

A Factor Analysis study on Customer Relationship Management(CRM) in Public and Private Banks' Managers in Bihar

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Abstract- Customer Relationship Management (CRM) is an important factor to retain profitable customers during their entire life cycle to maximize the customer's lifetime value. CRM is playing a vital role in Public and Private sector banks in Bihar. The purpose of this research paper is to show how CRM can obtain satisfactory improvement of customers from public and private sector banks in Bihar. The sample consisted of 250 bank managers (140 from public and 110 from private sector banks from Bihar (India). The age of the bank managers varied from 26 to 52 years. A questionnaire on Customer Relationship Management was developed (2018) by the researcher to measure the effect of CRM. A five-point Likert type questionnaire was used to collect the data. Data were analyzed by using SPSS. The correlation result shows that a positive correlation (.78) exists between the perception of public and private sector bank managers in term of CRM. Further, the principal component factor analysis with varimax rotation revealed a possible extraction of six factors for the public sector bank and seven factors for the private sector banks based on Eigen values. Finally, a screen test was drawn and three factors for the Public and Private sector banks were retained on the basis of "Scree Test". The first factor extracted 19.78%, second factor 13.61% and third factor 9.30 % of the total variance for the Public sector banks. For private sector banks first, second, and third factors extracted 18.88%, 12.46% and 8.76% of the total variance, respectively. The results were discussed in light of other relevant studies.

Keywords: Banking Sector, Customer Relationship Management (CRM), Descriptive statistics and factor analysis on CRM.

I. INTRODUCTION:

Customer Relationship Management (CRM) has been discussed in the late nineties especially among the academicians and various practitioners. CRM is the technology which can be used to integrate sales, marketing and information systems to establish relationships with customers as well as companies. Berry (1983) defined that CRM is to attracting, building, maintaining and enhancing the good relationship with customers in a different-2 banking sector. After spending some years on study he did the evolution of relationship marketing definitions which has changed the word relationship marketing to customer relationship management. Bhattacharya (2011) states that customer relationship management is a technique to reduce the cost and increase the banks' performance and quality which means profitability result through customer loyalty. Now a day banking sector is facing numerous challenges for attracting the new customers towards their companies and retaining the existing ones. Some problems have been encountered by the bank manager is to provide good quality of services to customers and shifting of customer reliability, difficulty in corresponding demand and supply, controlling the performance of quality of human interaction need to be articulated and tackled by the bank managers in their organizations. According to Zeithmal & Bitner (2003) attracting, maintaining, and building strong customer relationships through providing good quality of services to customers are at the heart of modern marketing Management in any organizations. A wide-ranging marketing strategy is required to be adopted by the bank managers to develop trust among customer and retain them in the company's activities and for competitive advantage across the banks. The strategy of marketing should focus on service quality rather than existing marketing mix in banks and understand the customer expectations and perceptions and what they imply for the banker, use of technology, proper planning for service recovery, customer-defined service standards and value the pricing (Dhananjayan, 2005). At this backdrop, the main objective of this paper is to analyze the data collected from the bank managers to understand their bank managers' behavior and attitude towards providing the services to customers.

II. REVIEW OF LITERATURE:

Adiele and Opara (2014) explained that Customer identification comes before customer retention. Newly Acquired customers are generally less profitable than retained customers in any organization. Customer retention is the maintenance of continuous trading relationships with customers over a long period of time. The mirror image of

