similar fashion, Jamal and Adelowore (2008) have argued that personal interaction, one of the dimensions of social capital, positively affects customer satisfaction (a measure of CRMS). Although social capital positively influences CRM success, it is argued that stable relationships are also required for the success of the organization (Payne and Frow, 2005; Lusch et al., 2010). Relationship maintenance offers numerous benefits to firms: for instance, customer retention, one of the dimensions of relationship maintenance, helps in cost reduction, business growth and profitability (Minami and Dawson, 2008). The other two dimensions, cross-selling and up-selling, and customer referral, also have a positive influence on CRM success (Nitzan and Libai, 2011; Gupta et al., 2006). Thus, in addition to social capital, long-term relationships, customer referral and up-selling/cross-selling activities are required to achieve maximum performance from relationship management practices. In this setting, it can be hypothesized that:

Hypothesis 13 (H13): Relationship maintenance (RM) mediates the relationship between social capital (SC) and customer relationship management success (CRMS).

5.2.13.2 Hypothesis related to the Sequential Mediating Effect of Customer Knowledge Generation (CKG) and Customer Knowledge Utilization (CKU)

Knowledge serves not only as an antecedent to organizational success but, at the same time, acts as a mediator between organizational factors and firm performance (Zheng et al., 2010). The knowledge gathered through ICRM is utilized to support the development and/or modification of products and services which eventually improves efficiency and enhances performance (Nonaka et al., 2000). Moreover, CRM initiatives, to a large extent, are based on knowledge about, from and for customers (Gebert et al., 2003). At the same time, researchers (Slater and Narver, 1995) have also argued that the initial focus of customer orientation is to create value for customer which is based on knowledge derived from customers.

From a theoretical perspective, customer knowledge has a positive effect on CRM success. Customer knowledge generated through repeated interaction facilitates tailor-made offerings which eventually influence customer satisfaction (Mithas et al., 2005). The mediating role of customer knowledge is evidenced in the literature as customer knowledge mediates the relationship between CRM application and customer satisfaction (Mithas et al., 2005); between conflict resolution and organizational goals; and partially mediates the relationship between conflict resolution and the cross-functional new product development team (Joshi and Sharma, 2004). As mentioned

earlier, some studies in the service context have investigated the relationship between CRM and customer knowledge while others have examined the relationship between customer knowledge and satisfaction as well as success. As it has been established earlier (as per hypotheses H1 and H4) that ICRM would influence CRM success via CKG, there is therefore a need to investigate whether customer knowledge generation (CKG) is capable of mediating the relationship between ICRM and CRM success.

The mediating role of knowledge utilization is evidenced in various research settings. For instance, Zhang et al. (2009) have argued that knowledge utilization mediates the relationship between a breakthrough focus and product innovation performance, and between a platform focus and product innovation performance. Zheng et al. (2010) later argued that knowledge generation and utilization partially mediate the relationship between organizational structure and organizational effectiveness. In a similar vein, Yli-Renko et al. (2001) have argued that knowledge acquisition will enhance the knowledge exploitation process through speeding up new product development.

Firms can capture some of what the customer knows through relationship management practices such as customer-centric activities (Mithas et al., 2005; Xu and Walton, 2005; Rowley, 2004; Minna and Aino, 2005), in general, and the salesperson, in particular. Minna and Aino (2005) have articulated that customer orientation enhances customer knowledge generation. Similarly, Homburg et al. (2009) have argued that the generation of knowledge regarding customers' needs depends on the activities and initiatives of the frontline employee.

Knowledge utilization is an important predictor of benefits: it can be described in terms of the extent to which the firm generates knowledge from various sources and uses this knowledge for product and service development (Zhang et al., 2009; Laursen and Salter, 2006). Researchers have also argued that knowledge utilization is likely to result in better product innovation (Zhang et al., 2009). Firms can offer their customers a variety of products and services, lower prices and personalized services through utilizing the knowledge acquired through ICRM, especially information technology (Karakostas et al., 2005). This is also in line with the knowledge-based view (KBV) as this view emphasizes the significance of understanding the process through which the firm generates and utilizes knowledge.

From the above discussion, it can be argued that customer knowledge utilization not only serves as an antecedent but also plays a mediating role. This mediating role is also

evidenced in various research settings. For instance, Zhang et al. (2009) have argued that knowledge utilization mediates the relationship between the breakthrough focus and product innovation performance, and between the platform focus and product innovation performance. Zheng et al. (2010) later argued that knowledge generation and utilization partially mediate the relationship between organizational structure and organizational effectiveness. In a similar vein, Yli-Renko et al. (2001) have argued that knowledge acquisition will enhance the knowledge exploitation process through speeding up new product development. From the above discussion, it can be concluded that ICRM facilitates knowledge utilization via knowledge generation: this eventually positively influences CRM success. At the same time, ICRM directly influences relational success efforts with this discussion leading to the development of the following hypothesis:

Hypothesis 14 (H14): Customer knowledge generation (CKG) and customer knowledge utilization (CKU) sequentially mediate the relationship between integrated customer relationship management (ICRM) and customer relationship management success (CRMS).

5.3 SUMMARY OF DEVELOPED HYPOTHESES

Based on the comprehensive model, a total of 14 hypotheses describing 14 relationships have been developed. The comprehensive model consists of the factors and variables derived from both the literature and the field study. Table 5.1 presents all the hypotheses developed above. Moreover, Figure 5.1 is presented to demonstrate the hypotheses.

Table 5.1: Summary of hypotheses and their sources

Hypotheses	Links	Statement	Main sources
H1	ICRM→CKG	There is a positive relationship between integrated customer relationship management (ICRM) and customer knowledge generation (CKG).	Khodakarami and Chan (2014); Jayachandran et al. (2005); Homburg et al. (2009); Field study
H2	CKG→CKU	There is a positive relationship between customer knowledge generation (CKG) and customer knowledge utilization (CKU).	Yli-Renko et al. (2001); Roberts et al. (2005); Salojarvi and Sainio (2010); Wang and Feng (2012); Field study
H3	CKU→CRMS	Customer knowledge utilization (CKU) will be positively related to customer relationship management success (CRMS).	Calantone et al. (2006); Nejatian et al. (2011); Garrido-Moreno et al. (2014); Field study
H4	ICRM→CRMS	Integrated customer relationship	Chang et al. (2010);

		management (ICRM) positively influences customer relationship management success (CRMS).	Garrido-Moreno and Melendez (2011); Jayachandran et al. (2005); Sin et al. (2005); Raman et al. (2006); Field study
H5	ICRM→SE	There is a positive relationship between integrated customer relationship management (ICRM) and service excellence (SE).	Yim et al. (2008); Clark and Barker (2007); Zeithaml et al. (2006); Field study
H6	SE→CRMS	There is a positive relationship between service excellence (SE) and customer relationship management success (CRMS).	Lusch et al. (2007); Clark and Barker (2007); Padmavathy et al. (2012); Field study
H7	ICRM→RM	There is a positive relationship between integrated customer relationship management (ICRM) and relationship maintenance (RM).	Minami and Dawson (2008); Boulding et al. (2005); Reinartz et al. (2004); Henning-Thurau et al. (2010); Field study
H8	RM→CRMS	There is a positive relationship between relationship maintenance (RM) and customer relationship management success (CRMS).	McNally (2007); Chang et al. (2010); Frow and Payne (2009); Field study
H9	SC→CKG	There is a positive relationship between social capital (SC) and customer knowledge generation (CKG).	Yli-Renko et al. (2001); Huysman and Wulf (2005); Plakoyiannaki et al. (2008); Field study
H10	SC→RM	There is a positive relationship between social capital (SC) and relationship maintenance (RM).	Mitussis et al. (2006); Eid (2007); Henning-Thurau et al. (2010); Field study
H11	SC→CRMS	There is a positive relationship between social capital (SC) and customer relationship management success (CRMS).	Clark and Barker (2007); Yim et al. (2008); Palmatier et al. (2007); Field study
H12	CKG→RM	There is a positive relationship between customer knowledge generation (CKG) and relationship maintenance (RM).	Ngai et al. (2007); Rajaobelina and Bergeron (2009); García-Murillo and Annabi (2002); Gebert et al. (2003); Field study
H13	SC→RM→CRMS	Relationship maintenance (RM) mediates the relationship between social capital (SC) and customer relationship management success (CRMS).	Minami and Dawson (2008); Nitzan and Libai (2011); Gupta et al. (2006); Jamal and Adelowore (2008); Field study
H14	ICRM→CKG→CKU→CRMS	Customer knowledge generation (CKG) and customer knowledge utilization (CKU) sequentially mediate the relationship between integrated customer relationship management (ICRM) and customer relationship management success (CRMS).	Mithas et al. (2005); Garrido-Moreno et al. (2014); Salojarvi et al. (2010); Zheng et al. (2010); Zhang et al. (2009); Field study

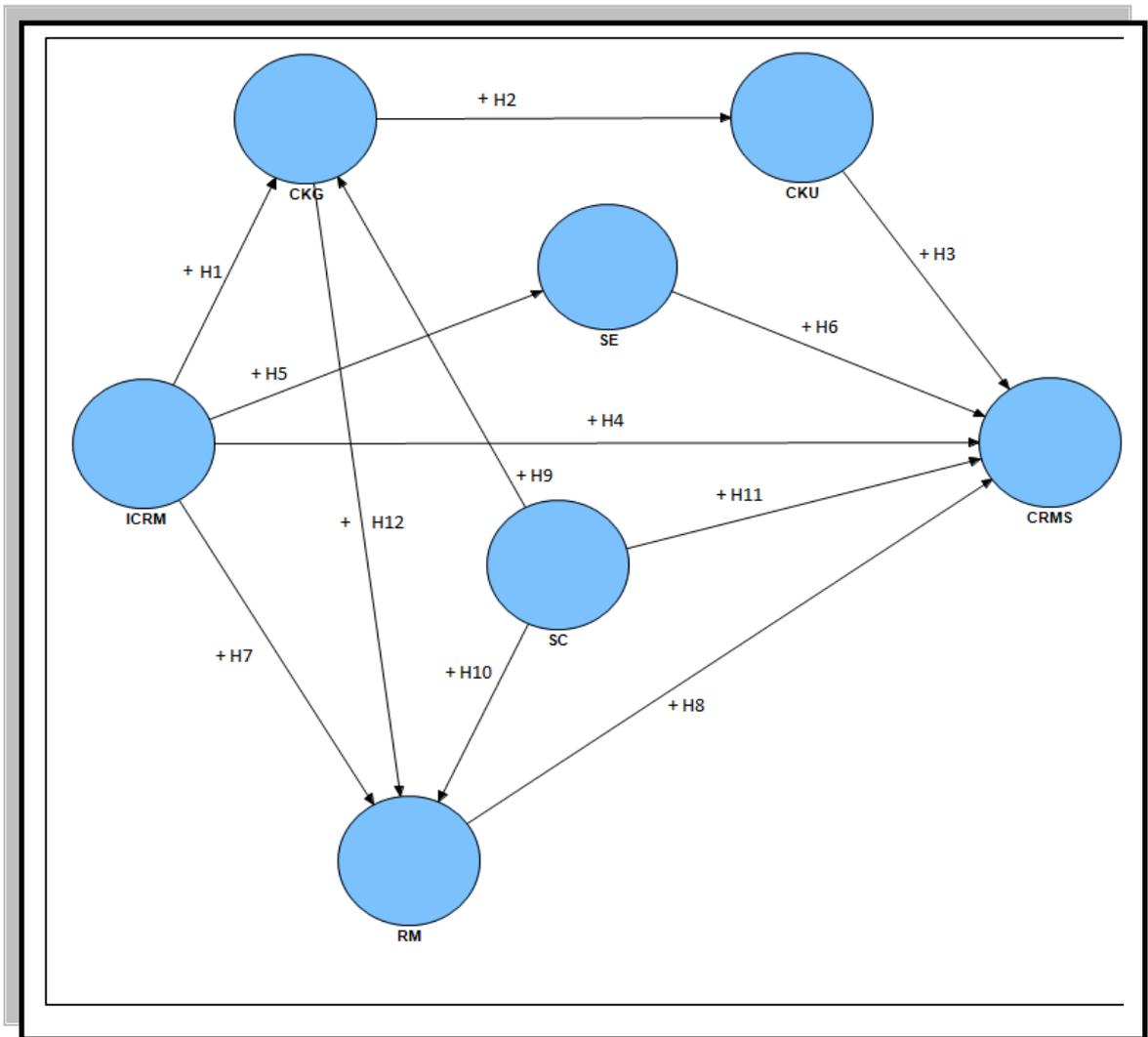


Figure 5.1: Hypothesized model of CRM success

ICRM=integrated customer relationship management CKG= customer knowledge generation
 RM= relationship maintenance SE= service excellence
 SC= social capital CKU= customer knowledge utilization
 CRMS= CRM success

5.4 QUESTIONNAIRE DEVELOPMENT FOR FINAL SURVEY

In order to collect survey data for this research, a questionnaire (Appendix 2) was developed in the light of the relevant literature, theory support and the field study outcome. The next section presents details of the development of the questionnaire.

5.4.1 Overview of the Questionnaire

When developing the questionnaire, careful attention was given to selecting the most relevant items. For each construct, multiple items were considered to ensure reliable and valid measurement of the model. The first step was an extensive literature review

of previously developed instruments to identify items that could be adapted, adopted or developed for each construct. In addition, the items developed from the field study outcomes were reviewed and integrated into the questionnaire to contextualize the objects and to ensure content validity. The developed questionnaire was then subjected to pre-testing for necessary refinement. Chapter 3 (Section 3.6.2) detailed the pre-testing procedure. Finally, the questionnaire was developed to collect the survey data to test the proposed research hypotheses.

The questionnaire was divided into seven sections which comprised 90 questions (excluding the demographic questions). All measures used six-point Likert scales with the anchors ranging from 1= strongly disagree to 6 =strongly agree. As Asian participants tend to select the neutral point in a five-point or seven-point Likert scale (Zhou et al., 2012), a six-point Likert scale was considered to be suitable when designing the questionnaire to avoid the biasness of respondents selecting the midpoint (Mattel and Jacoby, 1972; Rossi et al., 1983). The first section of the questionnaire included the demographic variables. The second section included questions related to integrated customer relationship management followed by questions on customer knowledge generation and utilization in the third section. The fourth, fifth and sixth sections comprised components and dimensions of relationship maintenance and service excellence, and dimensions of social capital, respectively. Finally, measures related to CRM success were included in the seventh section.

5.4.2 Measurement Instrument Development at the Construct Level

It was mentioned earlier that, excluding the demographic questions, there were 90 items in the measurement instrument and all were operationalized as reflective based on the decision rule suggested by Becker et al. (2011) and Wetzels et al. (2009). The details about reflective measurement decision criteria were mentioned in Chapter 3 (Section 3.6.6.3).

5.4.2.1 Questionnaire Section 1: Demographic

Demographic variables were measured by different types of scales using both open-ended and closed-ended questions. The demographic details included gender and educational background of respondents followed by their current position, and their service length (experience) in the banking industry and in their current position. This section included details of the number of branches and number of employees in that

branch along with the length of the bank's establishment. Table 5.2 presents the demographic items used in this study.

Table 5.2: Demographic variables

Items	Variable	Measure
Q1	Gender	Gender
Q2	Education	Qualification
Q3	Position	Nominate your position
Q4	Experience	Number of years in banking as well as in current position
Q5	Bank size	Number of employees and branches
Q6	Year of establishment	Generation and experience

Among these questions in the demographic section, three questions (Q1, Q2 and Q3) used nominal scales (gender, education and position): the other three (Q4, Q5 and Q6) used numeric values that represented a measure. It is worth mentioning that qualification, position and experience in general as well as in the field of relationship and/or service management inferred the appropriateness of the inclusion of that respondent in the data collection process.

5.4.2.2 Questionnaire Section 2: Factors related to integrated customer relationship management (ICRM)

The purpose of this section was to identify and measure the dimensions and factors related to integrated customer relationship management (ICRM). Four dimensions: customer orientation, a customer-centric management system, CRM people and CRM technology were measured in this section. Table 5.3 presents the items related to the four dimensions of integrated customer relationship management. For this section, six-point Likert scales were used with the following anchors: 1= strongly disagree; followed by 2 = disagree; 3 = somewhat disagree; 4 = somewhat agree; 5 = agree; and 6 = strongly agree. Each of the dimensions was measured by reflective indicators because the indicators were manifestations of the construct and the indicators were expected to covary each other (Jarvis et al., 2003). Moreover, the items were assumed to be correlated and they were interchangeable (Jarvis et al., 2003; Chin 1998).

Customer orientation (CO) referred to the bank's adequate understanding of target customers in order to be able to create continuously augmented products to offer greater added value to customers (Narver and Slater, 1990). It was measured by the items (CO1 to CO7): giving priority to customer needs; personalized services to valued customers; ease of access and comfort; positive attitude about customer complaints; intention to develop and maintain relationship with customers; after-sales service and

communication; and customer relationships are considered to be a valuable asset, with reference to the previous literature (Rapp et al., 2010; Jayachandran et al., 2005; Sin et al., 2005; Thomas et al., 2001; Narver and Slater, 1990). These items were then validated by the field study findings.

A customer-centric management system (CCMS) referred to the structure and incentives that enable a firm to build and sustain customer relationships with an emphasis on customers rather than on functional areas (Day, 2003). The customer-centric management system section comprised seven items and was measured by the items (CCMS1-CCMS7): employee training programs; employee performance measurement based on relationship effort; employee performance measurement based on service operation; dedicated relationship manager; value-based customer segmentation; product and/or service diversification; and coordination of various functional areas and activities, with reference to previous literature (Liu and Comer, 2007; Jayachandran et al., 2005; Sin et al., 2005; Becker et al. 2009). It is worth mentioning that the items 'monitoring employee performance based on service operation' (CCMS3) as well as 'dedicated relationship manager' (CCMS4) were developed from the field study while being supported by similar research studies (see Table 5.3).

Customer relationship management people (CRMP) referred to employees who were involved in the development, management and maintenance of relationships with customers. This construct was measured by the items (CRMP1-CRM5): giving key customers priority; local employees and local language ability; employee interpersonal skills and convincing capability; adequate knowledge about overall service operation; and employee willingness to help customers. All the items, except one (CRMP2), have been adapted from the previous literature (Rapp et al., 2010; Sin et al., 2005; Henning-Thurau, 2004) and were contextualized based on the field study findings. The item 'local employees and local language ability' was developed from the field study (see Table 5.3).

Customer relationship management technology (CRMT) referred to the technology that facilitated customer relationships through enabling employees to extend their focus on customers (Rapp et al., 2010). The customer relationship management technology construct embraced the issues (items) that were responsible for facilitating customer relationships either directly or by supporting other sub-dimensions of ICRM. This construct was measured by the items (CRMT1-CRMT7): right software to serve the

customer; invest in technology to acquire customer information; dedicated CRM technology; use of IT to facilitate customer relationships; integrating customer information from different contact points; enabling customer information to be available at every point of contact; and using technology to forecast customer preferences. All items were adapted from the previous literature (Reinartz et al., 2004; Jayachandran et al., 2005; Sin et al., 2005; Rapp et al., 2010) and were contextualized based on the field study findings.

Table 5.3: Measurement items and related statements of ICRM

	Dimensions	Items	Statement	Sources
Integrated Customer Relationship Management (ICRM)	Customer Orientation	CO1-Priority	_giving priority to customer needs rather than internal needs	Narver and Slater (1990); Field survey
		CO2-Personalized service	_offers personalized services for our valued customers	Thomas et al. (2001), Sin et al. (2005); Field survey
		CO3-Access and comfort	_tries to provide comfortable and easily accessible service experience for our customers	Narver and Slater (1990); Field survey
		CO4-Positive attitude	_always positive about customer complaints	Narver and Slater (1990); Field survey
		CO5-Intention/effort	_gives effort to develop and maintain relationship with customers	Rapp et al. (2010); Jayachandran et al. (2005); Field survey
		CO6-Close attention	___ emphasizes providing close attention to after-sales service and communication	Rapp et al. (2010); Field survey
		CO7-Relationship as asset	___ considers customer relationship as a valuable asset	Jayachandran et al. (2005); Field survey
	Customer-centric Management System	CCMS1-Employee training	___ emphasizes employee training programs	Liu and Comer (2007); Jayachandran et al. (2005); Sin et al. (2005); Becker et al. (2009); Field survey
		CCMS2-Employee performance	___ measures employee performance based on relationship effort	Jayachandran et al. (2005); Field survey
		CCMS3-Employee performance	___ monitors employee performance based on service operation	Field survey
		CCMS4-Dedicated relationship manager	___ has introduced dedicated relationship manager in different branches	Field survey
		CCMS5-	___ introduces value-	Jayachandran et al.

		Customer segmentation	based customer segmentation	(2005); Field survey
		CCMS6-Product/service diversification	___ always try to offer diversified products and/or services	Jayachandran et al. (2005); Field survey
		CCMS7-Coordination	___ emphasizes coordination of various functional areas and activities.	Jayachandran et al. (2005); Field survey
	CRM People	CRMP1-Priority	___ gives key customers priority	Rapp et al. (2010); Sin et al. (2005); Field survey
		CRMP2-Localization	___ places local people with local language ability (wherever possible) into the respective branches	Field survey
		CRMP3-Skill	___ people/employees have good interpersonal skills and convincing capability	Henning-Thurau (2004); Field survey
		CRMP4-Knowledge	___ people/employees have adequate knowledge about overall service operations.	Henning-Thurau (2004); Field survey
		CRMP5-Willingness	___ employee expresses sincere willingness to help customers	Chen and Popovich (2003); Sin et al. (2005); Field survey
	CRM Technology	CRMT1-Software	___ has the latest software facilities	Sin et al. (2005); Xu and Walton (2005); Field survey
		CRMT2-Investment	___ invests in technology to acquire and manage customer information and feedback	Reinartz et al. (2004); Jayachandran et al. (2005); Field survey
		CRMT3-Dedicated CRM	___ has a dedicated CRM technology in place	Reinartz et al. (2004); Field survey
		CRMT4-Use of IT	___ uses information technology extensively	Jayachandran et al. (2005); Chang et al. (2010); Field survey
		CRMT5-Information integration	___ uses CRM technology for integrating customer information from different contact points (e.g. telephone, mail, web, fax, etc.)	Jayachandran et al. (2005); Rapp et al. (2010); Field survey
		CRMT6-Information availability	___ uses CRM technology to make individual customer information available at every point of contact	Sin et al. (2005); Rapp et al. (2010); Field survey
		CRMT7-Forecasting	___ uses technology to forecast customer preferences	Jayachandran et al. (2005); Field survey

5.4.2.3 Section 3: Questions on Customer Knowledge Generation and Utilization

This section comprised the measurement items related to customer knowledge generation and utilization. More specifically, this section emphasized the following issues: knowledge sources, the knowledge generation process, and how collected knowledge was being stored, processed and utilized to generate knowledge for customers which eventually will assist banks to satisfy their customer needs. Knowledge utilization refers to the process that is focused towards the definite use of knowledge (Gold et al., 2001). The items (CKG1-CKG6) were basically related to customer knowledge generation and items (CKU1-CKU3) were related to customer knowledge utilization. As in the previous section, this section also included six-point Likert scales with the anchors from: 1= strongly disagree; followed by 2 = disagree; 3 = somewhat disagree; 4 = somewhat agree; 5 = agree; and 6 = strongly agree. The indicators of customer knowledge generation and utilization were operationalized as reflective as the items were manifestations of the construct and were expected to covary with each other (Jarvis et al., 2003). Previous studies, for example, Becker et al. (2009); Yli-Renko et al. 2001; Sin et al. (2005); and Garrido-Moreno et al. (2014) also mentioned and used these items as reflective indicators. As a whole, the customer knowledge generation construct and customer knowledge utilization construct were measured with six items and three items respectively as shown in Table 5.4.

Table 5.4: Measurement items and related statements of customer knowledge generation (CKG) and customer knowledge utilization (CKU)

Construct	Items	Statements	Sources
Customer Knowledge Generation		Our present CRM system and practice help us to____	
	CKG1-Communication	____maintain regular and interactive communication with key customers to get their opinions and feedback	Sin et al. (2005); Field study
	CKG2-Monitor	____monitor and maintain customer information on a regular basis	Yli-Renko (2001); Sin et al.(2005); Becker et al. (2009); Field study
	CKG3-Information	____get most of our valuable information on customer needs and trends	Becker et al. (2009); Lin and Li (2005); Field study
	CKG4-Store	____store important socio-demographic and psychographical data (age, marital status, occupation, income, lifestyle, interests) on	Sin et al. (2005); Becker et al. (2009); Field study

		existing and potential customers	
	CKG5-Record	__record new knowledge properly, acquired at various contact points	Sin et al. (2005); Field study
	CKG6-Analyse	__ analyse the collected information to have a clear understanding about key customers.	Sin et al. (2005); Becker et al. (2009); Field study
Customer Knowledge Utilization	CKU1-Design stage	__ use collected information/knowledge with great care in product/service design/redesign	Sin et al. (2005); Gold et al. (2001); Field study
	CKU2-New offerings	__ introduce new product and/or service based on customer knowledge collected through relationship effort	Yli-Renko et al. (2001); Calantone et al. (2006); Field study
	CKU3-Modification	__modify product/service based on customer feedback/customer knowledge	Yli-Renko (2001); Sin et al. (2005); Field study

5.4.2.4 Section 4: Questions on Relationship Maintenance

Relationship maintenance occurs, with an emphasis on stability, just after a relationship has begun and just before it has started to end (Montgomery, 1993). Aurier and N’Gola (2010), McNally (2007) and Reinartz et al. (2004) have argued that relationship maintenance has distinct dimensions suggesting that customer retention, cross-selling and up-selling, and customer referral are dimensions of relationship maintenance. This section contained the measurement items with reference to the following relationship maintenance dimensions: customer retention, cross-selling and up-selling, and customer referral. Table 5.5 shows the measurement items and related statements corresponding to each dimension. All these dimensions were measured by reflective indicators since as the items were manifestations of the construct and the indicators were likely to covary each other (Jarvis et al., 2003). For instance, the items of the construct ‘customer retention’ such as maintaining a long-term relationship and maintaining good business were related to each other and thus they were likely to covary. Similarly, the indicators of the rest of the constructs were also expected to covary with each other. Earlier literature, for example, Aurier and N’Gola (2010), McNally (2007) and Liu and Wu (2007) also measured these constructs as the reflective mode. The details regarding the relationship maintenance dimensions are discussed below.

The construct ‘customer retention’ reflected the intention of customers to continue their relationship with the bank and this was also an outcome of relationship management practices followed by the banks. This construct was measured by the items (CR1 to CR3): maintain long-term relationship; maintain good business; and switching rate reduction. These items were selected from the existing literature (e.g. Eisengrich and Bell, 2006; Venetis and Ghauri, 2004; Becker et al., 2009) and were compared and contextualized with the field study survey findings.

Cross-selling and up-selling reflected mutual respect, relational ties and strength, and also the convincing ability of employees which was the most important performance metric for the bank as well as for the employees. The items (CS-US1 to CS-US4) were measured by: relationship efforts; mature relationship; good volume of business; and incentives to customers. These items were derived from the earlier research (McNally, 2007; Avey et al., 2010; Reinartz et al., 2004) and were further compared and contextualized with the field study findings.

The construct ‘customer referral’ reflected the customer’s relational involvement and engagement with the bank as well as with the CRM people. This also reflected the bank’s initiative to enhance and support such kind of customer involvement. Customer referral was measured by four items (CRf1 to CRf4): referral management process; willingness to refer; customers through referral; and incentives for referral. These items were primarily derived from the previous research work conducted in various research settings and contexts (e.g. Gremler and Gwinner, 2000; Reimann et al., 2010; Reinartz et al., 2004) and then compared with the field study findings to be contextualized for this study. As a whole, the higher-order construct ‘relationship maintenance’ was measured with 11 items under three dimensions as shown in Table 5.5.

Table 5.5: Measurement items and related statements of RM

	Dimensions	Items	Statement	Sources
Relationship Maintenance (RM)	Customer Retention (CR)	CR1-Long-term relationship	Our relationship efforts induce our customers to maintain a long-term relationship with us	Becker et al. (2009); Venetis and Ghauri (2004); Field study
		CR2-Good business	Our existing customers maintain good business with us because of our relationship practice.	Eisengrich and Bell (2006); Venetis and Ghauri (2004); Field study
		CR3-Less	Customer migration or	Becker et al.

		switching	switching rate has been reduced because of our relationship effort.	(2009); Field study
Cross-selling and Up-selling	CS-US1-	Employee training	Relationship efforts and practice make cross-selling and up-selling easy for us.	McNally (2007); Avey et al. (2010); Field study
	CS-US2-		We have organized procedures to mature relationships with high-value customers in order to be able to cross-sell or up-sell earlier	McNally (2007); Reinartz et al. (2004); Field study
	CS-US3-		Present relationship practice helps us to have a good volume of business through up-selling and cross-selling	Field study
	CS-US4-		Our bank offers incentives to customers who are willing to strengthen their relationship through up-buying or cross-buying	Reinartz et al. (2004); Field study
Customer Referral	CRf1-		Present CRM practices help to actively manage the customer referral process	Reinartz et al. (2004); Reimann et al. (2010); Field study
	CRf2-		Our existing customers willingly refer new customers to us because of our relationship	Gremler and Gwinner (2000); Field study
	CRf3-		We get a good number of new customers through existing customers	Gremler and Gwinner (2000); Field study
	CRf4-		Our bank offers incentives to existing customers for referring new customers to us	Reinartz et al. (2004); Reimann et al. (2010); Field study

5.4.2.5 Section 5: Questions on Service Excellence

This section comprised the measurement items for the construct of service excellence. All the items were measured by reflective indicators due to the nature of the items and their relationship with each other as well as with the construct. According to Jarvis et al. (2003), items are considered to be reflective when the indicators are manifestations of the construct and the indicators are also expected to covary. For example, items such as promised services as per the promised schedule; quick response to query; prompt service; and extended service hours are related to each other and are thus expected to covary. In addition, previous studies, for example, Sureshchandar et al. (2001), Jones

(2004) and Sin et al. (2005) also measured these items in the reflective mode. The service excellence construct was measured by eight items (SE1-SE8): on-time service; quick response; extended service hours; prompt service; friendly staff; complaint management; follow-up; and service-oriented business processes. These items, except for SE7 'continuous follow-up with key customers', were mainly derived from the literature (Johnston, 2004; Sureshchandar et al., 2001; Jones, 2004; Sin et al., 2005) and were compared with the field study findings to be contextualized for this study. Item SE7 was developed from the field study while being supported by similar research studies. Table 5.6 presents the measurement items and related statement corresponding to the construct 'service excellence'.

