

# Customer Relationship Management practices of public and private sector banks

<sup>1</sup>Lalitha P S, <sup>2</sup>Dr. B. Amarnath

<sup>1</sup>Senior Research Fellow, <sup>2</sup> Professor

<sup>1</sup>Department of Management Studies,

<sup>1</sup>Sri Venkateswara University, Tirupati, India

**Abstract:** The study examines customer relationship management practices of public and private sector banks. There is a need to understand different customer-centric dimensions of CRM with their impact on customer satisfaction. It measures the influence of customer relationship management practices on public and private sector banks. The key dimensions of CRM practices are customer service, customer knowledge, customer focus, customer orientation which leads to customer satisfaction. It became a multi-faceted and sophisticated phenomenon that's ridden by various factors. The research aims to focus the mediating role of customer satisfaction among CRM practices and customer loyalty. The research deploys by Exploratory Factor analysis (EFA) and Confirmatory Factor Analysis (CFA) using the IBM spss trial version and AMOS 23 to analyze the mediation effect of customer satisfaction between CRM practices and customer loyalty. 125 Customers of the select public sector and 125 customers of select private sector banks were collected using a simple random sampling technique to fill the questionnaire and the response rate was 96 percent. CRM practices' key dimensions were displayed statistically significant i.e., (p-value is less than 0.05). According to the Structural Equation Modelling results, customer satisfaction acts as a mediating variable between CRM practices and customer loyalty

**Keywords:** customer satisfaction, customer loyalty, CRM practices, Banks

## I. INTRODUCTION

As a discipline Customer Relationship Management (CRM) is contested by various software vendors, a clear consensus has not yet emerged. Information technology companies make use of CRM acronym to describe their software applications to support the marketing, selling, and service. functions of businesses. After the initial technological approaches, by Tom Siebel founded Siebel Systems Inc. in 1993, boosted CRM commercialization [1]. This equates CRM with technology that has gone through an amazing evolutionary journey even before it recognized as a great strategic tool. And this evolution persists, in the light of the digitalization, this process has matured considerably both from a conceptual and from an application point of view. Today, CRM refers to a strategy, a set of tactics, and a digital technology that has become indispensable in a multifarious notion of Social Customer Relationship Management (Social CRM) for the modern economy.

Customer Relationship Management may be a concept for managing a company's interactions with customers, clients, and sales prospects which may accomplish the financial institution's goals like customer satisfaction. They need to promise that their satisfied customers are loyal too. Obviously, for the event of e-commerce within the country and entry into global markets and membership in organizations like WTO, the essential requirement is CRM. The intense consideration to clients entails continuity in today's competitive markets. The organization can decrease their production costs and increase their earnings through customers' satisfaction. The banking sector may be a customer-oriented service where the customer is the key spotlight.

## II. LITERATURE REVIEW

Sota et al (2018) aim to observe that CRM focuses on privacy concerns of customer data, and it was neglected in past years. A. Kebede et al (2018) examine the effect of CRM practices on Commercial banks in the Ethiopia region, the best CRM practices like Customer Focus, Knowledge Management, CRM organization, and Technology-Based CRM are the best customer relationship management practices that would lead to customers satisfied and improve bank performance.

Pooja (2018) stated that banking operations have become easy for customers. Bank services happen round the clock. Plastic money replaced currency. All the changes are due to developments in information technology. Banks are facing severe competition as well as developments. This research work focused on how banks have adopted technology for its operations. What are the problems encountered by banks in adopting technology? The author opined that only e-banking will be available as a mode of operation to the customers. The study revealed that cybersecurity, lack of awareness of customers on e-banking services, lack of knowledge on computers, customers' tendency to handle cash transactions, literacy rate of customers, lack of trained bank employees, and insufficient resources are the problems faced by the banking industry. The author provided the following suggestion for improvement and better for better outcomes. They are creating awareness among customers, educating them on electronic banking, creating network facility, back-up of banking data, information security, banking infrastructure and training to employees

M. Ramamoorthy (2017) opined that customers need a sense of permanency and security. Hence the opportunities for banks remain bright if they keep pace with the dynamic environment, adapt quickly to the emerging trends in retail banking, and adjust themselves to the digital banking paradigm. They will then be in a position to offer the experience of lifestyle banking to the customers by integrating the banking services seamlessly into the customer's lives.

Manisha Jindal, Dr. Manoj Agarwal (2016), study concluded that employee empowerment and job satisfaction are positively related. The study suggested that: The Axis Bank should suitably reward initiatives and contributions of employees. The exceptional employees must be recognized and given adequate incentives. Promotion is the most encouraging variable. Therefore, the Axis bank should reform its promotion policies so that it can effectively reward the employees. The employees will become more responsible and satisfied, and they will work for a long period of service with loyalty. The working environment in terms of daily working hours, flexible working hours, the workload on employees, vocational leave, amusement time, cultural and sports events helps to balance work and life which is essential for personnel and individual development.

