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Effects of CRM Components on Firm's Competitive Advantage: A Case on Bangladesh Banking Industry

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Abstract

The purpose of this paper is to determine the impact of customer relationship management (CRM) components (customer knowledge, customer orientation, and technology capability) on the competitive advantage of a firm. A 17-item 5-point Likert questionnaire, generated based on a literature review, was used to gather primary data from a sample of 175 bank customers selected using a convenience sampling technique. Data were analysed by using SmartPLS version 3.2.8. The key findings are that competitive advantage is negatively impacted by customer knowledge and that the impacts of customer orientation and technology capability on competitive advantage are significant and profound. Findings of the study may facilitate bank officials and can be used as a strategic instrument for generating more sources of competitive advantage in the Bangladeshi banking industry.

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Introduction

The banking industry has become one of the key pillars of Bangladesh's economy due to its significant contribution to development. In pursuant with Pokharel (2005), CRM is the strategy that enables the banks to analyse the customer profiles, detect their needs and potential profitability areas and establish the necessary actions the achieve customer satisfaction, competitive advantage and thus the profitability. He also stated that CRM is a differentiation strategy that banks can use to acquire, grow and retain profitable customer relationships, to create a sustainable competitive advantage. The main rationale of customer relationship management is to achieve a competitive advantage in customer management and ultimately increase profit levels (Vazifehdust, Shahnavazi, Jourshari, & Sharifi, 2012). Overall, CRM competence is a significant source for service organisations to build and sustain a competitive advantage. Furthermore, Nguyen (2007) stated that the competitive advantages that organisations could gain from CRM systems include an increase in customer loyalty, superior service, and superior information gathering, and knowledge sharing as organisational learning. The three components of CRM in this study are customer knowledge, customer orientation, and technology capability.

Dmour and Algharabat (2019) found that banks achieved a remarkable profit by aligning their business with CRM strategy. It was acknowledged by Narang *et al.* (2011) that, due to information bloom, customers have become dynamic and knowledgeable in making a selective choice amongst various offerings available. As economic globalization intensifies competition, retaining customers has become important. Lack of CRM implementation may lead to problems such as worsening of the bank's image, and the loss of competitiveness, customers, revenues and profits (Idzikowskiadam *et al.*, 2019). In India (Uppal, 2008; Sharma & Goyal, 2011) and Pakistan (Hussain *et al.*, 2009; Hasan *et al.*, 2015), studies have already been conducted regarding CRM. Contrastingly, such studies have entirely been missing from the context of Bangladesh. With these aspects into consideration, the objective of the present study is to identify the impact of CRM constructs of the study, customer knowledge, customer orientation, and technology capability on competitive advantage.

The review of the literature of this study and its findings from the perspective of Bangladesh will amplify the existing pool of knowledge on CRM components. This study considers the need for investigating how CRM components impact competitive advantage in the banking sector of Bangladesh. Adequate attention to this context can provide more perspective in the context of Bangladesh's private banking sector. Furthermore, the findings of the study may facilitate bank officials and managers and can also be used as a strategic instrument for increasing sources of competitive advantage. This paper is one of the few studies in Bangladesh's private banking sector, which provides an extensive overview of CRM components and their relationships with a competitive advantage. Lastly, this study is expected to inspire other researchers and can broaden up the opportunities for further research initiatives.

Literature Review

Conception of CRM

The services sector dominates the economy of developing nations. The impediments of the service sector such as heterogeneity, perishability, inseparability, and intangibility Parasuraman *et al.* (1985), can be successfully tackled by the incorporation of CRM initiatives and practices (Wu & Lu, 2012). In this technologically advanced environment, the challenge for commercial banks is developing sustainable customer relationships. Sin *et al.* (2005) concluded that banks conquered a champion position by establishing a strong relationship with the customer through customer relationship management as a business strategy. Lovelock (1993) pointed out that many services due to the nature of intangibility require a continuing

membership with their customers, such as banking, insurance, and others. In recent years, technology has brought transformational changes in the banking world, and banks are exploiting technologies across multiple channels to deliver consistency, efficiency, personalization, value addition, and customization.