customer defection is customer retention. The lower will be its level of defection if the higher an organization's retention rate will be. Bajaj (2000) conclude that in market place now a days electronic payment system are getting emerge and accepted which also helps to cut cost by producing check ways of delivering better quality of goods to customers and to see it that whether technology are creating new opportunities for banks or not. Beckett and Camarata (1998) said that manage relationships with the customers, employer and employees, Business partners and strategic union partners was critical to the firm's long-term success. It was also emphasized that customer relationship management based on social exchange and equity significantly assists the firm in developing two-way, cooperative and commercial long-term relationships. Bernhardt (2000) states that although there are significant variables that contribute to the profitability to the banks, in the study it has been discoursed that management strategies designed to increase customer satisfaction are likely to lead to measurable returns in the long run. Brown (2000) has discussed that customer relationship management is a process of acquiring, attracting new customers, retaining the existing customers and at the same time understanding, anticipating and managing the needs of banks' current and potential customers. Hobby (1999) remarked that CRM is a way that enables banks to identify, attract, and increase retention of profitable customers through improved relationship management in any banking sector. Howcroft (1991) stated that high service quality gives credibility to the field sales force, commercials and ignites favorable opinions, enhances is high abide than compared to the public's sector banks. Husain (2009) discussed that CRM is a key to create a higher customer experience. It manages the customer relationship by creating a strong understanding by providing services and products based on the added value for target groups then enabling the actual sale and delivery of services and products through the various selected channels and developing long term profitable relationships with customers after sales services. Puccinelli (1999) observed that now a days the financial services business as entering a new era where personal attention is decreasing because the institutions are using new CRM technology to replace human contact in many application areas. Rahimi and Kozak (2017) observed that customer relationship management is the technique to reduce the cost, increase the company performance and quality which means profitability result through customer's loyalty. There are three core phases of banks customers' achievement, customers' enhancement, and customers' recovery. The achievement phase describes the initiation of a customer and bank manager's relationship. Ray (2007) stated that it is important to understand that if customers bring more profits for the organizations, it becomes more imperative for the organizations to provide better quality of services to those customers; otherwise they might be switch in other organizations. Service quality in any organizations implies consistently anticipating and satisfying the needs and expectations of customers.

III. OBJECTIVES OF THE STUDY:

To find out the significant relationship between Public and Private sector banks on CRM in Bihar.
To examine significant loading of factors on variables in an attempt to give them psychological interpretation.

IV. METHODS OF STUDY:

The present study was carried out in the Public and Private sector banks in Bihar. The importance of the study reveals that now a day the customers have different types of demand and expectations of the customers may be fulfilled with the help of new Customer relationship management techniques and customer relationship management (CRM) should be improved in the banking sector.

V. SAMPLE:

In the present study, a total number of 250 bank managers were selected for data collection from the three districts of Bihar namely- Nalanda, Patna, and Muzaffarpur. Among 250 bank managers, 140 bank managers were selected for data collection from several Public sector banks as like State Bank of India, UCO Bank, United Bank of India, Bank of India, and Punjab National Bank. Similarly, 110 bank managers were selected from Private Banks as like ICICI Bank, HDFC Bank, Yes Bank, Axis Bank, IndusInd Bank, Kotak Mahindra Bank. The purposive sampling method was used for data collection.

VI. TOOL USED FOR DATA COLLECTION:

Questionnaire on CRM was developed (2018) by the researchers to collect the primary data. Data were collected by distributing the questionnaires among the bank managers. A five point likert scale was used for data collection ranging from -1=strongly disagree, 2=Disagree, 3=neither disagrees nor agrees, 4=Agree, 5=strongly agree. A high score in the respective dimension shows high satisfaction of the customers and vice versa. The age range of the sample varied from 26 to 52 years. Adequate internal consistencies ranging from .69 to .86 and reliabilities ranging from .71 to .93 of the scale.

VII. ANALYZES OF THE DATA:

The data analysis were done by means of Inferential statistics and Multivariate analysis. Statistical Package for Social Sciences (SPSS) was used for this purpose. Correlation was done to see the relationship between Public and Private sector bank managers in Bihar. Multivariate analysis includes factor analysis and an attempt was made to compare the factor structure of the responses given by the bank managers. Principal component factor analysis (Hotelling, 1933) with varimax rotation (Kaiser, 1958) was used and out of 18 variables 10 factors were extracted. 'Cut point of eigen value' 'one' was employed and for public sector banks 6 factors were extracted. Finally, a screen test (Cattle, 1966) was employed to reduce the number of factors and finally three factors were retained for Public sector banks. Similarly, for private sector banks out of 18 factors 10 factors were retained. 'Cut point of eigen value' 'one' was employed and for private sector banks 7 factors were extracted. Finally, a screen test (Cattle, 1966) was employed to reduce the number of factors and finally three factors were retained for Private sector banks Since, the sample size is 140 for Public sector banks so the acceptance of the significant factor loading was raised from .35 to .55 for interpretation (Harman, 1976). Thus, in this study, .45 and above was considered as significant for acceptance for the Public sector banks. Similarly, the sample size for the Private sector banks was 110 and the acceptance of significant factors loading was considered .40.