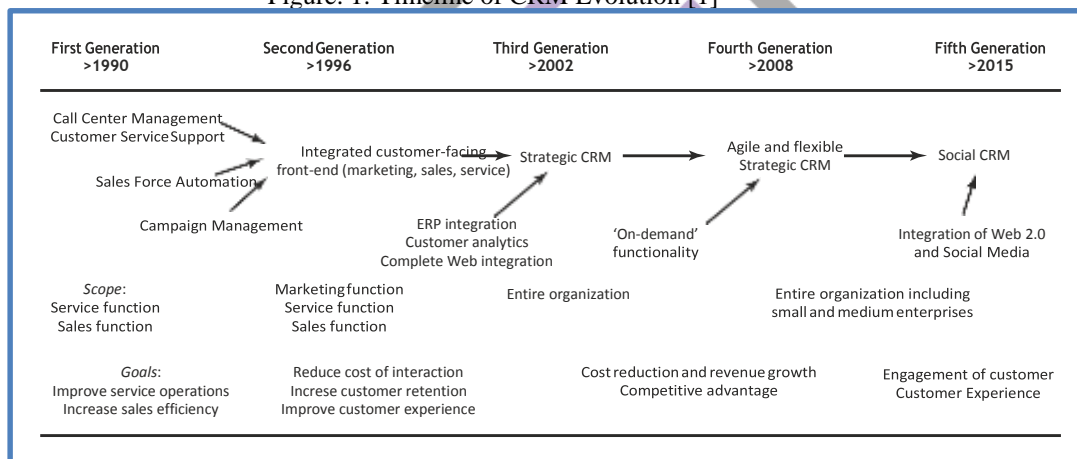
### III. EVOLUTION

Leonard Berry [2] stated that “Relationship management as a concept coined by him in 1983. It involves inviting, maintaining, and improving customer relationships. With the changing times, companies started engaging their individual customers for sustained relationships compared to their competitors and created new technologies to benefit both the organization and the customers' known as customer relationship management. It comprises of various departments like marketing sales, service, distribution, after-sales service”.

With the advancement of modern technologies, relationship management has been replaced with the acronym CRM. In the 1960s the marketing concepts target mass consumption focus on product-centric later moved to segment centric in 1980s then shifted to customer-centric from 1990s onwards, the focus changed from aggregate to an individual customer, creating a positive experience to every customer from presale, in the sale and post-sale. For this system, process, strategies, and technology help a lot.

From 1990 to 2020 Customer Relationship Management undergoes 5 phases which include Functional CRM, Front – end approach, Strategic approach, Agile & Social CRM. depicts in Fig.1 Timeline of CRM evolution. CRM shift from short term customer transaction based mode of operation to a long term relationship mode.

Figure. 1: Timeline of CRM Evolution [1]



(Source: Customer Relationship Management – Concept, Strategy and Tools by V Kumar, Werner Reinartz.)

### IV. OBJECTIVE

To assess the influence of CRM practices on customer satisfaction & to explore the impact of customer satisfaction as a mediator role among CRM practices and customer loyalty

### V. HYPOTHESES

Customer Service: The support provides to customers pre and post purchase and helps in maintain upkeep.

*H1a: There is a positive relationship between customer service and customer satisfaction*

Customer Knowledge

*H1b: There is a positive relationship between customer knowledge and customer satisfaction*

Customer Focus: means putting your customer needs first and shows the customer experience throughout journey.

*H1c: There is a positive relationship between customer focus and customer satisfaction*

Customer Orientation: According to Deshpande *et al.*, 1993 refers to “the set of beliefs that puts the customer interests first, in order to develop a long term profitable organization”

*H1d: There is a positive relationship between customer orientation and customer satisfaction*

Customer Satisfaction: created when the customer's needs or expectations are met.

Customer Loyalty: Gaining of customer loyalty has been a double-edge sword for organizations in competitive markets as getting a new customer costs much higher than retaining an existing customer.

*H2: There is a positive relationship between customer satisfaction and customer loyalty*

### VI. RESEARCH METHODOLOGY

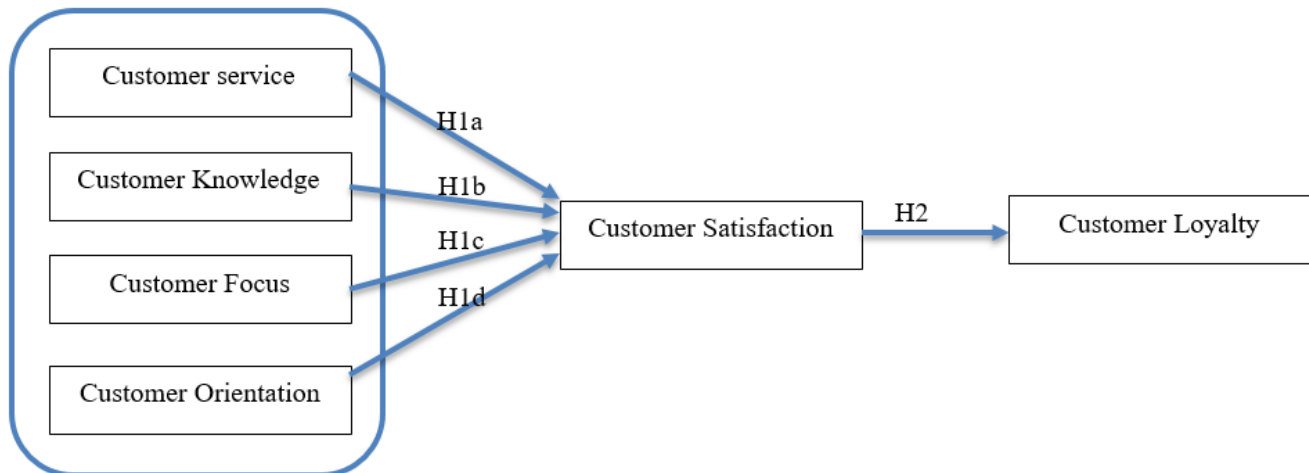
#### Proposed model

The model for this study contains four predictor variables namely customer service, customer orientation, customer focus, and customer knowledge which would affect outcome variables i.e. customer loyalty and customer satisfaction. In order to test the various

causal relationships between the variables in the model, SEM was employed. Initially, the measurement model was developed, it was followed by a structural model, and both were tested through different model fit indices and various path estimates were determined in Fig 1.

