

IMPACT OF CUSTOMER RELATIONSHIP MANAGEMENT CAPABILITIES ON ORGANIZATIONAL PERFORMANCE WITH CRM TECHNOLOGY AS MEDIATOR

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Abstract

Organizations are striving for sustainable competitive advantage. To achieve this objective they are in search of multiple options and along this a shift in the business is also evident. The organizations are opting various blends of intangibles to deliver superior value to its customer for building long-term relationships. The organizations who have realized the importance of customer relationship have developed various capabilities. Technology play vital role in implementing customer relationship capabilities. Implementation of customer relationship capabilities with technology is worthwhile in developing countries. Moreover the researchers analyzed the organizations by successful implementation of customer relationship capabilities with technology can have advantage both at national and international level. The research is conducted in Pakistan (District Gujrat) which is survey based and quantitative in nature. Sample of 100 executives (CEO's) of various local organizations was collected on the basis of cluster sampling and used for analysis. According to results customer relationship management is a compulsory tool in enhancing the organizational performance.

Key words: customer relationship capabilities, Technology, Competitive advantage, Value, organizational performance

Introduction:

In the present era of hyper competitiveness and fragmented market, it is very difficult for the organizations to deliver superior value to the customers only through the tangible and functional benefits. The sustainable competitive advantage can be achieved through the delivery of superior services, unique selling propositions and by maintaining long term relationship with customers. This is achievable through the operant resources, skills and knowledge base. The firms who realize the importance of CRM and develop capabilities to manage CRM are the leaders of today's world. From theoretical perspective there are two important streams of strategic marketing; market orientation and relationship marketing. These two concepts are related to each other but during the last decade they have developed independently of each other and are the two major streams of strategic marketing. (Steinman, Deshpande, & Farley, 2000). The focus of the market orientation is on the binding of supplier and customer while the relationship marketing conceptually stress on the mutual benefit and communication between the supplier and buyer. In this particular study the

focus of authors is on the stream of relationship marketing that entitles the mutual benefit of buyers and supplier (Morgan & Hunt, 1994).

The previous studies have explained that acquisition of multiple resources such as market-based resources (e.g. consumer preference information and CRM) gives a business an edge in competition (Barney, 1991) (Srivastava, Shervani, & Fahey, 1998). There are only few researchers who have focused on how market based resources can be utilized to meet with marketing environment and to increase organizational performance (Morgan, Vorhies, & Mason, 2009) (Slotegraff, Moorman, & Imman, 2003). This study focused on customer relationship management (CRM) capabilities and its impact on organizational performance considering CRM technology as a mediator.

Objectives of study:

The objectives of this research paper are:

- To measure the impact of customer relationship management (CRM) capabilities on business performance
- To analyze the mediating role of technology in building CRM capabilities for business performance

Research paper proceed in following way, there is introduction of the topic first, then objectives of the study, literature review, research model, hypothesis, methodology, data analysis and results, following by scope and limitations of the present research.

Literature Review:

Thomas in 1976 called attention to this term of relationship marketing and Berry in 1983 has explicitly explained this subject (Harker & Egan, 2006). Relationship marketing is mainly researched in four dimensions that are, business relationship marketing (interaction and network), services marketing, marketing channels and database marketing and direct marketing. These four dimensions constitutes two types of relationship marketing theories; one is market based (more customer oriented relationship marketing) and second is network- based (more interorganizational-oriented relationship marketing). The focus of the customer oriented relationship marketing is towards the managerial orientation and psychological perspectives of consumers while interorganizational-oriented relationship marketing is based on the social exchange theories, organizational sociology, cooperation, and resource based perspectives (Moller & Halinen, 2000). Customer relationship management techniques are important assets for any firm to get a sustainable competitive edge over competitors (Day, 2000). CRM is a bit new concept to the businesses as it received popularity in 1990's after the revolutionary findings of internet and technology (Berry, 1995). However relationship marketing being the base of CRM is relatively older phenomenon (Ryals, 2005).