VIII. RESULTS:

The results of the study are presented in Table-1,2,3,4 , 5,6 and figure-1 and 2

Table: 1 Shows Correlation between Public and Private Sector Banks on CRM.

Sl. No.	Name of the Variables	Public Sector Banks' Managers N(Sample Size) =140	Private Sector Banks' Manager N (Sample Size) =110	Correlation
		Mean	Mean	
1	Adaptation	3.690	3.559	.78***
2	Trust	3.281	3.169	
3	Commitment	4.302	4.413	
4	Communication Channels	3.625	3.422	
5	Conflict Resolution	4.191	4.360	
6	Citizenship Behavior	3.967	3.799	
7	Past Satisfaction	4.161	4.325	
8	Customer contact by phone/e-mail	3.618	3.863	
9	Complaint /Grievance Handling	3.687	3.658	
10	Customer Care	3.550	3.829	
11	Responsiveness	3.385	3.439	
12	Planning	3.924	3.932	
13	Improved retention and better targeting of new customers	3.979	4.130	
14	Top Management Support	3.829	3.840	
15	Knowledge Management Capabilities	4.223	4.330	
16	Innovation and Quality	3.949	4.353	
17	Technological Readiness	3.796	3.964	
18	Employees feedback/attitude towards CRM	3.470	3.458	

*P<.05, **P<.01, ***P<.001, N-Sample Size

The result shows that there is high positive and significant relationship between Public and Private sector bank managers in Bihar

Table -2 shows Factor Matrix on Customer Relationship Management (CRM) in Public Sector Banks Managers.

Name of the variables	Factor I	Factor II	Factor III	Factor IV	Factor V	Factor VI	Factor-VII	Factor-VIII	Factor-IX	Factor-X	Communality
Adaptation	.485	-.009	.342	-.022	.267	.322	-.122	.157	-.433	-.213	.800
Trust	.773	.032	-.081	-.196	.189	-.205	.026	.075	-.022	.028	.728
Commitment	-.050	.148	.917	.039	.009	.049	-.043	.055	.057	-.036	.878
Communication Channels	.319	.083	.034	-.158	.089	-.172	.017	.762	.225	.229	.856
Conflict Resolution	-.231	-.076	.569	.136	-.052	.521	.219	.090	-.040	.108	.744
Citizenship Behavior	-.109	.130	.101	.368	.030	.242	.229	.692	-.203	-.083	.813
Past Satisfaction	-.172	.626	.077	.075	-.087	.063	.500	.168	-.187	.177	.789
Customer contact by phone/e-mail	.179	.850	.101	.059	.030	.158	-.006	.043	.004	-.007	.796
Complaint /Grievance Handling	.104	.427	.032	.251	.633	-.061	-.202	.161	.008	-.165	.755
Customer Care	.417	.243	.007	.360	.334	.253	.076	.240	.139	-.250	.684
Responsiveness	.653	.143	-.148	.379	-.015	-.088	.124	.043	.272	.235	.767
Planning	.325	.127	.410	.393	.243	-.034	.401	-.223	.003	.292	.801
Improved retention and better targeting of new customers	-.051	.062	.086	.855	.047	-.032	.046	.041	.058	.156	.779
Top Management Support	.070	.031	.005	.165	.007	.133	-.023	.094	.078	.898	.873
Knowledge Management Capabilities	-.119	.226	.081	-.070	-.079	.830	.152	-.022	.117	.126	.826
Innovation and Quality	.097	.035	-.005	.056	.113	.187	.822	.117	.191	-.072	.792
Technological Readiness	.084	-.065	.071	.071	.139	.120	.114	.052	.875	.052	.840
Employees feedback/ attitude towards CRM	.161	-.150	.001	-.034	.850	-.065	.223	-.009	.123	.104	.851
Eigen Value	3.560	2.450	1.675	1.299	1.170	1.030	.952	.854	.711	.672	
Pct. of Variance	19.777	13.610	9.304	7.214	6.500	5.722	5.290	4.742	3.951	3.731	