### CRM Dimensions

Figure 2: CRM proposed model



### Research Design

The study aims to develop a CRM model based on a customer-centric perspective that can be used by the service industry in general and banking industry in particular for successful CRM implementation. Also, the various relationships between variables mentioned in Figure 1 were hypothesized and their validity was tested by collecting the data from the customers of the bank.

### Research Population, Sample and Data Collection

The study was conducted in Jan-Feb, 2020 at 3 public and 3 private sector banks. Our study examines the CRM practices and investigates whether its implementation has led to an improvement in customer satisfaction among bank customers and Loyalty show towards the bank. The area of study was Tirupati in Chittoor District.

### Research Design

The aim of the research study was to develop a CRM model based on the customer-centric perspective that can be used by the banking industry in particular for successful CRM implementation. Data was collected by the researcher from the bank customers in the chosen area. The researcher used a simple random sampling technique for collecting the data from the respondents. here are the criteria for the sample size determination. According to (Tabachnick and Fidell, 2001; Hill and Alexander, 2002) researcher considers a sample size of 200-500 respondents adequate for most of the management researches. Based on the number of constructs in the questionnaire the sample size can be determined for each item 5 to 10 respondents are adequate (Hair et al., 1998).

From the above discussion and on the various assumptions regarding sample size determination, a sample of 250 respondents was selected. Accordingly, 250 questionnaires were distributed among the respondents out of which 240 questionnaires were received back and 10 were rejected due to the erroneous/missing responses. Therefore, the overall response rate was 96 percent and the final sample size was 240 customers (Nuthall, 2010). 120 respondents from public bank and 120 respondents from private sector banks. A simple random sampling technique is used for the study.

### Scale Development

The questionnaire was based on the 25 items representing the four CRM dimensions (customer service, customer knowledge, customer orientation, customer focus) and the two outcome variables (customer satisfaction and customer loyalty) as shown in Table I. Likert scale was used in all the constructs with responses ranging from 5 (strongly agree) to 1 (strongly disagree). The scale for these variables (customer knowledge, customer orientation, and customer loyalty) was extracted from the scales already developed on these measures (Yim et al., 2004; sin et al 2005; Khondakarmi and chan, 2014 and Jayachandra et al, 2015, Donnelly 2009, Elkordy, 2014) Yim et al., 2008 kocogulu and kirmaci,2012). However, for variables customer service and competitive satisfaction, customer focus on new items were developed as there was not any well-established scale (Table I).

**Table: 1 Descriptive Statistics for measures**

<i>Item Construct</i>	<b>Mean</b>	<b>SD</b>	<b>CA (<math>\alpha</math>)</b>
<b>Customer Service (CS)</b>			
<b>CS1</b> Customized web page	3.80	0.79	0.840
<b>CS2</b> Ability to resolve complaints	3.54	0.91	
<b>CS3</b> usually follow up each customer individually	3.47	0.94	
<b>CS4</b> The working hours are flexible and adapted to the different types of customers	3.63	0.85	
<b>CS5</b> The Bank employees exercise goodwill when dealing with customers.	3.53	0.88	
<b>CS6</b> Bank has high integrity and security	3.98	0.94	
<b>CS7</b> Regarding speed of counter services	3.37	1.02	
<b>CS8</b> Responsiveness of the bank staff	3.47	0.95	
<b>Customer Knowledge</b> (Yim et al., 2004; Sin et al., 2005; Khodakarami and Chan, 2014)			
<b>CK9.</b> Access of Information	3.63	0.86	0.859
<b>CK10</b> The bank commits time and resources in managing customer relationships (Responsiveness)	3.60	0.74	
<b>CK11.</b> Awareness on CRM Programmes	3.27	0.92	
<b>CK12.</b> Reliability	3.75	0.85	
<b>CK13</b> communication	3.60	0.87	
<b>CK14</b> Trust	4.15	0.81	
<b>CK15</b> Assurance	4.14	0.74	
<b>Customer Focus</b>			
<b>CF16</b> The bank provides services as per the individual requirements of customers	3.59	0.86	0.864
<b>CF17</b> The bank strives to constantly improve on their services beyond customer expectations	3.31	0.98	
<b>CF18</b> All the people in the bank treat the customers with great care	3.11	0.99	
<b>CF19</b> The bank strengthens the emotional bonds with customers by wishing them on important Occasions	3.24	1.25	
<b>CF20</b> The bank involves and uses customer suggestions to modify products/services	3.00	0.98	
<b>CF21</b> The banks provides services as per the individual requirements of customer	3.46	0.86	
<b>Customer Orientation</b> (Jayachandran et al., 2005; Donnelly, 2009; Elkordy, 2014)			
<b>CO22.</b> Convenience with using CRM technology.	3.41	0.87	0.811
<b>CO23</b> You are satisfied by overall interaction with relationship personnel.	3.24	0.93	
<b>CO24</b> Bank has a culture where customer is given first preference	3.52	0.81	
<b>CO25</b> The bank has the mechanism to evaluate the customer-centric performance standards at all customer touch points.	3.44	0.86	
<b>Customer Satisfaction</b>			
<b>CS26</b> Handling Complaints and in solving complaints	3.51	0.89	0.844
<b>CS27</b> Sincerity and helpfulness of the personnel	3.46	0.80	
<b>CS28</b> Satisfied by the Services offered by the bank	3.78	0.73	
<b>CS29</b> Bank try very hard to establish long term relationship	3.45	0.88	
<b>CS30</b> Meets your expectations	3.53	0.75	
<b>Customer Loyalty</b> (Yim et al., 2008; Donnelly, 2009; Kocoglu and Kirmaci, 2012)			
<b>CL31</b> I have never seriously considered changing the bank	3.73	0.90	0.717
<b>CL32</b> I consider myself to be a loyal customer of this bank	3.78	0.85	
<b>CL33</b> I will continue using the services offered by this bank	3.87	0.84	
<b>CL34</b> I will use other products / services offered by this bank in the future	3.87	0.82	
<b>CL35</b> I recommend this bank to others.	3.94	0.88	
<b>CL36</b> I will switch to competitor bank that offers more attractive benefits/interest rates/ service charges.	3.22	1.1	
<b>CL37</b> I will switch to a competitor bank when there are problems with the current bank's service	3.57	1.0	
<b>CL38</b> I consider this bank as first choice among other banks in the area	3.73	0.9	