CRM is a process by which a firm establishes, maintains, and enhance long-term associations with consumers (Parvatiyar & Sheth, 2001) (Payne & Frow, 2005). Capabilities are the skills and learned expertise which any firm acquires and uses to attain high performance (Day, 1994). Capabilities are different from firms other processes as it helps to create a clear performance advantage over competitors (Bingam, Eisenhardt, & Furr, 2007) (Morgan, Vorhies, & Mason, 2009).

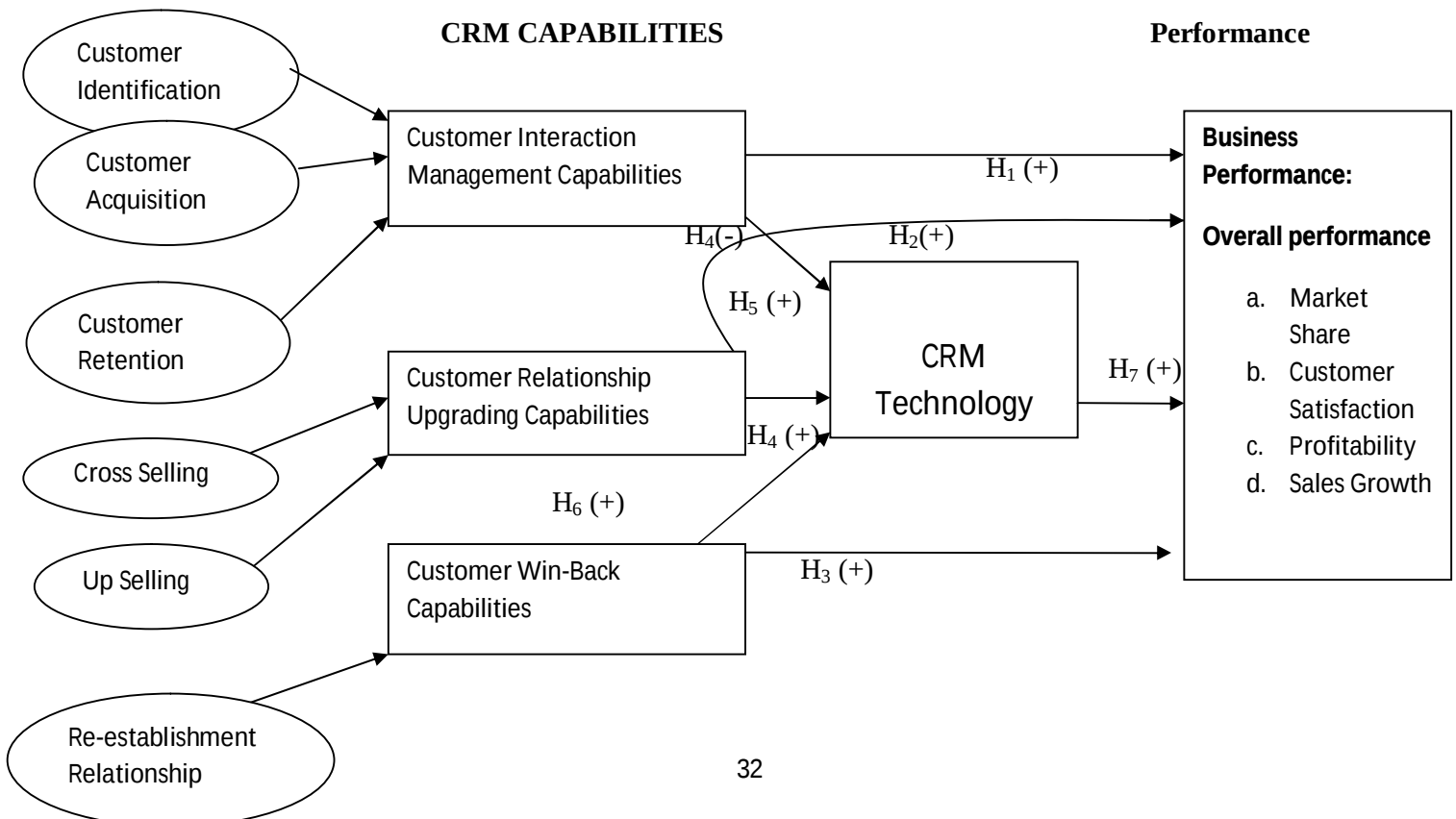
CRM capabilities basically are the activities any firm performs to identify potential customers and prospects, build and retain relationship with potential customers, and cultivating these relations to bring profitability (Morgan, Vorhies, & Mason, 2009). However, CRM capabilities consists three different business activities; customer interaction management activities (e.g. identifying customers, acquiring customers and retaining customers), customer relationship upgrading activities (e.g. cross-selling and up-selling), and customer relationship win-back activities (re-establishing relationships when lost) (Reinartz, Krafft, & Hoyer, 2004) (Parvatiyar & Sheth, 2001) (Srivastava, Shervani, & Fahey, 1999).

