

Customer Relationship Management (CRM) Implementation and Firm Performance: Evidence from Service Industry of Bangladesh

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Abstract

Customer Relationship Management (CRM) has recently become a vital issue for both researchers and professionals as the driving force of the organizational performance. Several studies conducted by both academician and researcher yielded some interesting insights but till date, the extant literature on CRM seems to be very confusing, inconsistent and lack of common conceptualization. There is an urgent need for extending the concept of CRM considering the different domain of it. Thus, to help advance an adhesive body of knowledge on this issue of growing interest among practitioners and academician, this effort aims to investigate through the development and operationalized items of CRM to be implemented in the organization. Based on the resource-based view (RBV) of the firms, the CRM concept can be developed, operationalized and implemented focusing on some basic dimensions of CRM. Different dimensions of CRM that are to be considered to form CRM capabilities incorporate the items like organizing around CRM, incorporating CRM based technology, focusing on the key customer, managing knowledge, business analytic capability and Human analytic capability which are the facilitators to boost business performance. Following the quantitative research methodology, the data were collected through the questionnaire. The survey was administered to the executives who were directly involved in CRM implementation and performance evaluation process in different service firms (banks, insurance, hotel, telecommunication, and hospitals) operating in Bangladesh. A multiple regression analysis was used to analyze data and to test hypotheses concerning the relationship between CRM implementation components and firm performance. The results support the hypothesized influence on firm performance. The study contributes to the literature by developing a six-factor model of CRM practices in the service organization. Managers of different industry can use the model to incorporate CRM in their firms. The manager may also be able to allocate the budget and resources to form CRM using this model.

Keywords: Customer Relationship Management, CRM Based Technology, The key Customer Focus, Organizing around CRM, Knowledge Management, Human Analytical Capability, Business Architecture.

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1. Introduction

Customer Relationship Management (CRM) has been called an inevitable -literally relentless-movement in marketing literature (Peppers & Rogers, 2004). It has gained the attention of academicians and practitioners in recent years that ensures high profit through customer satisfaction, customer loyalty and customer retention. It is generally thought that CRM creates a competitive edge for an organization and positively impacts on firm performance (Sin, Tse, & Yim, 2005). CRM represents the way customers want to be served, and offers a more effective and efficient way of conducting business (Peppers & Rogers, 2004). Today, companies are striving to realize the different value of customers and they are designing and offering the products and services accordingly. Customer Relationship Management (CRM) has its roots in relationship marketing that have been increasingly studied in the academic marketing literature (Berry 1995, Sheth & Parvatiyar 1995). CRM is an integrated approach by which organization can create, develop, and enhance relationships with carefully targeted customers which ultimately increases customer value and accelerates firms' financial and nonfinancial performance (Anton & Hoeck, 2002, Feinberg & Kadam, 2002) through creating a loyal customer base. It is an accumulated foundation and discipline, not a single activity or project that allows businesses to execute the relationship with the customer and related parties at an enterprise-wide level (Winer, 2001). CRM implementations focus on customers' value through creating delivering and maintaining customer relationship which increases firm performance (Verhoef & Langerak, 2003). CRM has the capability of enhancing both firm performances and customers benefits through the dual creation of value as CRM enables firms to augment the value they extract from customers, while customers gain greater value because firms meet their specific needs (Boulding, Staelin, Ehret & Johnston, 2005). Researchers have recommended that realizing the value of the customer should lead to changes in the way these customers are managed (Reinartz, Thomas & Kumar, 2005).

The literature review of the previous studies examined relationship on intermediate metrics such as customer satisfaction and loyalty such as (Mithas, Krishnan & Fornell, 2005), customizing product and service (Stefanou, Sarmaniotis & Stafyla, 2003), customer retention and profitability (Ryals & Knox 2001), or link between satisfaction and business performance (Kamakura, Mittal, Rosa & Mazzon, 2002), the link between customer loyalty and profitability (Reinartz & Kumar, 2000), customer profitability heterogeneity (Niraj, Gupta & Narashimhan, 2001), and customer loyalty programs (Verhoef, 2003).

The literature on the resource-based view of the firm explores that having heterogeneous resources to firms ensures competitive advantage of the firms (Srivastava, Shervani & Fahey, 1998). Although CRM has its roots in relationship marketing whose major objective is to have a sustainable long-term profitable relationship with its customers but most of the firms have failed to deploy their resources effectively to maintain a relationship with their customers and fail to achieve expected business performance even after investing massive amount on CRM (Reinartz et al., 2005, Awasthi & Sangle, 2012).

However, there are very few studies that focus on the how to develop firms capabilities to adopt and implement CRM and how to deploy the resources to CRM to match with the current changing market condition. Drawing on the resources based view and firm capabilities, I have addressed the gap that possession of resources by the firms will increase the capability to adapt and implement CRM in the firm that ultimately boosts business firm performance.