The mean score for complaint knowledge was above 4.00 which indicate that the bank has efficient in customer satisfaction mechanism; however, mean score of other dimensions is below 3.00 signaling that customer perceives an improvement in their relationship with the bank. The overall construct of measures along with mean and standard deviation are given in Table I.

#### Sample Characteristics

Table II exhibits the demographic characteristics of the sample in which 60 percent of customers are males and 40 percent are females. The banking related functions are mostly performed by the males in the Tirupati. As displayed in Table II, 35 percent of the respondents fall in the age group of 21-30 yrs which means that bank has been targeting the youth segment of the society. 28 percent fall in 31-40 yrs, 23 percent fall in 41-50 yrs group and finally 12 percent were coming under 51-60 yrs age group which shown in the below table. out of 240 respondents uneducated were 6 percent, 23 percent qualified ssc, 20 percent respondents were intermediate, 32 percent graduates, 19 percent qualified Post Graduates.

**Table II: Demographic Characteristics of the Sample**

Demographic factors	Category	Frequency	Percentage of sample
Gender	Male	158	60
	Female	112	40
Marital Status	Married	158	58
	Unmarried	112	40
Age (years)	21-30	98	35
	31-40	76	28
	41-50	56	23
	51-60	34	12
	61 above	22	8
Education	uneducated	16	6
	SSC	62	23
	Inter	54	20
	Graduation	87	32
	Post-Graduation	51	19
Income (INR)	1001-10000	66	24
	10001-20000	85	31
	20001-30000	51	18
	30001-40000	44	16
	40001 above	38	16

The above table displays about the demographic profile of customer. In education 24 percent of customers fall in the income group of Rs. 1001-10000, 31 percent of customers fall in the income group of Rs. 10001-20000, 18 percent of customers fall in the income group of Rs. 20001-30000, 16 percent of customers fall in the income group of Rs. 30001-40000, 16 percent of customers fall in the income group of Rs. 40001 above.

#### Exploratory Factor Analysis (EFA)

Before exploratory factor analysis, data was carefully examined for missing responses and the scores of negative items (which were asked to respondents) were re-coded/reversed. EFA for this study was performed by the use of Principle Component Method (PCA) of extraction with varimax rotation. [Malhotra, 2003] Eigenvalue i.e., equal to or more than one ( $>1$ ), a criterion was used to determine the number of factors to be extracted. Furthermore, to test the reliability, sample adequacy, and internal consistency of the scale items, Cronbach's Alpha, KMO, and Bartlett's tests were performed (Table III). The threshold value of reliability coefficient ( $\alpha$ ) for all scale items (mostly considered acceptable by researchers), should be 0.7 or above and KMO should be  $> 0.50$  (Nunnally, 1978).

**Table III: Results of Exploratory Factor Analysis [Rotated Component Matrix]**

Factors Items →	Customer Service	Customer Knowledge	Customer Focus	Customer Orientation	Customer Satisfaction	Customer Loyalty
QCS1	<b>0.797</b>	0.152	0.162	0.058	0.094	0.169
QCS2	<b>0.791</b>	0.076	0.174	0.041	0.169	0.106
QCS3	<b>0.764</b>	0.082	0.157	0.135	0.184	0.150
QCS4	<b>0.755</b>	0.246	0.166	0.012	0.194	0.007
QCS5	<b>0.736</b>	0.219	0.220	0.228	0.146	0.056
QCS6	<b>0.731</b>	0.168	0.297	0.095	0.118	0.106
QCS7	<b>0.694</b>	0.067	0.077	0.341	0.176	0.120
QCS8	<b>0.692</b>	0.063	0.162	0.345	0.092	0.174
QCK1	0.167	<b>0.776</b>	0.227	0.206	0.242	0.168
QCK2	0.153	<b>0.710</b>	0.212	0.190	0.284	0.172
QCK3	0.211	<b>0.692</b>	0.347	0.184	0.204	0.197
QCK4	0.204	<b>0.675</b>	0.237	0.306	0.202	0.144
QCK5	0.166	<b>0.669</b>	0.354	0.182	0.205	0.188
QCK6	0.255	<b>0.687</b>	0.754	0.221	0.153	0.161
QCK7	0.243	<b>0.673</b>	0.732	0.199	0.266	-0.002
QCF1	0.257	0.312	<b>0.722</b>	0.243	0.179	0.174
QCF2	0.233	0.319	<b>0.709</b>	0.184	0.241	0.150
QCF3	0.269	0.317	<b>0.699</b>	0.211	0.206	0.181
QCF4	0.279	0.356	<b>0.670</b>	0.270	0.126	0.203
QCF5	0.235	0.251	<b>0.737</b>	0.727	0.205	0.142
QCF6	0.273	0.337	<b>0.723</b>	0.693	0.179	0.177
QCO1	0.277	0.349	0.335	<b>0.689</b>	0.193	0.154
QCO2	0.236	0.308	0.333	<b>0.683</b>	0.256	0.157
QCO3	0.231	0.212	0.162	<b>0.693</b>	0.752	0.126
QCO4	0.269	0.185	0.112	<b>0.630</b>	0.733	0.102
S1	0.135	0.234	0.246	0.239	<b>0.646</b>	0.225
S2	0.215	0.196	0.298	0.251	<b>0.632</b>	0.221
S3	0.151	0.262	0.258	0.325	<b>0.594</b>	0.205
S4	0.156	0.174	0.197	0.126	<b>0.540</b>	0.822
S5	0.197	0.234	0.267	0.208	<b>0.582</b>	0.796
L1	0.221	0.193	0.026	0.093	0.285	<b>0.814</b>
L2	0.156	0.164	0.058	0.094	0.151	<b>0.805</b>
L3	0.075	0.179	0.041	0.169	0.077	<b>0.725</b>
L4	0.082	0.156	0.135	0.184	0.084	<b>0.721</b>
L5	0.249	0.167	0.012	0.194	0.241	<b>0.705</b>
L6	0.218	0.221	0.228	0.146	0.211	<b>0.822</b>
L7	0.163	0.293	0.095	0.118	0.162	<b>0.796</b>
L8	0.249	0.167	0.012	0.194	0.241	<b>0.825</b>
Eigen values	15.56	2.69	1.66	1.24	1.05	<b>1.00</b>
Cummulative percentage of Variance	17.12	31.74	44.36	54.96	64.99	73.88

