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**CRITICAL SUCCESS FACTORS OF CRM IMPLEMENTATION IN INDIAN UNIVERSITIES**

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**ABSTRACT**

CRM is becoming a buzzword for the success for any business organization. Universities are no more untouchable to these new concepts in performing their operations. Indian universities has also started implementing CRM as their management philosophy to maintain long term relationship with students so that when these students will become alumni they may help the institution in training and placements of the students. This paper is an attempt to identify the critical success factors involved in implementation of customer relationship management in Indian universities.

**Keywords:**

Customer Relationship Management, CRM, University, Critical success factors, CSF

**INTRODUCTION**

Customer Relationship Management has become the Mool-Mantra for the success of any organization during last two decade. After opening the gates of Indian economy for liberation, globalization and privatization, many multinational companies came to India. Technology was no more major differentiate for the success of these companies because technology was available with most of them. Therefore, they started focusing on CRM in their business practices and started maintaining long term relationship with customers for their repeat purchases. India which has been the centre of higher learning from the ancient days of history. Takshashila University in India was the first university of the world. But with the passage of time and advanced in technology, privatization in education sector as well, universities also started to implement the CRM to maintain healthy relationship with students and ultimately these satisfied students may become their referrals for admission for next batch of students. Also the alumni of the universities will help in their training and placements the students.

**LITERATURE REVIEW**

Customer Relationship Management (CRM) emerged as an amalgamation of different management and information systems approaches, in particular Relationship Marketing and technology-oriented approaches. According to Shaw R. (1999), "CRM can be defined as an interactive process achieving the optimum balance between corporate investments and the satisfaction of customer needs to generate the maximum profit."

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Although most of the research on CRM has been carried out on business, yet management principles, technologies and procedures that derive from this concept are also applicable to other areas where profit making is not the main concern. (Arnett et al., 2003; King, 2007; Pan et al., 2006). Therefore, it becomes essential to study the characteristics, factors and conditions of CRM for its development in non-profit areas (Cervera et al., 2001).

Due to changing business environment and government policies, and the advantages associated with CRM, it attracted on-profit making organizations like universities who are more focused on more customer (student). They have started to adopt CRM systems in their operations (Hemsley-Brown and Oplatka, 2006; Neville et al., 2005; Seeman and O'Hara, 2006).

Besides, the adoption of CRM and other these types of systems by institutions where organization culture favours long term association and relation along with achievement of institutional goals and availability and occurrence of positive results for both their own organization and its primary stakeholders; mainly, students and scholars (Jayachandran et al., 2005). Thus, the adoption of CRM system should be accepted as method to strengthen the value-addition processes of the universities.

Educational institutions throughout the world are undergoing paradigm shifts in their operations to interact with their customers. These customers are internal customers and external customers namely students, alumni, donors, faculty members, staff members and shareholders. Kotler and Fox (1995) state that "the best organization in the world will be ineffective if the focus on 'customers' is lost. First and foremost is the treatment of individual students, alumni, parents, friends, and each other (internal customers). Every contact counts!" Due to change in government policies and LPG regime in the country, in late 1990, many colleges and universities started restructuring and re-engineering their procedures to cut cost and time and to become more efficient and can compete the tough competition and to improve the quality of higher education in the country. This has lead the universities to rethink their mission and vision statements and in order or respond to changing market scenario, it become necessary for universities to implement CRM as the principle of their philosophy. (Arnett et al., 2003; King, 2007; Pan et al., 2006). Therefore, it become necessary to identify the critical success factors involved in implementation of CRM in Indian universities (Seeman and O'Hara, 2006).

## RESEARCH METHODOLOGY

**Objective of the Study:** The prime objective of the study to identify the critical success factors of CRM implementation in Indian universities.

**Hypothesis:** H<sub>a</sub>: There is a significant difference among respondents towards the critical success factors of CRM implementation on the basis of type Indian of universities.

**Research Design:** The present study is exploratory cum descriptive study.

**Sample Design:** The responses of 300 respondents (from three different types of universities namely, state universities, central universities and private/deemed universities) were taken through questionnaire.

**Time of study:** The duration of this study was conducted from April 2011 to Jan 2012.

**Research Tool:** Well-structured questionnaire having 14 statements related to critical success factors involved CRM implementation in universities Respondents were asked to answer on Likert 5 point scale ranging from least signification to highly significant. MS-Excel and SPSS software were used to process and analyse the data.

## ANALYSIS AND INTERPRETATION

Primary data was collected from 300 respondents based on five demographic variables. The distribution of the sample can be seen in table 1 and 2 which explains the characteristics of the sample. The data gathered was analysed with the help of statistical tools like mean, standard deviation, Factor analysis to find out the difference in perception of respondents on the basis of demographic variables. Wherever the significant difference were found, the mean scores were compared to see the responses of the various categories. Further Post hoc test analyses were performed.