The skills that any firm uses for identifying, acquiring and retaining profitable consumers are called as customer interaction management capability. The skill to up-sell (such as selling high price items, upgrading) and cross-sell (such as selling additional units of products) to existing customers is known as customer relationship upgrading capability. And the skill to get back the profitable but lost customers is called as customer win-back capability (Reichheld & Sasser, 1999). CRM capability is a valuable and relatively difficult to imitate asset for achieving superior performance of the business (Day, 1994). Customer relationship management abilities are difficult to achieve and understand than many other abilities because it requires lots of time in developing, managing and upgrading them (Hooley, Greenlay, Cadogan, & Fahy, 2005).

The business world is spending huge amount of money for building CRM capabilities, but majority of time they get failed to get the desired performance (Reinartz, Krafft, & Hoyer, 2004). Some researches founded that these businesses failed because they were unable to use CRM resources to build customer relationship management capabilities and to gain a sustainable competitive edge (Day & Van Den Bulte, 2002) (Plakoyiannaki & Tzokas, 2002). That's way there is an intense need to develop capabilities of CRM in order to survive in competition. However, only few of the studies are available on CRM capabilities and its importance in enhancing business performance.

CRM technology plays a pivotal role in market orientation and market relationship (Kohli & Jaworski, 1990). In addition firms differ in adopting the right CRM technology and utilizing it to get the performance outcomes (Karimi, Somers, & Gupta, 2001). Marketers can achieve high market share, increase customer loyalty and profitability by effectively using CRM technology for making customer centered strategies (Reichheld & Sasser, 1999). CRM technology is the use of customer information for managing the customer relations effectively and efficiently (Reinartz, Krafft, & Hoyer, 2004). CRM technology can enhance the customer relationship management capabilities of a business as its components includes front desk activities to support sales and marketing activities; a customer database and back desk activities for taking marketing decision related to customers (Day, 2003).

Hypothetical model:



Hypothesis:

- H1. Customer interaction management capabilities have a positive association with business performance.
- H2. Customer relationship upgrading capabilities have a positive association with business performance.
- H3. Customer win-back capabilities have a positive association with business performance.
- H4. Customer interaction management capabilities have a positive association with CRM technology.
- H5. Customer relationship upgrading capabilities have a positive association with CRM technology.
- H6. Customer win-back capabilities have a positive association with CRM technology.
- H7. CRM technology moderates the relationship between CRM capabilities and business performance.

Methodology:**Reliability of Instrument:**

Research design: This study is a cross sectional study as it is based on one time data. Before and after and longitudinal study designs are not used because we are not focusing to see the trends and patterns of this studies phenomenon.

Target population: The population on which study results can be generalized is called target population. So the executives of the firms of three major industries in district Gujrat; fan industry, furniture industry and pottery industry are constituted the target population of the study.

Sampling Frame: All the executives of these target industries who are present in three tehsils of Gujrat constitute the sampling frame for this study.

