CHAPTER 2
DEVELOPMENT OF FINANCE, ACCOUNTING AND AUDITING

CHALLENGES FACED BY THE PERSONNEL IN IMPLEMENTING THE E-CRM IN BANKS

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Abstract. *The advancement in technology, information and communication has forced banks and financial institutions into hard competition. In this new era technology, people and customer are the elements which the banks are concentrating on them to manage customer relationship and success of banking in customer satisfaction. Electronic customer relationship management (e-CRM) is seen to arise from the consolidation of traditional CRM with the e-business applications marketplace and has created a flurry of activity among companies. The purpose of this study is to examine the competitive advantages on e-CRM in financial institutions and banks and obtain better understanding of the e-CRM benefits. A qualitative research approach was used for this study. Empirical data was collected through interviews were conducted with twenty six banks which just sixteen of them are participated. Our findings indicate Accessibility, Convenience, Services quality, Timeliness, and Trust are the most important benefits of E-CRM. We found that implementation of E-CRM bring about the following competitive advantages: Up to date of banks, Preparation of up to date technology, Proliferation of channels, Marketing and Strategic Factors and Fragmentation of customer segment.*

Keywords: *Service Sector; Electronic Banking; Nationalized Banks; Old Private Sector Banks; Awareness; Employee satisfaction.*

JEL Classification: G21; G29; G41

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Introduction. Digitalization involves the widespread adoption of technology to enhance various process and services. In the context of banking, digitalization typically involves implementing advanced technological solutions to improve efficiency, reduce costs and prepare for future growth. Core banking refers to the services offered by a network of bank branches that are interconnected. Customers can access their funds and perform basic transactions from any member branch. The term "CORE" stands for "Centralized Online Real-time Exchange," indicating that branches can access applications from centralized data centers. Core Banking Solutions applications built on a platform that enables a phased and strategic approach to improving banking facilitate future growth. Modular and component-based enterprise solutions are recommended for strong integration with existing technologies.

An overall service-oriented architecture (SOA) is highlighted as a key aspect of core banking solutions. SOA helps banks: A) Reduce the risk of multiple data entries and outdated information. B) Increase management approval. C) Avoid potential disruptions to business caused by replacing entire systems. Benefits of Core Banking Solutions: a) Improved Operations: Enhanced efficiency and streamlined processes. b) Cost Reduction: Achieved through automation and optimized workflows. c) Preparedness for Growth: the Phased approach allows for scalability and future expansion. By using a modular and component-based approach, the risk associated with replacing entire systems is reduced. SOA helps in avoiding disruptions caused by outdated information and multiple data entries.

Literature review. M.L Saikumar, (1999) gave a picture of the role of developing technology in managing the customers more accurately. He analyzed that the industry might be manufacturing fertilizers, pesticides, textiles or consumer goods, ultimately each and every industry had to depend on the customer and hence organizations had to be customer centric. So, the need was for technologies, which could help us to serve customer at any time anywhere. The problem was due to the large volume of data and the solution to manage it is E-CRM. The information technology would help in improving the better implementation of customer relationship management programme. He also stated that the concept of CRM brings in the front office support for the customer. Customer is looking for an integrated services being provided at single point of contact. Seamless integrated of the application through the web makes the CRM application attractive to the end customers. He concluded that with the use of information technology the customer was brought closer to the marketer and what needed was a mechanism to integrate cross-functional activity in an organization to provide technology driven effective CRM solution.

Bhattacharya (2012) research had been done by CRM, implemented in a firm or organization to reduce cost and increase company performance which means profitability result in customer loyalty. Indeed, in a successful CRM, data were collected from internal and external source of data sales department, customer service, marketing, after sales services, procurement, and so on to obtain a holistic view of each customer requirement in a real time system. This information could aid employees who were faced with customers in different area of the organization to make a fast and well-informed decision from up and cross selling target market strategies to form the company in a competitive position in the market between rivals.