Table 5.6: Measurement items and related statements of service excellence (SE)

Construct	Items	Statements	Sources
Service Excellence	Our customer relationship management system and practice ensure ____		
	SE1-	___ promised services as per the promised schedule	Johnston (2004); Field study
	SE2-	___ quick response to any customer issue	Johnston (2004); Field study
	SE3-	___ extended service hours	Sureshchandar et al. (2001); Field study
	SE4-	___ prompt service	Jones (2004); Field study
	SE5-	___ politeness and friendliness of staff	Jones (2004); Field study
	SE6-	___ efficient and effective handling of complaints	Sin et al. (2005); Field study
	SE7-	___ continuous follow-up with key customers	Field study
	SE8-	___ that our business processes are designed around customers to enhance the quality of customer interaction	Jayachandran et al. (2005), Sin et al. (2005); Field study

5.4.2.6 Section 6: Questions on Social Capital

Social capital is an essential source for the development of the inimitable value-generating resources which are embedded in a firm's network of relationships (Gulati et al., 2000; Zaheer and McEvily, 1999): it also exists in the relationships between people (Okoli and Oh, 2007). Based on the previous literature and field study support, it was observed that social capital is a multidimensional concept and is also considered

to be one of the antecedents of CRM success. The social capital dimensions considered for this study were: trust, personal connection and social interaction. The six-point Likert scale, namely: 1 =strongly disagree; 2 =disagree; 3 =somewhat disagree; 4 =somewhat agree; 5 =agree; and 6 =strongly agree was used for this section. The dimensions as well as the indicators of trust, personal connection and social interaction were considered to be reflective because the items were manifestations of the construct and the indicators were expected to covary with each other (Jarvis et al., 2003). Previous studies (e.g. Okoli and Oh, 2007; Jamal and Adelowore, 2008; Inkpen and Tsang, 2005) also measured social capital dimensions such as trust, personal connection and social interaction through reflective indicators. The social capital dimensions and items associated with those dimensions along with the question statements are presented in Table 5.7.

Trust is generally viewed as a critical element in the development of an enduring desire to maintain a long-term firm–customer and/or employee–customer relationship (Morgan and Hunt, 1994). Trust is reflected through the attitude and response of customers towards a particular firm or employee. If customers become less trusting of a firm’s behaviour or an employee’s behaviour, they may convey negative message to others and ultimately they may discontinue the relationship or their business with the firm (Nguyen and Mutum, 2012). Most of the field study respondents emphasized the importance of trust, especially employee trust, in relationship building and maintenance. In this study, trust was measured by three items (T1-T3): sharing financial secrets, financial adviser and involvement in non-financial decision making. These items (except T3 ‘involvement in non-financial decision making’) were adapted and adopted from the previous literature and were also contextualized with the field study findings (see Table 5.7). The item T3 has been considered mainly from the field study. These items are expected to covary owing to the interdependence among the indicators.

Personal connection reduces uncertainties about the relational outcome: the customer’s perception of an enjoyable interaction with an employee (CRM people) is reflected by his or her personal connection (Gremler and Gwinner, 2000). Personal connection measures were adapted and adopted from Gremler and Gwinner (2000) and Bell et al. (2005). Field study findings were also incorporated to contextualize these items. Based on the literature and the field study data, five items (PC1-PC5) were finally used: good bond, comfortable feelings; customer care; accepts customer’s invitation; and relationship duration were chosen to measure personal connection.

Social interactions stimulate attraction and social relationships (Dwyer et al., 1987; Emerson, 1987; Yim et al., 2008) which is reflected by social network ties. This construct was measured by two items (SI1 and SI2): social relationships with key customers and club membership, with reference to previous literature (Yli-Renko et al., 2001; Inkpen and Tsang, 2005) and also was contextualized on the basis of the field study findings. The item SI2 (club membership) was considered as a result of the field study findings.

Table 5.7: Measurement items and related statements of RM

	Dimensions	Items	Statement	Sources
Social Capital	Trust (T)	T1-Secrets sharing	Customers share their financial secrets with CRM people	Fine and Holyfield (1996); Field study
		T2-Financial adviser	Our CRM people act as a financial adviser of valued customers	Johnson and Grayson (2005); Field study
		T3-Involvement in non-financial decision making	CRM people assist customers in non-financial decision making	Field study
	Personal Connection (PC)	PC1-Good bond	We feel and maintain a good bond with our customers which makes our relationship effort successful	Gremler and Gwinner (2000); Field study
		PC2-Comfortable feelings	When customers visit the branch generally, they look forward to their favourite/appropriate CRM people with whom he/she feels comfortable	Gremler and Gwinner (2000); Field study
		PC3-Customer care	We believe proper customer care is required for maintaining a successful relationship	Gremler and Gwinner (2000); Field study
		PC4-Accept invitations	To maintain strong personal connection, we accept customers' invitations	Gremler and Gwinner (2000); Field study
		PC5-Relationship duration	We, CRM people, always try to maintain lengthy personal relationships	Bell et al. (2005); Field study
	Social Interaction (SI)	SI1-Social relationships	Our bank maintains close social relationships with key customers	Yli-Renko (2001); Inkpen and Tsang (2005); Field study
		SI2-Club membership	Our CRM people have memberships of different social clubs, either arranged by the bank or the individual banker	Field study

5.4.2.7 Section 7: Questions on Customer Relationship Management (CRM) Success

Recent studies have indicated that the performance outcome of CRM is reflected by the creation of value for customers as well as for firms (banks) (Becker et al., 2009). In

order to understand how CRM creates value, different measures have been proposed: target achievement, customer satisfaction, customer loyalty, efficiency and profitability (Shum et al., 2008; Coltman, 2007; Saini et al., 2010; Chang et al., 2010; Sin et al., 2005; Roh et al., 2005). This section describes the construct, items and corresponding question statements related to the measures of CRM success.

The six-point Likert scale, namely: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, and 6 = strongly agree was used for this section. The dimensions as well as the indicators of target achievement, customer satisfaction, customer loyalty, efficiency and profitability were considered to be reflective because the items were manifestations of the construct and the indicators were expected to covary with each other (Jarvis et al., 2003). Previous studies (e.g. Sin et al., 2005; Roh et al., 2005; Coltman 2007; Chang et al., 2010) have also measured those constructs through reflective indicators. Table 5.8 presents the measurement items and related statements corresponding to each construct.

Management set annual performance targets for sales representatives such as the number of contracts signed and total contract value. The construct reflected the target achievement initiatives taken by the bank that focused on relationship issues. The items related to target achievement (TA1-TA3) were considered mainly from the field study while being supported by similar research studies.

Efficiency reflects how the relationship management issues are better managed and implemented which ultimately facilitates reduction in cost and serving time as well as the employees' workloads. This construct was measured with five items (Eff1-Eff5): making task easier; reduction in serving time; operating cost reduction; employee workload reduction; and per-transaction cost reduction. These items were adapted and adopted from previous studies (e.g. Roh et al., 2005; Reinartz et al., 2005) and were contextualized with the field study findings.

Satisfaction can be defined as an emotional condition resulting from a customer's interactions with a bank over time (Crosby et al., 1990). This notion is reflected by the fulfilment of customers' expectations through better service, better complaint management and also with positive attitudes. This construct was measured by the items (S1-S7): friendly interaction; customers' expectations; complaints; mistakes; attitude; more use; and overall satisfaction. These items were adapted and adopted from the studies of Roh et al. (2005); Henning-Thurau (2004); and Han (2008). Most of the field study respondents emphasized these factors as measures of satisfaction.

Therefore, the selected items from the literature were contextualized based on the findings from the field study.

Another important measure of CRM success is loyalty which reflects the customer's intention to continue and expand business with the current service provider (bank) and also recommend the same service provider (bank) to their friends and family members. This construct was measured by six items (L1-L6): reducing number of bank leavers; ties; business expansion; recommendation; primary bank; and ready to pay more. The items L2 'strong ties' and L4 'recommendation' were considered mainly from the field study while being supported by similar research studies. The rest of the items were mainly adapted from Han (2008) and contextualized on the basis of the field study findings.

The ultimate measure for CRM success is profitability. Profitability was reflected by the increase in customer growth as well as business growth, the rise in per-employee profit and also by overall profit. This construct was measured by five items (P1-P5): business growth; customer growth; per-employee profit; financial goals; and overall profit. These items were adapted from Roh et al. (2005); Reinartz et al. (2004); and Vorhies and Morgan (2005) and contextualized based on the field study findings.

Table 5.8: CRM success measurement items and related statements

	Measures	Items	Statement	Source
		Introduction and use of CRM _____		
CRM Success (CRMS)	Efficiency	E1-Ease of task	___ makes customer relationship management easier	Roh et al. (2005); Field study
		E2-Serving time	___ reduces the customer serving time	Roh et al. (2005); Field study
		E3-Cost	___ helps to reduce operating costs	Roh et al. (2005); Field study
		E4-Workload	___ helps to reduce employee workload	Roh et al. (2005); Field study
		E5-Per-customer transaction cost	___ helps us to identify low-value or problem customers which eventually reduces per-customer transaction cost	Reinartz et al. (2004); Field study
	Target Achievement	TA1-Achieve target	___ helps us to achieve our given target	Field study
		TA2-Achievement rate	___ makes our present target achievement rate satisfactory	Field study
		TA3-Incentive	___ helps employees to earn more incentives upon target achievement	Field study

Satisfaction	S1-Friendly interactions	___ increases the friendly interactions with customers	Roh et al. (2005); Field study
	S2-Fulfilment	___ fulfils customers' expectations	Henning-Thurau (2004); Bettencourt (1997); Field study
	S3-Less complaints	___ decreases the frequency of customer complaints	Roh et al. (2005); Field study
	S4-Overlook mistakes	___ makes our customer so happy that sometimes they overlook minor mistakes/problems.	Henning-Thurau (2004); Field study
	S5-Positive attitude	___ makes our customers' attitude positive towards us	Han (2008); Field study
	S6-More involvement	___ induces most of our customers to buy more of the products and services offered by our bank over competing banks	Han (2008); Field study
	S7-Overall satisfaction	___ increases overall customer satisfaction level	Roh et al. (2005); Field study
Loyalty	L1-Bank leavers	___ reduces the number of bank leavers	Han (2008); Field study
	L2-Strong ties	___ assists customers in developing strong ties with us	Field study
	L3-Business expansion	___ encourages customers to expand their business with us	Han (2008); Field study
	L4-Recommendation	___ induces our existing customers to recommend their friends and family members to do business with us.	Field study
	L5-Primary bank	___ assists our customers in considering our bank as their primary bank	Han (2008); Field study
	L6-Ready to pay more	___ convinces our customers to pay even more to continue their relationship with us	Han (2008); Field study
Profitability	P1-Business volume	___ supports us to have good business growth in terms of volume	Reinartz et al. (2004)
	P2-Customer growth	___ helps us in experiencing good customer growth	Roh et al. (2005)
	P3-Financial goal	___ assists us in achieving financial goals well	Reinartz et al. (2004)
	P4-Per-employee profit	___ helps to increase per-employee profit	Vorhies and Morgan (2005)
	P5-Overall profit	___ results in rise of overall profitability	Roh et al. (2005)

5.5 PRE-TESTING QUESTIONNAIRE

To identify any measurement problem and also to test its validity, the initial questionnaire was pre-tested by sending it to 10 relationship and/or customer service managers of 10 different banks comprising three from multinational banks and seven

from private commercial banks. The researcher contacted the respondents by phone to brief them about the research procedure and motive and also to get their consent. Questionnaires along with a feedback form were then sent to them by email. The respondents were asked to review and comment on the dimensions, measures, items and corresponding statements. This procedure helped the researcher to find any anomalies and also to determine whether further revision was required in terms of content, layout, wording, sequence, understandability and pace of completion. This procedure also helped to identify and to clarify vague measurement instruments, if there were any.

Based on the respondents' feedback, some modifications were made to the questionnaire to improve clarity and understandability. For example, one respondent asked about modifying the statement related to the construct trust (T3) which was originally: "CRM people assist customers in personal decision making" and suggested using the term 'non-financial decision making' instead of 'personal decision making'. The statement was modified and included in the final questionnaire (see Table 5.7). All the comments and suggestions were duly addressed in the final design of the questionnaire. The final version of the questionnaire was then organized for the pilot study and can be found in Appendix 2.

5.6 SUMMARY

This chapter presented the hypotheses which were developed from the final research model. The rationale and justification of the hypotheses were also explained in conjunction with the previous studies and the field study findings. A total of 14 hypotheses were developed to describe the relationships among the variables as proposed in the comprehensive research model (Figure 4.3). This chapter also demonstrated the measurement items' development process leading to the final survey questionnaire design. The questionnaire was developed to test the hypotheses, based on the prior literature and the field study findings. The questionnaire then underwent a pre-testing process for refinement. Based on the feedback from pre-testing, the questionnaire was then fine-tuned. A pilot study was next carried out to test the validity of the questionnaire. The final questionnaire was then administered for the survey which is discussed in the next chapter.

CHAPTER 6 SURVEY AND QUANTITATIVE DATA ANALYSIS

6.1 INTRODUCTION

The hypotheses and the questionnaire development process to test the comprehensive research model were discussed in the previous chapter. After preparing the questionnaire, the developed instrument was used for pre-testing to accomplish any necessary improvements. Based on the feedback of pre-testing, the questionnaire was fine-tuned. To assert the applicability of the questionnaire for the national survey, a pilot study was conducted on 75 respondents. Based on the pilot study outcome, the questionnaire was refined and used for conducting the national survey. The face-to-face survey technique was employed for data collection. The survey was conducted on managers who were involved and experienced in relationship management and/or customer service management, from different public, private commercial and multinational banks. A total of 340 respondents took part in the survey. Based on the collected data, this chapter presents the empirical results of the data analysis using the partial least squares (PLS)-based structural equation modelling (SEM) technique (Chin, 1998a). As explained earlier, there are two parts to the analysis in the current research.

The first part examined the factors behind CRM success that included: integrated customer relationship management (ICRM); customer knowledge generation; customer knowledge utilization; service excellence; relationship maintenance; and social capital. The second part of the analysis focused on the mediating effect of customer knowledge generation and customer knowledge utilization as well as that of relationship maintenance.

This chapter starts with the overview of the survey followed by a descriptive analysis of the survey respondents. The chapter next presents the analysis of the survey through PLS-based SEM by using SmartPLS 2.0.M3 software. The PLS-based SEM analysis is divided into two parts: (i) analysis of the measurement model and (ii) analysis of the structural model.

6.2 PILOT STUDY

The pilot study was administered to 75 respondents with structured questionnaires to get an overview of the applicability of the data, but was not designed to assess the

structural or measurement model. In all, 62 completed responses were obtained. The respondents were encouraged and asked to provide their valuable comments regarding the comprehensibility and complexity of the questions (items) used in the survey. From the pilot study, it was found that only some minor adjustments were needed as a few respondents commented on having problems with understanding some of the wording in some questions. For example, in the questions which included CRM in its shortened form, some respondents interpreted CRM as credit risk management instead of customer relationship management: to avoid this confusion, the complete wording for CRM (i.e. customer relationship management) was provided in the final version of the questionnaire. The wording of the items makes a significant contribution to the success of a research study and in achieving this, a pilot study can play a major role (Cohen et al., 2000). The wording was revised and, in some cases, sentences were modified to make them more understandable. On the other hand, the issue of the length of the questionnaire was basically unavoidable due to the complexity of the exploratory research model. In support of the long questionnaire, it can be argued that a large number of items required contextualization and that the length also enabled clear and complete conceptualization of a good number of constructs.

6.3 ADMINISTRATION OF SURVEY

The survey was conducted with managers involved in relationship management and/or customer service management from different public, private commercial and multinational banks operating in Bangladesh. A total of 353 (including 75 from the pilot study and the remaining 278) respondents were targeted and approached to meet the adequacy of the sample size required for analysing the large and complex model developed for this research. The subject matter of the research and also the aim of the survey were clearly and adequately explained to the respondents. Targeted respondents in different branches were approached over the phone or through a personal visit and accordingly appointments were set up at their convenience. Of the 278 respondents who scheduled an appointment for the interview, 10 executives missed their appointment while nine respondents did not provide any feedback. Hence, final data were collected from 259 respondents. Therefore, in the data collection process, a total of 321 respondents took part including 62 pilot study respondents. The details about the survey response are shown on Table 6.1

Table 6.1: Survey response rate

Respondents	Number	Percentage
Total target population	353	100
Total responses	321	
Pilot study	62	
National survey	259	
Unusable samples	21	
Total usable samples	300	

6.3.1 Data Examination

A data clean-up is necessary before commencing data analysis (Alreck and Settle, 1995). Following the suggestion by Neuman (2000), this process involved the review of individual questionnaires to check for any errors due to missing or irrational data before transferring them to software for statistical analysis. The detailed scanning identified 21 incomplete records. Data related to those 21 questionnaires were eliminated and the final 300 valid responses were utilized for data analysis.

6.3.2 Sampling Errors and Non-Response Bias

Only a small number of samples were surveyed from the total number of banks and branches in Bangladesh. Estimates derived from these branches and relationship managers were likely to be different from those that would have been obtained if information had been collected from a census of all banks and/or relationship managers. Any such differences would be termed 'sampling errors'. Commonly, the larger the sample size, the lower the sampling error is likely to be. However, the data collected from each sample bank were considered as representative of the whole population which has been proved by the non-response bias test.

It is essential to test whether the responses from a survey represent the larger population. In any survey research, non-response bias is a concern and needs to be minimized (Lambert and Harrington, 1990). If non-response bias exists, the collected data may not be representative of the target population of the study. Non-response bias tests check whether there is any difference in opinion between respondents and non-respondents who could have participated in the survey. Therefore, the rationale for this test is that late respondents were likely to have similar characteristics to non-respondents (Thong, 1999).

As mentioned earlier, this research was conducted through face-to-face interviews. The responses from the survey were divided into early and late respondents: thus, the responses were grouped into first wave and second wave samples. In this study, it was expected that there would be no different distributions or opinions between respondents or non-respondents (late respondents) considering the randomly selected measurement items and respondents' socio-demographic features. The most common practice in estimating non-response bias, following the approach proposed by Armstrong and Overton (1977), is testing the mean differences of some variables between the first group of respondents and those from the second group of respondents. In order to evaluate the potential non-response bias, this study assessed the differences between early and late respondents in terms of their opinions on the measurement scales and their demographic distributions.

An independent sample *t*-test was conducted for the randomly selected items from each construct to determine non-response bias. In the first wave, there were 223 respondents and the remaining 77 respondents were found in the second wave. Results of the *t*-tests (see Table 6.2) revealed that there were no significant differences between the two waves of responses except for two items, CCMS2 and L2. These two items, CCMS2 'Measure employee performance based on relationship effort' and L2 'Assists customers in developing strong ties with us' were found to be significantly different ($p < 0.05$), indicating little bias on those items. However, the item CCMS2 was later excluded from the next step of the data analysis due to its low loading. Moreover, neither did the mean difference for these two items show significant difference. Considering the suggestion of Alreck (1995), it can be argued that the presence of a deviation in one variable is tolerable as it is close to the acceptable range and it is almost impossible to absolutely eradicate the probability of non-response bias. Furthermore, it was assumed that this difference did not pose a bias for the hypotheses under investigation for this study given that each measurement scale would be examined to confirm its relationship with the latent variables.

Table 6.2: Test of non-response bias

Item	<i>t</i> -value	Sig. (2-tailed)	Mean difference	Comment
CO1	.228	.820	0.32	Not Significant
CO2	.116	.908	.015	Not Significant
CCMS1	1.306	.192	.164	Not Significant
CCMS2	-2.176	.030	-.316	Significant
CRMP4	-1.739	.083	-.214	Not Significant
CRMP5	.499	.618	.058	Not Significant

CRMT4	-1.171	.242	-.158	Not Significant
CRMT6	-1.445	.150	-.182	Not Significant
CKG2	.185	.853	.020	Not Significant
CKG5	-.938	.349	-.111	Not Significant
CKU3	-.544	.587	-.075	Not Significant
CR1	-.693	.489	-.076	Not Significant
CS-US3	-.592	.555	-.073	Not Significant
CRf1	.667	.754	-.035	Not Significant
CRf3	-1.001	.318	-.134	Not Significant
SE2	-.413	.680	-.050	Not Significant
SE6	-1.369	.172	-.157	Not Significant
PC2	-.813	.417	-.098	Not Significant
PC4	-1.107	.269	-.132	Not Significant
TA2	-.420	.178	-.150	Not Significant
P3	-1.351	.178	-.150	Not Significant
L1	-.626	.532	-.064	Not Significant
L2	-1.375	.046	-.103	Significant

6.3.3 Common Method Bias

Common method bias/variance denotes the amount of spurious covariance shared among variables owing to the common method used in collecting data (Buckley et al., 1990). These types of method biases are problematic as the actual phenomenon under investigation becomes hard to differentiate from the measurement objects (Hufnagel and Conca, 1994) and is also a potential threat to the validity of the results in survey research (Podsakoff et al., 2003). As data in this study were collected with the same survey instrument, the possibility of common method bias existed. Therefore, this study adopted several procedures to investigate the possibility that common method bias endangered the explanation of the results. However, there is increasing debate regarding the seriousness of this kind of bias in analysis (Bagozzi, 2011).

Following the guidance of Podsakoff et al. (2003), several initiatives were undertaken to reduce the chance of common method bias in this research. Firstly, by clearly communicating the study goals, the respondents were assured that the anonymity of their responses would be maintained. Secondly, adequate attention was given to systematically examining the construction of items to avoid ambiguous, vague and unfamiliar terms by mostly relying on previously tested scales. Thirdly, data were collected carefully from the respondents who possessed relevant knowledge on the subject area. For example, relationship managers and/or customer service managers were selected who had practical experience of relationship management activities in the banks. Fourthly, the order of independent and dependent variables in the survey was distanced (Podsakoff et al., 2003) and, to comply with this, care was given to making sure that the relationships among dependent and independent variables were

not so simple that they would be likely to be part of the individual respondent's cognitive map (Chang et al., 2010).

In addition, this study applied Harman's single-factor test which is the most widely known approach for assessing common method bias in a single method research design (Podsakoff et al., 2003; Podsakoff and Organ, 1986). Traditionally, this technique requires the loading of all the variables into an exploratory factor analysis (EFA). The basic assumption is that, if a substantial amount of common method variance (CMV) is present, either (i) a single factor will emerge from the analysis, or (ii) one general factor will account for the majority of the covariance among the measures (Aulakh and Gencturk, 2000; Mossholder et al., 1998). The overall variance generated from the one-factor solution was less than 50% which indicates that common method variance was not likely to affect the results (Podsakoff and Organ, 1986).

More recently, some researchers have used confirmatory factor analysis (CFA), using AMOS, as a sophisticated method to test common method bias. A poor fit for the one-factor model would propose that common method variance does not pose a threat (Plugge et al., 2013; Podsakoff et al., 2003). In this study, the fit was considerably worse for the uni-dimensional model than for the measurement model ($p= 0.000$, PCLOSE =0.000, GFI = .621, AGFI=.589, CFI= .727, PCFI= .697) (see Appendix 5), suggesting that common method bias was not a serious problem. Overall, it can be concluded that common method bias did not threaten the interpretation of our results.

6.3.4 Demographic Information about the Sample

The respondents of this survey were from the banking industry of Bangladesh. The usable sample for this research was 300 (including pilot study respondents). To understand the respondents' demographic background, a descriptive analysis using SPSS was conducted based on the usable sample, and is presented in Table 6.3. The following sections will discuss the demographic information in terms of gender, level of education, job status (position), length of banking service and in the current position, number of branches and number of employees in each branch.

Table 6.3: Demographic information of the survey respondents

Variables	Frequency	Percentage (%)
Gender		
Male	274	91.33
Female	26	8.66
Level of Education		
MBA/Masters	209	69.66

Bachelor/BBA	34	11.33
Other	57	19
Length of banking service		
Less than 5 years	53	17.66
5-10 years	174	58
More than 10 years	73	24.33
Length in current position		
Less than 5 years	186	62
5-10 years	90	30
More than 10 years	24	8

Gender

Based on Table 6.3, the final data (300 samples) comprised 91.33% males (N=274) and 8.6% females (N=26). A male majority could be expected due to the fact that men still dominate managerial positions in the Bangladeshi management scenario.

Level of education

Table 6.3 demonstrates the level of education attained by the respondents of the survey. Almost 70% of the respondents had MBA degrees from different universities at home and abroad. Only a few bankers, who were highly experienced and had worked more than 15-20 years in this industry, did not have an MBA degree. This was due to the fact that, at that time, banks usually recruited people who had general degrees. At present, an MBA is a kind of requirement for managerial jobs, especially in the banking industry of Bangladesh.

Level of position

The majority of the respondents fell into three criteria: branch manager, relationship manager or customer service manager. Apart from those, there were a few bankers who had different positions in the bank, namely, principal officer, customer service officer and assistant vice president. Basically, the variation in the designation mostly depends on the organogram of the bank and also on the nature of control and ownership; however, the job responsibilities, to some extent, were similar with minor variations. Moreover, some assistant vice presidents (AVPs) have also been chosen to gain insight about the decisional aspects regarding customer relationship management practices.

Length in the banking service and in the current position

Respondents were also asked about their working experience in the banks. As shown in Table 6.3, more than 75% of them had almost 10 years' banking experience and 24% had more than 10 years of experience. On the other hand, 62% of respondents had less than five years' experience in a relationship management/customer service position. However, 30% of respondents had 5-10 years of experience and 8% had more than 10 years of experience in the current position.

6.4 PLS-BASED STRUCTURAL EQUATION MODELLING (SEM)

In this study, data analysis was performed by applying structural equation modelling (SEM). Partial least squares (PLS)-based SEM was used in line with the objective of the research. Generally, PLS performs model assessment in two sequential stages:

- assessment of the measurement model
- assessment of the structural model

These sequential assessments were conducted to ensure that reliable and valid measurement of constructs was attained before the relationships among constructs in the model were finalized. The sequential assessments are shown on Table 6.4.

Table 6.4: Sequential assessments of the model

Stage	Analysis	Analysis	Constructs
1	Assessment of measurement model	i- Item reliability ii- Internal consistency iii- Discriminant validity iv - Absolute importance of items v - Multi-collinearity test	Reflective Reflective Reflective Formative Formative
2	Assessment of structural model	i- Collinearity ii-Amount of variance explained (R^2) iii- Path coefficient (β) iv- Statistical significance of t -values	Both Both Both Both

Sources: adapted from Hair et al. (2013), Lowry and Gaskin (2014)

The sequential assessments as mentioned in Table 6.4 are discussed in the subsequent sections.

6.4.1 Assessing Measurement Model

The comprehensive model, depicted in Figure 6.1, consists of 22 constructs (including first- and second-order): all constructs are reflective in nature and the relationships among the constructs are depicted with a solid line. In this model, integrated customer relationship management (ICRM) is a second-order, multidimensional construct composed of four reflective type sub-factors: customer orientation (CO); a customer-centric management system (CCMS); CRM people (CRMP); and CRM technology (CRMT). Likewise, relationship maintenance (RM) is also a second-order, multidimensional reflective construct consisting of the reflective factors of: customer retention (CR); cross-selling and up-selling (CS-US); and customer referral (CRf). Social capital (SC), being a second-order multidimensional construct, was measured by trust (T); personal connection (PC); and social interaction (SI). Another second-order construct, CRM success (CRMS), was measured by five reflective-type sub-constructs namely: target achievement (TA), efficiency (Eff), Satisfaction (Sat), loyalty (L) and Profitability (P). Table 6.5 sums up the second-order factors along with their corresponding first-order constructs.

Table 6.5: Second-order factors and sub-factors

Second-order Factors	Corresponding First-order Constructs (Reflective)
ICRM	Customer Orientation (CO) Customer-centric Management System (CCMS) CRM People (CRMP) CRM Technology (CRMT)
Relationship Maintenance (RM)	Customer Retention (CR) Cross-selling and Up-selling (CS-US) Customer Referral (CRf)
Social Capital (SC)	Trust (T) Personal Connection (PC) Social Interaction (SI)
CRM Success (CRMS)	Target Achievement (TA) Efficiency (Eff) Satisfaction (Sat) Loyalty (L) Profitability (P)

Service excellence, customer knowledge generation (CKG) and customer knowledge utilization (CKU) are the first-order reflective constructs. Moreover, the constructs, customer knowledge generation (CKG), service excellence (SE) and relationship

maintenance (RM) were modelled as outcome constructs of ICRM. Figure 6.1 represents the constructs and their items in the model.

It was mentioned in Table 6.4 that the reflective measurement model was assessed based on item reliability, internal consistency, average variance extracted (AVE), correlation of the constructs and item cross-loading matrix. The analysis of the measurement properties based on the outcome of the PLS run is discussed in the following sections.

6.4.1.1 Assessing Reflective Measurement Model

In this research, the reflective measurement model consisted of both first-order and higher-order levels. Firstly, the first-order measurement model was assessed. Once the first-order measurement model was refined, the higher-order model was then evaluated.