Sampling Technique: Cluster sampling a technique of probability sampling is used in this study. Three tehsils (Gujrat, kharian and sarie-e- almgir) of district Gujrat are considered as clusters and one cluster is selected randomly. After that all executives of firms which are located in selected tehsil is treated as sample of this study.

Sample size: All the executives of the three industries in selected tehsil. The sample size is estimated by using formula given by Taro Yamani (1967):

$$n = \frac{N}{1 + Ne^2}$$

n = sample size

N = population size

e = margin of error

Data collection Tool: Adapted self administrated survey questionnaire is used for data collection (Wang & Willard, 2012) with some modifications considering geography and culture. The data in this study consist of four sections. First section is of demographic information like name of the firm, year of establishment and location. Second, CRM capabilities which consist of customer interaction management activities (e.g. identifying customers, acquiring customers and retaining customers), customer relationship upgrading activities, and customer relationship win-back activities. Third section is regarding CRM technology (technology adoption, technology use and technology up gradation). Fourth section contains the data of organizational performance (profitability, market share, customer satisfaction and sales growth).

Data analysis: Descriptive Statistics, Correlation, Regression Analysis and mediation are used for data analysis techniques.

construct	No of Items	Cronbach's Alpha
Customer Interaction Management capabilities	5	.720
Customer Relationship Upgrading capabilities	4	.834
Customer Win-Back Capabilities	4	.600
CRM Technology	3	.753
Business Performance	5	.808

Table: 1

Pilot study was conducted to check the reliability of the items of the survey questionnaire. The results of pilot study are presented in the table one (1). The results clearly depict the soundness of the instrument. The alpha values listed in table one (1), shows that all the values are higher the threshold required for these types of studies that is generally .60. The pilot testing was carried out on the sample of 37.

Industry

Table: 2(a)

	Frequency	Percent	Valid Percent	Cumulative Percent
fan	9	24.0	24.0	24.0
furniture	15	39.0	39.0	63.0
pottery	13	37.0	37.0	100.0
Total	37	100.0	100.0	

Table 2(a) highlights the frequency of industry with respect to the number of respondents. The table shows that fan industry respondents are 24%, furniture industry respondents are 39% and the pottery industry respondents are 37%.

Qualification

Table 2 (b)

	Frequency	Percent	Valid Percent	Cumulative Percent
matric	17	17.0	17.0	17.0
intermediate	20	20.0	20.0	37.0
bachelor	35	35.0	35.0	72.0
master and above	28	28.0	28.0	100.0
Total	100	100.0	100.0	

Table 2(b) highlights the frequency of qualification of the respondents with respect to the number of respondents. The table shows that percentage of matric respondents is 17%, intermediate 20%, bachelor 35% and master and above 28%.

Age Group	Frequency	Percent	Cumulative Percent
31-40 years	35	35.0	35.0
41-50 years	40	40.0	75.0
51 and above years	25	25.0	100.0
Total	100	100.0	

Table 2(c) highlights the frequency of age of the respondents with respect to the number of respondents. The table shows that respondents' ranging from 31-40 years is 35%, 41 – 50 years is 40%, 51 and above is 25%.

Descriptive Statistics	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Table: 3	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Customer Interaction Management Capabilities	30	100	69.40	18.3	-.33	1.139
Customer Relationship Upgrading Capabilities	30	100	67.00	15.22	-.57	1.05
Customer Win-Back Capabilities	75	100	80.75	10.34	-.01	1.04
CRM Technology	33	100	62.33	15.2	-.36	1.19
Business Performance	30	100	68.60	10.6	-.58	1.375
Total N (100)						

Table three (3) highlights the values of descriptive statistics minimum, maximum, mean, std.deviation, skewness and kurtosis. According to the results the descriptive stats of skewness are slightly negatively skewed. A rule of thumb is skewness less than 1.0 (or less than -1.0). The values of kurtosis are between the plus and minus 1.78 that is the general rule of thumb to analyze the normality of data.