Previous studies on CRM are limited to explore CRM practices in a particular service industry like banks, insurance, non-financial institutions or leasing company, retail industry, hospitals and so on. Although CRM increases firms' profitability and ensures competitive performance, previous studies focused the importance, processes, and strategies of CRM rather than cause and effect relationship between CRM and firm performance (Jenssen, 2003, Grewal & Haugstetter, 2007). Very few studies are conducted to know the relationship between CRM and firm performance that incorporated the different dimensions of CRM and relationship among those of dimensions and firm performance. However, the impact of CRM implementation on firm profitability has not received sufficient attention from academics (Ramani & Kumar, 2008). Therefore, it is necessary to fill the literature gap by examining the relationship between the implementation of CRM in different firms and its impact on firms' performance. Considering the situation, the key contribution of this study is to conceptualize and operationalize CRM constructs from different dimensions. In particular, the author focuses on the functional and organizational competencies that are required to implement the CRM effectively and efficiently in firms. Then the author investigates the association between CRM and firm performance.

Furthermore, the existing academic literature and practical applications of CRM do not provide a clear indication of what specifically constitutes the implementation of CRM processes. The key research questions addressed in this study are as follows: First: What constitutes a CRM process? Second:

What is the Impact of CRM on Firms' Performance? This study will address the research questions using data from the different industry like banks, insurance, hotel and retail stores. This research will try to fulfill the gaps addressed above and contributed to the following areas. First, It attempts to contribute to the CRM literature and conceptualize and discuss different dimensions of CRM that are required for the implementation of CRM in firms widely. Second, this paper will develop a valid measurement model incorporating the resources that are essential to building an effective CRM in firms. Third, this paper will investigate the impact of CRM on firm performances. Specifically, this paper tries to examine how firm resources such as organizational alignment, culture, CRM based technology, business architecture, knowledge management and focusing on the key customer are related to CRM and how they effect on business performance.

The rest of the paper is structured as follows. The next section presents a review and analysis of the numerous perspectives that characterize the popular and academic CRM literature from where hypotheses of the study are developed. The following two sections outline the research methodological context including the questionnaire survey, sampling technique, and methods of analysis and offer statistical analysis and major findings of the study. The last section presents a discussion, theoretical and managerial implications, limitations of this study, and guidelines for further study. The paper concludes with some brief remarks that highlight the key contributions stemming from this effort.

2. Theoretical Discussion and Hypothesis Development

2.1 Conceptualizing the CRM

Prior research on customer relationship management (CRM) conceptualized it from different viewpoints for instances; it is a business philosophy (Huang & Wang, 2009), a business strategy (Tarokh & Ghahremanloo, 2007), a process (Day & Bulte, 2002; Galbreath & Rogers, 1999; Gronroos, 2000; Plakoyiannaki & Tzokas, 2002; Reinartz et al., 2005; Srivastava, et, al., 1999), strategy (e.g., Adenbajo, 2003; Croteau& Li, 2003; Deck, 2003; Destination CRM, 2002; Kracklauer, Passenheim, & Seifert, 2001; Verhoef & Donkers, 2001), managerial decision-making processes (Payne & Frow, 2006), philosophy (Piccoli, O' Connor, Capaccioli, & Alvarez, 2003), capability (Webster, 2002) and technological tool (e.g; Bose, 2002, Gefen & Ridings, 2002; Shoemaker, 2001). The literature reveals that there is little consensus about the nature and scope of

CRM (Zablah et al., 2004) as well as there is a consensus in the meaning of CRM (Ngai, 2005). In literature, CRM is a puzzling and confusing issue (Harker, 1999) as it incorporates multifaceted dimensions. Multidimensional characteristics of CRM has made it difficult to specify the paradigm of it (Harker, 1999). CRM is a proactive (Harker, 1999) issue of marketing concerned (Payne & Frow, 2000) in identifying target customer, creating, developing and keeping committed, interactive and profitable relationship to capture customer lifetime value (CLV) over time.

Following the previous literature on customer relationship management (Sin et al., 2005, Coltman, Devinney & Midgley, 2011, Tarokh & Ghahremanloo, 2007, Day & Bulte, 2002, Gronroos, 2000; Plakoyiannaki & Tzokas, 2002; Reinartz et al., 2005; Srivastava, et, al., 1999 Adenbajo, 2003; Destination CRM, 2002; Kracklauer, et, al., 2001; Payne & Frow, 2006), Piccoli, et, al., Capaccioli, & Alvarez, 2003, Webster, 2000, Bose, 2002) and in-depth interview with the managers of service organization, the author hypothesizes that CRM itself a multidimensional construct. The author considers six components as essential for CRM to be implemented successfully in business to maximize its long-term performance ensuring long-term relationship through high customer satisfaction, trust, loyalty and customer engagement.