6.4.1.1.1 Assessing First-order Reflective Measurement Model

The study performed a confirmatory factor analysis (CFA) (e.g. Gefen and Straub, 2005; Lowry and Gaskin, 2014) which was executed as part of the PLS run to check the properties of the first-order measurement model in terms of item reliability, internal consistency and discriminant validity (Table 6.6) with reference to Hair et al. (2011); Henseler et al. (2009); and Barclay et al. (1995).

The first-order model consisted of 18 constructs in the research model (Figure 6.1), that is: (CO), (CCMS), (CRMP), (CRMT), (CR), (CS-US), (CRF), (T), (PC), (SI), (CKG), (CKU), (SE), (TA), (Eff), (Sat), (L) and (P).

Item reliability

Item reliability examines how well each item relates to its respective construct which is sometimes referred to as simple correlations. In PLS, the individual item's reliability can be assessed by examining the loadings of the items for reflective constructs. Taking into account the different recommendations in the literature, and to maximize the measurement model's ability to fulfil the requirements of convergent validity, the cut-off value settled on in this study was 0.6 (Hulland, 1999). Table 6.6 exhibits the details of item loadings with corresponding *t*-values. After the first PLS run, three items failed to meet the criterion and were discarded following the recommendations of Hair et al., (2011) and Barclay et al., (1995).

Partial least squares (PLS) was run again and another two items (CCMS2 and CRf4) were deleted because the constructs (CCMS and CRf) could not attain the minimum acceptable value of internal consistency/convergent validity: this was finally achieved after deleting these items. The refined measurement model was again tested and all loadings were found to be above the cut-off point of 0.6 and were also significant at $p < 0.001$ (Table 6.6). The higher average of item loadings (>0.78) and a narrow range of difference provided strong evidence that respective items had greater convergence in measuring the underlying construct (Chin, 2010).

Assessing reliability at the construct level

Internal consistency

For the first-order reflective indicators, Cronbach's alpha has traditionally been used to estimate the internal consistency reliability of the measures (MacKenzie et al. 2011). To assess the reliability of the measures, this study also calculated the composite reliability (CR). Table 6.6 exhibits the internal consistency values for all the first-order constructs used in this research. Composite reliability signifies that a set of indicators represents one underlying construct. This measure is considered to be superior to Cronbach's alpha as it is not influenced by the number of indicators (Halon, 2001). Table 6.6 also revealed that internal consistency values for all constructs surpassed the recommended minimum requirement of 0.7, following the recommendations of Barclay et al. (1995); Fornell and Larcker (1981); Hair et al. (2011); and Nunnally and Bernstein (1994).

Average variance extracted (AVE)

Apart from item reliability and internal consistency, this study also assessed the average variance extracted (AVE) of each construct following the recommendations of Chin (1998) and Fornell and Larcker (1981). Average variance extracted (AVE) measures the amount of variance that a construct captures from its indicators relative to measurement error (Chin, 2010). Table 6.6 presents the results of AVE for each construct in the model.

Basically, these two tests specify the degree of association between a construct and its indicators. Referring to Table 6.6, all CR and AVE exceed the threshold levels of 0.80 and 0.50, respectively (Fornell and Larcker, 1981). In this study, the lowest AVE was 0.5234 for customer knowledge generation (CKG) and the lowest CR was 0.8332 for trust (T); however, all these values exceed their cut-off values. Hence, this study

confirmed that all item loadings, AVEs and CRs exceeded their respective threshold levels and ensured adequate reliability and convergent validity (Fornell and Larcker, 1981).

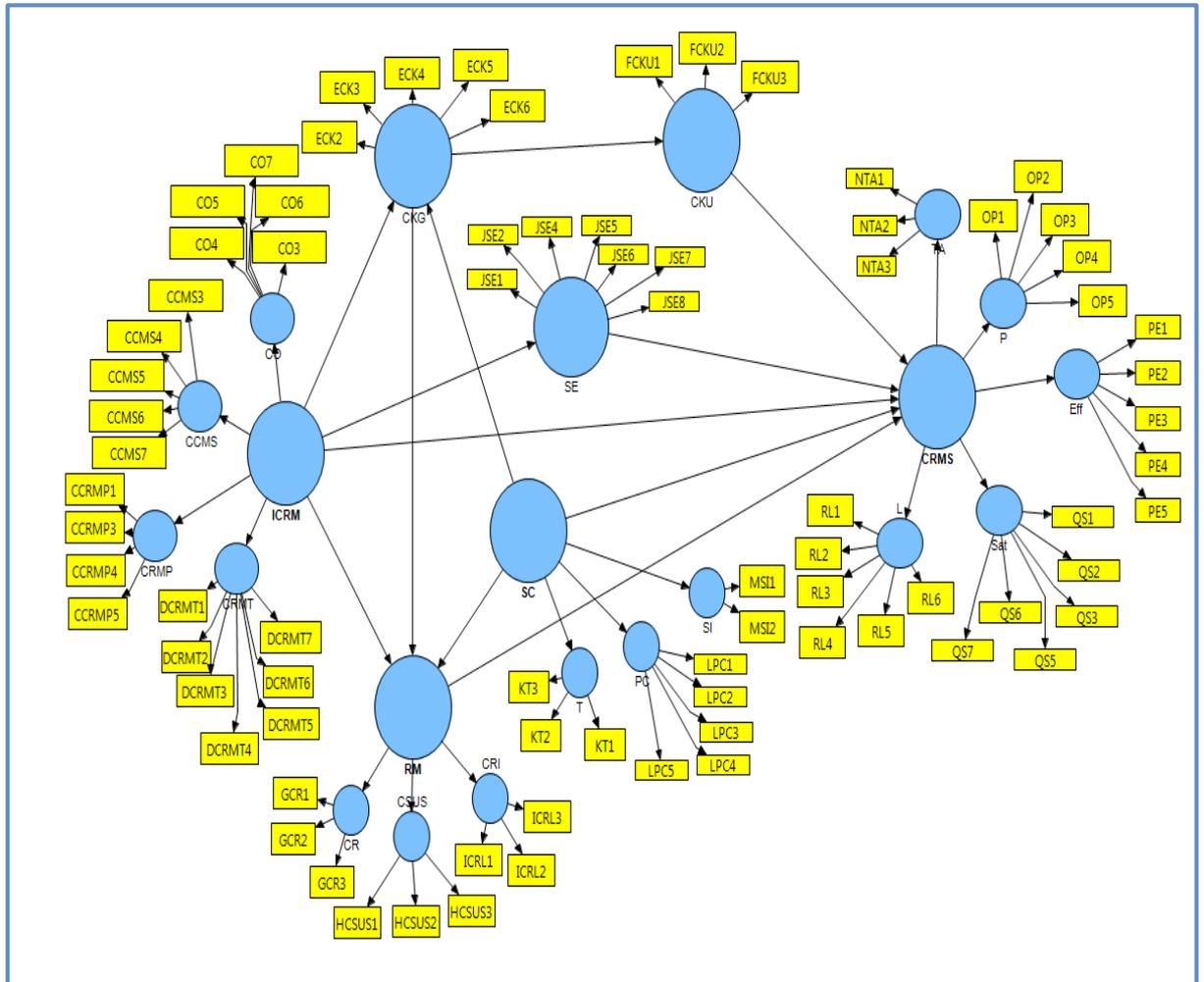


Figure 6.1: Complete model

Table 6.6: Psychometric properties for the first-order constructs

Constructs	Items	Loadings	CR	Cronbach's Alpha	AVE
Customer Orientation	CO3- Ease of access and comfort	0.6928	0.85	0.79	0.54
	CO4-Positive about customer complaints	0.6835			
	CO5- Intention to develop and maintain relationship with customers.	0.7906			
	CO6- Close attention to after-sales service and communication	0.7493			
	CO7- Customer relationships are considered to be a valuable asset	0.7568			
Customer-centric Management System	CCMS3-Employee performance based on service operation	0.7031	0.85	0.79	0.53
	CCMS4- Dedicated relationship manager				
	CCMS5- Value-based customer	0.6839			

	segmentation	0.7599			
	CCMS6-Product/service diversification	0.7849			
	CCMS7- Coordination of various functional areas and activities	0.7166			
CRM People	CRMP1- Employee gives key customers priority	0.6882	0.9	0.75	0.60
	CRMP3- Employee's interpersonal skills and convincing capability	0.7754			
	CRMP4- Adequate knowledge about overall service operations	0.7555			
	CRMP5- Employee willingness to help customers	0.8035			
CRM Technology	CRMT2- Bank invests in technology to acquire and manage customer information and feedback	0.7481	0.9	0.86	0.60
	CRMT3-Dedicated CRM technology in place	0.7895			
	CRMT4- Use of IT to facilitate customer relationship	0.7685			
	CRMT5- CRM technology is capable of integrating customer information from different contact points (e.g. telephone, mail, web, fax, etc.)	0.7405			
	CRMT6- CRM technology enables individual customer information to be available at every point of contact	0.8031			
	CRMT7- Use of technology helps us to forecast customer preferences	0.7573			
Customer Knowledge Generation	CKG2- Monitor and maintain customer information	0.726	0.85	0.79	0.52
	CKG3- Information on customer needs and trends	0.7385			
	CKG4-Store important socio-demographic and psychographical data	0.7694			
	CKG5- New knowledge generated at various contact points is recorded	0.7146			
	CKG6- Complete understanding of key customers	0.6645			
Customer Knowledge Utilization	CKU1- Use of knowledge in design	0.8181	0.867	0.7704	0.68
	CKU2-Use of knowledge in product/service development	0.8382	2		
	CKU3- Use of knowledge in product/service modification	0.8268			
Customer Retention	CR1- Maintain long-term relationship	0.8485	0.874	0.7837	0.69
	CR2-Maintain good business	0.8663	2		
	CR3- Low migration/switching	0.7911			
Cross-selling and Up-selling	CS-US1-Relationship maintenance makes it easy	0.8383			
	CS-US2- Systematic approach to mature relationship	0.7979			
	CS-US3- Good volume through CS-US	0.8257	0.860	0.7559	0.67
			1		
Customer Referral	CRf1- Active management of referral process	0.6852	0.836	0.7053	0.63
	CRf2-New customers through existing customers	0.8716	7		
	CRf3- Incentives for referral	0.8184			
Service Excellence	SE1-Promised service at promised schedule	0.7912	0.914	0.8905	0.60
	SE2-Quick response	0.7827	2		

	SE4-Prompt service SE5-Politeness and friendliness of staff SE6- Complaint management SE7- Continuous follow-up SE8- Quality of customer interaction	0.7794 0.7572 0.7823 0.8019 0.7426			
Trust	T1-Share their financial secrets T2- Act as a financial adviser T3- Assist in non-financial decision making	0.8217 0.8734 0.6689	0.833 2	0.7008	0.62
Personal Connection	PC1- Good bond with customers PC2- Customers looks for favourite CRM people PC3- Proper customer care PC4- Accept customer's invitations PC5- Lengthy personal relationship	0.706 0.6916 0.6741 0.7511 0.7885	0.846	0.7734	0.52
Social Interaction	SI1- Close social relationships SI2- Membership of different clubs	0.8584 0.8326	0.833 7	0.6019	0.71
Target Achievement	TA1-Achieve our given target TA2- Satisfactory achievement rate TA3- More incentives upon achievement	0.8309 0.875 0.7956	0.872 9	0.7811	0.69
Efficiency	Eff1- Makes relationship management easier Eff2- Use of technology reduces serving time Eff3- Value-based customer service helps to reduce operating cost Eff4- CRM practices reduce employee workload Eff5- Our present CRM system helps us to identify low-value or problem customers which eventually reduces per-transaction cost	0.737 0.674 0.8167 0.7505 0.7102	0.857 1	0.792	0.54
Satisfaction	Sat1- Friendly interactions with customers are increasing Sat2- Fulfil customers' expectations Sat3- Decrease in customer complaints Sat5- Positive attitude of customers Sat6- Compared with other banks, most of our customers use more of the products and services offered by our bank Sat7- Overall customer satisfaction level is increasing	0.7494 0.7483 0.7551 0.6918 0.725 0.7325	0.875	0.8285	0.53
Loyalty	L1- Reduces the number of bank leavers L2- Assists customers in developing strong ties with us L3-Encourages customers to expand their business with us L4-Induces our existing customers to recommend their friends and family members to do business with us. L5-Assists our customers to consider our bank as their primary bank L6-Convinces our customers to pay even more to continue their relationship with us.	0.7 0.811 0.7585 0.7571 0.7918 0.7336	0.890 8	0.8527	0.57
Profitability	P1-Business growth in terms of volume P2- Good customer growth	0.8423 0.7777	0.883 1	0.8338	0.6

	P3- Achieving financial goals	0.7769			
	P4- Rise in per-employee profit	0.6798			
	P5- Overall profitability	0.7962			

Discriminant validity

The next step in the assessment of the measurement properties is to test for discriminant validity. The discriminant validity of the reflective variables assesses the degree to which the constructs differ from each other. Initially, the discriminant validity is assessed by calculating and comparing the square root of the average variance extracted (AVE) of each construct with correlations among the constructs, following the recommendations of Fornell and Larcker (1981) and Henseler et al. (2009). To meet the discriminant validity criteria, the off-diagonal elements (correlation scores of latent variables) must be less than or equal to the square of the root of average variance (bold diagonal numbers) explained in the corresponding rows and columns (Gefen et al., 2000). These values exceeded the inter-correlations of the construct with the other constructs in the first-order model and thus confirmed discriminant validity (Chin 1998b, 2010; Fornell and Larcker 1981). This test also revealed that the constructs did not share the same type of items and that they were conceptually separate from each other (Chin 2010). In other words, every construct and its measures in the final research model do a best job in discriminating themselves from other constructs and their subsequent measures. The correlations of less than 0.70 between constructs indicated good discriminant validity (Bruhn et al., 2008). In this study, Table 6.7 presents the square root of AVE (diagonal elements), and the correlations between constructs (off-diagonal elements). These findings show that all the results were satisfactory which confirmed the establishment of the discriminant validity at the construct level.

The study gained further confidence on discriminant validity by examining the cross-loadings (see Table 6.8) which indicated that items were more strongly related to their own construct than to other constructs as the loading of an item within a construct is greater than its loading in any other construct (Chin, 1998). This is also very much in line with the recommendations of Hair et al. (2011) and Henseler et al. (2009) as they argued that the loadings of an item with the construct shall be greater than its loading with other constructs. In other words, every item loads more on its own construct than on other constructs and, thus, all constructs share a substantial amount of variance with their own items (Chin, 1998b; Fornell and Bookstein, 1982). The Fornell and

Larcker (1981) criterion assesses discriminant validity on the construct level; however, the cross-loadings allow this kind of evaluation on the indicator/item level (Henseler et al., 2009). Table 6.10 shows that three items (CS-US4, SE3, and Sat4) did not fulfil the criteria of discriminant validity as loadings of the items with the corresponding construct were less than the loading with any other constructs. These items were dropped and another PLS run was performed. The refined measurement model was evaluated again and it was affirmed that all loadings were above the cut-off point. It was further confirmed that the purified model was now free from problems with discriminant validity and this was evidenced, as shown on Table 6.9.

Table 6.7: Inter-correlations of the first-order construct (discriminant validity)

	CO	CCMS	CRMP	CRMT	CKG	CKU	CR	CS-US	CRf	SE	T	PC	SI	TA	P	Eff	Sat	L
CO	0.736																	
CCMS	0.605	0.708																
CRMP	0.647	0.599	0.757															
CRMT	0.459	0.636	0.562	0.751														
CKG	0.462	0.614	0.589	0.639	0.723													
CKU	0.532	0.631	0.568	0.673	0.697	0.828												
CR	0.671	0.567	0.622	0.457	0.522	0.518	0.836											
CS-US	0.520	0.601	0.530	0.538	0.594	0.614	0.644	0.820										
CRf	0.483	0.441	0.492	0.511	0.512	0.540	0.556	0.638	0.796									
SE	0.665	0.588	0.696	0.530	0.627	0.645	0.727	0.642	0.605	0.777								
T	0.290	0.326	0.336	0.386	0.411	0.433	0.285	0.377	0.468	0.293	0.793							
PC	0.580	0.527	0.566	0.419	0.491	0.509	0.603	0.575	0.503	0.619	0.402	0.723						
SI	0.431	0.493	0.432	0.424	0.443	0.518	0.463	0.494	0.473	0.509	0.522	0.557	0.846					
TA	0.501	0.567	0.545	0.406	0.518	0.494	0.547	0.522	0.494	0.591	0.422	0.559	0.483	0.834				
P	0.540	0.591	0.501	0.420	0.535	0.577	0.562	0.552	0.486	0.606	0.317	0.561	0.420	0.684	0.776			
Eff	0.415	0.547	0.479	0.495	0.599	0.592	0.487	0.524	0.530	0.522	0.460	0.455	0.445	0.639	0.699	0.739		
Sat	0.561	0.555	0.529	0.450	0.479	0.540	0.610	0.587	0.543	0.589	0.374	0.569	0.420	0.607	0.706	0.655	0.734	
L	0.535	0.520	0.565	0.394	0.527	0.554	0.642	0.594	0.603	0.653	0.409	0.604	0.404	0.655	0.652	0.689	0.717	0.760

Table 6.8: Cross-loading matrix of the first-order measurement model

	CO	CCMS	CRMP	CRMT	CKG	CKU	CR	CS-US	CRf	SE	T	PC	SI	TA	P	Eff	Sat	L
CO3	0.6929	0.382	0.4211	0.27	0.2578	0.3256	0.4597	0.3261	0.3754	0.4079	0.2194	0.4305	0.3069	0.3339	0.3362	0.2317	0.3801	0.3988
CO4	0.6835	0.3632	0.4134	0.3104	0.3219	0.3867	0.47	0.3346	0.401	0.4988	0.2848	0.3946	0.3832	0.43	0.4229	0.3753	0.4427	0.4375
CO5	0.7907	0.4353	0.5195	0.322	0.3879	0.424	0.5403	0.3664	0.2899	0.5006	0.1655	0.4221	0.2518	0.3193	0.4416	0.2875	0.427	0.4055
CO6	0.7491	0.5277	0.5169	0.3828	0.3968	0.4239	0.4868	0.4111	0.3691	0.5391	0.2348	0.4425	0.3156	0.4445	0.403	0.3605	0.3943	0.4107
CO7	0.7567	0.4945	0.4943	0.39	0.3213	0.3899	0.5089	0.3854	0.3526	0.4893	0.1758	0.4443	0.3395	0.3206	0.3842	0.2716	0.3911	0.3288

CCMS3	0.5018	0.7084	0.437	0.4367	0.4005	0.4016	0.4568	0.4172	0.2654	0.4337	0.2427	0.3426	0.335	0.409	0.4056	0.3402	0.3985	0.3859
CCMS4	0.3844	0.6675	0.3919	0.4338	0.3881	0.3611	0.3265	0.4375	0.2804	0.377	0.197	0.3889	0.2919	0.3887	0.4082	0.3919	0.339	0.3624
CCMS5	0.3934	0.753	0.3818	0.4721	0.4434	0.4751	0.3701	0.4802	0.3399	0.3514	0.2502	0.3452	0.3716	0.35	0.4205	0.4663	0.4014	0.376
CCMS6	0.481	0.7608	0.4944	0.4691	0.4671	0.4959	0.4647	0.4263	0.3451	0.5174	0.1777	0.4416	0.32	0.4644	0.4537	0.3716	0.4256	0.4169
CCMS7	0.4472	0.7088	0.4972	0.5311	0.5099	0.5274	0.4289	0.3948	0.3724	0.4447	0.2648	0.3965	0.4321	0.3797	0.4094	0.3802	0.3889	0.3571
CRMP1	0.5129	0.4621	0.6883	0.3682	0.4302	0.3614	0.5332	0.458	0.3845	0.5418	0.2644	0.5101	0.4009	0.4639	0.4409	0.3542	0.4579	0.4631
CRMP3	0.4796	0.4809	0.7753	0.4241	0.4377	0.4604	0.4375	0.3626	0.3972	0.5292	0.2522	0.4048	0.3362	0.443	0.4071	0.4014	0.4134	0.4482
CRMP4	0.4352	0.3983	0.7555	0.4434	0.418	0.457	0.3837	0.333	0.2991	0.4732	0.2341	0.3471	0.2711	0.3148	0.3016	0.3228	0.3255	0.3745
CRMP5	0.5274	0.4694	0.8036	0.4623	0.4925	0.4381	0.5249	0.3993	0.4018	0.5582	0.2668	0.4507	0.3016	0.4252	0.3665	0.3698	0.3672	0.4256
CRMT1	0.3719	0.3885	0.3974	0.6371	0.3804	0.3682	0.4194	0.3647	0.4202	0.3599	0.2049	0.3048	0.2455	0.2811	0.2531	0.2894	0.3263	0.2936
CRMT2	0.3651	0.4768	0.4672	0.7482	0.4192	0.4663	0.3431	0.4039	0.4211	0.3863	0.3163	0.2703	0.331	0.2864	0.2669	0.3394	0.3478	0.2871
CRMT3	0.3321	0.5216	0.4622	0.7895	0.5181	0.5653	0.3116	0.4479	0.3952	0.3781	0.336	0.3461	0.36	0.3207	0.3407	0.4258	0.3421	0.3143
CRMT4	0.3731	0.4984	0.4125	0.7685	0.4559	0.508	0.3716	0.3841	0.373	0.4137	0.2774	0.3437	0.3655	0.2816	0.3226	0.3846	0.3695	0.313
CRMT5	0.3522	0.4333	0.423	0.7405	0.4938	0.5044	0.3419	0.4143	0.3321	0.4026	0.2722	0.3309	0.2608	0.2864	0.2921	0.2991	0.2717	0.2377
CRMT6	0.3751	0.529	0.4026	0.8031	0.5428	0.5489	0.3737	0.4756	0.4193	0.4345	0.3338	0.3699	0.3553	0.3536	0.3815	0.4262	0.4123	0.3645
CRMT7	0.2391	0.4818	0.384	0.7571	0.5404	0.5632	0.2439	0.3894	0.3278	0.4143	0.272	0.2263	0.2951	0.3205	0.3421	0.4288	0.3007	0.2528
CKG2	0.3881	0.4765	0.4834	0.4565	0.7201	0.4845	0.3802	0.4335	0.3858	0.4788	0.3648	0.3897	0.3736	0.4074	0.3777	0.3953	0.3513	0.3843
CKG3	0.3822	0.4673	0.48	0.4699	0.7316	0.4903	0.4513	0.4935	0.4444	0.5193	0.3051	0.417	0.3324	0.4533	0.4041	0.4732	0.4067	0.4062
CKG4	0.3071	0.4574	0.4269	0.492	0.7574	0.4677	0.3372	0.3967	0.3114	0.4095	0.2486	0.3103	0.2588	0.3869	0.4085	0.4752	0.322	0.3876
CKG5	0.2984	0.3959	0.3579	0.4862	0.7282	0.5368	0.2992	0.4187	0.3306	0.3828	0.3033	0.2903	0.3229	0.2557	0.3581	0.4015	0.2502	0.3166
CKG6	0.2843	0.416	0.3709	0.4052	0.6777	0.5403	0.4076	0.4554	0.371	0.4684	0.2563	0.3556	0.3052	0.3582	0.3823	0.4169	0.3944	0.4041
CKU1	0.4558	0.5026	0.4186	0.4989	0.6	0.8182	0.4172	0.4868	0.407	0.5085	0.3245	0.4098	0.3784	0.3652	0.4758	0.4851	0.4343	0.4092
CKU2	0.3932	0.5561	0.4759	0.6023	0.5578	0.8382	0.4222	0.5158	0.4354	0.4739	0.3383	0.4042	0.4322	0.3826	0.4534	0.4774	0.3909	0.443
CKU3	0.4685	0.5101	0.5135	0.5704	0.5727	0.8267	0.4457	0.5515	0.4973	0.6141	0.4083	0.4482	0.4728	0.4735	0.5013	0.5064	0.5042	0.5204
CR1	0.6126	0.5148	0.5607	0.3912	0.4499	0.453	0.8481	0.4925	0.4702	0.6436	0.2616	0.5242	0.4157	0.4808	0.5257	0.4011	0.5282	0.55
CR2	0.5921	0.5175	0.5355	0.409	0.4398	0.4332	0.8664	0.5832	0.4749	0.6532	0.2293	0.5147	0.3757	0.4669	0.495	0.4413	0.5215	0.5746
CR3	0.4739	0.3853	0.461	0.3438	0.4196	0.413	0.7915	0.5121	0.4473	0.5324	0.2231	0.4735	0.3708	0.423	0.3846	0.3751	0.492	0.4814
CS-US1	0.4736	0.47	0.4506	0.4311	0.4479	0.5273	0.5682	0.8146	0.5085	0.539	0.2606	0.5041	0.3967	0.422	0.465	0.4144	0.4898	0.4797
CS-US2	0.3895	0.5048	0.3917	0.45	0.5013	0.4792	0.5045	0.7905	0.4908	0.4865	0.301	0.4363	0.4192	0.4209	0.4141	0.3954	0.438	0.4491

CS-US3	0.414	0.5035	0.4588	0.4436	0.5124	0.5016	0.5109	0.8214	0.5705	0.5601	0.3647	0.4716	0.4004	0.4398	0.4765	0.4774	0.5029	0.5291
CS-US4*	0.0339	0.1294	0.0635	0.238	0.2867	0.2725	0.1445	0.3914	0.2713	0.1471	0.2208	0.1689	0.168	0.0877	0.067	0.2064	0.0851	0.1471
CRF1	0.2621	0.3236	0.2941	0.442	0.4151	0.4333	0.3235	0.5366	0.6921	0.4055	0.3826	0.3351	0.3732	0.3067	0.3193	0.4377	0.3816	0.4191
CRF2	0.457	0.4146	0.4731	0.4522	0.4601	0.4895	0.5291	0.5712	0.8698	0.5651	0.4373	0.4563	0.4314	0.4727	0.4271	0.4658	0.4909	0.5182
CRF3	0.4149	0.3065	0.3887	0.3294	0.3478	0.3646	0.4547	0.4449	0.8144	0.4788	0.2949	0.4005	0.3218	0.3849	0.4045	0.3633	0.4181	0.4974
SE1	0.5533	0.4733	0.5657	0.4376	0.5122	0.5193	0.6066	0.5295	0.5148	0.7924	0.2375	0.5509	0.4266	0.4957	0.509	0.4399	0.4967	0.5154
SE2	0.5417	0.4453	0.5343	0.4055	0.4667	0.4868	0.5719	0.4738	0.5153	0.7843	0.325	0.4504	0.4203	0.4941	0.4543	0.4484	0.4613	0.5088
SE3*	0.1759	0.1299	0.1944	0.1589	0.1912	0.1992	0.2623	0.2708	0.2847	0.3185	0.3152	0.2775	0.2465	0.2348	0.1464	0.2324	0.1825	0.2533
SE4	0.5439	0.4252	0.5581	0.3542	0.3751	0.4218	0.5586	0.4239	0.4718	0.7815	0.1834	0.4723	0.3598	0.4092	0.4544	0.3004	0.4239	0.5234
SE5	0.4922	0.397	0.5592	0.3622	0.4786	0.4614	0.5338	0.4763	0.4813	0.7567	0.122	0.4865	0.3051	0.4395	0.4393	0.302	0.4217	0.5025
SE6	0.5514	0.4815	0.5774	0.4023	0.5022	0.4687	0.575	0.4758	0.4048	0.7759	0.163	0.4829	0.3279	0.4575	0.4601	0.3662	0.4537	0.5031
SE7	0.5055	0.4971	0.5419	0.4729	0.5134	0.5558	0.5816	0.5248	0.4633	0.7971	0.2768	0.5136	0.4574	0.462	0.4779	0.4548	0.4835	0.4947
SE8	0.4253	0.4702	0.4468	0.4419	0.5586	0.5851	0.5225	0.5145	0.4374	0.7366	0.2734	0.4057	0.4622	0.4489	0.4989	0.513	0.4328	0.5042
T1	0.2095	0.2615	0.2965	0.3199	0.3448	0.383	0.2477	0.3069	0.3836	0.2802	0.8218	0.2701	0.3809	0.3648	0.2773	0.4078	0.3441	0.3406
T2	0.359	0.3317	0.3463	0.36	0.406	0.427	0.3053	0.3731	0.406	0.3252	0.8734	0.4467	0.4741	0.4177	0.3383	0.3966	0.3935	0.419
T3	0.073	0.1573	0.1241	0.2203	0.1963	0.1849	0.0906	0.2405	0.3205	0.095	0.6689	0.1996	0.3806	0.1892	0.1022	0.279	0.1217	0.1782
PC1	0.4551	0.4571	0.4809	0.4075	0.4938	0.4668	0.4832	0.5366	0.4563	0.5188	0.3073	0.706	0.3781	0.442	0.5195	0.4141	0.5072	0.5051
PC2	0.3444	0.2937	0.2914	0.2051	0.292	0.3034	0.3992	0.3297	0.2934	0.359	0.2596	0.6916	0.3167	0.3162	0.3202	0.256	0.3503	0.3971
PC3	0.5076	0.3054	0.4426	0.2843	0.3062	0.2948	0.4662	0.3687	0.3219	0.5282	0.1782	0.6741	0.2223	0.416	0.365	0.2838	0.3885	0.4371
PC4	0.3637	0.4094	0.4395	0.3105	0.3221	0.3973	0.4102	0.4286	0.3907	0.4319	0.3281	0.7511	0.4872	0.4328	0.4199	0.3565	0.4189	0.4331
PC5	0.4537	0.4189	0.4006	0.3036	0.3602	0.3669	0.4429	0.4041	0.3538	0.4531	0.3469	0.7885	0.5392	0.4187	0.3993	0.3267	0.4065	0.4253
SI1	0.4242	0.3764	0.4214	0.339	0.3629	0.4052	0.4189	0.4013	0.4064	0.4978	0.4285	0.5288	0.8584	0.4162	0.3286	0.3203	0.3763	0.3587
SI2	0.3002	0.4618	0.3044	0.3797	0.387	0.4731	0.3624	0.4394	0.3943	0.3707	0.4563	0.4084	0.8326	0.401	0.3848	0.4359	0.3358	0.3232
TA1	0.4174	0.4419	0.4111	0.2773	0.3688	0.3657	0.4779	0.3876	0.4055	0.4682	0.394	0.5222	0.4202	0.8316	0.5311	0.4766	0.5253	0.6121
TA2	0.5104	0.5123	0.5132	0.3581	0.4465	0.4274	0.527	0.4412	0.4419	0.5553	0.3283	0.5188	0.4114	0.8747	0.6339	0.5497	0.5318	0.5456
TA3	0.3176	0.4628	0.4367	0.382	0.4839	0.4438	0.3573	0.4456	0.3878	0.4635	0.3358	0.3529	0.3777	0.7951	0.5445	0.5744	0.4586	0.481
P1	0.476	0.5349	0.4631	0.422	0.4934	0.5159	0.4906	0.4898	0.4431	0.5613	0.27	0.5144	0.3632	0.6332	0.8423	0.5816	0.5908	0.5605
P2	0.3688	0.3824	0.3238	0.2714	0.3412	0.4233	0.4313	0.4135	0.3612	0.409	0.2117	0.3949	0.2907	0.4869	0.7778	0.516	0.5442	0.4929
P3	0.4674	0.5039	0.4403	0.3604	0.4031	0.4196	0.438	0.3944	0.377	0.4644	0.2591	0.4283	0.3433	0.5331	0.7767	0.5195	0.545	0.4673