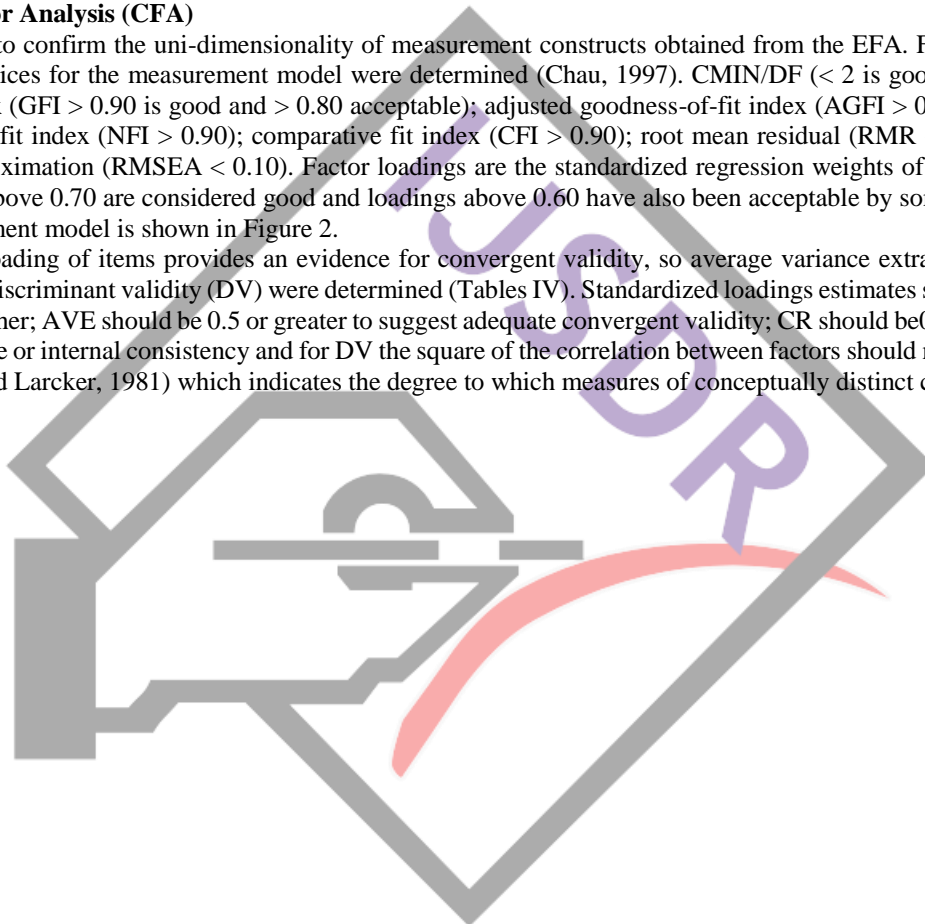
<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.794
Bartlett's Test of Sphericity	Approx. Chi-Square	9576.492
	df	666
	Sig.	.000