To survive the service revolution, service organisations require focusing on customer preferences, quality, and technological interfaces. Banks need to use CRM as a key strategy in order to coordinate a customer-centric approach (Zadeh *et al.*, 2013). It is hard to define CRM strategy due to its multidimensional nature. CRM has been explicated by Wang and Feng (2012) as a cross-functional course of action aimed at constituting and conserving prolonged relationships with customers. Kincaid (2003) describes CRM as the strategic use of information, processes, technology, and people to manage the relationship with customers across the whole customer cycle. On the other hand, the banks are adopting the techniques of customer relationship management to design and develop a customer-focused environment inside banks, build and enhance the long-lasting relationship with their targeted customer, produce and deliver the best products and services to the customers and to find out the most cost-effective customers for the banks (Foss & Stone, 2002).

The banking sector is a knowledge-intensive, skill-based and relationship-rich industry (Mavrides, 2004). Banks have now started to take advantage of the CRM technologies in order to metamorphose from an epitome of account centricity to product centricity (Sivaraks *et al.*, 2011). These days, banks are focusing on self-service technologies with the help of which customers can use bank services when and where they want without time or place barriers and any personal contact with the banks (Durkin & Howcroft, 2003). The competitive advantage of the bank lays in the discovery of new and more effective methods other than those used by other competing banks. It is also known as the skill, technology or supplier that enables the bank to provide better values and benefits compared to the competitors (Wernerfelt, 1984). Not only does CRM build relationships and uses systems to collect and analyse data, but it also includes the integration of all these activities across the firm, which generates customer value (Boulding, 2005). According to Sayani (2015), the relationship of the banks with the customers eventually leads to higher customer loyalty and retention. Due to the ever-changing environment and globalization, the banks in Bangladesh are trying to adapt to various CRM activities.

Assessing CRM Components

CRM collects data related to customers, grasps features of them, and applies it in specific marketing activities (Swift, 2001). Customers incorporate customer knowledge management efforts as it impersonates a prominent function in the favourable outcome of CRM (Dous *et al.*, 2005). For the functioning of an effective CRM system, it is crucial for a firm to simultaneously upgrade itself with customer knowledge as it corresponds to the field of CRM (Stefanou, Sarmaniotis & Stafyla, 2003). Rowley (2002) defines customer knowledge as the knowledge about potential customers, customer segments and individual customers. Knowledge about customers has an explicit nature and includes looking into customer's backgrounds, transaction histories, customer motivations and wants, etc. which help firms better understand customer's needs (Smith & McKeen, 2005).

Numerous researchers have studied the role of customer orientation and established its influence on CRM outcomes (Tseng, 2019). For sustenance of relationships with customers, organisations must embrace a customer-centric culture and continuously deliver value to customers (Chen & Popovich, 2003). Successful implementation of CRM projects requires firms to be customer-oriented (Jayachandran *et al.*, 2005). Customer orientation within a CRM system enables the system to support the firm's marketing campaign efficiency, satisfies customer needs (Chuang & Lin, 2013) and guides the organisation's attitude toward the implementation of CRM activities (Day, 2000). Customer orientation is a culture-based concept, and it reflects the values, behavioural norms, the shared mental modes that enable a firm to put customers' interest first (Deshpande *et al.*, 1993; Day, 1984). Customer orientation is a set of beliefs that put the customer's interest first, while not excluding those of all other stakeholders; to develop a long-term profitable enterprise.