2.2. Relationship between Organization around CRM and Firm Performance

Organization around CRM is a construct of the CRM implementation process that incorporates organizational culture, processes and employee orientation to the CRM system to embrace the CRM culture throughout the organization. The entire firm should be organized in such a way that cultivates the concept of CRM in every sphere of its function. After incorporation of CRM based technology, focusing on the key customers, enhancing human analytic capabilities , implementing knowledge management in the organization, the firm should embrace the concept of organizing around CRM to implement the CRM process accurately as CRM process requires coordination of all dimensions altogether. Since 1990 after the introduction of the concept of Relationship Marketing, major changes are observed in the organizational structure and culture. Many scholars have emphasized on the organizational changes over the years to cope up with the new changing dynamic business environment. There have been many scholarly articles (e.g., Webster 1992, Pitt, 1997; Cravens 1995; Day 1997; George, Freeling & Court, 1994) that reflect future of marketing and identify the changes that have taken places in the organization in the last 27 years.

For customer relationship or customer-centric values, organizational structure has to be flexible as required and if necessary, reconstructed or emphasized on cross-foundational teams as stated by (Sheth & Sisodia, 2002, Homburg, Workman, Jensen, 2000, Brown 2000). At present, the business firms have been evolving toward a hybrid form of organization coordinating the vertical and horizontal functions to have a sound relationship with their customers (Day, 1997). Previous studies conducted on organizational structure and culture usher that majority of the studies focused on the market orientation that has a direct positive influence on firms performances (Jaworski & Kohli 1993; Slater & Narver, 1994). Ahmed & Rafiq, (2003) emphasized on continuous value-rich actions and customers outcomes by concerted integrated efforts in all firms' activities that ultimately boost customers' satisfaction and enhance relationship with customers. While business firms are busy with re-engineering their firms. When all firms were busy on re-engineering their organizational structure and core processes, Montgomery & Webster, (1997) argued that whether marketing should be embraced by all departments in the organization or not. But strong evidences are found in the scholarly articles on organizational changes like (Webster, 1992, George et al. 1994, Day, 1997, Homburg, et al., 2000). Achrol, 1991 focuses on the impact of increasing environmental turbulence on marketing activities which require different treatment in accordance with the changing environment since they are subject to different environmental demands that may affect the way that firms organize their marketing activities, Webster, (1992) discusses on strategic partnership with vendors and customers, Day, (1997) focuses on hybrid form of organization to get the customers closer to them whereas Homburg, et al., (2000) in their study have identified four fundamental organizational design dimensions like changes organizational structure, fundamental design issues, culture and the last one is distribution of power and influence. Homburg, et al., 2000 have also taken three major themes which are related to organizational changes. The first theme focuses on cross-functional team works; the second theme emphasized on the relationship with externals and the third theme revolves around developing some factors like market orientation concept, organizational learning and market-sensing capabilities. While these studies usher important insights about organizing around CRM and its impact on organizational changes over time and organizational outcomes, then the author hypothesizes the following hypothesis.

Hypothesis-1: The adoption of the concept organizing around CRM positively associated with firm Performances

2.3. Relationship between “Incorporating CRM based Technology” and Firm Performance

Incorporating CRM based technology refers to the extent to which a firm incorporates essential information technology (et al., 2005) to develop, manage relationships with their potential and existing customers. Information Technology has a substantial impact on CRM practices by linking front desk for instances sales and back-office activities that ultimately ensures effective and efficient customer management through different ways like the Internet, direct mail, sales call, etc.; (Chen & Popovich, 2003). Incorporating CRM based technology enables firms to strengthen the capability of the database of the customers through IT-enabled transactions which may be IT-assisted (manual) where employee will work as intermediary between CRM process and customer and the rest one is automated interaction which empowers the customer for the direct interaction with the CRM (Bose, 2002). Wells, Fuerest & Choobineh (1999) stated that “both marketing and information technology must work together with high coordination to produce a seamless process of interaction.” In-depth analysis of marketing paradigm shift from production era-1850 to customer-centric era-2000 (Bose, 2002) ushers a new question in the marketing field that what is fueling this change in the marketing area? The answer is technology. Wells et al., 1999 has identified four phases through which a firm can reengineer IT systems for one to one relationship for instances: identify means of collecting customer information, redesign of data; IT-enabled transaction and transmission of data. Information Technology plays a crucial role in CRM practices (Kincaid, 2003). It provides an organization to understand the data (Ngai, 2005), collect customer data, store, analyze the data and create knowledge using that data and sharing knowledge across the firms (Crosby & Johnson, 2001). Multidimensional effects of information technology used in the organization ensure CRM practices efficiently and effectively that ultimately help a decision maker with a rich database of customer patterns, customer choices, prediction models to customize and deliver desired services of customers (Vrechopoulos, 2004; Hong-kit Yim et al., 2004). Specifically, CRM technology helps firms to develop right marketing strategies and execute this at the right time to ensure prompt and quick services to the stakeholders. (Chen & Popovich, 2003).and it boosts marketing capability by helping managers and employees to gain marketing objectives (Chang, Park & Chaib, 2010). With the

Hypothesis-3: Focusing on the key customers of firm can increase firm performance.