**Table 1: Demographic characteristics of sample**

SNo			Type of University						Total	Grand Total
			State University		Central University / Institute		Deemed / Private University			
			No.	%ge	No.	%ge	No.	%ge		
1.	<b>Gender</b>	Male	66	22	60	20	71	24	197	300
		Female	34	11	40	13	29	10	103	
2.	<b>Profile</b>	Administrator	25	8	16	5	23	8	64	300
		Academician	29	10	34	11	43	14	106	
		Staff	46	15	50	17	34	11	130	
3.	<b>Age</b>	21-30 Years	12	4	11	4	9	3	32	300
		31-40 Years	34	11	29	10	40	13	103	
		41-50 Years	34	11	35	12	30	10	99	
		Above 50	20	7	25	8	21	7	66	
4.	<b>Experience</b>	0-3 Years	24	8	23	8	15	5	62	300
		3-5 Years	28	9	17	6	24	8	69	
		More than 5 Years	48	16	60	20	61	20	169	

Source: Field survey

**Table 2: Job Profile of sample**

Profile	Type of University			Total
	State University	Central University / Institute	Deemed / Private University	
Administrators	25	16	23	64
Academicians	29	34	43	106
Staff	46	50	34	130
Total	100	100	100	300

Source: Field survey

Annexure-1 gives a general view point of sample respondents towards 14 statements regarding critical success factors of CRM implementation with the help of on a 5 point Likert scale (1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly agree). The range of mean values was found 3.03 to 3.51.

The Cronbach's alpha value was found as 0.849 on all 14 statements. To test the appropriateness of factor analysis technique the correlation between the variables is checked and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy statistic is also used for the same. The approximate chi square statistic value is 1258.965 with 91 degree of freedom, which is significant at 0.05 level. The value of KMO statistic (0.920) is also large (>0.5).

**Table 3: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.266	37.615	37.615	5.266	37.615	37.615
2	1.171	8.362	45.976	1.171	8.362	45.976
3	1.069	7.635	53.611	1.069	7.635	53.611

Source: Extraction Method: Principal Component Analysis.

In the table 3, it can be seen that first four factors account for 53.611 per cent of the variance from the cumulative percentage of variance, contributed by first component is 37.615 followed by second (8.362 per cent) and third (7.635 per cent) of total variance.

**Table 4: Rotated Component Matrix**

Statements	Component		
	1	2	3
14	.757		
11	.719		
13	.717		
12	.690	.341	
10	.667		
1	.637		.319
9	.577	.397	
6	.420	.319	
3		.716	
8		.607	
4	.490	.552	
5	.483	.532	
7	.350	.526	
2			.879

Source: Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Table 4 namely rotated component matrix is useful for interpreting the factors. The rotation is made by the most commonly used method i.e. varimax procedure. This is an orthogonal method of rotation that minimizes the number of variables with the high loadings on a factor, thereby enhancing the interpretability of the factors. After the number of extracted factors is decided, the next task is to interpret and name the factors which are shown in table 5.

**Table 5: Principal component results on critical success factors of CRM Implementation**

Factors	Description	Loadings	Eigen values	% of Variance
<b>F1</b>	<b>Employee management</b>		5.266	37.615
	Top management support	0.757		
	Commitment of Staff to serve the customers	0.719		
	Technology readiness to adopt new technology by staff	0.717		
	Cultural and structural change in organization due to CRM	0.69		
	Staff willingness to help customer in better way	0.667		
	Skilful, motivated and trained staff	0.637		
	Inter-department Integration for prompt service by staff	0.577		
<b>F2</b>	<b>Customer management</b>		1.171	8.362
	Customer satisfaction is supreme	0.716		
	Complete understanding of customer	0.607		
	Customer involvement in decision making	0.552		
	Communication of CRM strategy to customer	0.532		
	Customization of customer services	0.526		
<b>F3</b>	<b>Investment in technology</b>		1.069	7.635
	Investment in technology	0.879		
<b>Total Variance Explained</b>				53.611

#### COMPARATIVE ANALYSIS: CRITICAL SUCCESS FACTORS OF CRM IMPLEMENTATION IN DIFFERENT TYPES OF UNIVERSITIES / INSTITUTIONS

The various statements were subjected to One way ANOVA. When there are more than two categories to compare, we can apply One way ANOVA (Malhotra 2009). One of the assumptions for one way ANOVA is that there must be equality of variance among the various categories under consideration. Levene's test is a measure for the homogeneity of variance among the various categories. Sig values less than 0.05 indicates that the variance among the various categories is not the same. In this case an adjustment to F-test is used which was given by Welch and Brown-forsythe. So in the following tables when Sig value of Levene's test is less than 0.05, Welch and Brown's Sig values are considered else the usual ANOVA Sig values are taken. Wherever the significant difference were found, the mean scores were compared to see the responses of the various categories. Further Post hoc analyses were performed.