Following Rapp *et al.* (2010), customers can be consolidated, and their needs can be fulfilled with the aid of CRM technologies. CRM applications analyse data on customer patterns, customer behaviour, develop predictive models, support customer relationships, respond with timely and effective customized communications, and deliver service value to individual customers (Chen & Popovich, 2003). Peppard (2000) opined that technological tools have improved interactivity between the customer and firm, and without technology, the entire customer's data gathered by the firm would be redundant. Technology in the case of banking comprises, for instance, automatic teller machine, internet and mobile banking (Kolodinsky *et al.*, 2004). Traditionally, CRM technology has facilitated the collection, integration, and analysis of customer data and subsequent communication to/with customers (Jayachandran *et al.*, 2005).

Competitive Advantage

In the epoch of hyper-competition, organisations are striving to gain and maintain a competitive edge (Kennedy & Michael, 2004). Competitive advantage is an advantage over competitors gained by offering consumers higher value, either using lower prices or by providing more significant benefits that justify a higher price (Porter, 1985). Customer knowledge is an essential economic resource (Drucker, 1996), and a differentiator for competitive advantage (Paiva, Tzokas & Saren, 2002). More excellent customer knowledge can improve the sale of additional services to existing customers – ensuring that only customers who fit the profile for service are targeted (Lavender, 2004). In conformity with the knowledge-based theory, superior performance and competitive advantage of a firm are identified to be highly dependent on the firm's knowledge of its customers. It is believed by Murillo and Annabi (2002) and Campbell (2003) that, customer knowledge is rooted in the functional processes of a firm which makes it cumbersome for competitors to simulate and thus serve as a source of competitive advantage. A firm needs to manage its knowledge resources to produce the biggest payoffs and obtain a competitive advantage (Meso & Smith, 2000).

Organisations can become competitive in the current business scenario through value creation and customer orientation (Borsaly, 2014). Customer orientation (CO) reflects a firm's strategic focus on the market and is defined as a "firm's orientation toward the promotion and support for the collection, dissemination, and responsiveness to market intelligence to serve customer needs" (Atuahene-Gima & Ko, 2001). Customer orientation has become imperative for organisations that possess unique capabilities and places customer's interest first, thereby assisting in sustaining long-term competitive advantage (Kumar & Reinartz, 2006), is crucial for helping firms better understand customer demands and achieve sales growth (Feng *et al.*, 2012; Valenzuela *et al.*, 2010), acquiring competitive advantages and achieving business success (Ziggers & Henseler, 2016). Wang and Feng (2012) have argued that customer orientation and the customer-centric organisational system fosters a superior competitive advantage. Firms should practice customer orientation by focusing on customer needs in order to differentiate them from competitors in the fierce market competition (Taoketao *et al.*, 2018).

In today's dynamic and globalized business world with hyper-competition and technology adoption, organisations are striving to gain and maintain a competitive edge by using different tactics and tools (Kennedy & Michael, 2004). Banks have adopted information technology to foster changes in managing customer relationships and enhance their competitive capabilities (Ziggers & Henseler, 2016). In the light of Lindgreen *et al.* (2006), technology is considered as a crucial component and resource for the successful incorporation of CRM in a firm and helps in acquiring sources of sustainable competitive advantage (Bharadwaj *et al.*, 1993). Ismail and Bakar (2017) argued that when banks implement CRM technology, it enables them to deliver better service to its customers, thus increasing its competitive advantage over other banks in the industry. Technology capability improves operational and management competencies in

enterprise systems (Ngai, Chau & Chan, 2011) and improves interaction (Roberts & Grover, 2012). Thus, the following relationships have been hypothesized:

H1: Customer knowledge positively impacts on competitive advantage.
H2: Customer orientation positively impacts on competitive advantage.
H3: Technology capability positively impacts on competitive advantage.