2.5: Relationship between Knowledge Management (KM) and Firm Performance

Knowledge Management is another component of CRM implementation tools which refers to the extent to which a firm is capable of creating, transferring, analyzing and utilizing the knowledge for business for the business. In accordance with the knowledge-based view of the firm, the existence of firm primarily depends on knowledge creation and knowledge utilization of knowledge (Sin et al, 2005). From CRM perspective, Knowledge management is the process of acquiring the customer information through direct, indirect or interactive systems to generate the knowledge and utilizing the knowledge by sharing and using the information in marketing decision making. Sin et al, (2005) in their study explored three The key facets of "knowledge management" which are knowledge learning and generation, knowledge dissemination and sharing, and knowledge responsiveness. Knowledge learning and generation indicate to the acquiring the customer information like knowing their needs and preferences from different sources. Firms now use business intelligence tools like different software or apps for data mining, data warehousing and analyzing to take the strategic decision. Knowledge about the customers is another the key component of CRM (Stefanou et al., 2003) that helps the firms to build a strong bonding between customers and firm (Zahay & Griffin, 2004) and it also helps to enhance firms' competitiveness (Sin et al, 2005). generating knowledge about customer information will be followed by the knowledge dissemination and knowledge sharing as it will elevate the knowledge value (Hult & Ferrell, 1997). Knowledge will be disseminated and shared with all related departments to take the concerted marketing actions (Sin et al., 2005). Further, the firm will respond in accordance with the generated and shared value of knowledge. The firms will strive to select the right target segment, to craft the marketing mix as it can only satisfy the customer's needs but also ensures sustainable long term relationship with customers. These above mentioned functions of knowledge management is related to the CRM, since it ensures right customer information that can be crafted, designed and exploited in many ways that has influence on relationship maintenance with customers, customers loyalty, and business performances which is evident from the study of (Peppard, 2000; Sheth, Sisodia & Sharma, 2000; Parvatiyar & Sheth, 2001; Sin et al., 2005; Payne and Frow, 2006). Knowing customer information about their

needs and preference, crafting marketing as their preferences through customization and customization will result positive customer response. Since marketing now focus on better responses to customer demand, the marketing strategies and actions which are taken in a prompt manner on the basis of collected information will not only increase service quality but also foster sustainable long-term relationships with customers. Therefore we can hypothesize the following hypothesis.

Hypothesis-4: The knowledge management application is positively associated with firm performance.

2.6: Relationship between Business Architecture and Firm Performance.

Business Architecture (BA) complements the other component of the CRM implementation process and it is one of the sources that can enhance firm capabilities. Good business architecture incorporates business models that emphasizes on viewing the organizational entity together with its multi-dimensional organizational views and it is also considered as link between business strategies and process (Welch, 2000). Coltman et al (2011) posits that "business architecture and structural capabilities that embody action in the form of incentives and controls for employee behavior that supports CRM". Business architecture or business domains are used interchangeably as we find the in the study of (Versteeg & Bouwman, 2011) which are set of business functions or responsibilities. Versteeg & Bouwman, 2011 demonstrated the business architecture as "the grouping of business functions and related business objects into clusters (business domains) over which meaningful accountability can be taken as depicted in the high level description of the related business processes" p.92. A good business architecture can provide a guideline and proper direction to assign the responsibilities, delegate authorities, to reconcile financial mechanisms between business domain and so on. Although firms invest for CRM program but they fail to get the advantage of CRM due to lack of business architecture. ForInstance, many firms have the same technology, business process, skills and organizational alignment but they cannot take competitive advantage as few of them have proper organizational architecture which are mandatory to exploit the resources they have (Barney and Macthe the key 2005). "This ability to exploit investment in CRM is observed in an overall business architecture that supports action before, during, and after implementation" Coltman et al (2011 P,209.).Business architecture ensures the redesign of the business process to overcome difficulties and establish a good

relationship among all business stakeholders. It not only emphasizes on the generation of customer knowledge but also confirms use of information to gain competitive advantage. Therefore the author can hypothesizes that

Hypothesis-5: More developed Business Architecture has a positive impact on business performance.

2.7. Relationship between Human analytic capability (HAC) and firm performance.

The resource-based theory posits that sustainable competitive advantage is achieved through the resources that are not imitable by the competitors (Barney, 1991). Human or people are that types of resources that are not easy to imitate because of some unique nature of human such as knowledge, specialization, scarcity of required human (Uppna & Rumelt, 1982). From CRM perspective, a human analytic based capability refers to knowledge, specialization, diverse skills and experience people which is essential to collect, analyze, interpret CRM data effectively and take the strategic marketing decision based on the data (Coltman, et al, 2011). Although CRM comprises many components like organizational alignment, CRM based technology, the key focus on customers and business architecture but without adequate human resources to implement the CRM process, the investment on CRM will not have positive organizational performance. Many studies have been found that demonstrate the necessity of human resources for good organizational performance. Human resource is one of the preconditions to be succeeded with the CRM value chain (Buttle, 2011). McKean, 2002 has explored eight factors to be considered where enterprise needs to focus on maintaining a good customer relationship management. The research findings of McKean (2002) emphasized on the selection, development and empowering the employee to make them engaged that ultimately results in prompt response to customer needs and organizational needs. A study by Bharadwaj, 2000 confirms that human resource or employee enables firms to reduce the business risk associated with investment in CRM program. The resources like technology, process, culture adopted by the firms to differentiate themselves from rivals are easily imitable, but only one component human resources and their knowledge, specialization, experiences and skills are not imitable by the rivals as it requires considerable time, huge investments and context to mature (Lado & Wilson, 1994). In the context of customer relationships, human resource or the employees are the inseparable part of the organization to create knowledge, to utilize the knowledge for decision making, implementing, evaluating and controlling the marketing strategy. So we can hypothesize the following

Hypothesis-6: More developed human analytics (HA) in converting data to customer knowledge is positively associated with firm performance.