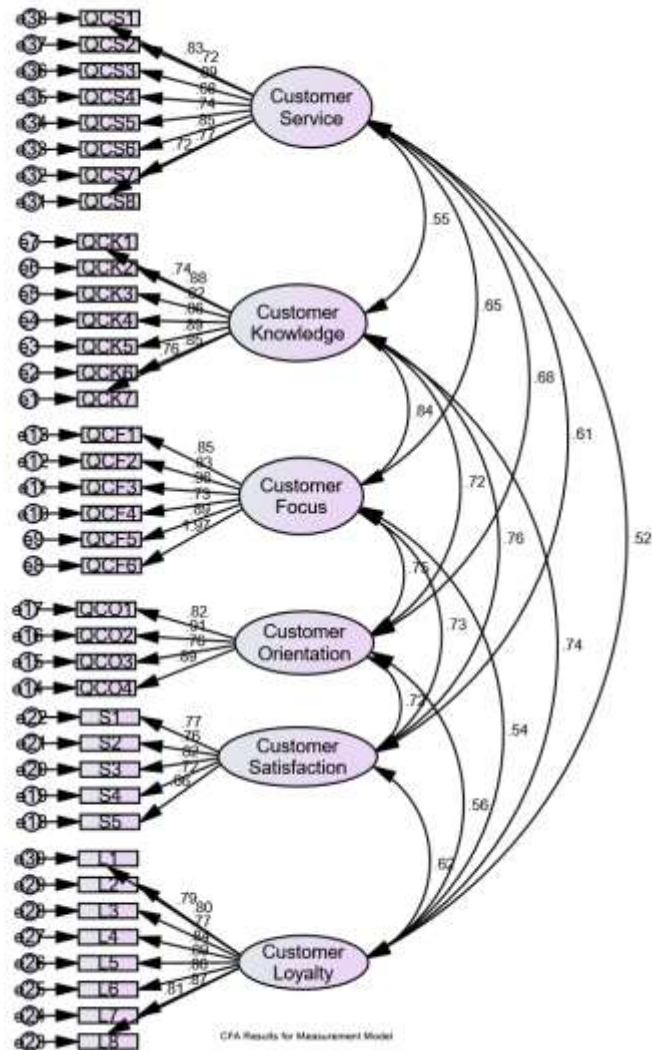
Also, a factor loading of 0.50 for each item was considered as threshold for retaining items to ensure greater confidence (Hair et al., 1998; Field, 2009). The heavy loading on various scale items gives evidence for validity of scale. Table III shows the factor loading of the scales items used, Eigen values and percentage of variance of the different variables/factors after rotation. Sampling adequacy (KMO) for overall construct is 0.794 and Bartlett's Test of Sphericity is significant at 0.05 significance level, indicating that factor analysis is good for further analysis. The components having Eigen value greater than one are considered, thus 6 components were obtained which explain 74.48 percent of the total variance. While examining the rotated component matrix, it was found that all items loaded on their respective factors have good loading ( $> 0.60$ ) and communalities ( $> 0.5$ ).

### Confirmatory Factor Analysis (CFA)

CFA was employed to confirm the uni-dimensionality of measurement constructs obtained from the EFA. For assessment of CFA various model fit indices for the measurement model were determined (Chau, 1997). CMIN/DF ( $< 2$  is good and 2-5 acceptable); goodness-of-fit index (GFI  $> 0.90$  is good and  $> 0.80$  acceptable); adjusted goodness-of-fit index (AGFI  $> 0.80$  is good and  $> 0.70$  acceptable); normed fit index (NFI  $> 0.90$ ); comparative fit index (CFI  $> 0.90$ ); root mean residual (RMR  $< 0.10$ ) and root mean square error of approximation (RMSEA  $< 0.10$ ). Factor loadings are the standardized regression weights of the constructs with its items, the loadings above 0.70 are considered good and loadings above 0.60 have also been acceptable by some authors (Hair et al., 1998). The measurement model is shown in Figure 2.

Significantly good loading of items provides an evidence for convergent validity, so average variance extracted (AVE), construct reliability (CR) and discriminant validity (DV) were determined (Tables IV). Standardized loadings estimates should be 0.5 or higher, and ideally 0.7 or higher; AVE should be 0.5 or greater to suggest adequate convergent validity; CR should be 0.7 or higher to indicate adequate convergence or internal consistency and for DV the square of the correlation between factors should not exceed the variance extracted (Fornell and Larcker, 1981) which indicates the degree to which measures of conceptually distinct construct differ.





Model Fit Indices	CMIN/DF	GFI	CFI	NFI	RMR	RMSEA
Values	1.173	0.873	0.970	0.832	0.046	0.054

Figure 2 shows the measurement model of variables under study with the model fit summary. It is revealed from the Figure 2 that all the goodness and badness indices are met by the model (in the acceptable range) and entire item loadings were well above 0.70, which supports EFA findings. However, few items have path estimates below 0.70 which were removed from the construct. The item CL24 from CL variable, has been removed due to poor loading i.e., below 0.70. Table V shows that square correlations between the latent variables are not exceeding the variance extracted for each variable, providing evidence for discriminant validity.



**Table: IV Factor Loadings of CFA**

Latent Variables	Scale Items	Path Estimate*	Average Variance Extracted	Construct Reliability
Customer Service	CR1	0.831	0.617	0.927
	CR2	0.723		
	CR3	0.894		
	CR4	0.689		
	CR5	0.743		
	CR6	0.852		
	CR7	0.771		
	CR8	0.726		
Customer Knowledge	CK9	0.741	0.673	0.910
	CK10	0.882		
	CK11	0.821		
	CK12	0.803		
	CK13	0.854		
	CK14	0.851		
	CK15	0.785		
Customer Focus	CF16	0.852	0.721	0.937
	CF17	0.831		
	CF18	0.960		
	CF19	0.732		
	CF20	0.894		
	CF21	0.912		
Customer Orientation	CO22	0.823	0.786	0.936
	CO23	0.914		
	CO24	0.763		
	CO25	0.886		
Customer Satisfaction	CL26	0.661	0.601	0.855
	CL27	0.723		
	CL28	0.824		
	CS29	0.768		
	CS30	0.771		
Customer Loyalty	CA31	0.812	0.724	0.886
	CA32	0.874		
	CA33	0.869		
	CL34	0.844		
	CL35	0.815		
	CL36	0.774		
	CL37	0.768		
	CL38	0.793		

\*All the paths are significant at  $p < 0.05$ ; Source: AMOS Output

Table IV shows the path estimates (CFA loadings) of the measurement model which are above 0.70; average variance extracted (AVE) above 0.50 and composite reliability (CR) above 0.70 indicating convergent validity and internal consistency. Thus, the final scale consists of the 38 items.