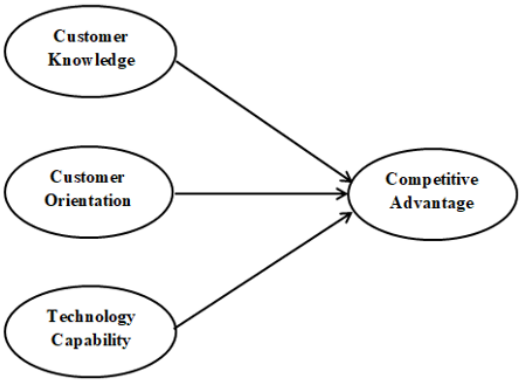

Figure 1. Research Framework

Methodology

Sample and Data Collection

The research hypotheses were tested using a sample of customers of a bank. Two hundred questionnaires were distributed using a convenience sampling technique during January 2020. One hundred seventy-five questionnaires were received in usable condition, representing a response rate of 87.5 per cent. The survey consisted of questions directed at comprehending the insight of customers on CRM components and its probable influence on competitive advantage. The first part of the questionnaire comprises questions on demographic characteristics, while the next part consists of the leading research questions. The survey process was self-administered, so respondents completed the survey questionnaire on their own.

Measurement and Scaling

The questionnaire consisted of 17 items that measured the CRM components and competitive advantage. The respondents were given questionnaires based on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The variables were measured based on identified scales from prior literature. Customer knowledge was measured based on items adopted from (Yim *et al.*, 2004; Sin *et al.*, 2005; Khodakarami & Chan, 2014), customer orientation from (Rapp *et al.*, 2010) and technology capability from (Yim *et al.*, 2004; Rapp *et al.*, 2010). The concept of competitive advantage was measured based on the items which were adopted from (Bagram, 2010; Chahal & Bakshi, 2015).

Data Analysis

SEM was performed to assess whether the data fits the conceptual framework and to test the proposed hypotheses. SmartPLS version 3.2.8 and SPSS version 25 were used to carry out the data analysis and analyse the model's goodness of fit, reliability, and validity.

Results and Analysis

Respondents Profile

Table 1 illustrates that 57.7% of the respondents were male, 53.70% aged from 31-40 years, and 68% of respondents are postgraduates. 38.3% of respondents were a business person, and 33.7% had service length of 4-6 years with the bank.

Table 1. Demographic Variables

Demographic	Category	Frequency	Per cent
Gender	Male	101	57.70
	Female	74	42.30
	Total	175	100.00
Age	Less than 20	2	1.10
	21-30	31	17.70
	31-40	94	53.70
	41-50	43	24.60
	51 and above	5	2.90
	Total	175	100.00
Education	Undergraduate	14	8.00
	Graduate	42	24.00
	Post Graduate	119	68.00
	Total	175	100.00
Profession	Student	14	8.00
	Service Holder	58	33.10
	Business Person	67	38.30
	Professional	35	20.00
	Others	1	0.60
	Total	175	100.00
Service Length	Less than 1	6	3.40
	1-3	51	29.10
	4-6	59	33.70
	7-10	47	26.90
	More than 10	12	6.90
	Total	175	100.00

Assessment of Measurement Model

Figure 2 represents the output of the measurement model. According to the rule of thumb proposed (Vinzi *et al.*, 2010), outer loading should be 0.5 and above. On the criteria for the assessment of internal consistency reliability using composite reliability, Hair *et al.* (2016) suggest based on Nunnally and Bernstein (1994) that the composite reliability value should be higher than 0.70. In agreement with Nunnaly (1978), the value of Cronbach's alpha should be 0.70 or above. Cronbach's alpha of all the constructs of this study meets the criteria. Average Variance Extracted was used to evaluate the convergent validity based on Hair *et al.* (2016) and Fornell and Larcker (1981) criteria. As argued by Hair *et al.* (2016), convergent validity is obtained when the factor loading of all the items is higher than 0.5. The independent variables have satisfactory AVE values of 0.626, 0.604 and 0.549, respectively, while the AVE value of the dependent variable is 0.554, as shown in Table 2.