3. Methodology and Methods

3.1. Sample and Data Collection Procedure

To empirically examine the relationship between CRM practices in firm and its impact on performance, the author collected survey data on the six dimensions of CRM and firm performance. To collect the data, the researcher used a structured self-administered questionnaire. Executives from renowned firms like bank, insurance, hospital and branded shop were selected as sample of this study. For selecting these executive, the author has chosen 100 firms from different industries like banking, hotels, hospitals, insurance and chain stores where I observe high degree of relationship orientation between organization and customers and thus suited for testing the CRM impact on firm performance. For selection of banks, list of banks from the website of Bangladesh bank has been used. I have selected the private banks as high degree of customers interaction are observed there than the government commercial banks. After selection of banks from the list, some of the branches have been selected randomly. To select the companies from telecommunication industry, I have chosen all of the firms as they are very few in the industry. To select the firms from insurance, hospital, hotel and branded shop, I have chosen some specific no of firms to collect the data. From these organizations, the author has selected 400 executives (3-4 executives from each firm from different departments) as a sample. The targeted respondents of the study were managers or similar level senior position at each of the companies. The logic behind selecting these senior level respondents is they are considered as highly knowledgeable about CRM implementation and practice within their companies as indicated by their ability to answer all questions efficiently. Total 400 questionnaires were distributed to the executives of different firms who were the target respondents of this study. And 253 responses were received, of which 207 were complete and usable (response rate is 64 percent, whereas, effective response rate is approximately 82 percent). Although this response rate is not unusual in the literature, it might have been lower than desired due to the high level of management being surveyed. The author considers this rate satisfactory, given that average top management survey-response rates are in the range of 15% to 20% (Menon et al. 1999). The sample characteristic is given at table-1.

Table: 1: Characteristics of the Sample

	Factor	Frequency	Percent
Gender	Male	186	89.9
	Female	21	10.1
Marital Status	Married	109	52.7%
	Single	98	47.3%
Age	15-25	45	21.7%
	26-35	125	60.4%
	36-45	32	15.5%
	46-55	5	2.4%
Organization type of Respondents	Bank	99	47.8%
	Insurance	14	6.8%
	Telecommunication	43	20.8%
	Hotels	18	8.7%
	Hospital	33	15.9%
Respondent's Education	Bachelor's degree	82	39.6%
	Postgraduate degree	109	52.7%
	Diploma	11	5.3%
	PhD and other	5	2.4%

Source : Survey 2017

Table 1 describes the characteristics of sample used in this study .89.9% of the respondents are male and 10.1 % are female. Respondents 'age is between 15 to 55 years where 52.7% is married and the rest are single. Respondents are qualified with different types of degree like (Professional degree 5.3%, Diploma 5.3%, Bachelor's degree 35.8%, Postgraduate degree 49.%, PhD and other 3.8%).

3.2. Survey Instrument

The questionnaire was designed according to the existing literatures and published works. the author has reviewed management, and marketing (relationship marketing, CRM) literatures. The first step was the selection of CRM and performance attributes by reviewing the literature on marketing and management research, followed by the design of the questionnaire, personal interviews with 15 academicians and executives from different industry. Some items were directly adopted from previous survey instrument to operationalize the constructs in this study. Few new items are also included in different constructs to get good response from data collection through survey. The questionnaire has two parts. The first part was intended to understand the personal information of respondents using nominal scale. The second part consists of the responses of respondents regarding the variables used in the study.

All items were measured using multiple items by a five point Likert-type scale (1= strongly disagree, 2= disagree, 3= neutral, 4= agree, and 5= strongly agree).

The questionnaire design followed the stages outlined by (Churchill, 1979 and Gerbing & Anderson, 1988). At first , the author identified the information information needed to conduct the study and then the following issues were settled: type of questionnaire and its method of administration, content of individual questions, form of response to and wording of each question, sequence of questions, and physical characteristics of the questionnaire and so on. It is essential to ensure the content validity which is prerequisite of the survey instrument's accuracy. Content validity refers to the extent to which a test measures what the author actually wishes to measure. The author tested the content through a literature review and interview with the respective persons. In short, the questionnaire used in this study is based on previous studies that are verified and judged by the 15 practitioners. Based on a review of previous literature and personal interviews with practitioners, the measures of CRM and firms' performance are shown in Table-1. The summary statistics of the survey are shown in Table 1. In order to control common method biases, it was assured to respondents that there was no right or wrong answers and they should provide answer as honestly as possible and no information will be shared with other person or organization. It has been also assured that the respondents' identity will not be disclosed i.e. as like answers to be anonymous and the information of this survey will be used for researchers' academic purpose.