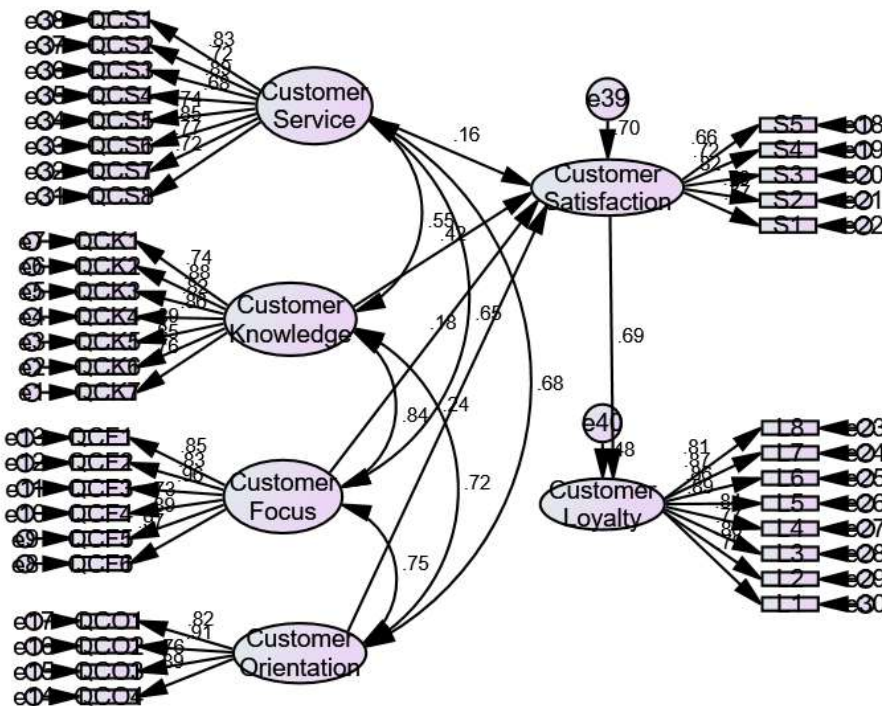
**Table V: Discriminant Validity Result**

	CSe	CK	CF	CO	CS	CL
CSe	<b>0.618<sup>a</sup></b>					
CK	0.317	<b>0.673<sup>a</sup></b>				
CF	0.421	0.644	<b>0.721<sup>a</sup></b>			
CO	0.403	0.618	0.636	<b>0.785<sup>a</sup></b>		
CS	0.361	0.591	0.542	0.551	<b>0.601<sup>a</sup></b>	
CL	0.248	0.392	0.343	0.334	0.431	<b>0.725<sup>a</sup></b>

**SEM (Structural Equation Modeling) Results and Findings**

SEM was performed after achieving model goodness of fit for the measurement model and validating research construct. The next step was to test various hypothesized causal relationships between the four dimensions of CRM and the outcome variables i.e. customer loyalty and competitive advantage. The overall model was tested as shown in Fig 3.

**Figure 3: Structural model showing causal relationships model**



Analysis procedure for testing the hypotheses requires evaluation of model summary to check whether the model fits the data and is in accordance with this concept. In addition, the significance of the parameter estimates was evaluated through  $\beta$ - coefficients, t-values and the coefficient of determination (R<sup>2</sup>). Results indicate that the hypothesized model fits the observed data well (Figure 3). The fitness indices of the present model i.e., CMIN/DF, GFI, CFI, NFI and RMSEA shown in model summary are good and fall in the acceptable limits. Furthermore, all the structural paths were both statistically significant ( $p < 0.05$ ) and interestingly, all hypotheses were supported (Table VI).

**Table VI: Results of Structural Model [ Note: a Variance Extracted]**

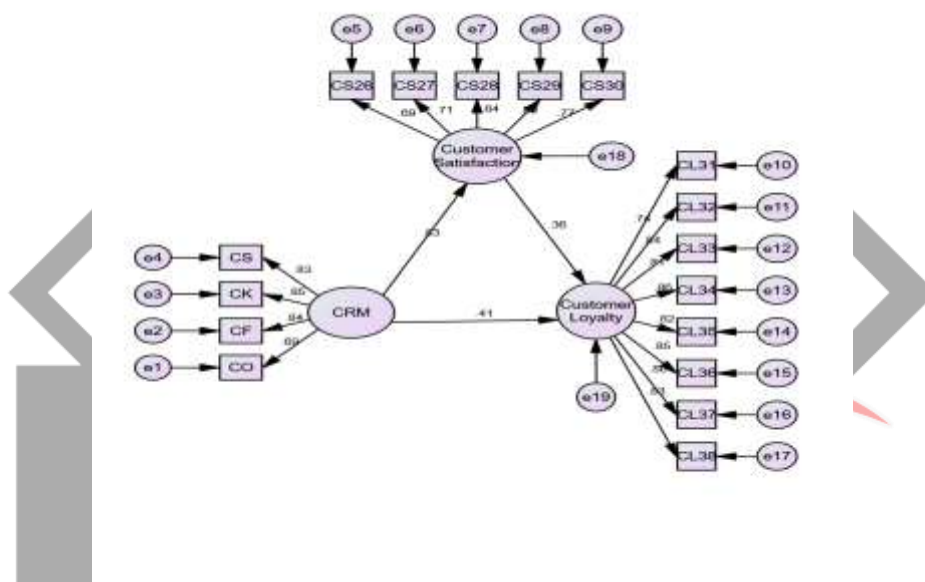
Hypotheses	Paths			Std. Estimate (β)	t- value	P-value	Decision	R <sup>2</sup>
		<---						
H1a	CS	<---	CSe	0.143	2.456	0.017	Supported	0.70
H1b	CS	<---	CK	0.410	4.367	***	Supported	
H1c	CS	<---	CF	0.150	2.404	0.037	Supported	
H1d	CS	<---	CO	0.223	2.501	0.013	Supported	
H2	CL	<---	CS	0.695	10.034	***	Supported	0.46

Notes: \*\*\* p-value < 0.001

Source: AMOS Output

However, it is important to note that H3 involves testing of mediation, so it is imperative to understand the role of mediation in terms of independent (predictor) and dependent (outcome) variable relationships. A mediator variable is one that explains the relationship between the other variables. More accurately, mediation implies a causal hypothesis whereby the effect of predictor variable on outcome variable is influenced by a third variable termed as mediator. A given variable may be said to function as a mediator to the extent that it accounts for the relation between the predictor and the outcome variable/s. In this study customer satisfaction mediates the relationship between CRM and customer loyalty and it was found that CS partially mediates the relationship between CRM and CL. The more detailed results of the hypotheses and other parameters are given in Figure 4.