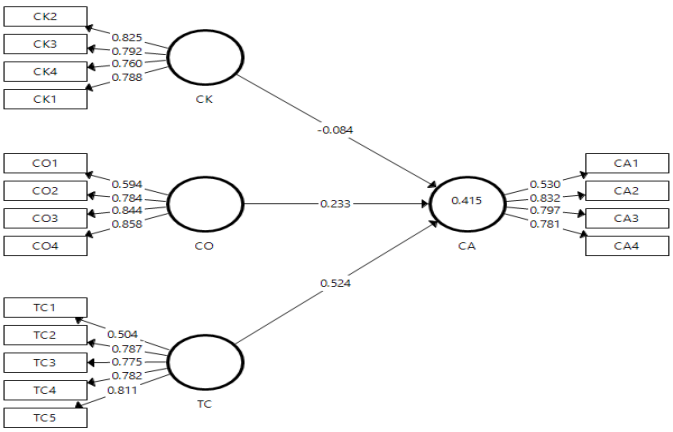

Figure 2. Measurement Model

The cross-loadings are the first approach to assess the discriminant validity of the indicators. Specifically, an indicator's outer loading on the associated construct should be higher than any of its cross-loadings (i.e., its correlation) on other constructs (Hair *et al.*, 2016). Along with Chin's (1998) criterion, the outer loadings of a construct should be higher than the cross-loadings (i.e., all of its loadings on other constructs). The Fornell-Larcker criterion is the second approach, and it compares the square root of the AVE values with the latent variable

correlations. Specifically, the square root of each construct's AVE should be greater than its highest correlation with any other construct. These criteria are met as depicted in Tables 3 and 4.

Table 2: Assessment of Measurement Model

Construct	Items	Loadings	Cronbach's Alpha	Composite Reliability	AVE
Customer Knowledge	CK1	0.788	0.810	0.870	0.626
	CK2	0.825			
	CK3	0.792			
	CK4	0.760			
Customer Orientation	CO1	0.594	0.778	0.857	0.604
	CO2	0.784			
	CO3	0.844			
	CO4	0.858			
Technology Capability	TC1	0.504	0.791	0.856	0.549
	TC2	0.787			
	TC3	0.775			
	TC4	0.782			
	TC5	0.811			
Competitive Advantage	CA1	0.530	0.735	0.829	0.554
	CA2	0.832			
	CA3	0.797			
	CA4	0.781			

Table 3: Fornell-Larcker Criterion

	CA	CK	CO	TC	AVE
CA	0.744				**0.554**
CK	0.271	0.791			**0.626**
CO	0.489	0.483	0.777		**0.604**
TC	0.617	0.463	0.566	0.741	**0.549**

Table 4: Cross Loading

Factors →	CA	CK	CO	TC
Items ↓				
CA1	**0.530**	0.760	0.219	0.207
CA2	**0.832**	0.205	0.407	0.583
CA3	**0.797**	0.379	0.394	0.547
CA4	**0.781**	0.376	0.398	0.378
CK1	0.210	**0.788**	0.374	0.395
CK2	0.263	**0.825**	0.457	0.442
CK3	0.220	**0.792**	0.356	0.353
CK4	0.096	**0.760**	0.282	0.155
CO1	0.293	0.205	**0.594**	0.201
CO2	0.262	0.379	**0.784**	0.347
CO3	0.427	0.376	**0.844**	0.520
CO4	0.473	0.493	**0.858**	0.586
TC1	0.249	0.288	0.311	**0.505**
TC2	0.451	0.323	0.421	**0.787**
TC3	0.429	0.394	0.445	**0.775**
TC4	0.492	0.409	0.488	**0.782**
TC5	0.583	0.788	0.425	**0.811**

Assessment of Structural Model and Hypotheses Testing

To attain the statistical T-values, the PLS bootstrapping was run. SmartPLS 3.2.8 directly provides p-value where p-value was calculated based on 95 percent confidence interval, as it is acceptable social science research (Bickel, 2012; Cox & Hinley, 1979; Tacq & Tack, 1997). Figure 2 represents the structural model of the study. From the Table 5, it was found that customer knowledge (CK) does not have any positive impact on competitive advantage (CA) (t= 0.971; p= 0.332) and the first hypothesis (CK→CA) was not supported. The result of the second hypothesis (COCA) (t= 2.745; p=0.006) and third hypothesis (TC→CA) (t=5.895; p=0.000) provide a significant and positive relationship with a competitive advantage.