P4	0.3115	0.4499	0.2905	0.3093	0.4424	0.4723	0.3032	0.3622	0.2978	0.3766	0.2693	0.3116	0.3024	0.4558	0.6798	0.5421	0.4401	0.4306
P5	0.4585	0.4188	0.4094	0.2606	0.3945	0.4111	0.4989	0.4042	0.3922	0.5161	0.2244	0.5046	0.3289	0.5329	0.7963	0.5549	0.5749	0.5666
Eff1	0.3883	0.4231	0.3897	0.3221	0.457	0.4903	0.4581	0.4737	0.4683	0.4601	0.4039	0.4809	0.4021	0.5874	0.6655	0.7375	0.5863	0.5976
Eff2	0.2722	0.3697	0.344	0.3061	0.3813	0.3521	0.3506	0.3092	0.2867	0.3383	0.2085	0.269	0.2142	0.4088	0.4589	0.6748	0.4017	0.4245
Eff3	0.3047	0.4514	0.3748	0.3739	0.454	0.457	0.3675	0.413	0.4118	0.4122	0.3241	0.3158	0.3333	0.5097	0.5706	0.8166	0.5365	0.5495
Eff4	0.2219	0.3381	0.309	0.3695	0.4066	0.4181	0.2488	0.3395	0.3132	0.3243	0.3187	0.2697	0.3159	0.3775	0.4146	0.7506	0.4353	0.4316
Eff5	0.3222	0.4236	0.3425	0.4688	0.5072	0.4534	0.3451	0.3993	0.4525	0.3919	0.4246	0.3092	0.3532	0.4379	0.4237	0.7089	0.4566	0.5117
Sat1	0.4067	0.3673	0.4045	0.3382	0.3687	0.3794	0.4523	0.4444	0.4302	0.4425	0.2551	0.4449	0.2739	0.4898	0.5168	0.5329	0.7461	0.6308
Sat2	0.3767	0.3899	0.2939	0.3339	0.3656	0.4048	0.3345	0.3913	0.3875	0.3867	0.321	0.387	0.3748	0.4943	0.5125	0.4937	0.7399	0.4986
Sat3	0.4333	0.4564	0.4172	0.3579	0.3405	0.4237	0.4637	0.4326	0.4607	0.4295	0.3548	0.3897	0.4009	0.4291	0.5488	0.5025	0.7439	0.5666
Sat4*	0.2309	0.2436	0.1925	0.255	0.257	0.2681	0.3531	0.2959	0.2929	0.2953	0.227	0.3173	0.2304	0.3121	0.3146	0.3978	0.5825	0.4561
Sat5	0.3878	0.4458	0.375	0.3225	0.3349	0.3706	0.4969	0.3801	0.3434	0.4095	0.253	0.3972	0.3086	0.4111	0.4884	0.4739	0.6971	0.5605
Sat6	0.4341	0.394	0.4341	0.3165	0.3548	0.3936	0.4719	0.4321	0.3974	0.5044	0.2068	0.4513	0.2576	0.4668	0.5227	0.4139	0.7147	0.5775
Sat7	0.433	0.3932	0.4062	0.3101	0.3448	0.406	0.4686	0.4103	0.366	0.4167	0.2527	0.4348	0.2338	0.3799	0.5198	0.462	0.7176	0.5844
L1	0.3602	0.3726	0.3646	0.2919	0.3541	0.4384	0.4461	0.4208	0.4077	0.4928	0.2623	0.415	0.3114	0.455	0.4779	0.5452	0.5472	0.7003
L2	0.4544	0.4676	0.4686	0.289	0.4439	0.4508	0.5398	0.4951	0.5005	0.5348	0.363	0.4828	0.3554	0.5185	0.5475	0.5797	0.6439	0.8108
L3	0.3447	0.3629	0.4157	0.2797	0.3684	0.3862	0.4619	0.3943	0.4172	0.4381	0.3321	0.4291	0.3298	0.4747	0.4478	0.4582	0.5707	0.7588
L4	0.4848	0.4246	0.4179	0.3397	0.3985	0.3993	0.5637	0.4777	0.5064	0.5233	0.2758	0.4943	0.2674	0.5467	0.5394	0.4839	0.6333	0.7566
L5	0.3995	0.3695	0.4828	0.309	0.4264	0.4477	0.4437	0.428	0.4621	0.5097	0.3424	0.4875	0.3257	0.5017	0.5261	0.5731	0.6108	0.792
L6	0.3838	0.3655	0.4196	0.2849	0.4027	0.4006	0.4628	0.4532	0.4477	0.4927	0.2832	0.4366	0.2468	0.4851	0.4193	0.4945	0.5607	0.7334

Table 6.9: Cross-loading matrix of the first-order measurement model (after all eliminations)

	CO	CCMS	CRMP	CRMT	CKG	CKU	CR	CS-US	CRf	SE	T	PC	SI	TA	P	Eff	Sat	L
CO3	0.6929	0.382	0.4211	0.27	0.2578	0.3256	0.4598	0.3511	0.3764	0.4082	0.2194	0.4305	0.3069	0.3338	0.3362	0.2318	0.3829	0.3989
CO4	0.6835	0.3632	0.4134	0.3104	0.3219	0.3868	0.47	0.3381	0.4019	0.493	0.2848	0.3946	0.3832	0.4298	0.423	0.3756	0.4459	0.4377
CO5	0.7907	0.4353	0.5195	0.322	0.3879	0.424	0.5404	0.3868	0.2909	0.5036	0.1655	0.4221	0.2518	0.3193	0.4416	0.2877	0.4365	0.4056
CO6	0.7491	0.5277	0.5169	0.3828	0.3968	0.4239	0.4869	0.4265	0.3694	0.5396	0.2348	0.4425	0.3156	0.4446	0.4031	0.3606	0.405	0.41
CO7	0.7567	0.4945	0.4943	0.39	0.3213	0.3899	0.509	0.4015	0.3528	0.4939	0.1758	0.4443	0.3395	0.3206	0.3842	0.2717	0.4006	0

CMS3	0.5018	0.7084	0.437	0.4367	0.4005	0.4016	0.4569	0.4334	0.2655	0.4353	0.2427	0.3426	0.335	0.4091	0.4056	0.3403	0.4032	0.3861
CMS4	0.3844	0.6675	0.3919	0.4338	0.3881	0.3611	0.3265	0.4499	0.28	0.3813	0.197	0.3889	0.2919	0.3888	0.4082	0.3921	0.3453	0.3623
CMS5	0.3934	0.753	0.3818	0.4721	0.4434	0.4751	0.3701	0.4844	0.339	0.3541	0.2502	0.3452	0.3716	0.3501	0.4205	0.4664	0.4128	0.376
CMS6	0.481	0.7608	0.4944	0.4691	0.4671	0.4959	0.4648	0.4358	0.3454	0.52	0.1777	0.4416	0.32	0.4645	0.4537	0.3718	0.4264	0.417
CMS7	0.4472	0.7088	0.4972	0.5311	0.5099	0.5274	0.4289	0.3952	0.3721	0.4434	0.2648	0.3965	0.4321	0.3796	0.4094	0.3803	0.3965	0.3572
CRMP1	0.5129	0.4621	0.6883	0.3682	0.4301	0.3615	0.5332	0.4689	0.3848	0.5371	0.2644	0.5101	0.4009	0.4638	0.4409	0.3542	0.4605	0.4631
CRMP3	0.4796	0.4809	0.7753	0.4241	0.4377	0.4604	0.4375	0.3759	0.3975	0.5314	0.2522	0.4048	0.3362	0.4431	0.4071	0.4015	0.4284	0.4481
CRMP4	0.4352	0.3983	0.7554	0.4434	0.418	0.457	0.3837	0.351	0.2998	0.4746	0.2341	0.3471	0.2711	0.315	0.3016	0.3228	0.3364	0.3745
CRMP5	0.5274	0.4694	0.8036	0.4623	0.4925	0.4381	0.5249	0.41	0.402	0.5601	0.2668	0.4507	0.3016	0.4252	0.3665	0.3699	0.3791	0.4257
CRMT1	0.3719	0.3885	0.3974	0.6371	0.3804	0.3682	0.4194	0.3513	0.4201	0.3517	0.2049	0.3048	0.2455	0.281	0.2532	0.2894	0.3189	0.2937
CRMT2	0.3651	0.4768	0.4672	0.7482	0.4192	0.4663	0.3432	0.386	0.4195	0.3861	0.3163	0.2703	0.331	0.2865	0.267	0.3395	0.346	0.2872
CRMT3	0.3321	0.5216	0.4622	0.7895	0.5181	0.5653	0.3116	0.4372	0.3938	0.3784	0.336	0.3461	0.36	0.3209	0.3408	0.426	0.3433	0.3143
CRMT4	0.3731	0.4984	0.4125	0.7685	0.4559	0.508	0.3716	0.3796	0.3715	0.4149	0.2774	0.3437	0.3655	0.2816	0.3226	0.3847	0.3643	0.3132
CRMT5	0.3522	0.4333	0.423	0.7405	0.4938	0.5044	0.3419	0.409	0.3317	0.4037	0.2722	0.3309	0.2608	0.2866	0.2921	0.2992	0.2679	0.2376
CRMT6	0.3751	0.529	0.4026	0.8031	0.5428	0.5489	0.3737	0.4713	0.4189	0.4336	0.3338	0.3699	0.3553	0.3537	0.3816	0.4264	0.4106	0.3646
CRMT7	0.2391	0.4818	0.384	0.7571	0.5404	0.5632	0.2439	0.386	0.3263	0.4179	0.272	0.2263	0.2951	0.3208	0.3421	0.4288	0.3036	0.2527
CKG2	0.3881	0.4765	0.4834	0.4565	0.7202	0.4844	0.3802	0.4246	0.3848	0.4842	0.3648	0.3897	0.3736	0.4075	0.3778	0.3955	0.3586	0.3844
CKG3	0.3822	0.4673	0.48	0.4699	0.7314	0.4903	0.4512	0.477	0.4439	0.5125	0.3051	0.417	0.3324	0.4534	0.4041	0.4732	0.4012	0.4062
CKG4	0.3071	0.4574	0.4269	0.492	0.7574	0.4678	0.3371	0.386	0.3106	0.407	0.2486	0.3103	0.2588	0.3869	0.4085	0.4753	0.3217	0.3875
CKG5	0.2984	0.3959	0.3579	0.4862	0.7282	0.5368	0.2992	0.4078	0.3293	0.3834	0.3033	0.2903	0.3229	0.2558	0.3581	0.4017	0.2527	0.3167
CKG6	0.2843	0.4159	0.3709	0.4052	0.6776	0.5403	0.4076	0.4426	0.3711	0.4689	0.2563	0.3556	0.3052	0.3583	0.3823	0.4171	0.3876	0.4042
CKU1	0.4558	0.5026	0.4186	0.4989	0.6	0.8181	0.4171	0.4762	0.4062	0.5101	0.3245	0.4098	0.3784	0.3653	0.4758	0.4852	0.4344	0.4092
CKU2	0.3932	0.5561	0.4759	0.6023	0.5578	0.8382	0.4222	0.5076	0.4345	0.4732	0.3383	0.4042	0.4322	0.3826	0.4534	0.4776	0.3911	0.4428
CKU3	0.4685	0.5101	0.5135	0.5703	0.5727	0.8268	0.4457	0.5382	0.4966	0.6107	0.4083	0.4482	0.4728	0.4736	0.5013	0.5066	0.5098	0.5203
CR1	0.6126	0.5148	0.5607	0.3912	0.4499	0.453	0.8485	0.5041	0.4708	0.6417	0.2616	0.5242	0.4157	0.4807	0.5257	0.4012	0.5292	0.5501
CR2	0.5921	0.5175	0.5355	0.409	0.4398	0.4332	0.8663	0.5909	0.4757	0.6479	0.2293	0.5147	0.3757	0.4668	0.495	0.4415	0.5185	0.5749
CR3	0.4739	0.3853	0.461	0.3438	0.4196	0.413	0.7911	0.5178	0.4477	0.53	0.2231	0.4735	0.3708	0.423	0.3846	0.3752	0.4806	0.4814
CS-US1	0.4736	0.47	0.4506	0.4311	0.4479	0.5273	0.5682	0.8353	0.5082	0.5345	0.2606	0.5041	0.3967	0.422	0.465	0.4145	0.4991	0.47
CS-US2	0.3895	0.5048	0.3917	0.45	0.5013	0.4792	0.5044	0.7979	0.4897	0.4848	0.301	0.4363	0.4192	0.4209	0.4141	0.3956	0.4314	0.47

CS-US3	0.414	0.5035	0.4588	0.4436	0.5124	0.5016	0.5108	0.8257	0.5697	0.5568	0.3647	0.4716	0.4004	0.4399	0.4765	0.4776	0.5114	0.5291
CRF1	0.2621	0.3236	0.2941	0.442	0.4151	0.4333	0.3235	0.497	0.6852	0.3959	0.3826	0.3351	0.3732	0.3068	0.3193	0.4378	0.3573	0.4191
CRF2	0.457	0.4146	0.4731	0.4522	0.4601	0.4895	0.5291	0.5684	0.8716	0.56	0.4373	0.4563	0.4314	0.4727	0.4271	0.4661	0.5021	0.5183
CRF3	0.4149	0.3065	0.3887	0.3294	0.3478	0.3646	0.4547	0.4557	0.8184	0.474	0.295	0.4005	0.3218	0.3849	0.4045	0.3636	0.4245	0.4975
SE1	0.5533	0.4733	0.5657	0.4376	0.5122	0.5194	0.6066	0.537	0.5147	0.7912	0.2375	0.5509	0.4266	0.4958	0.509	0.44	0.4995	0.5156
SE2	0.5417	0.4453	0.5343	0.4055	0.4667	0.4869	0.5719	0.4786	0.5154	0.7827	0.325	0.4504	0.4203	0.4942	0.4543	0.4484	0.4545	0.5089
SE4	0.5439	0.4252	0.5581	0.3542	0.375	0.4218	0.5587	0.4446	0.4728	0.7794	0.1834	0.4723	0.3598	0.4093	0.4544	0.3006	0.429	0.5234
SE5	0.4922	0.397	0.5592	0.3622	0.4786	0.4614	0.5339	0.4955	0.4814	0.7572	0.122	0.4865	0.3051	0.4396	0.4393	0.3021	0.4288	0.5025
SE6	0.5514	0.4815	0.5774	0.4023	0.5022	0.4687	0.575	0.49	0.4052	0.7823	0.163	0.4829	0.3279	0.4575	0.4601	0.3664	0.4568	0.5032
SE7	0.5055	0.4971	0.5419	0.4729	0.5134	0.5558	0.5816	0.5285	0.4628	0.8019	0.2768	0.5136	0.4574	0.4621	0.4779	0.455	0.4905	0.4947
SE8	0.4253	0.4702	0.4468	0.4419	0.5586	0.5851	0.5225	0.511	0.4374	0.7426	0.2734	0.4057	0.4622	0.449	0.4989	0.5131	0.4358	0.5041
T1	0.2095	0.2615	0.2965	0.3199	0.3448	0.383	0.2477	0.2908	0.3827	0.2668	0.8217	0.2701	0.3809	0.3649	0.2773	0.408	0.3463	0.3405
T2	0.359	0.3317	0.3463	0.36	0.406	0.427	0.3053	0.3767	0.4059	0.3143	0.8734	0.4467	0.4741	0.4176	0.3384	0.3969	0.3982	0.419
T3	0.073	0.1573	0.1241	0.2203	0.1963	0.1849	0.0906	0.2042	0.3188	0.0787	0.6689	0.1996	0.3806	0.1892	0.1022	0.2792	0.0982	0.1781
PC1	0.4551	0.4571	0.4809	0.4075	0.4938	0.4668	0.4832	0.5492	0.4563	0.5151	0.3073	0.706	0.3781	0.4421	0.5195	0.4143	0.5139	0.5052
PC2	0.3444	0.2937	0.2914	0.2051	0.2919	0.3034	0.3992	0.3322	0.2938	0.3563	0.2596	0.6916	0.3167	0.316	0.3202	0.2562	0.3456	0.3972
PC3	0.5076	0.3054	0.4426	0.2843	0.3062	0.2948	0.4662	0.3871	0.3228	0.5278	0.1782	0.6741	0.2223	0.4159	0.365	0.2838	0.3881	0.4372
PC4	0.3637	0.4094	0.4395	0.3105	0.3221	0.3973	0.4102	0.4148	0.3901	0.4223	0.3281	0.7511	0.4872	0.4327	0.4199	0.3566	0.4162	0.4332
PC5	0.4537	0.4189	0.4006	0.3036	0.3602	0.3669	0.443	0.3992	0.3536	0.4457	0.3469	0.7885	0.5392	0.4185	0.3993	0.3268	0.3985	0.4253
SI1	0.4242	0.3764	0.4214	0.339	0.3628	0.4053	0.4189	0.4068	0.4064	0.4903	0.4285	0.5288	0.8584	0.4161	0.3286	0.3205	0.3766	0.3586
SI2	0.3002	0.4618	0.3044	0.3797	0.387	0.4731	0.3624	0.4299	0.3929	0.3662	0.4563	0.4084	0.8326	0.401	0.3848	0.436	0.3328	0.3231
TA1	0.4174	0.4419	0.4111	0.2773	0.3688	0.3657	0.4779	0.4011	0.4061	0.4592	0.394	0.5222	0.4202	0.8309	0.5311	0.4768	0.5156	0.6121
TA2	0.5104	0.5123	0.5132	0.3581	0.4465	0.4274	0.527	0.4649	0.4425	0.5512	0.3283	0.5188	0.4114	0.875	0.6339	0.5498	0.5376	0.5458
TA3	0.3176	0.4628	0.4367	0.382	0.4839	0.4439	0.3573	0.4391	0.3873	0.465	0.3358	0.3529	0.3777	0.7956	0.5445	0.5746	0.4652	0.4811
P1	0.476	0.5349	0.4631	0.422	0.4934	0.5159	0.4907	0.5019	0.4434	0.5589	0.2701	0.5144	0.3632	0.6333	0.8423	0.5818	0.5993	0.5606
P2	0.3688	0.3824	0.3238	0.2714	0.3412	0.4233	0.4313	0.4315	0.3615	0.4118	0.2117	0.3949	0.2907	0.4868	0.7777	0.5161	0.5483	0.493
P3	0.4674	0.5039	0.4403	0.3604	0.403	0.4197	0.4381	0.4204	0.3773	0.4653	0.2591	0.4283	0.3433	0.5331	0.7769	0.5195	0.5549	0.4674
P4	0.3115	0.4499	0.2905	0.3093	0.4424	0.4723	0.3032	0.3601	0.2972	0.3829	0.2693	0.3116	0.3024	0.456	0.6798	0.5422	0.4463	0.436
P5	0.4585	0.4188	0.4094	0.2606	0.3945	0.4111	0.4989	0.4187	0.3924	0.5169	0.2244	0.5046	0.3289	0.533	0.7962	0.5551	0.5807	0.436

Eff1	0.3883	0.4231	0.3897	0.3221	0.457	0.4903	0.4581	0.4675	0.4678	0.465	0.4039	0.4809	0.4021	0.5874	0.6654	0.7379	0.5842	0.5977
Eff2	0.2722	0.3697	0.344	0.3061	0.3813	0.3521	0.3507	0.3099	0.286	0.3331	0.2085	0.269	0.2142	0.4089	0.4589	0.6742	0.3874	0.4244
Eff3	0.3047	0.4514	0.3748	0.3739	0.4539	0.457	0.3674	0.4132	0.4108	0.4065	0.3241	0.3158	0.3333	0.5099	0.5706	0.8166	0.5302	0.5494
Eff4	0.2219	0.3381	0.309	0.3695	0.4065	0.418	0.2488	0.3225	0.3119	0.3118	0.3187	0.2697	0.3159	0.3776	0.4146	0.75	0.4184	0.4315
Eff5	0.3222	0.4236	0.3425	0.4688	0.5072	0.4534	0.3451	0.3953	0.452	0.3858	0.4246	0.3092	0.3532	0.438	0.4237	0.7096	0.4625	0.5117
Sat1	0.4067	0.3673	0.4045	0.3382	0.3687	0.3795	0.4524	0.4581	0.4302	0.4394	0.2551	0.4449	0.2739	0.4897	0.5168	0.533	0.7494	0.6307
Sat2	0.3767	0.3899	0.2939	0.3339	0.3656	0.4048	0.3345	0.4096	0.3871	0.3886	0.321	0.387	0.3748	0.4943	0.5124	0.4938	0.7486	0.4987
Sat3	0.4333	0.4564	0.4172	0.3579	0.3405	0.4237	0.4636	0.4453	0.4603	0.4317	0.3548	0.3897	0.4009	0.429	0.5488	0.5027	0.755	0.5666
Sat5	0.3878	0.4458	0.375	0.3225	0.3348	0.3707	0.4969	0.4049	0.3437	0.4087	0.253	0.3972	0.3086	0.4111	0.4884	0.474	0.6917	0.5606
Sat6	0.4341	0.394	0.4341	0.3165	0.3548	0.3936	0.472	0.4444	0.3979	0.5034	0.2068	0.4513	0.2576	0.4668	0.5227	0.4141	0.7252	0.5776
Sat7	0.433	0.3932	0.4062	0.3101	0.3448	0.406	0.4686	0.422	0.3666	0.4204	0.2527	0.4348	0.2338	0.38	0.5198	0.4621	0.7322	0.5846
L1	0.3602	0.3726	0.3646	0.2919	0.3541	0.4384	0.4461	0.4322	0.4082	0.4854	0.2623	0.415	0.3114	0.455	0.4779	0.5452	0.5328	0.7
L2	0.4544	0.4676	0.4686	0.289	0.444	0.4508	0.5399	0.5002	0.5002	0.5361	0.363	0.4828	0.3554	0.5183	0.5474	0.58	0.6415	0.811
L3	0.3447	0.3629	0.4157	0.2797	0.3684	0.3862	0.462	0.3909	0.4172	0.4324	0.3321	0.4291	0.3298	0.4744	0.4478	0.4584	0.5568	0.7585
L4	0.4848	0.4246	0.4179	0.3397	0.3985	0.3993	0.5637	0.4992	0.5073	0.5229	0.2758	0.4943	0.2674	0.5466	0.5394	0.4841	0.6442	0.7574
L5	0.3995	0.3695	0.4828	0.309	0.4264	0.4477	0.4437	0.4266	0.4615	0.5052	0.3424	0.4875	0.3257	0.5016	0.5261	0.5731	0.5985	0.7917
L6	0.3838	0.3655	0.4196	0.2849	0.4027	0.4007	0.4628	0.4498	0.4471	0.4869	0.2832	0.4366	0.2468	0.485	0.4193	0.4947	0.5572	0.7334

Based on the results, the measurement model has provided satisfactory empirical support for reliability, and convergent and discriminant validity for reflective constructs and their subsequent analysis. Overall, the first-order measurement model can be considered satisfactory with the evidence of adequate reliability ($AVE > 0.50$, $CR > 0.80$) presented in Table 6.8 and discriminant validity ($\sqrt{(AVE)^2} > \text{correlations}$) shown by Table 6.9. After confirming the first-order measurement model, the next step is the assessment of the second-order measurement model and also of the structural model: this is presented in the next sections.

6.4.1.1.2 Second-order reflective measurement model

The usage of second-order constructs is a commonly accepted exercise in modelling the relationship among constructs. The second-order construct is multidimensional, and both first- and second-order constructs included in the structural modelling can be either reflective or formative (Diamantopoulos et al., 2008).

At this stage, the study estimated the measurement properties of second-order reflective-reflective constructs: integrated customer relationship management (ICRM); relationship maintenance (RM); social capital (SC); and CRM success (CRMS) constructs following the procedures described in the earlier chapter (Chapter 3). The second-order ICRM construct consisted of 20 items (5+5+4+6); RM consisted of 9 items (3+3+3); social capital consisted of 10 items (3+5+2); and CRMS consisted of 25 items (3+5+5+6+6) (see Table 6.8). As mentioned in Chapter 3, the measurement properties of the reflective constructs were assessed for reliability, internal consistency and AVE which are shown on Table 6.8 and Table 6.9. Figures 6.2, 6.3, 6.4 and 6.5 exhibit the second-order constructs ICRM, CRMS, SC and RM.

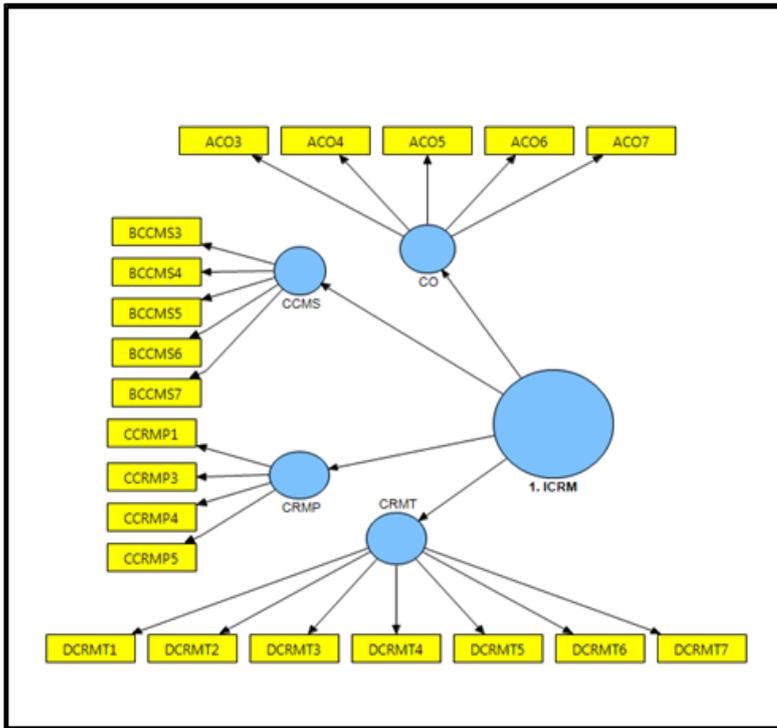


Figure 6.2: Reflective second-order construct ICRM

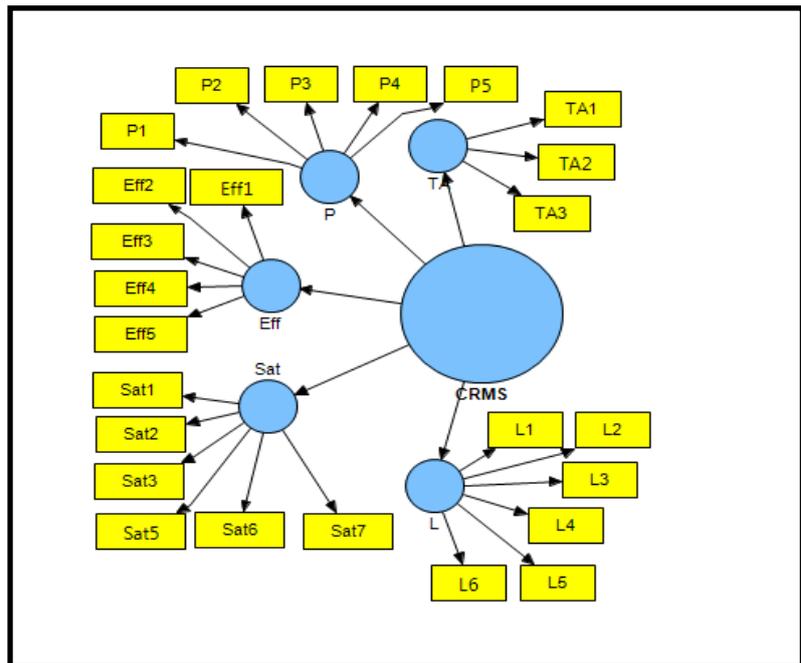


Figure 6.3: Reflective second-order construct CRMS

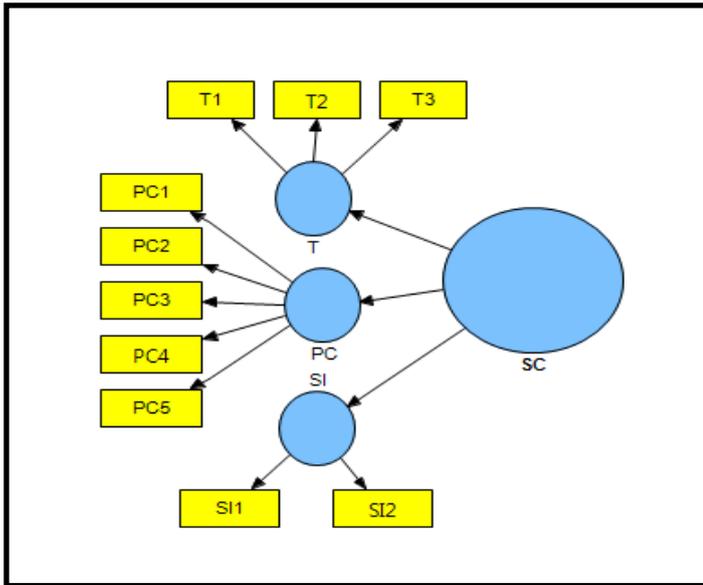


Figure 6.4: Reflective second-order construct SC

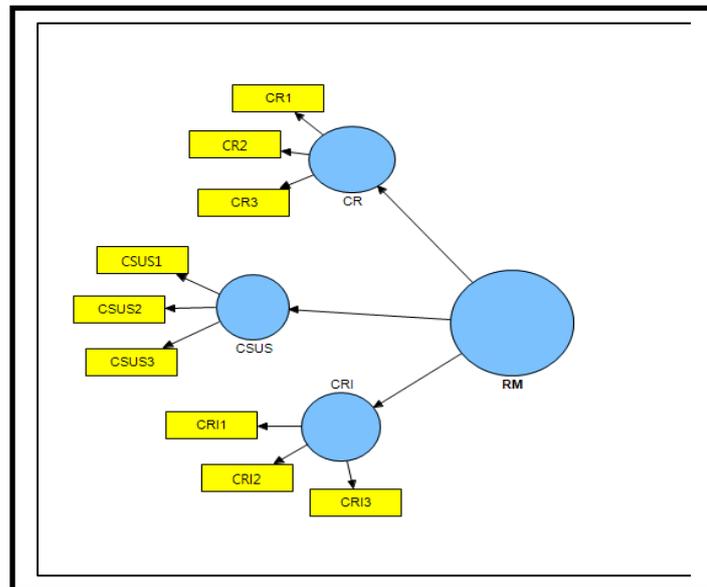


Figure 6.5: Reflective second-order construct RM

Using the two-stage approach suggested by Henseler and Fassott (2010), Ringle et al.(2012) and Wetzels et al. (2009), the second-order reflective constructs ICRM, RM, SC and CRMS were measured by using construct scores/latent variable scores (Becker et al., 2011; Wetzels et al., 2009) derived from the first-order constructs. More specifically, the second-order construct ICRM was measured by the latent variable scores (COc, CCMSc, CRMPc, CRMTc) derived from first-order constructs: customer orientation, a customer-centric management system, CRM people and CRM technology. In a similar vein, other second-order constructs such as RM, SC and CRMS were measured by the latent variable scores derived from first-order constructs: customer retention; cross-selling and up-

selling; customer referral; trust; personal connection; social interaction; target achievement; efficiency; satisfaction; loyalty; and profitability, respectively (see Figure 6.6 and Table 6.10). Theoretical justification about the first-order constructs and their measurement was described in Chapter 5.