Table 2 : Descriptive Statistics

Dimensions of CRM	Mean	Std. Deviation	N
Organizing around CRM	4.0694	.63592	207
Incorporating CRM based technology	4.2201	.58410	207
Focusing on the the key customer	3.9941	.73297	207
Managing knowledge	3.7715	1.00788	207
Business architecture capability	3.9978	.65849	207
Human analytic capability	4.0392	.62362	207

3.3 Item Measurement

The survey instrument used in this study contained all items to measure the constructs. Some items were directly adopted from previous survey instrument to operationalize the constructs in this study. Few new items also included in different constructs to get good response from data collection through survey. To operationalize the CRM process implemented in the different industries of Bangladesh, the author has taken six constructs that incorporate many different

items from the previous study of (Sin et al. 2005, Akroush, et al., 2011 Hong-kit Yim et al., 2004, Reinartz et al., 2005, Payne & Frow, 2006). The six constructs are; organization around CRM , Incorporating CRM-Based technology, Focusing on the the key customer, Managing Knowledge, Business Architecture capability, Human analytic capability which are used as independent variables. In accordance with the previous studies, business performance in this study was assessed based on the subjective evaluation of managers. The researcher has used the subjective evaluation of managers to assess the performance because subjective evaluation and objective evaluation have been proved as equivalent, consistent reliable and correlated to each other (Akroush, 2011, Venkatraman, 1990)

3.4 Reliability and Construct Validity

A reliability test was conducted to assess whether these CRM dimensions were adequate to examine the impact of CRM on firms' performance. To evaluate the internal consistency of the questionnaire used to measure the impact of CRM on firms' performance, Reliability Analyses was performed. In Reliability Analysis, Cronbach's Alpha is calculated which is found to .991 compositely and separately in the table-3. The reliability analysis satisfies the guidelines of Nunally's 1978 guideline.

Table 3 : Reliability and Construct Validity

N.	Name of Variables	Cronbach's Alpha	No. of Items
01	Organizing around CRM	.794	5
02	Incorporating CRM based technology	.809	4
03	Focusing on the key customer	.753	4
04	Managing knowledge	.759	3
05	Business architecture capability	.752	3
06	Human analytic capability	.729	3
07	Firm performance	.823	5

An exploratory Factor Analysis (table-4) was conducted on 30 items using a principal components method of extraction with a varimax rotation in order to identify and summarize a large number of CRM attributes into a smaller, manageable set of underlying factors, called dimensions. Organization around

Table : 4 Exploratory Factor Analysis

	OACRM	ICRMBT	FKC	MK	BAC	HAC	FP
Organization around CRM -1	.565						
Organization around CRM -2	.546						
Organization around CRM -3	.619						
Organization around CRM -4	.611						
Organization around CRM -5	.518						
CRM based Technology -1		.633					
CRM based Technology -2		.540					
CRM based Technology -3		.702					
CRM based Technology -4		.630					
Focusing on the key customer-1			.744				
Focusing on the key customer-2			.459				
Focusing on the key customer-3			.549				
Focusing on the key customer-4			.790				
Knowledge Management-1				.533			
Knowledge Management-2				.537			
Knowledge Management-3				.533			
Business Architecture-1					.546		
Business Architecture-2					.740		
Business Architecture-3					.580		
Human Analytic Capability-1						.775	
Human Analytic Capability-1						.576	
Human Analytic Capability-1						.482	
Firm performance-1							.468
Firm performance-2							.838
Firm performance-3							.637
Firm performance-4							.610
Firm performance-5							.488

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

CRM, Incorporating CRM-Based technology, focusing on the key customer, Managing Knowledge, Business Architecture capability and Human analytic capability are used as independent variables. Firm's Performance is used as dependent variables. All items to measure the above mentioned constructs are entered into the factor analysis seven factors are forced where all factors loading scored above the cutoff point .40 which indicates that the reliability and construct validity of the measures are highly satisfactory.

3.5 Model specification :

The data collected through questionnaire survey was tested by multivariate statistical analysis. To test the above mentioned hypotheses multiple regression model was applied. The general regression model is: $Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \dots + \beta_nX_n + \varepsilon$

Where

Y = Dependent Variable (Firms' performance)

X1 , X2, Xn = Independent variables (e.g. Organizing around CRM, CRM based technology, Focusing on the the key customer, Managing knowledge, Business architecture capability, Human analytic capability)

α = Intercept value

β 's = Regression coefficients

ε = Error

4. Analysis and Results

SPSS (Statistical Package for Social Science) was used as the analysis instrument and multiple regression analysis was employed in this study to test proposed model and hypotheses. Before conducting multiple regression analysis, correlation coefficient between the variables was calculated. Table- 5 shows the positive correlation between the dependent and independent variables. The