Correlation Table:	Customer Interaction Management Capabilities	Customer Relationship Upgrading Capabilities	Customer Win-Back Capabilities	CRM Technology	Business Performance
Table: (4)					
Customer Interaction Management Capabilities	1				
Customer Relationship Upgrading Capabilities	.334**	1			
Customer Win-Back Capabilities	.282**	.581**	1		

CRM Technology	.615**	.564**	.490**	1	
Business Performance	.630**	.491**	.394**	.616**	1
N(100)					

** shows level of significance at 0.01 level

Business Performance (Dependent Variable)

Table four (4) is about the correlations among the constructs used in this research. This correlation is the Bivariate Correlation tests which depict the relationship between two constructs are linear (as one construct increases, the other also increases or as one construct increases, the other variable decreases). Pearson's correlation reflects the degree of linear relationship between two constructs. It ranges from plus one (+1) to minus one (-1). A correlation of plus one (+1) means that there is a perfect positive linear relationship between constructs. In the meanwhile a correlation of minus one (-1) means perfect negative relationship between the constructs. The general rule of thumb is the correlation between the 0.3 to 0.7 is the moderate relationship between the constructs. As the results in table four (4) shows that the correlations between the constructs is between the 0.242 to 0.572 that is moderate relationship among the constructs. This relationship is without the specifying the independent and dependent construct. The p value shows the level of significance that highlighted with stars. One star shows the level of significance at ninety five (95%) confidence interval. While the two star shows the level of significance at ninety nine (99%) confidence interval. The N is the sample size of the study that is one hundred (100). All the correlations are two (2) tailed that means the results can be at the both sides.

Regression (I)

Variable	Coefficient	t	p	W
customer interaction management capabilities	.77	3.47	.000	
customer relationship upgrading capabilities	.92	.14	.002	.44
customer win back capabilities	.70	.08	.307	

Table: 4 (I)

Dependent Variable: business performance

(F, 92.434 sig, 0.000), $Y = \beta_0 + \beta_1 Y_{1+} + \beta_2 Y_{2+} + \beta_3 Y_{3+} + \epsilon$

In regression analysis the linear regression was carried out. As there is the mediator in the theoretical model; to test the mediation Baron and Kenny (1986) method was used. The Baron and Kenny method is considered one the best method to test the mediation. Before the mediation test, overall significant of the model was test. For the purpose stated above; independent variables were regress on the dependent variable. In this specific case the independent variables are, Customer interaction management capabilities, customer relationship upgrading capabilities and customer win back capabilities and the dependent variable is business performance. The results are presented

in table 4 (I). According to results the model is significant as the p value is less than 0.05 in two variables in the case of customer win back capabilities the p value is greater than 0.05 and the individual parameter is insignificant while the overall model fitness is checked with F statistics which is greater than two, means model carries the overall goodness of fit. Individual parameters are also significant as t value is greater than two and p values are less than 0.05. R square value is .744 which means that Independent variable explains the 74% of dependent variable that is business performance.

Regression (II)

variable	coefficient	t	p	R ²	W
customer interaction management capabilities	.42	.294	.000		
customer relationship upgrading capabilities	.98	.492	.001	.45	.50
customer win back capabilities	.26	.154	.033		

Table: 4 (II)

Dependent Variable: CRM Technology
 $F, 38.434 \text{ sig. } 0.000$, $Y = \beta_0 + \beta_1 Y_1 + \beta_2 Y_2 + \beta_3 Y_3 + e$
 Table 4 (II) presents the values of independent parameters when they are regressed on the mediating variable employee CRM technology; here this mediating variable is dependent variable. According to these results all the parameter are significant as they were individually regressed on the employee brand knowledge. The p values are less than 0.05 and the R square is .545.

Dependent Variable: business performance

Regression (III)

variable	coefficient	t	p	R ²	W
CRM technology	.78	.74	.000	.79	.49

Table: 4(III)

$F, 59.543, \text{sig. } 0.000$, $Y = \beta_0 + \beta_1 Y_1 + e$
 Table 4(III) shows the result of CRM technology regressed on business performance. Results are significant as the p value is less than 0.05 and the value of R square is .379.