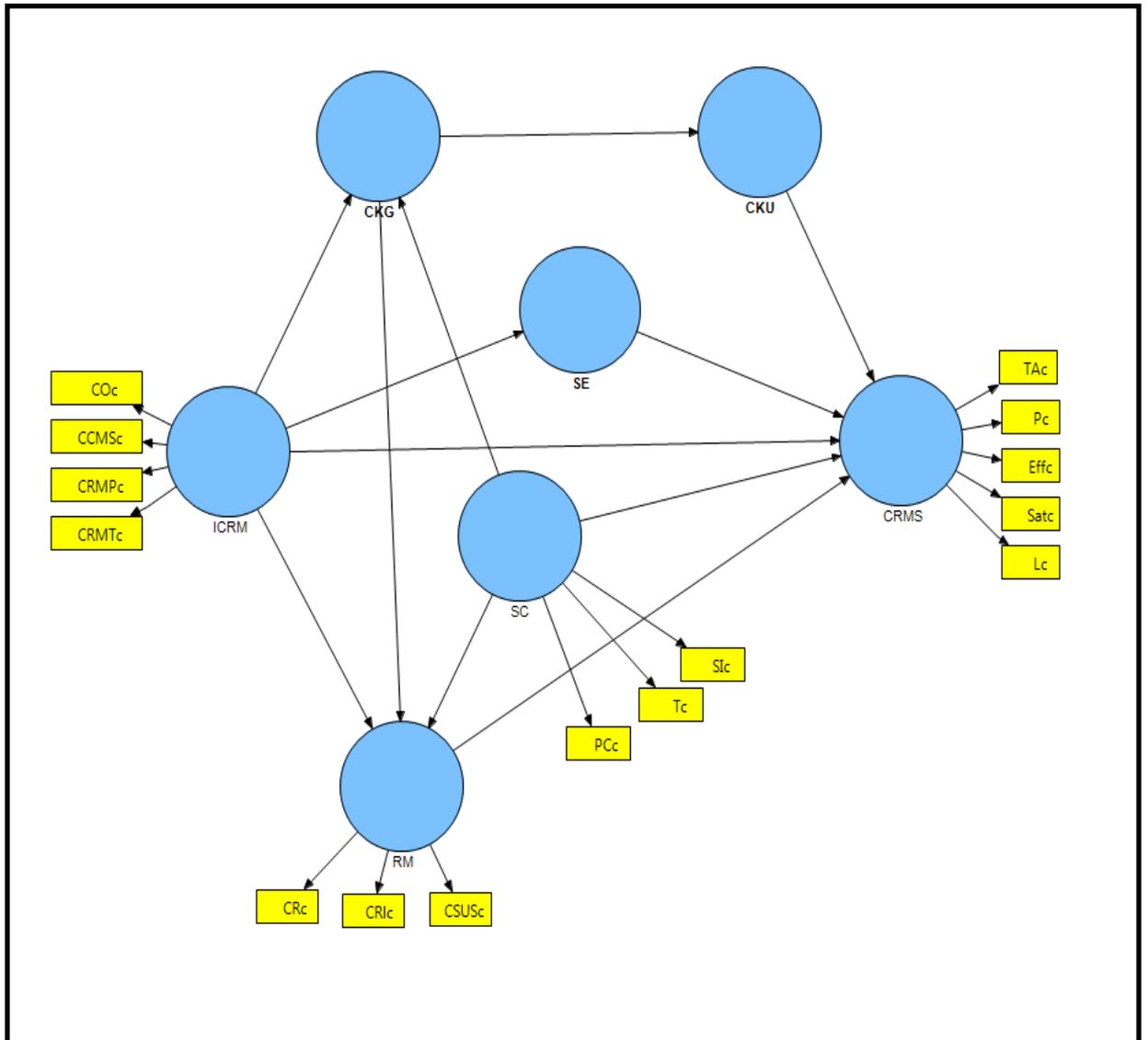


Figure 6.6: Second-order reflective measurement model

Table 6.10: Psychometric properties for second-order reflective construct

Second-order constructs	First-order constructs	Items	Loadings	t-stat	CR	AVE
Integrated Customer Relationship Management (ICRM)	1.Customer Orientation 2. Customer-centric Management System 3. CRM people 4. CRM Technology	COc	0.8179	29.2434	0.898	0.69
		CCMSc	0.8568	47.4809		
		CRMPc	0.8517	44.4819		
		CRMTc	0.7917	27.7525		
Relationship Maintenance (RM)	1. Customer Retention 2. Cross-selling and Up-selling 3. Customer Referral	CRc	0.8571	42.9658	0.896	0.74
		CS-USc	0.8857	52.687		
		CRfc	0.8408	29.937		
Social Capital (SC)	1. Trust 2. Personal Connection 3. Social Interaction	Tc	0.7486	21.0542	0.853	0.66
		PCc	0.8393	43.5799		
		SIc	0.8462	37.6042		
CRM Success (CRMS)	1. Target Achievement 2. Efficiency 3.Satisfaction 4. Loyalty 5. Profitability	TAc	0.8308	33.6642	0.93	0.74
		Effc	0.8515	40.7105		
		Satc	0.872	61.8038		
		Lc	0.8813	44.8437		
		Pc	0.8673	47.0479		

The study (see Table 6.10) confirms that the loadings of the first-order latent variables on the second-order factors (ICRM, RM, SC, CRMS) are more than the cut-off value of 0.7, with reference to Hair et al. (2011); Henseler et al. (2009); and Barclay et al. (1995). Results also confirmed that all these loadings were significant at $p > 0.01$. Thus, all items (construct scores) were reliable to present the respective second-order constructs. The result (see Table 6.10) also ensured that the CRs and AVEs of the second-order model were greater than 0.80 and 0.50 respectively, which provides evidence of reliable and valid second-order measures.

6.4.2 Assessing Structural Model

The structural model needs to be examined for collinearity before assessing the structural model (Hair et al., 2013). The reason for this is that, as in a regular multiple regression, the path coefficients may be biased if the estimation involves significant levels of collinearity among the predictor constructs. Following the guidelines of Hair et al. (2013), measures.

similar to the evaluation of formative model indicators (i.e. tolerance and variance inflation factor [VIF] values), were employed to assess the collinearity. To do so, each set of predictor constructs needed to be examined separately for each sub-part of the structural model. This study considered tolerance levels below 0.20 (VIF above 5.00) in the predictor constructs as being indicative of collinearity, as suggested by Hair et al. (2013). If collinearity is indicated by the tolerance of VIF guidelines, one should consider eliminating constructs, merging predictors into a single construct or creating higher-order constructs to treat collinearity problems.

The following sets of (predictor) constructs in the CRM success model were run to assess the collinearity: (i) ICRM and SC as predictors of CRMS; (ii) ICRM, CKG and SC as predictors of RM; and (iii) ICRM, RM, CKU, SE and SC as predictors of CRMS and the results are presented in Tables 6.11, 6.12 and 6.13.

Table 6.11: ICRM and SC as predictors of CKG

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-1.168E-06	.041		.000	1.000		
ICRM	.570	.054	.570	10.476	.000	.574	1.743
SC	.183	.054	.183	3.355	.001	.574	1.743

a. Dependent Variable: CKG

Table 6.12: ICRM, CKG and SC as predictors of RM

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-4.822E-06	.035		.000	1.000		
ICRM	.441	.054	.441	8.188	.000	.419	2.387
CKG	.154	.049	.154	3.133	.002	.505	1.980
SC	.312	.047	.312	6.657	.000	.553	1.809

a. Dependent Variable: RM

Table 6.13: ICRM, RM, SC, CKU and SE as predictors of CRMS**Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	4.540E-07	.035		.000	1.000		
ICRM	.146	.063	.146	2.304	.022	.301	3.323
RM	.314	.063	.314	4.985	.000	.303	3.296
SC	.200	.051	.200	3.952	.000	.471	2.124
CKU	.121	.053	.121	2.290	.023	.435	2.301
SE	.141	.060	.141	2.361	.019	.338	2.958

a. Dependent Variable: CRMS

Tables 6.11, 6.12 and 6.13 present the collinearity results from using ICRM and SC as predictors of CKG, ICRM and CKG, and SC as predictor of RM and ICRM, RM, SC and CKU, and SE as predictor of CRMS where all the VIF values are well below the threshold of 5.00, which has shown that there are no severe multi-collinearity problems in the path model (Belsley et al., 1980; Kleinbaum et al., 1988).

To assess the validity of the structural model, as mentioned in Chapter 3, this study has evaluated the relationship between the constructs as predicted in the hypotheses based on the research model. To conduct the assessment, this study evaluated the path loadings, path coefficients (β), which indicate the strength of relationship between constructs, and the corresponding *t*-values of the constructs to determine the significance of the relationships between constructs (Hair et al., 2011; Mustamil, 2010; Barclay et al., 1995). In conjunction with these, the explanatory power of the proposed model was assessed by estimating the percentage of variance explained or the R-squared (R^2) value of endogenous constructs (Hair et al., 2011). Moreover, the nomological validity of multidimensional constructs as well as the predictive validity of the constructs was assessed. It is worth mentioning that studies in line with partial least squares (PLS)-based SEM suggest two non-parametric approaches to test the relationship between constructs: such as jackknife and bootstrap techniques (Santosa et al., 2005; Gefen et al., 2000). For the data analysis in this research, a non-parametric bootstrapping procedure has been used as it is considered to be a more advanced and sophisticated approach than the jackknife procedure (Chin, 1998a).

6.4.2.1 Path Coefficient (β) and Statistical Significance of t -value

To evaluate the relationship among the constructs as hypothesized in this research, path coefficients and corresponding t -values were calculated (Ringle, 2012; Hair et al., 2011). A positive value of the path coefficient indicates that there is a positive relationship between the constructs and vice versa. The t -value evaluates whether the relationships among the constructs are significant (Hensler et al., 2009). Following the procedures of Tenenhaus et al. (2005) and Hensler et al. (2009), the β and the t -values were derived from the bootstrapping process. The path coefficients and t -values are presented by Figures 6.7 and 6.8 and Table 6.14.

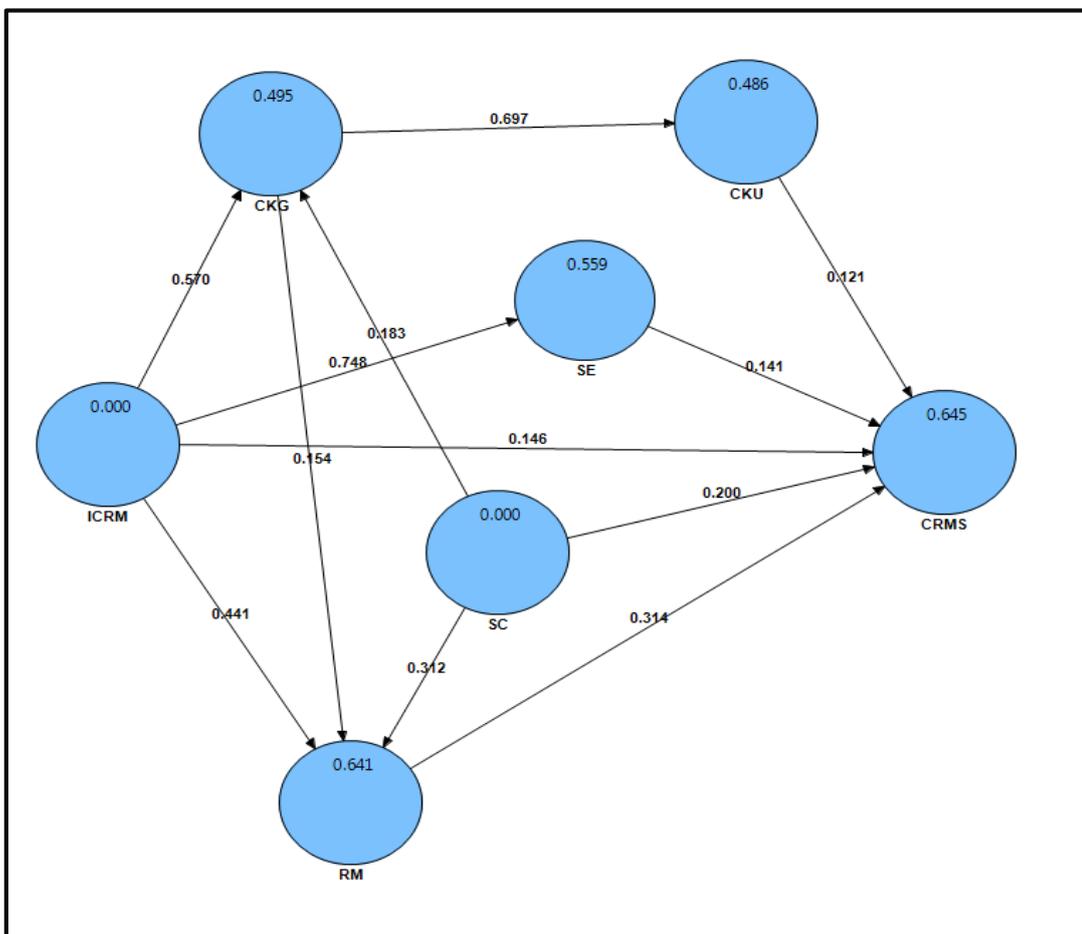


Figure 6.7: Path coefficient values from PLS algorithm output

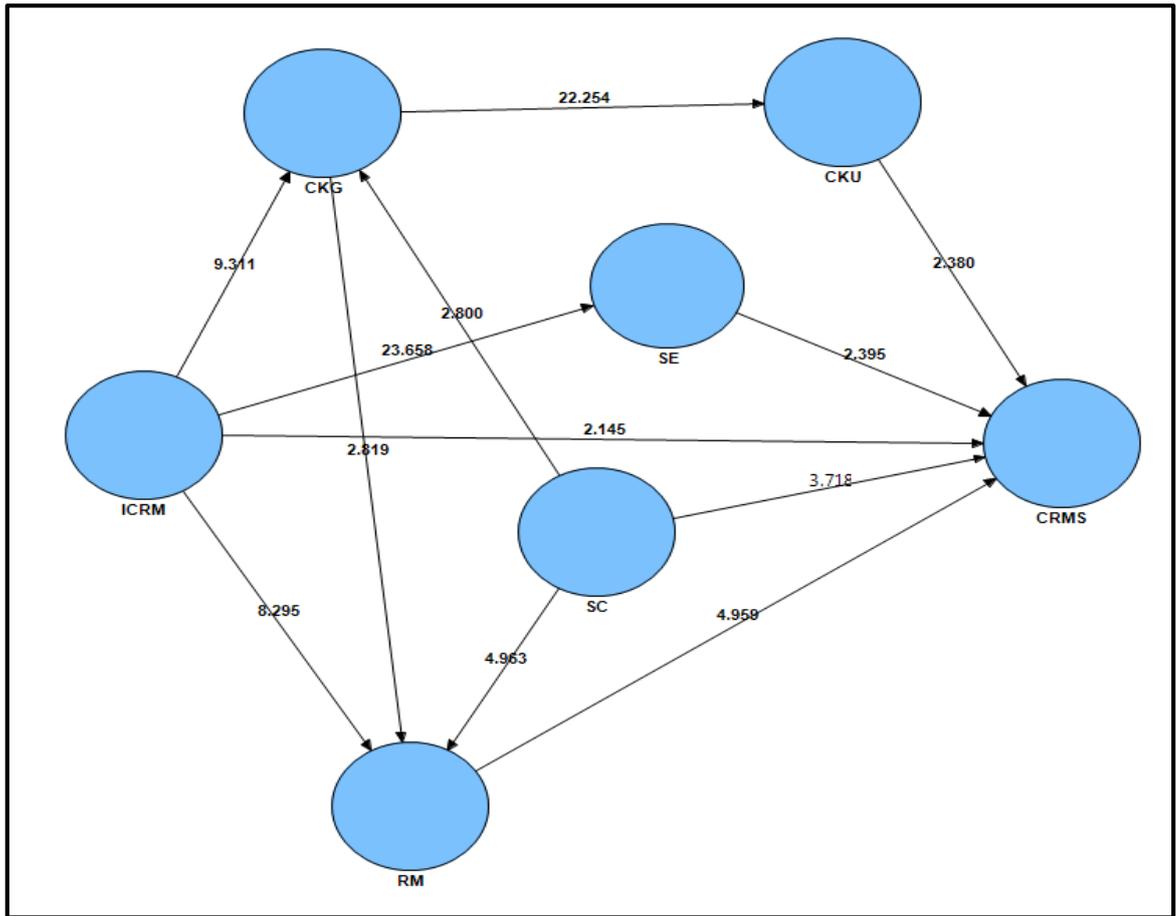


Figure 6.8: *t*-values from bootstrapping output of study model

Table 6.14: Evaluation of the research hypotheses using path coefficients (β) and *t*-values

Hypotheses	Relationship	Path coefficients (β)	Standard error	<i>t</i> -value	Result
H1	ICRM \rightarrow CKG	0.5773	0.061	9.4575***	Supported
H2	CKG \rightarrow CKU	0.6973	0.0344	20.2583***	Supported
H3	CKU \rightarrow CRMS	0.1163	0.0497	2.3387**	Supported
H4	ICRM \rightarrow CRMS	0.1585	0.0713	2.222**	Supported
H5	ICRM \rightarrow SE	0.7485	0.0296	25.279***	Supported
H6	SE \rightarrow CRMS	0.1378	0.0577	2.3893**	Supported
H7	ICRM \rightarrow RM	0.4432	0.0565	7.8502***	Supported
H8	RM \rightarrow CRMS	0.3115	0.0613	5.085***	Supported
H9	SC \rightarrow CKG	0.1757	0.0671	2.6197**	Supported
H10	SC \rightarrow RM	0.3091	0.0679	4.5533***	Supported
H11	SC \rightarrow CRMS	0.1975	0.0551	3.5847**	Supported
H12	CKG \rightarrow RM	0.152	0.0525	2.8927**	Supported

Significant * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$ and critical values are 1.645 at $p = 0.05$; 1.96 at $p = 0.025$, and 2.32 at $p = 0.01$.

Keys: ICRM = integrated customer relationship management; CKG = customer knowledge generation; CRMS = customer relationship management success; CKU = customer knowledge utilization; SE = service excellence; RM = relationship maintenance; SC = social capital

6.4.2.2 Results of Hypotheses Testing

Table 6.14 shows the path coefficient (β) and associate t -value outputs from the 5,000 sample bootstrap analysis. The results provided coefficients (β) of 0.577, 0.748, 0.44 and 0.158 from ICRM to CKG, ICRM to SE, ICRM to RM, and ICRM to CRMS, respectively. All these path coefficients are significant at $p < 0.001$ (see Table 6.14). Hence, this study confirmed that ICRM has a significant impact on CKG, SE, RM and eventually on CRMS supporting hypotheses H1, H5, H7 and H4.

Results also revealed the path coefficients (β) of 0.697, 0.1163, 0.1378 and 0.3115 from CKG to CKU, CKU to CRMS, SE to CRMS, and RM to CRMS respectively. These path coefficients were also significant at $p < 0.001$ (see Table 6.14). Thus, this study confirmed that CKG has a significant impact on CKU and CKU, and that SE and RM has a positive impact on CRMS, supporting hypotheses H2, H3, H6 and H8.

Similarly, the results confirmed that the path coefficients between SC to RM, SC to CRMS, SC to CKG and CKG to RM were significant at $p < 0.001$ (see Table 6.14). These relationships confirmed that social capital has a significant impact on relationship maintenance, CRM success and CKG, and also that CKG has a significant impact on RM. Thus, this study found support for hypotheses H10, H11, H9 and H12.

6.4.2.3 Coefficient of Determination (R^2 Value)

The most commonly used measure to evaluate the structural model is the coefficient of determination (R^2 value). The coefficient is a measure of the model's predictive accuracy and is calculated as the squared correlation between a specific endogenous construct's actual and predicted values (Hair et al., 2012). These values assess the ability of the model to explain and predict the endogenous latent variables (Ringle et al., 2012; Hair et al., 2011). The R^2 values of endogenous latent constructs in this model are presented by Table 6.15.

Table 6.15: Coefficient of determination (R^2)

Endogenous Constructs	R^2
Relationship Maintenance	0.6406
Customer Knowledge Generation	0.4974
Customer Knowledge Utilization	0.4863
Service Excellence	0.5603
CRM Success	0.6464

The R^2 value ranges from 0 to 1, with higher values indicating higher levels of predictive accuracy. The R^2 values of 0.20 are considered high in some disciplines such as consumer behaviour and success-driver studies focusing on satisfaction and loyalty whereas some other researchers expect 0.75 and above. Scholarly research focusing on marketing issues considers R^2 values of 0.75, 0.50 and 0.25 for endogenous latent variables as substantial, moderate or weak, respectively (Hair et al., 2011; Henseler et al., 2009). Table 6.15 shows that all the R^2 values except for CKG and CKU were above 0.5 and, for CKG and CKU, these values were very close to 0.5 which indicated moderate explanatory power of the endogenous constructs (Hair et al., 2011). It also confirmed the nomological validity of the endogenous constructs with respect to their exogenous constructs. Thus, the overall findings have shown that all scores of R^2 value satisfied the minimum requirement for the 0.10 cut-off value and hence indicated a relatively parsimonious model (Santosa et al., 2005; Falk and Miller, 1992).

6.4.2.4 Effect Size (f^2)

The f^2 effect size is the measure of the impact of a specific predictor construct on an endogenous construct (Newsome, 2000). In addition to evaluating the R^2 values of all endogenous constructs, the change in the R^2 value when a specified exogenous construct is omitted from the model can be used to evaluate whether the omitted construct has a substantive impact on the endogenous constructs. The change in the R^2 values is calculated by estimating the PLS path model twice.

Table 6.16: Effect size (f^2)

Constructs	f^2 Effect Size		
	RM	CKG	CRMS
ICRM	0.223	0.374	0.021
CKG	0.029		
CKU			0.020
RM			0.08
SE			0.022
SC	0.151	0.043	0.05

Table 6.16 shows that the f^2 effect size of the antecedent constructs ICRM, CKG and SC on RM are 0.223, 0.029 and 0.1469, respectively. The f^2 effect size 0.223 and 0.151 indicates that ICRM and SC have a medium effect in producing the R^2 value for RM. In contrast, the effect size of construct CKG on the endogenous latent variable RM is small (0.029).

Similarly, the exogenous constructs ICRM and SC for explaining the endogenous latent variable CKG have f^2 effect sizes of 0.374 and 0.043, respectively. Hence, the effect size of construct ICRM on the endogenous latent variable CKG is medium and the effect size of construct SC on the endogenous latent variable is small. In a similar fashion, the exogenous constructs ICRM, CKU, RM, SE and SC for explaining the endogenous latent variable CRMS have f^2 effect sizes of 0.021, 0.020, 0.08, 0.022 and 0.05, respectively. Hence, the effect sizes of all the exogenous constructs on the endogenous latent variable were small.

6.4.2.5 Predictive Relevance

In addition to assessing predictive accuracy through the magnitude of the R^2 values, this study used Stone-Geisser's Q^2 value (Geisser, 1974; Stone, 1974)) to assess the CRM success model's predictive relevance. More specifically, when PLS-based SEM exhibits predictive relevance, it accurately predicts the data points of indicators in reflective measurement models of endogenous constructs (although not suitable for formative endogenous constructs). In a structural model, for a certain reflective endogenous latent variable, Q^2 values larger than zero indicate the path model's predictive relevance for this particular construct. Based on the blindfolding procedure and cross-validated redundancy approach, the predictive relevance values were calculated as presented on Table 6.17.

Table 6.17: Predictive relevance for CRMS model

Endogenous latent variable	R ² Value	Q ² Value
CKG	0.4974	0.2547
SE	0.5603	0.3336
RM	0.6406	0.4719
CKU	0.4863	0.3324
CRMS	0.6464	0.4746

Table 6.17 reveals that the predictive relevance for RM (0.4719) and CRMS (0.4746) was high. Similarly, SE and CKU had a close to high predictive relevance having Q^2 values of 0.3336 and 0.3324, respectively. In contrast, CKG having 0.2547 indicated a medium level of predictive validity. The satisfactory values of predictive relevance for the endogenous construct of CRMS demonstrated the predictive validity of the CRMS model (Chin, 2010).

6.4.2.6 q^2 Effect Size

In addition to the f^2 effect size approach for assessing R^2 values, the relative impact of predictive relevance can be compared by means of the measure of the q^2 effect size. Table 6.18 exhibits the results of the q^2 effect sizes with respect to all the relationships in

the model. In Table 6.18, target constructs appear in the rows and the predecessor constructs in the columns.

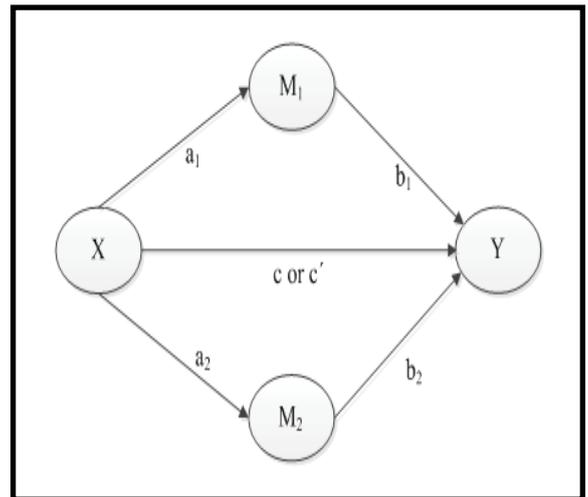
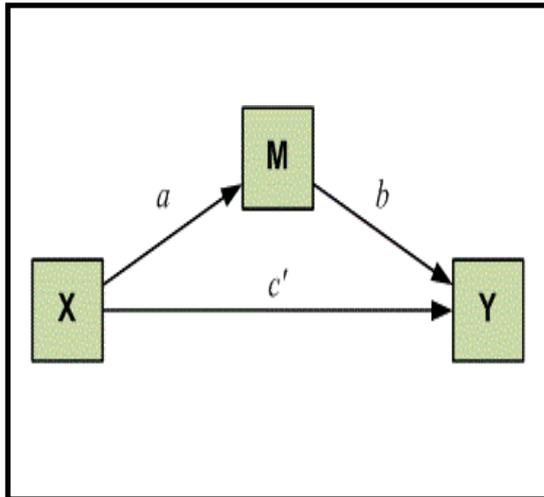
Table 6.18: Effect size (q^2)

Constructs	q^2 Effect Size		
	RM	CKG	CRMS
ICRM	0.129	0.134	0.0064
CKG	0.013		
CKU			0.008
RM			0.038
SE			0.010
SC	0.074	0.008	0.034

Table 6.18 shows that the q^2 effect sizes for the predictive relevance of ICRM, CKG and SC on RM are 0.129, 0.013 and 0.074, respectively. The q^2 effect size for ICRM on RM indicates that ICRM has a close to medium effect in producing the Q^2 (predictive relevance) for RM. In contrast, the q^2 effect size of 0.074 indicates that SC has a small effect in producing the Q^2 for RM.