Table 5: Correlation between variables

	OACRM	ICBT	FKC	MK	BAC	HAC	FP
Organizing around CRM	1						
CRM based technology	.454**	1					
Focusing on the the key customer	.354**	.548**	1				
Managing knowledge	.213**	.362**	.209**	1			
BA capability	.540**	.640**	.550**	.405**	1		
Human analytic capability	.675**	.500**	.453**	.324**	.678**	1	
Firm performance	.676**	.678**	.621**	.387**	.771**	.724**	1

OACRM = Organizing around CRM, **ICBT** = Incorporating CRM based Technology, **FKC** = Focusing on the the key customer, **MK** = Managing knowledge, **BA** = Business architecture capability, **HAC** = Human analytic capability, **FP** = Firm performance

**Indicates significance at $p < 0.01$ level

Pearson correlations coefficient reported in the table 5 suggest that there is no multi-collinearity for the independent variables where correlation between the variables has not exceed .80 or .90 which is considered as harmful as suggested by Gujarati (1988).

Table 6: Regression Result

	Unstandardized Standardized (β)	Coefficients Coefficients (β)	t	Sig.
(Constant)	.022		.130	.896
Organizing around CRM	.232	.250	5.308	.000
CRM based technology	.174	.172	3.617	.000
Focusing on the key customer	.158	.196	4.555	.000
Managing knowledge	.037	.063	1.659	.099
Business architecture capability	.246	.275	5.006	.000
Human analytic capability	.164	.174	3.228	.001

F=111.236, P=0.00, R= .877 ,R square=.769, Adjusted R square=0.763, Durbin waston=1.811

Applying multiple regression analysis, the model of the study and hypotheses has been tested. The empirical results supported the above mentioned theoretically supported hypotheses. The results of this study show significant relationship between the dependent and independent variables. The values of t are significant at $p < 0.01$ level and $p < 0.05$ level. F ration is found significant at $p < 0.01$ level. Overall, it can be said that the multiple regression model is significant at $p < 0.05$ level. Durbin-Watson test statistics value is 1.81 that means the model has no autocorrelation problem. Table 6: presents the results of multiple regression analysis. The results show that the CRM dimensions what have been considered as independent variables for this study have positive significant effect on firms' performance. This implies that the model is quite significant where ($F=111.263$, $p=000$) and explains 76.3% of the variation of the firms' performance (adjusted R squared value=.763). The table:6 shows the impact of CRM implementation process on firms' performance. The study

explores that there is a positive relationship between organization around CRM and firm performance as I have found (H1, $\beta = .250$, $t = 5.308$, $p < .01$), CRM based technology and firm performance (H2, $\beta = .172$, $t = 3.617$, $p < .01$), focusing on the the key customer and firm performance (H3, $\beta = .196$, $t = 4.55$, $p < .01$), managing knowledge and firm performance (H4, $\beta = .063$, $t = 1.65$, $p < .05$), business architecture capability and firm performance (H5, $\beta = .275$, $t = 5.00$, $p < .01$) and human analytic capability and firm performance (H6, $\beta = .174$, $t = 3.22$, $p < .01$). In summary the model established a significant positive relationship between CRM implementation and firm performance and all of the hypotheses are accepted.

First hypothesis was that the extent of organization can embrace the concept of Organizing around CRM will have significant impact on firms' performances. This hypothesis is accepted as the results shows found (H1, $\beta = .250$, $t = 5.308$, $p < .01$) a significant positive relationship between CRM based technology and firm performance. Second hypothesis was that technological CRM resources has relationship with firm performance (H2, $\beta = .172$, $t = 3.617$, $p < .01$). The empirical results found significant positive relationship between these variables. Hypothesis 3 states that the the key customer focus which is another vital dimension of CRM positively related with firm performances as the authors' calculation is (H3, $\beta = .196$, $t = 4.55$, $p < .01$), and other three hypotheses like relationship between knowledge management, business architecture and human analytic capability are positively related with firm performance as results of regression show the following value for three hypotheses respectively (H4, $\beta = .063$, $t = 1.65$, $p < .05$,. H5, $\beta = .275$, $t = 5.00$, $p < .01$, H6, $\beta = .174$, $t = 3.22$, $p < .01$). Finally, I can say that the regression model is quite fit to explain the relationship between CRM implementation process and firm performance and statistically I can accept all of the hypotheses supported by the previous literature.