The result shows that out of 18 variables 10 variables were extracted. Based on 'Cut point eigen value one' six factors were retained.

Table: 3 Factor Matrix on Customer Relationship Management (CRM) in Private Sector Bank 'Managers in Bihar

Name of the variables	Factor-I	Factor II	Factor III	Factor IV	Factor V	Factor VI	Factor-VII	Factor-VIII	Factor-IX	Factor-X	Communality
Adaptation	.368	-.198	.600	.000	.193	.241	-.010	.209	-.159	.318	.800
Trust	.780	-.081	.124	-.103	.034	.091	-.283	.086	-.046	.201	.780
Commitment	-.027	-.168	-.060	-.090	.050	.015	.853	.194	.084	.120	.830
Communication Channels	.535	-.057	.001	-.106	.439	.110	-.002	.144	.252	.061	.593
Conflict Resolution	.007	.063	.064	.081	-.041	-.013	.148	.925	.019	-.106	.905
Citizenship Behavior	-.069	-.198	-.064	.702	.306	-.404	.020	.014	-.086	-.046	.807
Past Satisfaction	-.096	.344	.014	.090	.044	-.129	.097	-.147	.009	.812	.844

Customer contact by phone/e-mail	.630	.138	.350	.033	-.063	-.169	.411	-.052	.013	-.181	.777
Complaint Grievance Handling	.594	.001	.277	.286	.032	.043	.403	-.252	.025	-.221	.789
Customer Care	.793	.175	.132	.151	.024	-.148	-.043	-.034	.045	-.067	.731
Responsiveness	.726	-.012	-.343	.024	.068	-.065	.111	.008	.073	-.092	.680
Planning	.002	.846	.058	-.125	.045	.079	-.018	.102	-.095	.182	.795
Improved retention and better targeting of new customers	.178	-.171	-.045	.784	-.278	.208	-.106	.111	.114	.146	.857
Top Management Support	.092	.865	.031	-.113	.101	-.031	-.127	-.034	-.031	.062	.804
Knowledge Management Capabilities	.004	.146	.852	-.068	-.100	-.054	-.017	.009	.200	-.061	.809
Innovation and Quality	.099	-.113	.127	.035	.049	.071	.083	.013	.934	-.003	.926
Technological Readiness	-.109	.028	.006	-.012	.021	.921	.002	-.012	.065	-.093	.875
Employees feedback/attitude towards CRM	.083	.154	-.041	-.003	.888	-.012	.037	-.067	.014	.034	.829
Eigen Value	3.398	2.242	1.579	1.288	1.275	1.122	1.043	.928	.827	.730	
Pct. Of Variance	18.876	12.456	8.775	7.154	7.084	6.231	5.794	5.157	4.593	4.056	

The result shows that out of 18 variables 10 variables were extracted. Based on 'Cut point eigen value one' seven factors were retained.