**Table 6: Test of Homogeneity of Variance for different types of universities / institutes**

Factors	Levene Statistic	df1	df2	Sig.
Employee management	6.219	2	297	.002
Customer management	1.006	2	297	.367
Investment in technology	1.291	2	297	.277

**Table 7: Analysis of Variance (Group: Different types of universities / institutes)**

Factors		Sum of Squares	df	Mean Square	F	Sig.
Employee management	Between Groups	1.864	2	.932	.932	.395
	Within Groups	297.136	297	1.000		
	Total	299.000	299			
Customer management	Between Groups	5.100	2	2.550	2.577	.078
	Within Groups	293.900	297	.990		
	Total	299.000	299			
Investment in technology	Between Groups	2.311	2	1.155	1.157	.316
	Within Groups	296.689	297	.999		

	Total	299.000	299			
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**Table 8: Robust Tests of Equality of Means**

Factors		Statistic*	df1	df2	Sig.
Employee management	Welch	.952	2	195.987	.388
	Brown-Forsythe	.932	2	285.201	.395
Customer management	Welch	2.743	2	197.143	.067
	Brown-Forsythe	2.577	2	291.313	.078
Investment in technology	Welch	1.218	2	197.316	.298
	Brown-Forsythe	1.157	2	293.476	.316

\*. Asymptotically F distributed.

From the table 6 it is clear that in factor Employee management, the value of significance of Levene Statistics is .002, therefore, in this case, Welch and Brown-forsythe test was conducted. These test results have significance value of greater than 0.05 (table 8). This shows that there alternate hypothesis is rejected for factor-1. In case of other two factors Customer management and Investment in technology, since the value of Levene statistics significance was found .367 and .277 respectively which are greater than 0.05, therefore, only ANOVA was conducted and its value was also found to be 0.078 and .316 (table 7) respectively which are greater than 0.05, proving that alternate hypothesis is rejected for these two variables as well.

**Table 9: Post hoc Analysis – Multiple comparison**

Dependent Variable	(I) Type of University	(J) Type of University	Mean Diff. (I-J)	Std. Error	Sig.	
Employee management	State University	Central University / Institute	-0.170	0.141	.455	
		Deemed / Private University	-0.165	0.141	.475	
	Central University / Institute	State University	0.170	0.141	.455	
		Deemed / Private University	0.005	0.141	.999	
	Deemed / Private University	State University	0.165	0.141	.475	
		Central University / Institute	-0.005	0.141	.999	
	Customer management	State University	Central University / Institute	-0.027	0.141	.980
			Deemed / Private University	-0.289	0.141	.101
Central University / Institute		State University	0.027	0.141	.980	
		Deemed / Private University	-0.262	0.141	.151	
Deemed / Private University		State University	0.289	0.141	.101	
		Central University / Institute	0.262	0.141	.151	
Investment in technology		State University	Central University / Institute	0.215	0.141	.283
			Deemed / Private University	0.107	0.141	.730
	Central University / Institute	State University	-0.215	0.141	.283	
		Deemed / Private University	-0.108	0.141	.725	
	Deemed / Private University	State University	-0.107	0.141	.730	
		Central University / Institute	0.108	0.141	.725	

In table no 9, the detailed examination of Post hoc analysis has been conducted with the help of Tukey HSD test. Employee management, Customer management and Investment in technology were taken as dependent variables and type of university / institution was taken as independent variable. The significance value of Tukey HSD test confirms earlier results that the alternate hypothesis is rejected.

Hence,  $H_a$  is rejected that there is a significant difference among respondents towards the critical success factors of CRM implementation on the basis of type of Indian universities.

## CONCLUSION

In the current era, when CRM is being adopted as management philosophy in all business areas, than universities are not untouchable to this concept. It is becoming important for all types of universities whether Central, State or Private universities, critical success factors in implementation of CRM are same which are namely, Employee management, Customer management and Investment in technology. Hence, universities should focus on these factors. Once their employees are motivated and their orientation is towards the management of the customers where in universities customers are basically the students and sufficient investment in technology by top management, CRM implementation becomes successful and result oriented.

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## ANNEXURE - I

### **Critical Success factors of CRM**

Please provide your opinion on critical success factors of CRM implementation in your university / institute. Please give your opinion on the following statements on five point scale where options are 1 to 5 where 1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree. (Please ✓ the relevant option)

Sr.No.	Statement	1	2	3	4	5
1	Skilful, motivated and trained staff					
2	Investment in technology					
3	Customer Satisfaction is supreme					
4	Customer involvement in decision making					
5	Communication of CRM strategy to customer					
6	Customer contact management / data handling activities					
7	Customization of customer services					
8	Complete understanding of customer					
9	Inter-department Integration for prompt service by staff					
10	Staff willingness to help customer in better way					
11	Commitment of Staff to serve the customers					
12	Cultural and structural change in organization due to CRM					
13	Technology readiness to adopt new technology by staff					
14	Top management support					

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