Regression (IV)

variable	coefficient	t	p	R ²	W
customer interaction management capabilities	.64	7.4	.000	.69	.44
customer relationship upgrading	.92	4.7	.000	.29	.36

capabilities

customer win back capabilities 47 5.4 .000 .79 .69

able 4 (IV)

Dependent variable: business performance

$$Y = \beta_0 + \beta_1 Y_1 + \epsilon$$

Table 4 (III) shows the results of individual parameters when they were regressed on the business performance. The results show that individual parameters are significant as their p values are less than 0.05 and R square ranges from 0.569 to .679.

Regression (V)

variable	coefficient	t	p	R^2	.W
customer relationship capabilities	.98	223	0.028	.09	82
CRM technology	.73	256	0.000		

able: 4 (V)

Dependent Variable: business performance

$$F, 33.600 \text{ sig}, 0.000, Y = \beta_0 + \beta_1 Y_1 + \beta_2 Y_2 + \epsilon$$

Table 4(V) shows the results of mediation of customer relationship capabilities with CRM technology the results verify the full mediation according to (Baron & Kenny, 1986). As the value of R square is lesser than R square value of customer relationship capabilities regressed. The equation is also given above with alpha values and constant values. According to results hypothesis is supported.

Dependent Variable: business performance

Regression (VI)

variable	coefficient	t	p	R^2	.W
customer interaction management capabilities	.20	.935	.000	.92	72
CRM technology	.80	4.120	.000		

able: 4 (VI)

$$Y = \beta_0 + \beta_1 Y_1 + \beta_2 Y_2 + \epsilon$$

Table 5(VI) shows the results of mediation of customer interaction management capabilities with CRM technology the results verify the mediation according to (Baron & Kenny, 1986). As the value of R square is higher than R square value of customer interaction management capabilities individually regressed.

Regression (VII)

variable	coefficient	t	p	R^2	.W
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customer win back capabilities	.55	54	.000	20	81
CRM technology	.41	24	.000		

Table: 4 (VII)

Dependent Variable: business performance

$$Y = \beta_0 + \beta_1 Y_{1+} + \beta_2 Y_{2+} + \epsilon$$

Table 4 (VII) shows the results of mediation of customer win back capabilities with CRM technology the results verify the full mediation according to (Baron & Kenny, 1986). As the value of R square is lesser than R square value of internal marketing individually regressed.

Hypothesis Results:

H1. Customer interaction management capabilities have a positive association with business performance. **Supported**

H2. Customer relationship upgrading capabilities have a positive association with business performance. **Supported**

H3. Customer win-back capabilities have a positive association with business performance. **Rejected**

H4. Customer interaction management capabilities have a positive association with CRM technology. **Supported**

H5. Customer relationship upgrading capabilities have a positive association with CRM technology. **Supported**

H6. Customer win-back capabilities have a positive association with CRM technology. **Supported**

H7. CRM technology moderates the relationship between CRM capabilities and business performance. **Supported**

Scope of study and limitation:

Pakistan is a developing economy and many of its business practices are not according to the global standards or in their transition phase. Customer relationship management is a compulsory tool in enhancing the performance of any business but unfortunately it has not been in practice with the intensity required in this part of the world. This study will help to find out the capabilities of the local industries to manage the relationship with the customers and also will explore the relationship of CRM with business performance. The findings of the study can be used in making the local entrepreneurs aware about the growing demand of the customer relationship management in today's dynamic world and can give them the realization that how CRM capabilities can improve their firm's performance. In future a disaggregated approach might be taken and examine the various effects of each component of CRM capability on business performance.

Like most of the researches this research also have limitations, the first limitations is the it only covers one market environment, as different countries might influence the types of strategies adopted by organizations and the impacts of these strategies on business performance. This model is needed to be tested in other countries. The moderating impact of environment needs to incorporate. The customer's relationship capabilities components needed to be tested separately and how they impact business performance.

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