Table 5: Direct Effects with Competitive Advantage

H. Path	Path Coeff.	Std. Dev	T-Value	P-Value	Decision
CK→CA	−0.084	0.087	0.971	0.332	Not supported
CO→CA	0.233	0.085	2.745	0.006	Supported
TC→CA	0.524	0.089	5.895	0.000	Supported

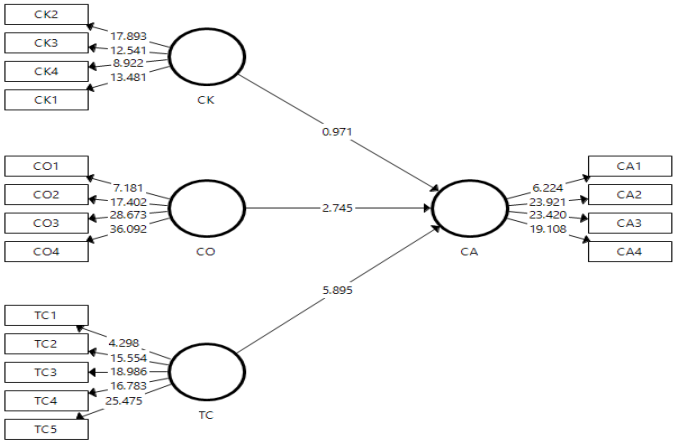

Figure 3. Structural Model

Coefficient of Determination (R^2)

The coefficient of determination is a measure of the model's predictive power and is calculated as the squared correlation between a specific endogenous construct's actual and predicted values (Hair *et al.*, 2016). The coefficient represents the exogenous latent variables' combined effects on the endogenous latent variable. That is, the coefficient represents the amount of variance in the endogenous constructs explained by all of the exogenous constructs linked to it (Rigdon, 2012; Sarstedt, Ringle, Henseler, & Hair, 2014). According to Falk and Miller (1992), (R^2) is deemed satisfactorily if it exceeds 1.5 percent. However, Cohen (1988) and Chin (1998) recommended three levels of structural model quality; substantial (0.26 and 0.67), moderate (0.13 and 0.33) and weak (0.02 and 0.19) respectively. A value of 41.5%, as per Table 6, is substantial in terms of structural model quality.

Table 6: R Square (R^2), Effect Size (f^2) & Predictive Relevance (Q^2)

Endogenous Constructs	Exogenous Constructs	R^2	f^2	Q^2
CA	CK	**0.415**	0.009 (no effect)	**0.193**
	CO		0.057 (Small)	
	TC		0.297 (Large)	

Effect Size (f^2)

The effect sizes are evaluated as small (0.020), medium (0.150) or large (0.350), respectively, according to Cohen (1988). Although, Chin *et al.* (2003) posited that even a small effect size should not be neglected, and arguing thus, "even a small interaction effect can be meaningful under extreme moderating conditions, if the resulting beta changes are meaningful, then it is important to take these conditions into account" (Chin *et al.*, 2003). Thus, Table 6 demonstrated that according to Cohen (1988), technology capability has the significant effect on competitive advantage with the value of 0.297 while customer orientation has the small effect on competitive advantage with the value of 0.057 and customer knowledge has almost no effect on competitive advantage.

Predictive Relevance (Q^2)

According to Hair *et al.* (2016), Q value is obtained by using the blindfolding to assess the parameter estimates and also assess how values are built around the model. The results were retrieved from the blindfolding output of PLS through the variable score out of which cross-validated redundancy extracted. This cross-validated redundancy, analyse the capacity of the model to predict the endogenous variables and also explain the quality of the model. Moreover, blindfolding is done for the endogenous reflective latent variables in the model, and it is evaluated as having predictive relevance if the Q^2 value for the endogenous latent construct is greater than 0 (Hair *et al.*, 2016). According to Table 6, the Q^2 value is 0.193, so there is evidence for predictive relevance among exogenous and endogenous constructs.