**Figure 4: Mediation results with customer satisfaction as mediator**



Similarly, for mediation hypothesis (H3), result of the direct and indirect path estimates are summarized in Table VII, which reveals that CL acts as partial mediator. The table shows total, direct and indirect effect of CRM on CL through a mediating variable CS.

**Table VIII: Total, direct and indirect effect of mediation**

Total Effects				
	CRM		CL	
	β*	p-value	β*	p-value
CS	0.846	0.000	0.000	
CL	0.668	0.000	0.322	0.041
Direct Effects				
CS	0.844	0.000		
CL	0.398	0.004	0.321	0.041
Indirect Effects				
CS	0.000		0.000	
CL	0.272	0.040	0.000	...

\*β- Standardized path estimates; Source: AMOS output

It is revealed from the  $\beta$ -values and p-values that both the direct and indirect paths between CRM and CL are significant in presence of a mediating variable CL. This indicates that Customer satisfaction partially mediates the effect of CRM on Customer Loyalty.

## VII. CONCLUSION

However, most of the banks got to know the actual measures and dimensions of the CRM practices that have a big impact on customer satisfaction and loyalty, which would enhance the business performance, especially with the increase in competition as well as lack of differentiation in providing a service. The main purpose of this research is to measure the effectiveness of CRM practices on customer satisfaction and loyalty in the public and private sector banks.

The study enhances about the influence of CRM practices on customer satisfaction, and how customer satisfaction acts as a mediator role for banks to increase good relations with customers and improve customer loyalty towards banks.

## REFERENCES

- [1] V. Kumar, W. Reinartz, Customer Relationship Management, Springer Texts in Business and Economics, [https://doi.org/10.1007/978-3-662-55381-7\\_1](https://doi.org/10.1007/978-3-662-55381-7_1)(2018)
- [2] N H Mullick, Customer Relationship Management, Oxford university press (2016)
- [3] Tabachnick, B.G. and Fidell, L.S. (2007), *Using Multivariate Statistics*, (5th ed.) Pearson: Boston. Ybio.
- [4] Hill, N. and Alexander, J. (2002), *Handbook of Customer Satisfaction and Loyalty Measurement*, Second Edition, Gower Publishing Company, Hampshire.
- [5] Hair, J., Anderson, R., Tatham, R. and Black, W. (1998), *Multivariate Data Analysis*, 5th ed., Prentice-Hall, Upper Saddle River, NJ.
- [6] Nuthall, P.L. (2010), "Should Farmer's Locus of Control be used in Extension? The Journal of Agricultural Education and Extension, Vol. 16 No. 3, pp. 281-296, DOI: 10.1080/1389224X.2010.489768.
- [7] Yim, F.H-K, Anderson R.E. and Swaminathan, S. (2004), "Customer Relationship Management: Its Dimensions and Effect on Customer Outcomes", *Journal of Personal Selling and Sales Management*, Vol. 24 No. 4, pp. 263-278.
- [8] Galitsky, B. and Rosa, J.L. de la (2011), "Concept-based learning of human behavior for customer relationship management", *Information Sciences*, Vol. 181, pp. 2016-2035.
- [9] Fuchs, C. and Schreier, M. (2011), "Customer Empowerment in New Product Development", *Journal of Product Innovation Management*, Vol. 28, pp. 17-32.
- [10] Chahal, H. and Bakshi, P. (2015), "Examining intellectual capital and competitive advantage relationship", *International Journal of Bank Marketing*, Vol. 33 No. 3, pp. 376-399.
- [11] Khodakarami, F. and Chan, Y.E. (2014), "Exploring the role of customer relationship management (CRM) systems in customer knowledge creation", *Information & Management*, Vol. 51, pp. 27-42.
- [12] Jayachandran, S., Sharma, S., Kaufman, P. and Raman, P. (2005), "The Role of Relational Information Processes and Technology Use in Customer Relationship Management", *Journal of Marketing*, Vol. 69 No. 4, pp. 177-192.
- [13] Donnelly, M. (2009), "Building Customer Loyalty: A Customer Experience Based Approach in a Tourism Context", Ph. D. Thesis, Waterford Institute of Technology.
- [14] Elkordy, M. (2014), "The Impact of CRM Capability Dimensions on Organizational Performance", *European Journal of Business and Social Sciences*, Vol. 2 No. 10, pp. 128-146.
- [15] Kocoglu, D. and Kirmaci, S. (2012), "Customer Relationship Management and Customer Loyalty: A Survey in the Sector of Banking", *International Journal of Business and Social Science*, Vol. 3 No. 3, pp. 282-291.
- [16] Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18, pp. 39-50
- [17] Pooja (2018), "E-Banking in India", *International Journal of Research in Commerce & Management*, Vol.9 (3), pp-45-47
- [18] M. Ramamoorthy (2017) 'New Paradigms in Retail Banking' *Banking and Finance Monthly Journal*. April 2017, pp35-40.
- [19] Manisha Jindal, Dr. Manoj Agarwal, 'A Case Study of Axis Bank: Relationship between Empowerment and Job Satisfaction', *IJRSI*, Volume III, Issue V, May, 2016, pp122-126.