4.1 Discussion and Managerial Implications

The goal of the this study was (1) to conceptualize and operationalize the dimensions of CRM to implement the CRM process effectively and (2) to measure whether the impact of CRM is positive or negative on firm performance. The results from this empirical effort based on survey from some executives of some renowned firm operating in Bangladesh ushers some notable findings. The data collected from the executives of different firms provide strong support to conceptualize the CRM construct. the author has developed six constructs which are organization around CRM (organizational

alignment), CRM based technology (software , websites, tracker and other CRM tools), focusing on the key customers (existing and potential customers), Human analytics (human resources like sales people, front desk office, customer care executive and their skills, experiences, to convert the customers' data into information), business architecture (business domain and business models) and finally knowledge management (using the information generated from CRM process to take organizational strategic decision) to measure their impact on firm performance. After developing the construct the researcher then developed items to assess the extent to which the CRM dimensions are implemented on the surveyed firms and measure their influence on the firm performance. Although conceptualization of CRM and measuring its effects on organizational performance has recently become an interesting issue for academicians and professionals since last few years But till to date, there is no clear idea about CRM and it is till now confusing and puzzling issue in literature and practice (Harker, 1999) as it incorporates multifaceted dimensions. To assess the effect of CRM on performance, the company must try to realize what factors are incorporated to CRM process and what their inter relationships between those factors. Thus this attempt to conceptualize the CRM process provides a framework for the researchers and practitioners which will work as an organizational strategic guideline to implement the CRM in firms.

The results of the exploratory factor analysis which consists of six dimensions of CRM implementation process and correlation and regression analysis are consistent with the results of previous studies (Yam et al., 2004, Sin et al., 2005). After conducting factor analysis, reliability and validity test for the data used for this study, the CRM implementation construct was tested empirically and produced significant positive relationship with firm performance as the results of regression model is ($F=111.263$, $p=000$ adjusted R squared value=.763) which explains 76.3% of the variation of the firms' performance by the CRM constructs.

Thus, this study produces some interesting findings for academicians and practitioners. In the case of organizing around CRM or organizational alignment (OACRM) which is used as a vital construct of CRM process has emerged as a strong predictor of variation in the firm performance. It implies that the firms who are intending to apply CRM strategy in their firms must focus on some specific areas like allocation of fund, developing organizational capabilities such human resources, business architecture, technology and culture to embrace the CRM process. This finding is consistent with the result of the (Hong-kit Yim et al., 2004, Homburg et al.2000).

The author also hypothesized that incorporating CRM based technology has significant effect on firm performance which is found significant. The finding direct the managers and academicians to incorporate CRM based technology to be realized the outcomes of CRM process. Although it is believed that technology can enhance the organizational performance but it is mentionable that focusing on IT-enabled CRM solely will not bring the desired outcomes until the management strives to consider this IT tools and software with organizational CRM strategy. Here Management of an organization will focus on the dimensions of organizations to enhance organizational to use IT. Results of Payne and Frow (2006) is consistent with the result of this study where they considered IT as enabling factor to have one to one relationship. This result also close to the result of the studies conducted by (Rygielski , Yen & Wang 2002, Ngai, 2005)

Focusing on the the key customer (FKC), another construct of CRM has a significant effect on firm performance. As CRM is itself a process to develop and maintain relationship with customers, so managers incorporate all of the dimensions in the CRM based on the customer focus philosophy. The process, technology, business architectural design, knowledge management and human analytic capability and other things that are required to develop and maintain relationships with customers follow the the the key customer focus philosophy to have real outcome of CRM process. The study have similar finding with the study of (Ryals and Knox 2001).

This study also incorporates three other dimensions of CRM process such as Knowledge management, business architecture and human analytic capability. Results show a significant impact of these dimensions on CRM outcomes like business performance. Knowledge management is vital issue in CRM implementation process as it help the managers to gather, analyze the customer data and convert these data into information to take the decision. Human analytic capability and business architecture has also positive impact on business performance. Human are the basic component who interact with the customers through different ways. The managers should focus on recruiting, training and developing the employee to more efficient and effective in interacting with the key customers.

5. Conclusion, Limitations and Direction for Future Research

The researcher strongly believes that this study presents several practical contributions. First of all, practitioners will be able to understand to

conceptualize and operationalize the CRM process from this study. Top management should establish a CRM ready organizational infrastructure and should develop an organizational culture by simply introducing a CRM system. The personnel who are in the position of driving CRM initiatives must check the nature of CRM along with its strengths and weaknesses. Before adopting CRM system in the firms the manager focus on the organizational nature, context, skills, experience and intentions of employees, business architecture and human analytic capability and so on. As CRM is a holistic approach, the management should emphasize on the cross functional activities of a firm. Finally, I can say that an organization should focus on the holistic approach to be realized the results of CRM implementation on performance.

Although the study provides us interesting findings but there is some limitations .First, this study was conducted based on the four dimensions developed by Sin et al. 2005 and with two additional dimensions developed by Coltman et al., 2011 only. In a changing business environment firms are adopting new strategies for their business as customers demand is changing gradually. This study can be expanded incorporating other dimensions of CRM used by different firms in different context. Second: Although the study has addressed the CRM implementation process from different industries like bank, insurance, telecommunication, chain store and branded shop in Chittagong but the number of participants in this study are small in numbers which is another limitations of this study. Third: this study has only attempted to conceptualize and operationalize the CRM implementation from marketing perspective and it also attempted to measure CRM impact on firms performance. CRM is a holistic approach that includes other functions of the firm. The researcher and professionals have a valuable area of future research where they can examine CRM from cross functional perspective.

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