Discussion and Conclusions

The positive impact of customer knowledge on competitive advantage was found insignificant and is inconsistent with several prior studies such as Mohamed *et al.* (2019), Bhat and Darzi (2016), Aghamirian *et al.* (2015). This is because, in the context of Bangladesh, many banks are incompetent in using customer databases such that it yields competitive advantage. As determined by Dyer (1998), firms are not able to make the best use of customer database due to their infirmity in upgrading, qualifying and quantifying the customer data. However, there is a significant positive relationship between customer orientation and technology capability with a competitive advantage and supported by several prior studies such as Bhat and Darzi (2016), Al-alak and Tarabieh (2011), Zhou, Brown & Dev (2009) and Hanini & Oqaily (2018). Therefore, in a developing country like Bangladesh, CRM implementation in the banking sector can largely contribute to ensuring customer-centricity, which serves as a pre-requisite for cultivating loyal customers and achieving competitive advantage. Hence, the study identifies the importance of CRM components as a precursor to competitive advantage, which has been addressed by a very few previous research studies in Bangladesh context. The outcomes of this study corroborate with the propositions of academicians and researchers, who signify CRM as a contributor to competitive advantage and provide insights into the CRM phenomenon and competitive advantage research.

Research Implications

From a theoretical perspective and in the context of Bangladesh, this study addresses the research gap in the knowledge pool of present literature, where CRM is limited only as a technological outcome. The factors such as customer knowledge, customer orientation, and technology capability were synthesized to analyse its effect on competitive advantage. Moreover, these factors provide insight into achieving a complete CRM success solution in the context of Bangladesh banking sector. This foundation development was based on studies from Bhat and Darzi (2016), Rapp *et al.*, (2010), and Xu and Walton (2006). Studies on the components of CRM that are customer-focused are quite limited; hence this gap is addressed by the present study to some extent. Furthermore, the study has systematically proposed an integrated model that can facilitate CRM implemented practices from a management perspective. Based on the literature review it was found that previous researchers paid very little attention in relating the customer-centric components along with the technological dimension of CRM; thus, the current study bridges the gap to a certain extent as the model addresses both the aspects in unison. Also, the conceptual framework of the study can aid managers in communicating with new customers regarding their marketing services while withholding the old customers with new CRM initiatives. Banks must continuously invest efforts in understanding the changing needs of its customers and tailor their services in accordance. Furthermore, banks should train their employees in creating and designing a customer database and making use of it in an efficient manner such that it leads to competitive advantage. This would also require the bank to qualify and quantify the customer database simultaneously.

Limitations and Scope for Future Research

The study is not devoid of limitations, which should be considered when evaluating and generalizing its conclusions. Firstly, the survey was done only in Chittagong. Also, the sample size was 175, which may not be representative of the whole population. Moreover, due to time constraints and lack of enough funding, data from the whole private banking sector of the country was not possible to collect. Next, the unwillingness of the respondents to cooperate while conducting the survey has also stemmed from a constraint for this study. The concept of CRM comprises many dimensions. However, the components considered in this study do not encompass the other issues related to the incorporation of CRM practices in a bank. Lastly, the convenience sampling method has been used in this study which may lead to biased results due to the under or over-representation of the population from various districts of Bangladesh. Also, further study can be done by collecting more sample size. Moreover, future research could be orientated in other national and cultural settings. As this study has entailed only three components (customer knowledge, customer orientation, and technology capability) of CRM, whereas there are many other components of CRM like complaint handling, customer empowerment, it can be incorporated. Future studies can be done using -probability sampling and may consider the impact of other factors affecting competitive advantage.

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