6.4.3 Mediation Analysis

A mediator is a construct/factor in a causal chain between two other constructs. Mediation exists when a predictor affects a dependent variable indirectly via at least one intervening variable (Preacher and Hayes, 2008). In recent research, this notion has become very popular in measurement approaches for assuming the effect of mediating variable(s) and the association among variables. Full mediation occurs when the independent variable no longer has a significant effect on the dependent variable after the inclusion of the mediating variable in the model. Partial mediation, on the other hand, occurs when the independent variable still has a significant effect, but the effect has reduced after the inclusion of the mediating variable in the model (Baron and Kenny, 1986). Figure 6.9 illustrates mediation models with single and multiple intervening variables.



Mediation model (single mediator)

Mediation model (multiple mediators)

X = Independent variable, Y = Dependent variable, M = Mediating variable

Figure 6.9: Mediating model

Baron and Kenny (1986) stated four characteristics of mediation: step 1) the predictor variable (X) should have a significant relationship with the outcome variable (Y); step 2) the predictor variable (X) should have a significant relationship with the mediating variable (M); step 3) the mediating variable (M) should have a significant relationship with the criterion variable (Y); and step 4) in control of the mediating variable, the relationship between the predictor variable and criterion variable is no longer significant if there is a full mediation, if the relationship is still significant, a partial mediation exists between the two variables.

6.4.3.1 RM as a Mediator between SC and CRMS

In this study, relationship maintenance (RM) is proposed as a mediator between social capital and CRM success. This notion suggests that social capital first positively affects relationship maintenance leading to enhanced CRM success. In this relationship, as there is only one mediator in the path model, this study followed the simple test of mediation proposed by Baron and Kenny (1986).

Table 6.19 shows that the relationship between SC (antecedent) and RM (mediator) as well as the relationship between RM (mediator) and CRMS (criterion variable) were significant. The link between SC (independent variable/predictor) and CRMS (dependent variable) in the absence of the mediator's (RM) influence are also significant; however, the level of significance was higher in the second case. Finally, the indirect effect for the SC-CRMS link was significant (Baron and Kenny, 1986) as the Sobel test result was satisfied

(Sobel, 1982) (z -value >1.96 at $p < 0.5$). Therefore, there is statistical ground for accepting hypothesis 13 (H13). The variance accounted for (VAF) of the partial mediation is normed between 0% and 100% (Helm et al., 2010). Higher values indicate stronger partial mediations between the variables. The study data revealed that the partial mediation of RM was relatively strong having a VAF value of 55.64%: this indicated that more than half of the total effect of social capital on CRM success was explained by the indirect effect. In addition, the R^2 for CRM success was substantially improved when RM was added to the model (15 percentage points from 0.449 to 0.60). Thus, RM was an important mediator of the social capital–CRM success link (Ernst et al., 2011). The mediation results are summarized in Table 6.19 and Figures 6.10 and 6.11.

Table 6.19: RM as a mediator between SC and CRMS

Hypothesis	Relation-ship	Path coefficients				Standard Error	Mediation Effect
		Direct effect	Indirect effect	Total effect	VAF*		
H13 (<i>RM mediates the relationship between SC and CRMS</i>)	SC → CRMS (without mediator)	0.671 ($t = 16.02$)					
	SC → RM	0.686 ($t = 13.83$)				.0496	
	RM → CRMS	0.543 ($t = 10.35$)				.0525	
	SC → CRMS	0.2965 ($t = 5.39$)	0.372 ($z = 8.30$)	0.6685 ($t = 16.00$)	0.5564	.055	Partial mediation

*VAF (variance accounted for) = indirect effect/total effect

Mediation can also be validated by a procedure put forward by Preacher and Hayes (2008) involving bootstrapping (Shrout and Bolger, 2002). Bootstrapping is a non-parametric method for assigning measures of accuracy to statistical estimates, where the standard errors are estimated using the available data. It has been used in prior research as an alternative test for mediation (Brown et al., 2006; Shrout and Bolger, 2002).

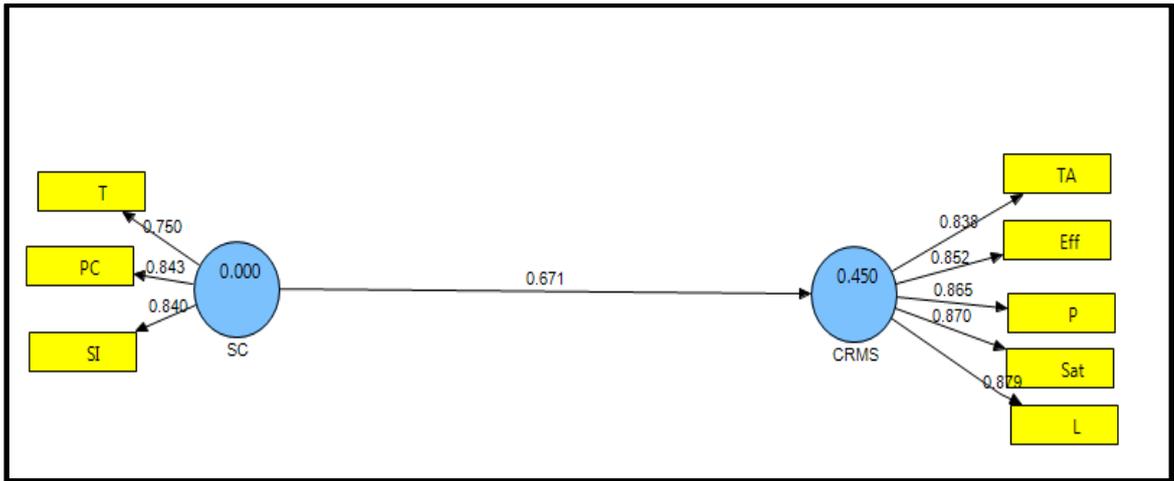


Figure 6.10: Without mediator (RM) between SC and CRMS

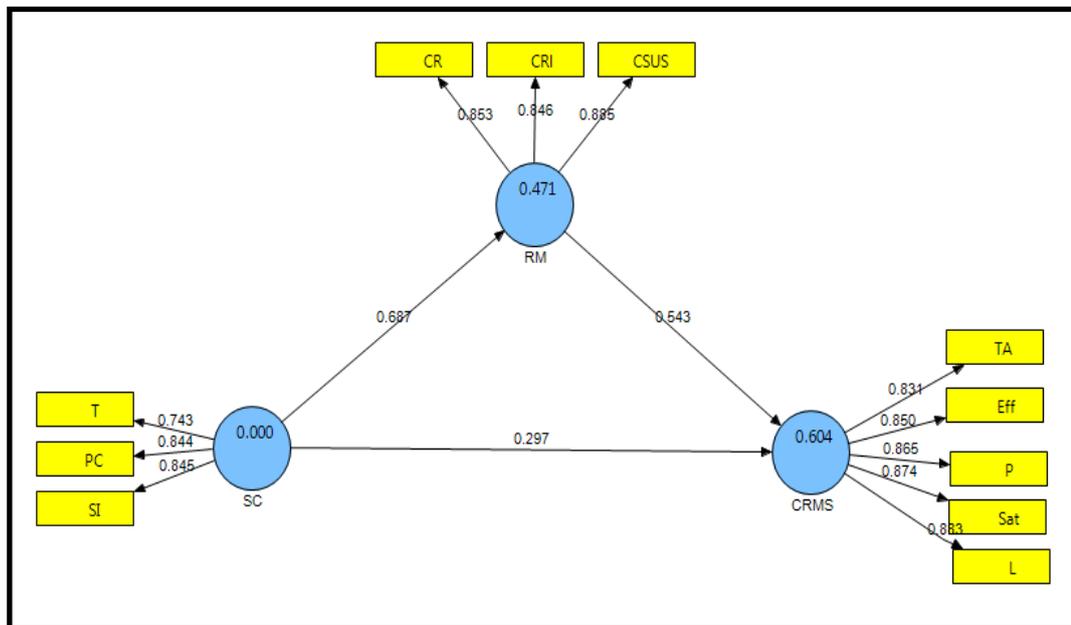


Figure 6.11: With mediator (RM) between SC and CRMS

6.4.3.2 Serial Mediation – CKG and CKU as Mediator between ICRM and CRMS

To assess the joint and sequential role of customer knowledge generation and customer knowledge utilization as mediators of ICRM and CRM success, the direct effects without these two mediators needed to be calculated and compared (Figures 6.12 and 6.13 and Table 6.20). The results showed that ICRM’s effect on CRMS clearly decreases ($\Delta = .204$) from a significant value of 0.706 (Figures 6.12 and 6.13 without mediators) to a smaller but still significant value of 0.502 (Figures 6.12 and 6.13 with both mediators). Thus, it can be assumed that CKG and CKU partially mediate the ICRM’s effect on CRM success.

This study used a procedure stated by Preacher and Hayes (2008), to assess whether the decreases in the betas of the mediational model were significant. More specifically, this study used PROCESS (Hayes, 2008) to estimate the indirect effect of ICRM on CRMS via CKG and CKU by involving bootstrapping (Shrout and Bolger, 2002). Prior research has used bootstrapping as an alternative test of mediation (Shrout and Bolger, 2002; Brown et al., 2006). The bootstrapping procedure through PROCESS is recommended for testing indirect effect. The formal test of mediation involves computing 95% confidence intervals around the product term ($a*b$ or $a*b*c$): if zero falls outside of this confidence interval (95%), the indirect effect is significant and mediation has occurred. Following Preacher and Hayes' (2008) recommendations, this study used 5,000 bootstrap samples for the bias-corrected bootstrap confidence interval. Making use of latent variables' scores from the PLS analysis, PROCESS produced a bias-corrected 95% bootstrap confidence interval (CI) for the indirect effect. In principle, support for H14 existed due to a significant indirect effect of 0.055 (Table 6.20, Appendix-3). To be precise, zero fell outside the confidence interval around the indirect effects ranging from 0.0249 to 0.0991. Table 6.20 provides convergent evidence in support of the hypothesis that CKG and CKU jointly mediate the relationship between ICRM and CRMS. In a multiple mediator model, the specific indirect effects are usually of more interest than the total indirect effect; however, PROCESS provides the total indirect effect along with a bootstrap confidence interval (Hayes, 2012). The serial multiple mediator model assumes a causal chain connecting the mediators, with a stated direction of causal flow. The assumed direction of causal flow is often based on theoretical justification and/or insight about one's area of investigation.

To estimate the magnitude of the indirect effect, this study followed the recommendations of Helm et al. (2010) and Iacobucci and Duhachek (2003) and use the VAF (variance accounted for) value. The VAF value represents the ratio of the indirect effect to the total effect and is normed between 0% and 100% in terms of partial mediation. Generally, the higher values represent strong partial mediations. A VAF value (Table 6.20) of 11.12% indicated fairly moderate levels of mediation which meant that 11.12% of the total effect of ICRM to CRMS was explained by the indirect effect.

Table 6.20: CKG and CKU as mediators between ICRM and CRMS

							Bias corrected bootstrap 95% confidence interval	
Mediator (indirect effect key)	Indirect effect	Boot. SE	Direct effect	Total effect	VAF*	Lower	Upper	
ICRM→CKG→CKU→CRMS	.055	.0182	.4397	.4947	11.12% (Partial mediation)	.0249	.0991	

*VAF (variance accounted for) = indirect effect/total effect

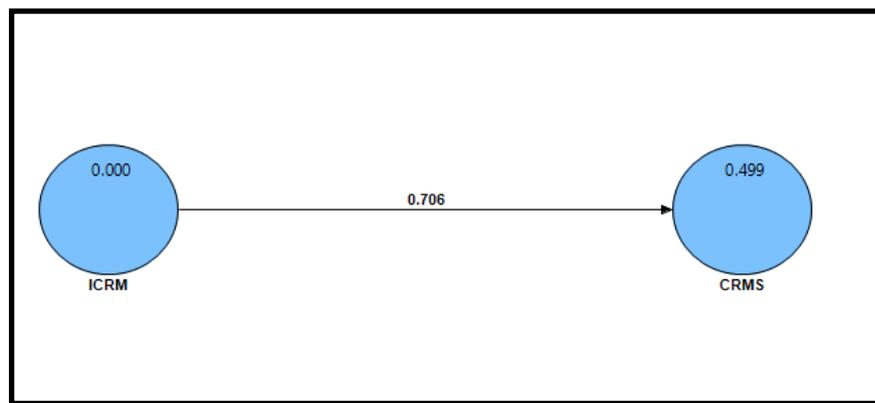


Figure 6.12: Without mediator (CKG and CKU)

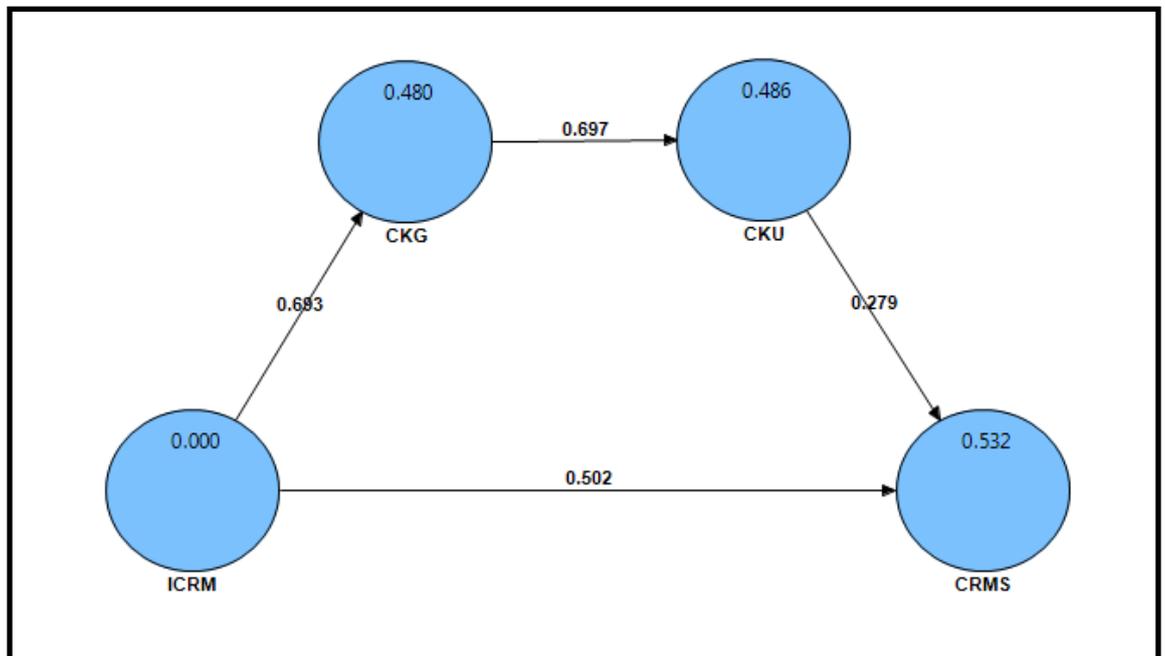


Figure 6.13: With mediator (CKG and CKU)

6.5 SUMMARY

This chapter has presented the findings of the quantitative analysis of the survey conducted on relationship managers/customer service managers of different banks of Bangladesh. In order to analyse the proposed model, a total of 300 usable responses were collected and recorded. In this study, for data analysis, the component-based PLS technique, using SmartPLS2.0.M3 software has been employed. The PLS technique was chosen due to the smaller sample size, and the nature of the study (exploratory study). Data were analysed in two stages: an assessment of the measurement model and an assessment of the structural model. In assessing the measurement model, tests for convergent validity and discriminant validity were performed. Convergent validity was ensured through examining item loadings of the reflective indicators. Reflective items having loadings less than 0.6 were discarded. In addition, composite reliability and average variance extracted (AVE) were investigated. Discriminant validity was confirmed through: (i) investigating the square root of AVE to the inter-construct correlations, and (ii) developing and analysing an item-loading matrix. For assessing the structural model, the following were examined: (i) collinearity among the predictor constructs; (ii) R^2 (amount of variance explained) value for each predicted variable; (iii) path coefficient (β); and (iv) significance of t -values. The data analysis revealed that R^2 values for all endogenous constructs were equal to or above 0.5. Moreover, the important endogenous construct 'CRM success' could explain 64.64% of the variance in the CRM success model. The adequacy of the multidimensional constructs ICRM, RM and SC were also verified as these constructs affirm the nomological and predictive validity, as recommended by prior studies. In addition, some mediation effects were tested: it was observed that a partial mediating role was played by RM between SC and CRMS and the tests found a partial and serial mediating role played by CKG and CKU between ICRM and CRMS.

CHAPTER 7 DISCUSSION AND IMPLICATIONS

7.1 INTRODUCTION

The aim of this chapter is to discuss the empirical findings of the previous chapter in terms of their theoretical significance, methodological precision and practical implication. The primary aim of this study was to develop a comprehensive but parsimonious CRM success model and also to empirically test the role of different relevant factors. The empirical findings are discussed consistent with the research objectives proposed in Chapter 1. The chapter also presents how the findings of this study fill the existing knowledge gaps and make significant contributions in the context of the banking industry of Bangladesh. The specific contribution of this study was the empirical validation of the CRM success model conceptualizing ICRM as a hierarchical construct and also testing the relationships among ICRM, customer knowledge, relationship maintenance and social capital by using SmartPLS 2.0.M3, a PLS-based SEM software (Ringle et al., 2005; Ringle et al., 2012; Chin, 2010). This study also conceptualized and empirically tested the sequential mediating effects of customer knowledge generation (CKG) and customer knowledge utilization (CKU) in the relationship between integrated customer relationship management (ICRM) and CRM success.

This chapter is organized as follows: Section 7.2 presents the discussion of the findings in the light of the research objectives. Section 7.3 discusses mediation effects in the model. Finally, the chapter is concluded with a brief summary.

7.2 FINDINGS IN THE LIGHT OF THE RESEARCH OBJECTIVES

The key objectives of the study were to investigate the role of ICRM on customer knowledge generation, customer relationship maintenance and on CRM success followed by examining the role of social capital on customer knowledge generation, customer relationship maintenance and CRM success in the context of the banking industry of Bangladesh.

Customer relationship management (CRM) has become a top priority today, and firms (including banks) around the world are making large investments in this regard. Nevertheless, previous empirical research investigating CRM success has produced inconsistent evidence and has expressed the view that the factors behind CRM success are an issue of debate (Becker et al., 2009; Krasnikov et al., 2009; Reimann et al., 2010). Moreover, from the theoretical perspective, CRM requires a holistic view and, for

successful implementation, it needs to be integrated with the overall activities of the firm (Piercy, 2009). A good number of researchers (e.g. Becker et al., 2009; Chang et al., 2010; Finnegan and Currie, 2010; Coltman, 2007) have emphasized the significance of the conceptualization and development of total CRM. In line with the suggestion of Roh et al. (2005), it can be argued that the influence of CRM on success in a causal path may have more significant implications for CRM planning and implementation. In addition, it may be hard to elucidate the findings of empirical investigations through considering some dimensions while ignoring others. In the wake of these issues, there has been an imperative to make clear the overall mechanism and point out the antecedent factors that directly or indirectly affect CRM success. This study explored the conceptualization of the factors behind CRM success and also highlighted CRM as an integrated and multidimensional concept addressing ICRM and finally developed a valid measurement model of CRM success. Referring to the resource-based view (RBV) and knowledge-based view (KBV) of the firm, this study proposed and empirically tested the CRM success model in the context of the banking industry of Bangladesh with an emphasis on two important issues: (a) empirically sketching and testing the factors behind CRM success; and (b) providing empirical evidence of the vital role played by customer knowledge, relationship maintenance and social capital in this process. It was observed that customer knowledge and relationship maintenance acted not only as relevant mediators, but also exerted a strong direct effect on CRM success. Each of these issues is discussed in the following sections.

7.2.1 Research Objective 1: To investigate the role of integrated customer relationship management (ICRM) on customer knowledge generation (CKG) and customer relationship maintenance (RM) and also on CRM success (CRMS)

Integrated customer relationship management (ICRM) as a multidimensional construct

Integrated customer relationship management (ICRM) consists of four different but related dimensions: customer orientation, customer-centric management system, CRM people and CRM technology. The factors mentioned here, to our knowledge, have not been linked together in an integrated manner. For service companies, this kind of integration calls for a systematic framework owing to their unique characteristics and nature. Services are considered to be a process as their production and delivery is the result of interaction among several elements which not only includes internal aspects (e.g. back and front-office infrastructure, CRM people, tangible and intangible elements and procedure), but also considers external issues such as interaction between the customer and the bank

(Dimitriadis and Stevens, 2008). Hence, this study postulates that the effectiveness of CRM is the result of the entire process of designing, managing and evaluating the flow of interactions with customers. The empirical findings of the study also provide evidence of the significant association between ICRM and its sub-dimensions: customer orientation, a customer-centric management system, CRM people and CRM technology. In the following sections, the relationship between ICRM and its dimensions are discussed in the light of their empirical and theoretical foundation.

Customer Orientation

In marketing and the CRM literature, a number of studies (e.g. Day, 2002; Sin et al., 2005; Jayachandran et al., 2005) have addressed customer orientation as one of the dimensions and have expressed the view that customer orientation establishes a belief system for the firm considering customer relationships as an asset and guiding the organization's attitude towards CRM. Hence, the result of this study is consistent with the findings of earlier research in marketing and CRM. From the earlier studies and the field study interviews, it can be argued that the customer orientation of a bank is reflected by customer needs' priority; personalized service; comfortable and accessible service; attitude towards customer complaints; relationship intention; and after-sales service and communication. It was also revealed that all the items corresponding to customer orientation were significant based on their loadings (see Table 6.8) suggesting that the indicators of this construct were reliable and acceptable (Hair et al., 2011). Hence, the measurement of customer orientation was valid in terms of all of the reflective items used to measure it. Moreover, an evaluation of the association indicated that customer orientation reflected 66.7% of ICRM variance (R^2) (see Appendix 4).

Customer-centric Management System (CCMS)

The empirical findings confirmed the role of customer-centric management as a significant dimension of integrated customer relationship management (ICRM) which is also consistent with previous studies on CRM (Chang et al., 2010; Jayachandran et al., 2005; Sin et al., 2005). As they have suggested, the customer-centric management system is consistent with customer orientation and reflects the design of the firm's structure and is expected to influence the implementation of CRM. Moreover, a CCMS should be designed to encourage customer-oriented culture in the firm. The inter-dependability and inter-connectivity of the constructs represented the reflective nature of the constructs associated with ICRM. An assessment of the association indicated that CCMS reflected 73.7% of ICRM variance (R^2). Therefore, as a significant dimension of ICRM, CCMS is

logically and empirically valid. This finding also inferred that a significant portion of the multidimensional construct ICRM was explained by a customer-centric management system in terms of employee training; performance measurement; a dedicated relationship manager (RM); value-based segmentation; and coordination of functional areas. It was also revealed that all the items corresponding to CCMS were significant based on their loadings (see Table 6.8) suggesting that the indicators of this construct were reliable and acceptable (Hair et al., 2011).

CRM People (CRMP)

The empirical findings confirmed that employees (CRM people) were equally important to CRM as they were the building blocks of customer relationships and hence a significant dimension of ICRM which was consistent with previous studies (Brown, 2001; Shum et al., 2008). An evaluation of the association indicates that ICRM has a significant link with the sub-factor or dimension 'CRM people' ($\beta = 0.850$): it explains 72.2% of overall variance (R^2) in ICRM (see Appendix 4). Hence it can be argued that consideration of CRM people as an important sub-factor or dimension of ICRM is logically and empirically valid. This finding also inferred that a significant portion of the multidimensional construct ICRM was explained by CRM people which was reflected by: key customer priority, convincing capability, adequate knowledge and employee willingness.

CRM Technology (CRMT)

The study's practical findings established the relevance of CRMT as a significant dimension of ICRM which was consistent with the findings of Sin et al. (2005); Nguyen and Mutum (2012); and Rapp et al. (2010) when they expressed the view that CRM application has largely been driven by technology. An investigation of the association indicates that ICRM has a significant association with the dimension CRMT ($\beta = 0.794$) and also reflects 63.11% of ICRM variance (R^2) (see Appendix 4). Thus, inclusion of CRM technology as an important dimension of ICRM is logically and empirically valid. This finding also inferred that a significant portion of the multidimensional construct ICRM was explained by CRMT which was reflected by software facilities; invest in technology; dedicated CRM technology; customer information integration; and technology to forecast preferences.

Nomological and Predictive Validity of the Construct ICRM

An assessment of the nomological and predictive validity of the second-order multidimensional construct ICRM were conducted through examining its relationship with outcome constructs CKG, SE, RM and CRMS (Akter et al., 2013; Mackenzie et al., 2011). The

results represent beta coefficients of 0.570, 0.748, 0.441 and 0.146, respectively from ICRM to customer knowledge generation, service excellence, relationship maintenance, and CRM success (see Table 6.14 and Figure 6.7). This study obtained R^2 (the coefficient of determination) of 0.495 for customer knowledge generation, 0.559 for service excellence, 0.641 for relationship maintenance and 0.645 for CRM success (see Table 6.15 and Figure 6.7) and the values of R^2 were found to be significantly large (>0.30) as per the measure of explained variance defined for R^2 (Straub et al., 2004). These results confirmed the effect of integrated customer relationship management on customer knowledge generation, service excellence, relationship maintenance and, ultimately on CRM success and thereby ensuring nomological validity (Akter et al., 2013) for the second-order construct ICRM.

Hypothesis 1 (H1): There is a positive relationship between integrated customer relationship management (ICRM) and customer knowledge generation (CKG)

The findings of the study revealed that integrated customer relationship management (ICRM) has a significant positive effect on customer knowledge generation, supporting an important assumption of the research model (Hypothesis H1). The study result also reported the positive association between ICRM and CKG ($\beta = 0.5773$ and $t = 9.4575$) which indicated that ICRM played a significant role in customer knowledge generation. More specifically, the integrated practice of customer relationship management encompassing customer orientation, a customer-centric management system, CRM people and CRM technology leads to better interaction with customers, efficient handling of complaints and also encourages customer feedback which ultimately facilitates customer knowledge generation in the bank. This finding was consistent with Mithas et al. (2005), Coltman (2007), Garrido-Moreno et al. (2014) and Homburg et al. (2009). Banks should deploy CRM technology to enhance the effectiveness of CRM initiatives. For instance, researchers (e.g. Mithas et al., 2005; Coltman, 2007) opined that the primary task of CRM technology or a CRM system is to facilitate the generation of customer knowledge through effective and efficient management of collected data. This is related to knowledge about customers which is mostly based on transactional records. In a similar vein, Homburg et al. (2009) argued that a high degree of customer orientation assists customer needs-related knowledge generation in which CRM people play the vital role. Through proper interaction, skilled frontline employees can generate knowledge about and knowledge from customers which eventually helps them to create knowledge for customers (i.e. knowledge provided to satisfy customer needs) (Homburg et al., 2009; Khodakarami and Chan, 2014). Hence, the findings of the study emphasize the importance of ICRM in terms

of customer orientation, customer-centric management, people and technology as basic inputs for customer knowledge generation. More specifically, given the paucity of research on the generation of knowledge from customers through CRM, this study has augmented the understanding of knowledge generation with a combined view of knowledge about and knowledge from customers.

This finding provides important managerial implications with regard to instigating customer knowledge generation for a better understanding of customers, for example, changing customer needs, customer complaints and customer expectations through the effective and integrated implementation of CRM. Managers need to focus on both types of knowledge: knowledge about and knowledge from customers which finally helps them to design and augment knowledge for customers with a broader view of customers' needs and preferences. An employee relational focus helps significantly in this regard. To achieve more from customer-oriented frontline employees, necessary training and skill development programs should be initiated by banks, with this also proven effective by the field study outcomes. The overall process should be supported by relevant and effective technology.

Hypothesis 2 (H2): There is a positive relationship between customer knowledge generation (CKG) and customer knowledge utilization (CKU)

The study has proved that there is a positive relationship between customer knowledge generation and customer knowledge utilization. The study result documented a significant association between CKG and CKU ($\beta = 0.697$ and $t = 20.258$) which provides evidence in favour of the relationship between CKG and CKU and also supports the view that CKU is one of the significant antecedents of CRM success. It can also be interpreted that knowledge generation will enhance knowledge utilization and support service development as well as modification. In the service arena, competition is all about knowledge creation and application in a service operation. Banks can offer their customers diversified ranges of products and services at reasonable prices through utilizing customer knowledge generated through ICRM and by the application of social capital dimensions. Customer knowledge utilization can be described in terms of the extent to which the firm generates knowledge (through ICRM and/or social capital) from various sources and utilizes this knowledge to develop and modify its offerings. The finding is supported by the work of Yli-Renko et al. (2001), Lusch et al. (2007), Karakostas et al. (2005), and Zhang et al. (2009). Therefore, banks should place their emphasis on an effective customer

knowledge generation system and utilize this system to develop outstanding offerings to outperform their competitors.

The field study results also confirmed the association between customer knowledge generation and utilization in the context of the banking industry of Bangladesh. The results found that the banks which are keen about knowledge acquisition and its subsequent use are doing better than their competitors in terms of customer response. For example, in response to customers' feedback, increasing the number of ATMs and service kiosks results in positive word of mouth and customer referral, as indicated by one of the respondents from a participating bank. In another example, one respondent stated that, based on customer feedback (knowledge), the branch has changed their queue management system which results in prompt service and saves time for both the parties. In a similar vein, another respondent mentioned that they have introduced an automated deposit machine in the branch where people can easily deposit a certain amount of money without queuing up for long and their bank also deployed this machine in response to customers' feedback. At the same time, respondents observed that those who were reluctant or who were slowed down with the application of customer knowledge were facing severe competition. Therefore, banks should focus on customer knowledge generation mechanisms to assist them to convert into being more customer-oriented and providing more supportive products and services that address customer needs.