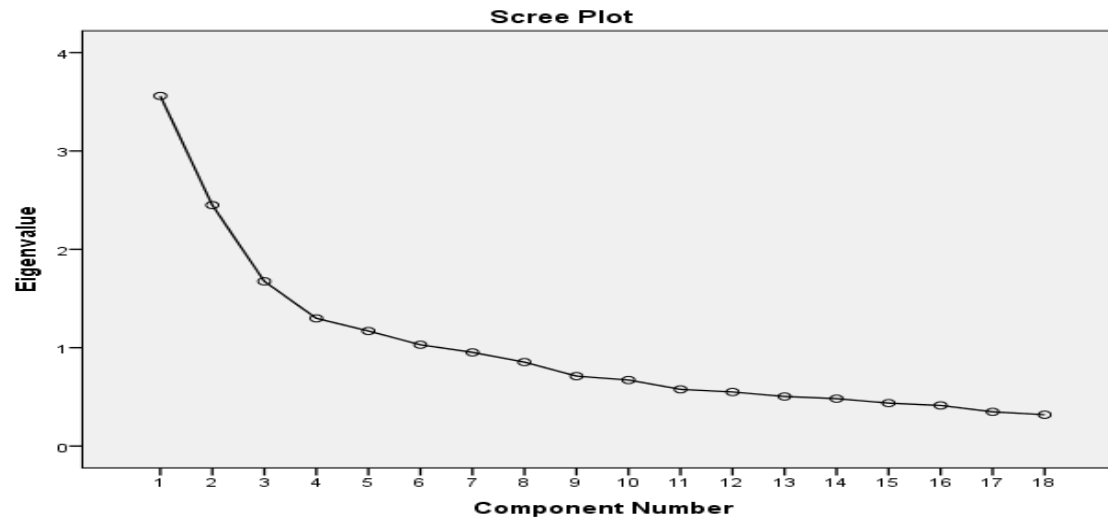


Figure-1: Shows Scree test on CRM variables for Public Sector Banks.

Table-2 Shows Scree test on CRM variables for Private Sector Banks

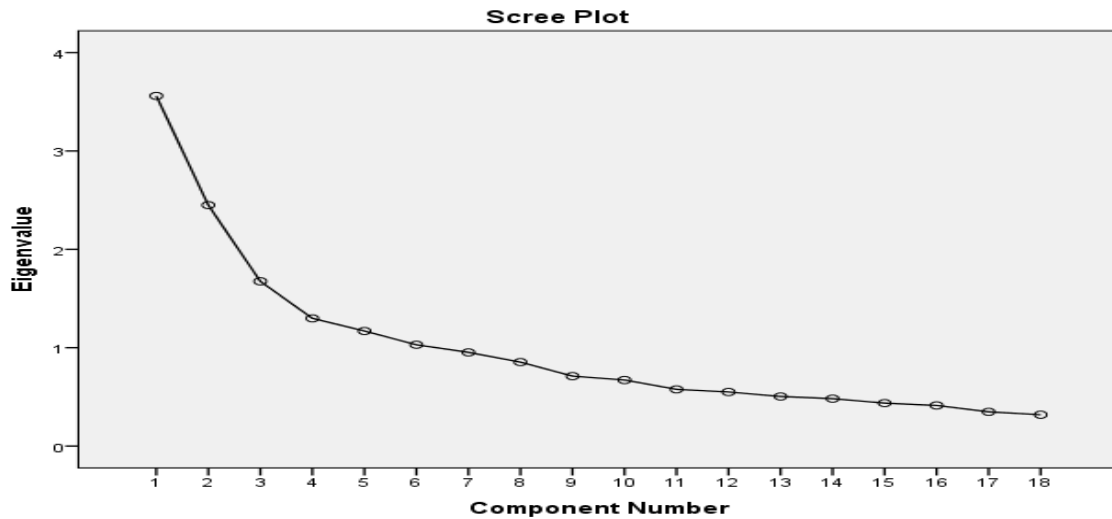


Table -4 shows the significant loading on Factor-I for Public and Private sector Banks on CRM.

Public sector banks		Private sector bank	
Name of the variables	Loading	Name of the variables	Loading
Adaptation	.485	Trust	.780
Trust	.773	Communication Channel	.535
Responsiveness	.653	Customer contact by phone/-e-mail	.630
		Complaint/Grievance handling	.494
		Customer care	.793
		Responsiveness	.720

Table 5 shows the significant loading on Factor-II for Public and Private sector Banks on CRM.