Hypothesis 3 (H3): Customer knowledge utilization (CKU) has a positive effect on customer relationship management success (CRMS)

The findings of the study supported the view that there is a positive relationship between CKU and CRMS. The coefficient of association between CKU and CRMS ($\beta = 0.1163$) and the corresponding *t*-value ($t = 2.3387$) implied that there was a significant positive relationship between CKU and CRMS. This also specified that effective management and utilization of knowledge were important for customized products and service innovations and also for designing and developing personalized offerings which eventually would lead towards target achievement, customer satisfaction and, in the long run, profitability. In other words, knowledge utilization enables a firm to customize and to develop products and services resulting in a greater likelihood of success in terms of target achievement, efficiency, satisfaction, loyalty and profitability. Knowledge utilization can be regarded as a unique intangible resource which is inimitable in nature and can offer competitive advantage. The extent of success depends on the degree to which a bank is able to utilize the knowledge generated from its network. This is also in accord with the previous

research conducted by Calantone et al. (2006), Laursen and Salter (2006), Zhang et al. (2009) and Zheng et al. (2010). Hence, banks should realize that to achieve relationship success, they should focus on the utilization of customer knowledge, in accord with other antecedents of CRM success, to modify and also to personalize the offerings focusing on customers' needs and preferences.

The field study result also echoed the necessity of proper utilization of gathered knowledge to achieve success in CRM in the context of the Bangladeshi banking industry. The respondents emphasized the positive role of knowledge utilization in achieving given targets, efficiency in operation and satisfaction. For instance, one respondent talked about per-customer profit and cost per transaction. Once the bank has sufficient knowledge about their customers and does some work on this knowledge, they can easily discern their most active and less active customers. Now, if the bank can convert the non-active segment into an active one by focusing on their needs, the bank is likely to get more business from them. However, if this does not work, they can simply suspend the account of the less active customer which helps them to reduce operational cost and give more focus on their moderately active as well as most active customers. A few banks have recently introduced this strategy and have observed good results. In other cases, it was found that utilization of knowledge from customers has brought positive results for the bank. For example, modification of the loan processing system and reduction in processing time based on the knowledge generated from customers' feedback, results in efficient loan disbursement as well as better customer satisfaction. As proper utilization of customer knowledge strengthens the relationship and therefore results in success, banks need to concentrate more on this area.

Hypothesis 4 (H4): There is a positive relationship between integrated customer relationship management (ICRM) and customer relationship management success (CRMS)

The findings of this study have revealed that there is significant statistical evidence to support a positive relationship between ICRM and CRM success (Hypothesis H1). The coefficient of association between ICRM and CRMS ($\beta=0.1585$) and the corresponding t -value ($t= 2.222$) have inferred that ICRM has a significant and positive impact on CRM success. The low path coefficient and t -value indicate the existence of possible intervening variables between the relationship of ICRM and CRM success. This also implies that poor customer relationship management results in customer defection as well as poor performance. Moreover, through CRM, banks can reduce sales and service cost. This is also

in line with previous research conducted by Roh et al. (2005), Rapp et al. (2010) and Sin et al. (2005). This finding supports the key assumption underpinning the research model. This finding also provides significant implications for relationship managers as well as higher managers in banks. This will enable them to better understand and to serve and also to satisfy their customers in a profitable way, emphasizing their needs and expectations. Customer relationship management (CRM) success is better achieved when customer relationship management is practised in an integrated way. In addition, the overall internal process, technology and CRM people should be customer-centric to strengthen the customer relationship (Sin et al., 2005; Lavender, 2004). Relationship managers should persuade higher management to focus on customer relationship to make the bank the ultimate choice of customers (Vandermerwe, 2004).

The field study report has also confirmed that integrated relationship management practice is highly required to be competitive and successful in the banking arena. It was observed that those who were highly customer-focused, who gave priority to customer needs rather than internal needs and who encouraged employees to be relationship-focused were doing well in terms of target achievement, efficient customer management, overall customer satisfaction, loyalty and profitability which collectively reflected CRM success. It was also observed that banks needed to evaluate how CRM fits into their current business process and their present CRM status and also needed to identify the areas of development, modification and improvement. For instance, many banks now emphasize employee training programs as a reflection of their customer-centric and relationship-focused business practice. The outcome of relationship-focused employee training programs was outstanding as they have observed noticeable improvement in customer dealings, time and service management, and complaints handling. Furthermore, relevant and supportive technologies, and customer oriented philosophy also enable banks to better serve and satisfy their customers. In addition, enthusiastic and relationship-focused CRM people play a very significant role in this regard.

Hypothesis 7 (H7): There is a positive association between integrated customer relationship management (ICRM) and relationship maintenance (RM)

The hypothesized relationship between integrated customer relationship management (ICRM) and relationship maintenance (RM) was supported by the findings of the analysis. The coefficient of association between ICRM and RM ($\beta = 0.4432$) and corresponding t -value ($t = 7.8502$) inferred that there was a significant positive relationship between ICRM and RM. This finding was also in line with the previous research of Reinartz et al. (2004),

Reimann et al. (2010), and Aurier and N'Gola (2010). The positive role between ICRM and RM suggests that CRM increases the length of the beneficial firm–customer relationship (Reimann et al., 2010).

The findings provide important implications for relationship managers as well as higher managers in banks. This will enable them to better maintain a relationship and make it profitable for the banks through retaining existing customers, gaining their positive word mouth, and also encouraging cross-selling and up-selling. For instance, effective complaint management as a part of a customer-centric management system is an important aspect of customer retention (McNally, 2007) and managers could gain higher retention through effective complaint management.

Hypothesis 8 (H8): There is a positive relationship between relationship maintenance (RM) and customer relationship management success (CRMS)

It was observed that there was a positive relationship between relationship maintenance (RM) and CRM success. The coefficient of association between RM and CRMS ($\beta = 0.3115$) and the corresponding t -value ($t=5.085$) implied that close relationships with customers could contribute to the success of CRM. This also specified that maintaining long-term relationships with customers is more beneficial for banks as acquiring new customers is much more expensive than retaining current customers. More specifically, customer retention is more profitable than acquiring new customers and thus customer retention has often been regarded as an important cause of performance. Most importantly, it is cost saving to sell to current customers or referred customers rather than to completely new customers and therefore customer retention is positively linked to the efficiency of banks. This finding was also supported by previous studies (e.g. Chang et al., 2010; Frow and Payne, 2009; Farquhar and Panther, 2008; Nguyen and Mutum, 2012; Minami and Dawson, 2008).

The field study results also confirmed that RM was an antecedent for enhancing customer relationship management success. Field study respondents placed emphasis on customer referral and cross-selling and up-selling initiatives along with customer retention for the success of CRM initiatives. Customer retention, as a dimension of relationship maintenance, can be regarded as the key antecedent construct in measuring success. For example, customer retention helps in cost reduction as well as sales growth. Moreover, strong and positive customer referral, in many cases, also results in a good volume of business. A good number of bankers are aware of this and always try to maintain a personal connection, in addition to their relationship effort, with valued customers with

the aim of receiving a positive reference to some other potentially valued customers. This practice helps them significantly in achieving their target and also contributes to the banks' profitability. Enhancing the relationship with good customers through cross-selling and up-selling also facilitates target achievement which in turn supports banks' efficiency and profitability.

7.2.2 Research Objective 2: To investigate the role of social capital (SC) in customer knowledge generation (CKG), customer relationship maintenance (RM) and on customer relationship management success (CRMS)

To comply with research question 1 (RQ1), another research objective (RO2) was introduced with the aim of investigating the antecedent factors of CRM success, apart from ICRM. Consistent with previous studies and the field study findings, this study posited that social capital positively influenced customer knowledge generation, relationship maintenance and also CRM success. To investigate the relationships among social capital, customer knowledge generation, relationship maintenance and CRM success, hypotheses H9, H10 and H11 were developed. The outcome of the hypotheses test results are discussed in the following sections.

Hypothesis 9 (H9): There is a positive relationship between social capital (SC) and customer knowledge generation (CKG)

The hypothesized relationship between social capital and customer knowledge generation was supported by the findings of the analysis. The coefficient of association between SC and CKG ($\beta=0.1757$) and corresponding *t*-value ($t= 2.6197$) inferred that SC has a significant and positive impact on CKG. The results also revealed that a social relationship assisted by personal connection, social interaction and mutual trust significantly contributed to the generation of knowledge in a given setting. This result was also consistent with the work of Chow and Chan (2008) and Wu (2008). Knowledge can be either tacit or explicit; however, both types of knowledge are equally important for the success of the firm (bank). Social capital exists in the relationships between people (Okoli and Oh, 2007) and thus the effective and efficient implementation of the dimensions of social capital can influence knowledge generation. Firms can generate knowledge through internal and external sources (e.g. personal connection, social interaction—dimensions of social capital) and use it to create profiles of target customers which helps the firm to achieve its goal. People who build a social network are expected to share their knowledge. In fact, social capital affects knowledge acquisition. This finding was also supported by the studies of Okoli and Oh (2007), Chow and Chan (2008), and Plakoyiannaki et al. (2008).

Knowledge generation through the transfer of knowledge is heavily dependent on the informal networks of employees. Social capital influences knowledge generation in such a way that “who you know” affects “what you know” (Nahapiet and Ghosal, 1998). Network ties such as personal connection and social interaction grant individuals access to knowledge (Yang et al., 2011). The relationship between the relational dimensions of social capital and knowledge transfer largely depends on the strength of the dyadic relationship. Similarly, the strength of the relationship helps to understand the effectiveness of knowledge sharing and knowledge transfer. Banks, especially CRM people, should place emphasis on nurturing personal connection and social interaction which creates the avenue of knowledge sharing as sound relationships enhance knowledge sharing behaviour. Once customers start relying on CRM people or the bank, they willingly share their views about that bank, as well as about its competitors, and thus employees get the opportunity to generate knowledge about the market as well as the customer’s needs pattern. Trust (another dimension of social capital) also plays a very critical role in this regard since mutual trust is one of many factors critical to the success of knowledge sharing. Therefore, banks should focus on trust building initiatives either at the individual level (CRM people) or at the organizational level as this facilitates the acquisition and dissemination of customer information. Thus, the findings of the study have emphasized the importance of social capital as an enabler of knowledge generation.

The field study findings also affirmed that social capital helps to generate knowledge about and from customers. Most respondents emphasized mutual trust and personal connection as facilitators of knowledge generation and knowledge sharing. It was also observed that some banks are now seriously focusing on the social capital dimension such as social interaction. To comply with this, banks now arrange for membership of different social clubs for their managers so they can meet and greet valued customers and have an idea about their perception and expectation which eventually will help the managers to generate knowledge from customers. The banks following these strategies; though, very few in number, are enjoying the competitive advantage over their competitors.

Hypothesis 10 (H10): There is a positive relationship between social capital (SC) and relationship maintenance (RM)

From the results of the analysis, it can be inferred that there is a positive relationship between social capital and relationship maintenance. The coefficient of association between SC and RM ($\beta=0.3091$) and corresponding t -value ($t=4.5533$) inferred that SC has a significant and positive impact on RM. This also specified that social capital supported

relationship maintenance, which eventually enhanced customer retention, cross-selling and up-selling as well as customer referral to banks. In other words, the development of long-term relationships was influenced by the social aspect. Bankers should realize that personal connection and social interaction have a positive effect on word-of-mouth (customer referral) communication in the retail banking context. Trust as a relational dimension of social capital also plays a very significant role in this regard. Banks need to realize that if customers become less trusting of their behaviour, customers will spread negative word of mouth which will ultimately affect the customer referral process. Trust also encourages investment in long-term relationships and increases commitment which ultimately induces customers to continue business with their current bank. Moreover, disputes between trusted parties can be solved in an efficient and agreeable way which, in turn, leads towards positive word of mouth. Customers feel love towards their banks and continue the relationship when they experience successful interactions. This finding was also supported by the study of Gremler and Gwinner (2008); Nguyen and Mutum (2012); Yli-Renko et al. (2001) and Plakoyiannaki et al. (2008).

Customers may continue with a bank not only because of superior service or performance, but also because of the ties he or she has developed over time with the bank or with particular CRM people. Similarly, banks should realize that customers are keen to do business with the firm they trust most and who they feel have their interest at heart. The field study result also confirmed this issue. The field study outcome revealed that social capital supported customer retention, facilitated cross-selling and up-selling and also positively influenced the customer referral process. Field study respondents emphasized personal connection and trust between customers and CRM people and expressed the view that strong interpersonal connection and trust induced customers to continue business with a particular bank as trust reduced feelings of uncertainty and risk. They also mentioned that, due to personal connection and trust, they felt free to disclose any financial issue with their bankers and, in some cases, the level of trust was so high that CRM people became involved in non-financial matters such as, personal and family issues. Hence, banks should realize the importance and effect of employee personal connection and individual trust on customer retention and other relationship maintenance issues. In a similar vein, social interaction, either at the organizational level or individual level, creates a positive impression in the minds of customers or induces them to continue and to expand business with the current service provider (bank). Therefore, banks in general and managers in particular, should place emphasis on the dimensions of social capital to support long-term relationship with customers.

Hypothesis 11 (H11): There is a positive relationship between social capital (SC) and customer relationship management success (CRMS)

The findings of the study supported that there was a positive relationship between social capital and CRM success. The study result acknowledged a significant association between social capital and CRM success ($\beta=0.1975$ and $t=3.5847$) and also inferred that SC has a positive and significant impact on CRM success. In a simplified way, it can be inferred that social capital can enhance the bank's ability to improve performance through ensuring CRM success in terms of target achievement, efficiency, satisfaction, loyalty and profitability. More specifically, banks should value the bank–customer relationship, in other words, employee–customer relationships for a favourable service experience. Social capital is a key driver of sales-related performance, especially in knowledge-intensive contexts (Ustuner, 2005). The ability to build social capital across networks has become critical due to the development of the networked economy (Lesser, 2000). Social capital as an inimitable value-generating resource is inherent in a network relationship. In the present competitive and dynamic business world, many banks have found themselves trapped in such a situation where existing resources and competencies are no longer adequate to uphold their competitive positions. Hence, to outperform their competitors, banks are highly interested in seeking complementary resources such as social capital in terms of trust, personal connection and social interaction.

Social capital can be termed as the goodwill caused by the network of social relations (Adler and Kwon, 2002). In other words, this is about relationships within social networks (Yang et al., 2011). Banks need to realize that enjoyable interaction and personal connection are significantly related to satisfaction and loyalty intentions, with this view also supported by Jamal and Adelowore (2008), Yim et al. (2008) and Palmatier et al. (2007).

The field study results also expressed the significance of the impact of social capital in conjunction with CRM on CRM success in the context of the banking industry of Bangladesh. Customer–employee trust helps to lower the risks of service exchanges and positively builds ongoing connections. The respondents argued that many banks underestimate the contribution of customer–employee interactions (both on professional and personal levels) to customer satisfaction as well as customer loyalty and ultimately to profitability. These context-specific findings have a strong effect on success and thus banks should realize the value of formal and informal employee–customer relationships and try to capitalize on those relationships to enhance performance.

7.3 OTHER ANTECEDENT VARIABLES THAT ALSO SUPPORT CRM SUCCESS

Hypothesis 5 (H5): There is a positive relationship between integrated customer relationship management (ICRM) and service excellence (SE)

From the results of analysis, it can be inferred that there is a positive relationship between ICRM and service excellence. The coefficient of association between ICRM and SE ($\beta = 0.7485$) and corresponding t -value ($t=25.279$) have deduced that integrated customer relationship management played a significant role in offering excellent service. Banks need to understand what drives service excellence and the sub-factors or dimensions of ICRM play a very significant role in this regard as they integrate all the relevant and required factors essential for ensuring excellence in service operations, especially for the banks. Banks need to comprehend that service excellence is concerned with the integration of relationship management practices, and keeping customers at the centre of everything they do in order to exceed customers' expectations. More specifically, enhancement of the coordination of customer orientation, a customer-centric management system, CRM people and CRM technology facilitate needs-based, on-time, error-free and efficient service. Employees (CRM people) are one of the most significant components of the overall CRM process and their behaviour plays a very significant role in determining the level of service quality. In addition, their training and development facilitates the achievement of service excellence. This also ensures that CRM people are prepared and motivated to act in a service-oriented manner. This finding was also in accord with previous research by Clark and Baker (2007); Keen and freeston (2008) and Plakoyiannaki et al. (2008). Therefore, the findings of the study signify the coordination of CRM components as a prerequisite for ensuring an outstanding service experience to customers.

The field study results also proved that CRM was an important enabler of service improvement and banks could offer outstanding service experience through implementing and practising CRM in an integrated way. To become truly service-excellent, banks need to adopt a holistic approach to manage everything. It was also revealed that service excellence was about taking an integrated approach to business and the relationship management process which would require managing a number of processes within the bank that were interrelated and would impact on each other.

Hypothesis6 (H6): Service excellence (SE) has a positive influence on customer relationship management success (CRMS)

The findings of the study corroborated that there is a positive relationship between SE and CRMS. The study also confirmed the association between SE and CRMS ($\beta = 0.1378$ and $t = 2.3893$) which proved that SE was one of the antecedents of CRM success. Service excellence is about exceeding customer expectations which ultimately enables the firm to initiate and maintain long-term profitable relationships with customers. The results also suggest that service excellence was a significant source of value that helped to create differential advantage and thereby facilitated profitability through strengthening the relationships. The banks, which are not active in developing customer care and service that are centred around the customer, have resulted in poor performance. To establish the philosophy of service excellence, banks need to create a sense of customer intimacy through which they understand customers' needs and expectations. To ensure service excellence, many banks rely on careful selection of staff and search for people who are enthusiastic, relationship-focused and motivated to match the bank's service ethic. Apart from technical skill, CRM people should have a positive service attitude which, later on, will help them to build strong profitable relationships with customers. Banks also need to ensure that CRM people have the right skill and adequate service knowledge through sufficient training, as part of their customer-centric management philosophy. This finding was supported by previous studies (e.g. Padmavathy et al., 2012; Plakoyiannaki et al., 2008; Clark and Baker, 2007) and hence reiterated the importance of service excellence as an antecedent of CRM success.

The field study also affirmed service excellence as one of the important antecedents of CRM success. Bankers agreed that service excellence helped to retain and satisfy customers through improving service on a regular basis. The first impression that customers derive is from the service encounter. In this regard, the respondent from one bank mentioned that the main mechanism used to satisfy customers and to turn them into being loyal to the bank was service excellence. Another respondent noted that the quality and history of the relationships that a particular customer has with staff (CRM people) remained the most unique aspect of the business. The emphasis on extraordinary service developed an understanding that sound relationships with customers could facilitate the success of the CRM process. Therefore, banks as well as bankers should realize that a clear understanding of the key ingredients of service excellence should guide a bank towards future success.

Hypothesis 12 (H12): Customer knowledge generation (CKG) has a positive influence on relationship maintenance (RM)

From the results of the analysis, it can be inferred that there is a positive relationship between CKG and relationship maintenance (RM). The coefficient of association between CKG and RM ($\beta = 0.7485$) and corresponding t -value ($t=2.8927$) have deduced that generated knowledge about and from customers would play a significant role in relationship maintenance if this could be properly utilized. This result also emphasized that knowing the customer is essential for the firm–customer relationship and this is in line with the argument by Paulin et al. (2000). Knowledge generation is highly valuable as it enables the bank to develop a knowledge base of the customer and thereby sheds light on the reasons behind the customer’s preferences and buying decisions. Banks need to realize that customer knowledge acts as an antecedent of relationship quality. To build and maintain good relationships with customers, it is essential to serve each customer in accordance with his/her preferred way and therefore this requires customer knowledge. Elements of customer retention include one-to-one marketing, complaints management and personalized services offered by the banks. Customer retention largely depends on the meeting of customers’ expectations in which sufficient customer knowledge plays a very significant role. In this regard, researchers (e.g. Ngai et al., 2007; Dagger et al., 2011) also emphasized the importance of knowledge and opined that when a customer visits the branch knowing from the previous experience that branch employees have knowledge about his/her requirements, he/she will feel confident about on-time service and also feel better about continuing the relationship with the branch.

7.4 MEDIATING ROLE OF RM, CKG AND CKU

Hypothesis13 (H13): Relationship maintenance (RM) mediates the relationship between (social capital) SC and customer relationship management success (CRMS)

The findings of the study have investigated and confirmed the mediating role of RM between SC and CRMS. The findings confirmed that without any mediating effect, the direct effect between SC and CRMS is significant ($t=16.02$, $p=0.1$). It was also observed that the indirect effect between SC and CRMS was significant ($z=8.30$, $p=0.1$) and that this explained about 55.64% of the total effect between SC and CRMS (see Table 6.19). In addition, it was found that the direct effect between SC and CRMS was still significant ($t = 5.39$), however, with low value, when the mediating effect (RM) was considered. Hence, a partial mediating role of RM was found between SC and CRMS with reference to Baron and Kenney (1986).

Hypothesis14 (H14): Customer knowledge generation (CKG) and customer knowledge utilization (CKU) mediate the relationship between integrated customer relationship management (ICRM) and customer relationship management success (CRMS)

The findings of the study investigated and confirmed the mediating role of CKG and CKU between ICRM and CRMS. The findings affirmed that, without any mediation, the direct effect between ICRM and CRMS was significant ($t= 20.822$). The findings also affirmed that the indirect effect of CKG and CKU on CRMS was also significant (see Table 6.20) with a VAF value of 11.12 which meant that 11.12% of the total effect of ICRM on CRMS was explained by the indirect effect. Therefore, a partial and sequential mediating role of CKG and CKU was found between ICRM and CRMS with reference to Baron and Kenney (1986); Helm et al. (2010); and Preacher and Hayes (2008). Knowledge utilization is an important predictor of the benefits. The extent to which banks generate knowledge by using relationship management practices and use this knowledge for product and service development may result in better performance. Banks need to realize that customer knowledge (knowledge about and knowledge from) serves not only as an antecedent to banks' success, but also acts as a medium between organizational factors (e.g. ICRM) and performance (success). More specifically, the knowledge generated through ICRM is utilized for the development and/or modification of products and services, which will ultimately enhance efficiency and performance of the banks. In other words, customer knowledge generated through repeated interaction, and also through CRM people and/or technology, facilitates tailor-made offerings which eventually influence customer satisfaction and loyalty. The indirect effect of CKG and CKU was also supported by the literature (Zheng et al., 2010; Laursen and Salter, 2006).

7.5 SUMMARY

This chapter has provided a discussion of the findings based on the PLS analysis using SmartPLS 2.0M3 software, as presented in Chapter 6. The interpretations of the findings have been carried out in accordance with the research objectives and related hypotheses. Overall findings show that integrated customer relationship management is a multidimensional concept consisting of customer orientation, a customer-centric management system, CRM people and CRM technology. The discussion also revealed that ICRM plays a very significant role in customer knowledge generation and also facilitated customer knowledge utilization which eventually will stimulate the success of CRM

initiatives. It was also observed that the dimensions of social capital: trust, personal connection and social interaction play a vital role in knowledge generation and CRM success. The mediating role of relationship maintenance between social capital and CRM success and the sequential mediating role of CKG and CKU between ICRM and CRM success were also observed. Finally, it can be concluded that, ICRM, customer knowledge, service excellence, relationship maintenance and social capital are all essential antecedents of CRM success in the context of the banking industry of Bangladesh.

CHAPTER 8 CONCLUSIONS AND FUTURE RESEARCH DIRECTIONS

8.1 INTRODUCTION

The main purpose of this research was to present and investigate the hypothesized relationships in a CRM success model. More specifically, this model examined the theoretical and empirical evidence on the causal relationships among integrated customer relationship management, customer knowledge generation and utilization, service excellence, relationship maintenance, social capital and CRM success in the context of the Bangladeshi banking industry. This was in accord with the suggestion of Nguyen et al. (2012) who recommended that future studies should investigate the factors that are likely to contribute to building customer relationships. This research also aimed to provide a holistic and integrated model of CRM through identifying and measuring the dimensions of CRM. In addition, this study attempted to identify the possible intervening variables that may enhance or hinder CRM success in banks and witnessed the partial mediating role of customer knowledge generation and utilization as well as relationship maintenance on the causal relationship. Having undertaken a comprehensive literature review on different theoretical and empirical aspects of the research problems, outlined the research questions and objectives, and also embraced the field study outcomes, a CRM success model was developed. The final chapter of this study begins with a summary of the research. This is followed by the significance of theoretical and practical contributions. Limitations of the study have also been discussed and finally some future research directions are detailed.

8.2 SUMMARY OF RESEARCH

Customer relationship management (CRM) has become a top priority for many companies and different categories of firms (both financial and non-financial) worldwide are making large investments in these initiatives, with the Bangladeshi banking industry no exception. The banking sector in Bangladesh, which is one of the growing sectors within the country, has experienced drastic changes, resulting in a marketplace which is characterized by severe competition. However, based on the existing searching options and resources available, no prior research, focusing on CRM and CRM success, has been found in the context of the banking industry of Bangladesh. Moreover, previous empirical research of CRM success, from developed and developing country perspectives, has produced inconsistent evidence (Becker et al. 2009; Chang et al., 2010; Foss et al., 2008; Reimann et

al., 2010). In addition, what constitutes CRM, in general, and in the banking industry, in particular, is still a contentious issue (Coltman, 2007; Eid, 2007; Krasnikov et al., 2009; Sin et al., 2005). The existing literature on CRM lacks an empirically validated model that can address the dimensions of CRM and other relevant factors and their combined effect on CRM success. In the wake of these conflicting results, there has been an imperative to make clear the overall mechanism, factors and conditions related to CRM success from the banking industry perspective. The constructs and their hypothesized relationships were justified in the light of the resource-based view (RBV) and the knowledge-based view (KBV) to confirm the theoretical foundations of the conceptual model. An initial research model was developed through a comprehensive literature review which was further contextualized and validated by a qualitative field study.

This research has employed a mixed method approach which combined both qualitative and quantitative methods of data collection and analysis process. The qualitative phase aimed to enhance the initial model. In this phase, 11 customer service managers or relationship managers of 11 different banks of Bangladesh were interviewed using a semi-structured interview protocol (as discussed in Chapter 4). The data collected from the field study were analysed through the content analysis approach. Some interesting outcomes along with some new links (relationships) have emerged. From the findings of the content analysis, a field study model was developed. The field study also helped to investigate the relevance of different measurement items in the context of the banking industry of Bangladesh. A comprehensive and final research model was then developed based on the comparison of the conceptual model and the field study model.

The final research model consisted of three higher-order concepts: integrated customer relationship management, relationship maintenance and social capital and three other factors, namely, customer knowledge generation, customer knowledge utilization and service excellence and all those factors and variables that would ultimately facilitate CRM success. Integrated customer relationship management as a higher-order construct was reflected by four sub-factors: customer orientation, a customer-centric management system, CRM people and CRM technology. Similarly, relationship maintenance consisted of customer retention, cross-selling and up-selling, and customer referral: social capital consisted of trust, personal connection and social interaction. Moreover, the constructs, service excellence, customer knowledge generation and relationship maintenance, appeared as the primary outcome of integrated customer relationship management which had a direct and indirect effect on CRM success. The endogenous construct, CRM success, was measured by five sub-factors: target achievement, efficiency, satisfaction, loyalty and

profitability. The measurement items for the factors and sub-factors used in this study were mostly adopted from the theories as well as from the prior studies.

The next phase of the research employed a quantitative approach to test the proposed hypotheses. This phase started with the development of the questionnaire for the final survey. The measurement items, obtained from the prior research and contextualized through the field study, were used for questionnaire development (as described in Chapter 5). The initial questionnaire was then pre-tested and refined to prepare the final questionnaire. After a pilot study, using this questionnaire, the final survey data were collected, and a total of 300 usable survey responses was attained. A partial least squares (PLS)-based structural equation modelling (SEM) technique was used to analyse the collected data (see Chapter 6). The PLS analysis was performed to assess the measurement model and the structural model. Items with low reliability were dropped from the model to ensure the acceptable level of item reliability, convergent validity and discriminant validity.

The assessment of the structural model revealed that the construct, CRM success, could explain 64.64% of the total variance. The results of the hypotheses testing showed that all hypotheses were found to be statistically significant (see Table 6.16). From the results, it was observed that all the mediating hypotheses were also supported. From the data analysis, it was also evident that the model confirmed the nomological and predictive validity with respect to the focal construct 'CRM success'. The results have both managerial and research implications.

8.3 CONTRIBUTIONS

This study empirically tested the role of ICRM along with some other factors like customer knowledge, relationship maintenance and social capital on CRM success with the hope that the results would contribute both theoretically and practically.

8.3.1 Theoretical Contribution

The empirically tested model to analyse CRM success gives rise to several theoretical significances. One of the major contributions of this study is that this research provides a better understanding of CRM success factors with reference to integrated customer relationship management, customer knowledge, relationship maintenance and social capital by testing and validating the measurement properties related to these factors. The model also explains the relationships between CRM success and other constructs: integrated customer relationship management, social capital and other outcome

constructs of ICRM such as customer knowledge, service excellence and relationship maintenance. From the extensive literature survey on CRM and CRM success, significant research gaps have been identified (Finnegan and Currie, 2010; Garrido-Moreno and Melendez, 2011; Chang et al., 2010). Considering the prior research and filling the existing gaps in the existing literature, this research offers valuable insights through developing a comprehensive research model which was further contextualized through a qualitative field study and tested through quantitative field study. This study also responded to the imperative to identify the role that integrated customer relationship management has on CRM success and found that it has positive effects on target achievement, efficiency, satisfaction and also on profitability. Therefore, this study contributes to the body of knowledge as there is no such previous model that integrates all these CRM success factors in a single frame, in the context of the banking industry and, more specifically, in the Bangladeshi banking industry.

This study empirically tested and validated the measurement of the multidimensional and higher-order construct 'integrated customer relationship management' which consisted of customer retention, a customer-centric management system, CRM people and CRM technology. Several researchers have emphasized the importance and urgency of the holistic and integrated aspects (e.g. Finnegan and Currie, 2010; Coltman, 2007) of CRM; however, an empirically validated multidimensional higher-order CRM concept is yet to be developed. Therefore, through framing and validating ICRM, this study enriches the literature on customer relationship management.

This study also contributes to the theory and existing literature through identifying some CRM-specific resources such as customer orientation, a customer-centric management system and CRM people. The study also establishes the positive influence on the effectiveness of CRM implementation and success of having these unique resources along with other tangible and intangible resources such as technology, knowledge and social capital.

Another contribution of this study is to establish customer knowledge generation as an output of ICRM emphasizing both types of knowledge (knowledge from and knowledge about customers). Prior research related to CRM and KM (e.g. Sin et al., 2005; Garrido-Moreno and Padilla-Melendez, 2011) considered customer knowledge as well as knowledge management as being embedded within CRM. With a few exceptions (e.g. Xu and Walton, 2005), prior research has mostly dealt with knowledge about customers and has ignored the importance of knowledge from and knowledge for customers. A very

recent study (Khodakarami and Chan, 2014) has shed light on this issue; however, they focused only on the CRM system rather than on CRM as an integrated and holistic notion. Therefore, this study takes a unique view and finds ICRM's positive role in generating knowledge about, and from customers and also utilizing it to create knowledge for customers.

In addition, this study explored a number of relationships among the constructs such as social capital, customer knowledge generation, relationship maintenance and CRM success. These relationships are prevalent in the field of social capital and knowledge management; however, they are not common in the CRM arena. In addition, this study also identified and tested the view that that customer knowledge generation and utilization sequentially and partially mediate the relationship between integrated customer relationship management and CRM success. Similarly, this study tested the mediating role of relationship maintenance between social capital and CRM success. To the best of the researcher's knowledge, these mediation relationships have not yet been empirically tested: in particular, the inclusion of the sequential mediating effect of customer knowledge generation and utilization is new in CRM literature.

Further contribution is made by this study by generalizing ICRM research to the Bangladeshi banking industry context, acknowledging the importance of human and non-human aspects such as customer-firm and the customer-employee relationships (personal and professional) for the favourable service experience. Thus, this study helps to comply with the rising need for cross-industrial and cross-cultural generalization of CRM implementation (Boulding et al., 2005).

Finally, the research model is unique in the sense that it integrates two core theories: the resource-based view (RBV) and the knowledge-based view (KBV) to identify the relevant factors and their interrelationships in the CRM success model. To explore and explain the tangible and intangible resources associated with the outcome perspective of ICRM and customer knowledge, this study integrates the resource-based view and the knowledge-based view and establishes the links among ICRM, customer knowledge and CRM success. Hence, this study extends the outcome perspective of the resource-based view in the context of the banking industry of Bangladesh and makes significant contributions to the extant literature.

8.3.2 Practical Contribution

The decision makers will gain valuable comprehension regarding the facilitating factors of CRM success. This will enable them to better understand, and serve and satisfy their

customers in a profitable way, emphasizing their needs and expectations. Identification of the antecedent factors in the model such as integrated customer relationship management, customer knowledge, service excellence, relationship maintenance and social capital are essential input to higher managers as well as to customer service managers/relationship managers to enhance the performance of CRM initiatives. It also suggests that CRM alone is not enough to gain maximum benefits. More specifically, CRM success is best achieved when customer relationship management is practised in an integrated and integrative way.

Although IT is a major enabler of CRM, the results suggest that CRM is not merely a technology, but a strategic and organizational issue. Hence, this study suggests that the keys to CRM success are sufficient higher management support, ample organizational structure and support, hiring enthusiastic and relationship-focused people, and employee training and motivation. More precisely, CRM needs to be conceptualized and implemented in an integrated way by higher managers as well as by relationship managers. The findings confirm that the role of the components of ICRM appears to be especially important for the banking industry. In terms of higher management support, CRM is highly dependent on employees' (CRM people) attitudes and commitment. Thus, this study suggests that the successful implementation of CRM requires motivated and involved employees. Higher-management should focus on a customer-centric management system considering CRM as a strategy and process which requires a change of all internal processes. Moreover, managers need to emphasize training and motivation to enhance the participation of all relevant employees in CRM implementation which is clearly important for implementation success. Relationship managers should persuade higher management to focus on customer relationships to make the bank the ultimate choice for customers.

This study also confirms that investing in technology is a necessary but not sufficient condition for achieving a positive outcome with CRM and thus suggests that banks should optimize their investments in software that is totally adaptable to their strategic objectives and resources. Moreover, this study also suggests that bank managers should consider technology as an enabler, without over-emphasizing its protagonist role in CRM implementation.

Knowledge, especially knowledge about and knowledge from customers, has become a very strong input for competition and thus is highly required for the success of the organization. Managers should promote an organizational system, practice and culture encouraging employees to acquire, share and use knowledge effectively. The findings of

the study illustrate the role of integrated customer relationship management in this regard. Thus, this study provides valuable input to managers regarding the role of ICRM and social capital in customer knowledge (knowledge from and about) generation. Moreover, adequate and proper knowledge from and about customers will enable the bank to better understand the customers as it will have more knowledge about customer needs, complaints and expectations than before. In addition, generated knowledge will enable bank managers to design and customize their offerings in line with customers' needs and preferences which, ultimately, will help managers to develop and maintain a satisfied, loyal and profitable customer base.

Many firms underestimate the role of social resources like social capital in the form of employee personal connection, social interaction and trust. This study guides managers into understanding the importance of these resources in long-lasting relationship building. Managers should emphasize that every interaction provides an opportunity to enhance relationships and also to know more from the customers. This study also proposes that trust, personal connection and social interaction (either personal or professional) reduce uncertainties about relational outcomes and thus encourage a trusting relationship which ultimately brings success for the bank.

This study considers Bangladesh as a case, particularly the banking industry; however, the study's implications are also significant for other countries in a similar institutional or relationship-focused, people-intensive and knowledge-intensive service industry (e.g. Hotel) context.

8.4 LIMITATIONS

As in all research, there are some limitations, innate to this study, which limit its interpretation and generalizability.

Firstly, the variables are measured based on the perceptions of relationship managers and/or customer service managers and consequently have a certain degree of subjectivity. Customer service/relationship managers have been chosen as respondents due to their knowledge in this regard being more comprehensive.

Secondly, this research has been conducted in one country and within a specific industry. However, as customer relationship management (CRM) practice by its nature is context-specific, replication in other contexts would increase confidence in the research model.

Thirdly, this is a cross-sectional study which delivers only a snapshot in time thus making it hard to fully comprehend the order of effects and being left to deduce causality. Longitudinal data could offer a superior understanding of the relationships between the factors and would also help to explore how the variables evolve over time. This is particularly interesting in light of the dynamic nature of the variables presented in this study. This study tested most conceivable directions for the pathways in the proposed model; however, longitudinal research could help to determine the direction of the relationship and also to identify possible reciprocal processes. In this study, the researcher tried to temper this limitation by stressing theoretical arguments, by justifying the relationships analysed and by integrating progressive considerations into the measurement of the variables (Hair et al., 2009).

8.5 FUTURE RESEARCH DIRECTIONS

This study paves the way for further research which can be summarized as follows.

To address the methodological limitations of cross-sectional research, a longitudinal study could be carried out to explore how the variables used in this study evolve over time. Moreover, the data were obtained from one set of informants (managers), but no information regarding customer perceptions of CRM implementation were used and, thus, inclusion of this information could possibly complement the results in future studies.

Moreover, additional research may unearth significant moderating effects on the established relationships to further enrich both theory and practice. It would also be valuable to ascertain other supporting mechanisms that generate better value for banks through organizing existing resources and capabilities. Moreover, with the emergence of social media, how CRM adapts and materializes itself in such a future could be further studied.

The results of this research may be replicated under different contextual conditions, for instance, other industrial settings (e.g. hotel, insurance, etc.) and/or in another country context.

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APPENDICES

Appendix1: Interview Guide for Field Study

CRM Success Model

(Relationship Managers)

The aim of the research is to develop a Customer Relationship Management (CRM) success framework for banking industry of Bangladesh. In this regard the objective of this interview is to understand the customer relationship management issues and practices followed by Bangladeshi banks along with expected and actual outcomes of present CRM practices. Moreover, this study also aims at exploring CRM success factors and the role of customer knowledge and social capital in this regard to formulate a CRM success model for Bangladeshi banking industry.

N.B.: All the collected information will be kept secure and confidential and will be used only for academic purpose.

Introductory Questions

Respondent's name.....

Name of the bank

Present position, duties and responsibilities.....

Semi-Structured Questions

Customer relationship management (CRM): CRM is a set of business activities supported by both technology and processes that is directed by strategy and is designed to improve business performance in an area of customer management (Richards & Jones, 2008).

(Above definition will be explained verbally to the participant)

1. What is your understanding of CRM and how it is being practiced in your bank?
Please give example(s).
 - Probe as necessary
2. What factors (both technological and non-technological) do you think most important to set CRM in order to maintain relationship with customers? Please give example(s).
 - Probe as necessary
3. What is/are the expectation(s) of the banks from present CRM practices and what is/are the actual outcome(s).

CRM Success

4. What is your understanding of CRM success?
5. How does bank measure CRM success?
 - Probe as necessary

Customer Knowledge

6. How do you collect information (knowledge) from and about the customers? Please consider both formal and informal ways of collecting information.
 - Role of CRM in customer knowledge generation.
7. How does your bank store and use customer information (knowledge)?
8. Do you think customer information/knowledge has a significant role in CRM success? If yes, how?
9. How does the collected information help the bank to improve performance? Please give some examples of improvement.

Relationship Maintenance

Relationship maintenance is an interpersonal process which arises just after a relationship has finished beginning and traditionally is thought to involve efforts to continue a relationship in its present state (Montgomery, 1993).

(Above definition will be explained verbally to the participant)

10. What is/are the indicator(s) of stable and long-term customer relationship? What efforts (relationship and non-relationship issues) make it possible?
11. In what ways stable and long term customer relationship improve CRM experience and finally improve bank performance.

Social Capital

Social capital is defined as 'the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit' (Nahapiet & Ghoshal, 1998).

(Above definition will be explained verbally to the participant)

12. What is your understanding about social capital and how it is being used by the bank? Please give example(s)
 - Probe as necessary
13. Do you think social capital can facilitate and support customer knowledge generation, relationship maintenance and eventually CRM success? If yes, how and what factors play the vital role?

Thankyou

Appendix 2: Survey Questionnaire

Dear survey respondent

Thank you for agreeing to complete this questionnaire. Your participation in this research is voluntary. The confidentiality and anonymity of the respondents will be respected and protected. I will ensure and guarantee that none of the respondents that cooperate in this research will be identified or be capable of identification in the writing up of the research for academic publication. Any data presented will be aggregated as I am interested in general trends, not in a particular individual or organization.

The questionnaire attempts to find out **The Role of Integrated Customer Relationship Management in Customer Knowledge Generation and Relationship Maintenance in Service Industry: A Study on Commercial Banks of Bangladesh**. Your assistance in completing this questionnaire would be valuable not only to me but also make an important contribution to our knowledge about achieving CRM success in banking industry of Bangladesh. I will value your honest response to the questionnaire and your kind participation is greatly appreciated.

This study has been approved by the Curtin University Human Research Ethics Committee. If needed, verification of approval can be obtained by writing to the Curtin University Human Research Ethics Committee, c/o - Office of Research & Development, Curtin University, GPO Box U1987, Perth 6845, or telephone +618 972662784. If you would like further information about the study, please feel free to contact me. My contact details are provided below. Alternatively you can contact my supervisor Professor Mohammed Quaddus on +618 92662862 or by e-mail: mohammed.Quaddus@gsb.curtin.edu.au

Consent to participate

Your involvement in the research is entirely voluntary. You have the right to withdraw at any stage without it affecting your rights or my responsibilities.

This survey is divided into seven sections. Please make sure that you have completed all the items listed in these sections.

Thank you very much for taking your time and effort to complete this survey.

Yours sincerely,

Mohammed Alamgir
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Graduate School of Business
Curtin University, Australia
Tel: +618 9266 9190
Mobile: +61-0433379394
E-mail: Alamgir92@gmail.com

The Role of Integrated Customer Relationship Management in Customer Knowledge Generation and Relationship Maintenance in Service Industry: A Study on Commercial Banks of Bangladesh.

Section 1: Some information about you and your bank

Some necessary information about you and your bank will be collected in this section of the questionnaire. The background information will be used for statistical purpose only.

Please tick the most appropriate answer:

Name.....

Gender Male Female

Education

Bachelor / BBA Masters / MBA Other (please specify) _____

Your current position & Branch

Number of Years in banking service and in current position

.....

Number of Branches

Less than 20 20 to 40 +40 to 60 +60 to 80

+80 to 100 +100-120 Other (please specify) _____

Number of employees working in your branch

Less than 50 employees +50 to 100 employees +100 to 150 employees

+ 150 to 200 employees More than 200 employees

Number of years since the bank was established

Less than 5 years + 5 to 10 Years +10 to 15 years

+15 to 20 years Other (please specify) _____

Section 2: Questions on Integrated Customer relationship management (ICRM).

Listed below are the statements that form Integrated Customer Relationship Management (ICRM). Please read each statement carefully, then indicate the extent to which you disagree or agree by checking the appropriate number on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree). Please circle the most appropriate answer	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6
For managing and ensuring better customer relationship our bank _____						
____ gives priority to customer needs than internal needs	1	2	3	4	5	6
____ offers personalized services for our valued customers	1	2	3	4	5	6
____ tries to provide comfortable and easily accessible service experience for our customers.	1	2	3	4	5	6
____ is always positive about customer complaints	1	2	3	4	5	6
____ gives effort to develop and maintain relationship with customers	1	2	3	4	5	6
____ emphasizes on providing close attention to after sales service and communication	1	2	3	4	5	6
____ considers customer relationship as a valuable asset	1	2	3	4	5	6
____ emphasizes on employee training programs	1	2	3	4	5	6
____ measures employee performance based on relationship effort	1	2	3	4	5	6
____ monitors employee performance based on service operation	1	2	3	4	5	6
____ has introduced dedicated Relationship manager (RM) in different branches	1	2	3	4	5	6
____ introduces value based customer segmentation	1	2	3	4	5	6
____ always try to offer diversified products and/ or services	1	2	3	4	5	6
____ emphasizes on coordination of various functional areas and activities.	1	2	3	4	5	6
____ gives key customer priority	1	2	3	4	5	6
____ places local people with local language ability (wherever possible) to the respective branches	1	2	3	4	5	6
____ people/employee have good interpersonal skill and convincing capability	1	2	3	4	5	6
____ people/employee have adequate knowledge about overall service operations.	1	2	3	4	5	6
____ employee expresses sincere Willingness to help customers	1	2	3	4	5	6
____ has the latest software facilities	1	2	3	4	5	6
____ invests in technology to acquire and manage customer information and feedback.	1	2	3	4	5	6
____ has a dedicated CRM technology in place	1	2	3	4	5	6
____ uses Information technology extensively	1	2	3	4	5	6
____ uses CRM technology for integrating customer information from different contact points (e.g. telephone, mail, web, fax etc.)	1	2	3	4	5	6
____ uses CRM technology to make individual customer information available at every point of contact	1	2	3	4	5	6
____ Uses technology to forecast customer preferences	1	2	3	4	5	6

Section 3: Questions on customer knowledge generation and Utilization

<p>Listed below are the statements that reflect the Customer knowledge generation and application in banks.</p> <p>Please read each statement carefully, then indicate the extent to which you disagree or agree by checking the appropriate number on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree). Please circle the most appropriate answer.</p> <p>Our present CRM system and practice helps us to _____</p>	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6
_____ maintain regular and interactive communication with key customers to get their opinions and feedback	1	2	3	4	5	6
_____ monitor and maintain customer information on a regular basis	1	2	3	4	5	6
_____ get most of our valuable information on customer needs and trends	1	2	3	4	5	6
_____ store important socio-demographic & psycho-graphical data (age, marital status, occupation, income, lifestyle, interests) on existing and potential customers	1	2	3	4	5	6
_____ record new knowledge properly, acquired at various touch point	1	2	3	4	5	6
_____ analyse the collected information to have clear understanding about the key customers.	1	2	3	4	5	6
_____ use collected information / knowledge with great care in product /service design / redesign	1	2	3	4	5	6
_____ introduce new product and /or service based on customer knowledge collected through relationship effort	1	2	3	4	5	6
_____ modify product/service based on customer feedback/ customer knowledge.	1	2	3	4	5	6

Section 4: Questions on relationship maintenance

<p>Listed below are the statements that reflect the relationship maintenance stage.</p> <p>Please read each statement carefully, then indicate the extent to which you disagree or agree by checking the appropriate number on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree). Please circle the most appropriate answer.</p>	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6
Our relationship efforts induce our customers maintain long term relation with us	1	2	3	4	5	6
Our existing customers maintain good business with us because of our relationship practice.	1	2	3	4	5	6
Customer migration or switching rate has been reduced because of our relationship effort.	1	2	3	4	5	6
Relationship efforts and practice make cross sales and up sales easy for us.	1	2	3	4	5	6
We have systematic approaches to mature relationships with high-value customers in order to be able to cross-sell or up-sell earlier	1	2	3	4	5	6
Present relationship practice helps us having good volume of business through up-sale and cross-sale	1	2	3	4	5	6
Our bank offer incentives to customers who are willing to strengthen relationship trough up-buy or cross-buy.	1	2	3	4	5	6

Present CRM practices help to actively manage the customer referral process	1	2	3	4	5	6
Our existing customers willingly refer new customers to us because of our relationship.	1	2	3	4	5	6
We get good number of new customers through existing customers.	1	2	3	4	5	6
Our bank offers incentives to existing customers for referring new customers to us.	1	2	3	4	5	6

Section 5: Questions on service excellence

<p>Listed below are the statements that reflect Service Excellence of the bank.</p> <p>Please read each statement carefully, then indicate the extent to which you disagree or agree by checking the appropriate number on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree). Please circle the most appropriate answer.</p> <p>Our customer relationship management system and practice ensure _____</p>	Strongly Disagree	Disagree	Somewhat	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6
_____ promised services as per the promised schedule.	1	2	3	4	5	6
_____ quick response to any customer issue	1	2	3	4	5	6
_____ extended service hours	1	2	3	4	5	6
_____ prompt service	1	2	3	4	5	6
_____ politeness and friendliness of staff	1	2	3	4	5	6
_____ efficient and effective handling of complaints	1	2	3	4	5	6
_____ continuous following up with key customers	1	2	3	4	5	6
_____ that our business process are designed around customer to enhance the quality of customer interaction	1	2	3	4	5	6

Section 6: Questions on Social Capital

<p>Listed below are the statements that reflect the social capital of the bank which is basically formed through trust and personal connection & social network.</p> <p>Please read each statement carefully, then indicate the extent to which you disagree or agree by checking the appropriate number on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree). Please circle the most appropriate answer.</p>	Strongly Disagree	Disagree	Somewhat	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6
Customers share their financial secrecy with CRM people	1	2	3	4	5	6
Our CRM people act as a financial adviser of the Valued customers	1	2	3	4	5	6
CRM people assist customers in non-financial decision making	1	2	3	4	5	6
We feel and maintain good bond with our customers which makes our relationship effort successful	1	2	3	4	5	6
When customers visit the branch generally look forward to favourite/appropriate CRM people whom he/ she feels comfort with	1	2	3	4	5	6
We believe proper customer care is required for maintaining successful relationship	1	2	3	4	5	6
To maintain strong personal connection we attend customer's invitation	1	2	3	4	5	6

We, CRM people, always try to maintain lengthy personal relationship	1	2	3	4	5	6
Our bank maintain close social relationships with key customers	1	2	3	4	5	6
Our CRM people have membership of different social clubs, either arranged by banks or individual banker.	1	2	3	4	5	6

Section 7: Questions on Customer Relationship Management (CRM) Success

Listed below are the statements that reflect the CRM success of the bank with respect to target achievement, profitability, efficiency, customer satisfaction and loyalty. Please read each statement carefully, then indicate the extent to which you disagree or agree by checking the appropriate number on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree). Please circle the most appropriate answer	Strongly Disagree	Disagree	Somewhat	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6
Introduction and use of CRM _____	1	2	3	4	5	6
____ helps us to achieve our given target	1	2	3	4	5	6
____ makes our present target achievement rate satisfactory	1	2	3	4	5	6
____ helps employees in earning more incentive upon target achievement	1	2	3	4	5	6
____ supports us to have good business growth in terms of volume	1	2	3	4	5	6
____ helps us in experiencing good customer growth	1	2	3	4	5	6
____ assists us in achieving financial goals well	1	2	3	4	5	6
____ helps to rise per employee profit.	1	2	3	4	5	6
____ results in rising of overall profitability	1	2	3	4	5	6
____ makes customer relationship management easier	1	2	3	4	5	6
____ reduces the customer serving time	1	2	3	4	5	6
____ helps to reduce operating costs	1	2	3	4	5	6
____ helps to reduce employee work load.	1	2	3	4	5	6
____ helps us to identify low-value or problem customers which eventually reduce per customer transaction cost.	1	2	3	4	5	6
____ Increases the friendly interactions with customers	1	2	3	4	5	6
____ fulfils customer's expectations	1	2	3	4	5	6
____ decreases the frequency of customer complaints	1	2	3	4	5	6
____ makes our customer so happy that sometimes they overlook minor mistakes/ problems.	1	2	3	4	5	6
____ makes our customers attitude positive towards us	1	2	3	4	5	6
____ induces most of our customers to buy more of the products & services offered by our bank over competing banks	1	2	3	4	5	6
____ Increases overall customer satisfaction level	1	2	3	4	5	6
____ reduces the number of bank leavers	1	2	3	4	5	6
____ assists customers in developing strong bondage with us	1	2	3	4	5	6
____ encourage customers to expand their business with us	1	2	3	4	5	6
____ induces our existing customers to recommend their friends & family members to do business with us.	1	2	3	4	5	6
____ insists our customers to consider our bank as their primary bank		2	3	4	5	6

	1					
___ convinces our customers to pay even more to continue relation with us.	1	2	3	4	5	6

Appendix 3: Calculation for indirect effect

Run MATRIX procedure: PROCESS Procedure for SPSS Release 2.12.1

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
 Documentation available in Hayes (2013). www.guilford.com/p/hayes3

Model = 6
 Y = CRMS
 X = ICRM
 M1 = CKG
 M2 = CKU

Sample size
 300

Outcome: CKG

Model Summary

	R	R-sq	MSE	F	df1	df2
P	.6897	.4757	.5278	270.3781	1.0000	298.0000
	.0000					

Model

coeff	se	t	p	LLCI	ULCI
constant	.0000	.0419	.0000	1.0000	-.0825
.0825					
ICRM	.6897	.0419	16.4432	.0000	.6072
.7723					

Outcome: CKU

Model Summary

	R	R-sq	MSE	F	df1	df2
P	.7706	.5938	.4103	217.1251	2.0000	297.0000
	.0000					

Model

coeff	se	t	p	LLCI	ULCI
constant	.0000	.0370	.0002	.9998	-.0728
.0728					
CKG	.3850	.0511	7.5390	.0000	.2845
.4855					
ICRM	.4529	.0511	8.8672	.0000	.3524
.5534					

Outcome: CRMS

Model Summary

	R	R-sq	MSE	F	df1	df2
P						

.7387 .5456 .4605 118.4930 3.0000 296.0000
 .0000

Model
 coeff se t p LLCI ULCI
 constant .0000 .0392 .0000 1.0000 -.0771
 .0771
 CKG .1688 .0591 2.8574 .0046 .0525
 .2850
 CKU .2063 .0615 3.3562 .0009 .0853
 .3273
 ICRM .4397 .0608 7.2259 .0000 .3199
 .5595

***** DIRECT AND INDIRECT EFFECTS

Direct effect of X on Y
 Effect SE t p LLCI ULCI
 .4397 .0608 7.2259 .0000 .3199 .5595

Indirect effect(s) of X on Y
 Effect Boot SE BootLLCI BootULCI
 Total: .2646 .0424 .1817 .3478
 Ind1 : .1164 .0420 .0353 .1987
 Ind2 : .0548 .0182 .0249 .0991
 Ind3 : .0934 .0311 .0409 .1633

Indirect effect key
 Ind1 : ICRM -> CKG -> CRMS
 Ind2 : ICRM -> CKG -> CKU -> CRMS
 Ind3 : ICRM -> CKU -> CRMS

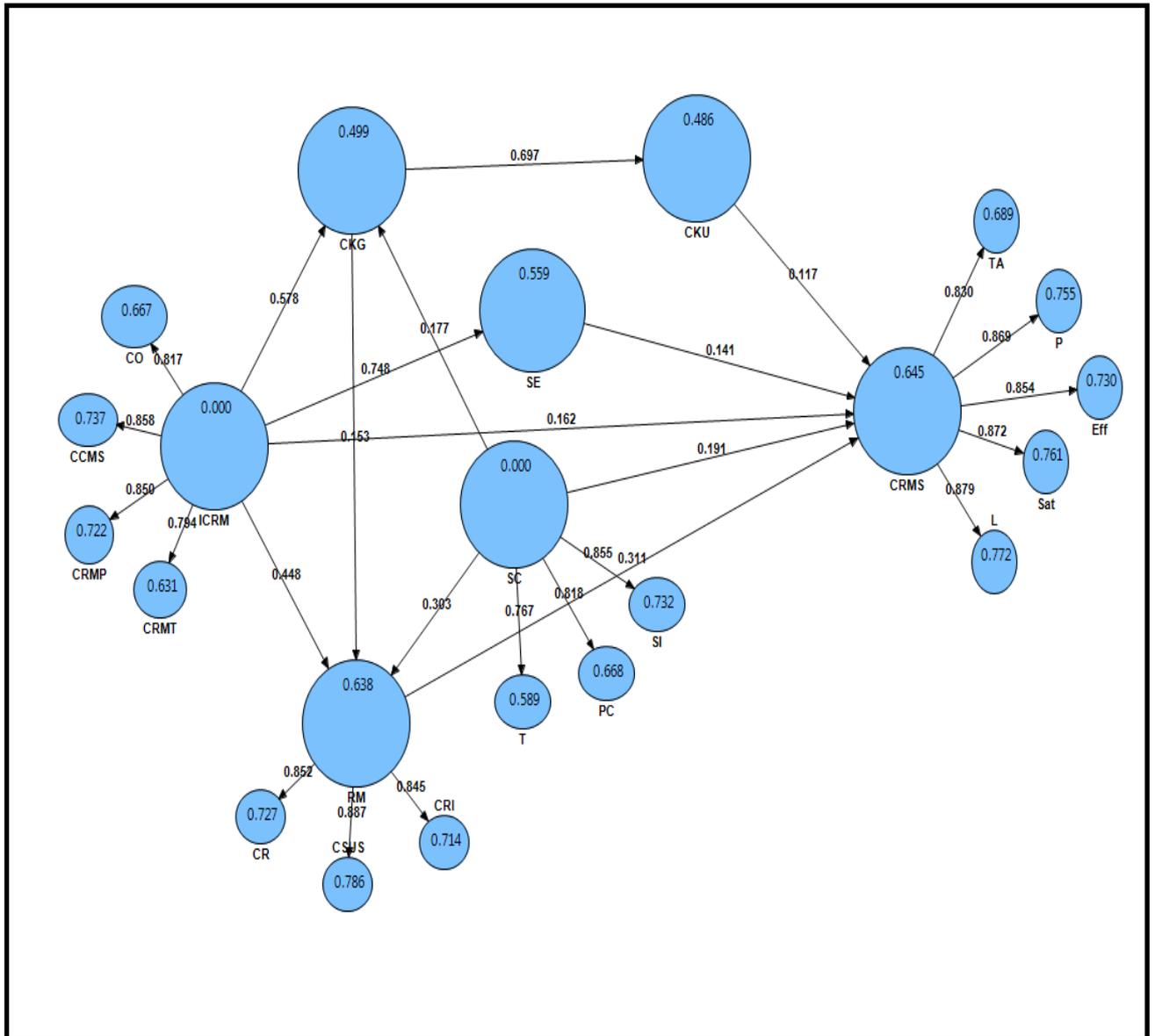
***** ANALYSIS NOTES AND WARNINGS

Number of bootstrap samples for bias corrected bootstrap confidence intervals:
 5000

Level of confidence for all confidence intervals in output:
 95.00

----- END MATRIX -----

Appendix 4: R² Values of dimensions and sub-dimensions



Appendix 5: Calculation for One-factor CFA

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	132	2651.406	902	.000	2.939
Saturated model	1034	.000	0		
Independence model	44	7696.299	990	.000	7.774

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.655	.622	.743	.714	.739
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.911	.597	.673
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	1749.406	1598.831	1907.554
Saturated model	.000	.000	.000
Independence model	6706.299	6430.426	6988.738

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	8.868	5.851	5.347	6.380
Saturated model	.000	.000	.000	.000

Model	FMIN	F0	LO 90	HI 90
Independence model	25.740	22.429	21.506	23.374

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.081	.077	.084	.000
Independence model	.151	.147	.154	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	2915.406	2962.178		
Saturated model	2068.000	2434.378		
Independence model	7784.299	7799.890		

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	9.751	9.247	10.279	9.907
Saturated model	6.916	6.916	6.916	8.142
Independence model	26.034	25.112	26.979	26.087

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	110	114
Independence model	42	43