Public sector banks		Private sector bank	
Name of the variables	Loading	Name of the variables	Loading
Past satisfaction	.626	Planning	.846
Customer contact by phone/ e-mail	.850	Top Management support	.865
Commitment	.917		
Conflict Resolution	.569		

Table -6 shows the significant loading on Factor-III for Public and Private sector Bankson CRM.

Public sector banks		Private sector bank	
Name of the variables	Loading	Name of the variables	Loading
Commitment	.917	Adaptation	.600
Conflict Resolution	.569	Knowledge Management capabilities	.852

IX. DISCUSSION:

From Table-1 it can be seen that both the Public and Private sector bank managers perceived their CRM in a similar way to attract and retaining the customers, are more concerned and committed towards their customers , to be friendly and supportive of one another; found more autonomy which encouraged the employees to be self-sufficient and to make their own decision; engaged in good planning, efficiency and getting the job doneand prefer variety, change and new approaches for betterment (Brief et al., 1995; Hochwarnter etal.,1996; Hochwarnter etal.,1996 and Moyle, 1995). Also, extent studies found that people with more positive outlook (i.e., positive personality orientation) tend to experience greater job satisfaction and less psychological strain in the work environment (Jex & Spector, 1996; Iverson et al., 1998).

From Table-2. It can be seen that out of 18 variables 10 factors were extracted. Based on ‘Cut point eigen value’ ‘one’ six factors were retained. Finally, ‘Scree test’ was employed and three factors were retained.

From Table-3. Shows that out of 18 variables 10 factors were extracted. Based on 'Cut point eigen value' 'one' seven factors were retained. Finally, 'Scree test' was employed and three factors were retained

From Table-4 , shows that public sector banks showed high positive loading on 'Adaptation', 'Trust' and 'Responsiveness'. This might be attributed to the fact that public sector bank managers prefer changes in processes, practices and uses of CRM techniques in banking sector, believe that employees are good and honest in an organisations and the outcome that can be achieved when institutions and institutional relationships are designed appropriately to the legitimate expectations of the individuals/customers.

On the other hand, Private sector bank managers showed high positive loading on ' Trust', 'Communication channel' , 'customer contact by phone/email', 'complaint/ Grievance handling', 'Customer care', and 'Responsiveness'. This might be that due to the fact that in private sector bank employees are good and honest, they contact with the customers about new policies, customer support and business procedures via phone and e-mail, respond to customer needs and expectations in such a way that will make them have a memorable experience and motivate them to come back and tell others about their products and services. In the context of Responsiveness outcome can be achieved when institutions and institutional relationships are designed according to the legitimate expectations of customers.

From Table-5 shows that public sector banks showed high positive loading on 'Past satisfaction' and 'customer contact by phone/email'. This might be that public sector banks managers feel what they are getting based on past experience or outcome it is satisfactory and bank employees contact with the customers about new policies, customer support and business procedures via phone or e-mail. On the other hand, private sector bank managers showed high positive loading on 'planning' and 'Top Management support'. This might be that public sector bank managers takes decision in advance what to do, how to do and planning bridges the gap between where we are to and where we want to go. Further, top level authority support the system and takes responsibility for the entire organization.

From Table-6 shows that public sector banks showed high positive loading on 'Commitment' and 'Conflict resolution'. This might be attributed to the fact that public sector banks managers are more committed towards their job and resolve the disagreement to establish a common goal for both the parties. On the other hands, public sector banks showed high positive loading on 'Adaptation' and 'Knowledge management capabilities'.

This shows that private sector banks accept the changes in the processes, practices and uses of CRM techniques in the banking sector and Knowledge Management is a conscious strategy of getting the right knowledge by the right people at the right time and helping people which put information into action in such a way that strive to improve organizational performance.

X. CONCLUSION:

From the above discussion, it may be said that both the Public and Private Sector Banks managers showed more similarities than differences. Result shows that there is a highly positive and significant relationship among them which a positive sign for any organization that helps the organization to maintain a better work environment and relationship among colleague which leads the organization to maintain better relationship with the customers. In conclusion it may be said that as the sample size is not large enough, further study on large sample from public vs. private, rural vs. urban may through some light in this relationship.

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