According to "Benefits of E-CRM for Banks and Their Customers: Case Studies of Two Swedish Banks" The customer relationship management (CRM) is essential and vital function of customer-oriented marketing. Its functions include gathering and accumulating customer-related information to provide effective services. E-CRM is a combination of IT sector but also the key strategy to electronic commerce (Anumala & Reddy, 2007). Bank customers form expectations derived from many sources Boulding proposed that customers form expectations of what will happen in their next encounters based on what they "deserve". (Boulding, 1993). Zeithaml and Bitner identify two levels of expectations, desired service and adequate service. Desired service represents the "wished for" level of performance and adequate service reflects showing more basic service expectations (Zeithaml, 2000). The model permits exploration of the perceived difference between expected service and the experienced service, particularly the zone of tolerance developed by Parasuraman, they're by customer specific benefits are: Customer interaction and satisfaction, Convenience, Speed of processing the transaction through e-Response, Trust, Service quality (Parasuraman, Berry & Zeithaml, 1991). They considered the following research questions how the benefits of E-CRM for banks can are described and how can the benefits of E-CRM for bank customers be described. They used a qualitative research approach Empirical data was collected through in-depth interviews were conducted with two Swedish banks and a group of their customers. According to the first research question their findings indicate that E-CRM enables financial institutions and organizations to maintain relationship with customers and both banks less use email for their business purpose and their Personalized and One to One Service are improved by implementing E-CRM. Moreover, to improve and maintain transactions security of the customers, the mentioned banks have latest techniques and technologies. They also investigated about the benefits of E-CRM for the customers, and they found out Customer interaction and satisfaction is found to be an important benefit and Trust and Convenience is a major benefit provided to the customers of the banks. There are other advantages which they discovered them like: Speed at which the transactions have been processed and their rate of accuracy, Reliable employees, availability of the latest information technology.

According to "Electronic Customer Relationship Management in Online Banking" Customers are getting more involved to use web because of the internet is becoming more available and customers are comfortable with web business, those customers who are not using Web will use tomorrow and those who have never purchased today will buy tomorrow on the web (Feinberg & Kadam, 2002). To satisfy customers, companies should maintain consistency in all interaction channels like the Internet, E-mail, Telephone, and Web, Fax and company areas like sales, services, marketing and other fields. Traditional CRM has limitations to support outside channels while E-CRM supports marketing, sale, and service (Shan & Lee, 2003). In electronic and online environment, they investigated how banks use E-CRM tool to maintain their customer relations by using the Internet and what benefits are derived by using this E-CRM tool and how successfully this tool is implemented in a bank. For their research purpose, they conducted two case studies of Sweden and Denmark banks. They found out two cases banks implemented and used E-CRM mostly for Mass

Customization, Customer Profiting, Self Service, One to One interaction and Automatic locks in flow of financial data like Security which ultimately results in reduces cost of operation and increased customer loyalty and more profits. According to their third research question, their findings indicates that for a successful E-CRM implementation, Staff training and customer feedback are two tangible factors.

Aims. The main objectives of the study**:**

1. To analysis of various dimensions related to E-CRM.
2. To emphasis is on understanding and analyzing the challenges that employees encounter during the implementation of E-Customer Relationship Management.
3. To suggests that the study relies on statements, possibly collected through surveys, interviews, or other data collection methods, to understand the challenges in implementing E-CRM.

Methodology. The researcher has applied factor analysis for analyzing and drawing meaningful inferences from the opinion/ benefits derived from e-CRM. SPSS Version 23.0 has been applied to analyze the data.

- Study Design: Descriptive study design was used to fulfill the objectives.
- Study Area: Study was conducted in Zone Wise Division of Coimbatore City.
- Study Population: All those Employees who are working in a bank.
- Sampling Techniques: Bank Employees were included with the main motive of collecting information about e- banking. So, this was a Systematic sampling.
- Sample Size: 400 Bank Employees were included in this study taking representative Zone Wise Division of Coimbatore City.
- Data Collection Tools and Technique: Questionnaire was the main tool which was used to collect the pertinent data from the selected 400 Employees.
- Validity and Reliability: The total correlation was considered to be one of the methods available to test construct validity. It measures the internal consistency of the measuring instrument. The cronbatch's alpha was used to measure the reliability coefficient. For reliability coefficient values, it was suggested that 0.70 is the minimum requirement for basic research.
- Statistical Analysis: Data entry and analysis was done in SPSS version 23.0. In order to test the statistical significance of Factor Analysis and Hypothesis Testing was applied.

Results. The study carries analysis on various dimensions pertaining to E-CRM. This is an another attempt to analyse the challenges faced by the employees in implementing the E-customer relationship management. For the purpose of analysis, various statements were carefully considered and taken into account. The variables were listed below:

1. Building trust will be difficult.
2. Fickless among customers.
3. Only one click away there are no second chances to recover mistakes in these remote channels.
4. Data integration and IT architecture challenges.
5. People resistance to change.
6. Time and Budget in Implementation.
7. The fear of facing to the unresponsive or complex system.

8. Employees are unwilling to adopt a new system.

The statements were employed through factor analysis and the extraction values are presented in the Table 2. All the statements have achieved an extraction value more than 5. The statements X1 Building trust will be difficult, X2 Fickless among customers, X3 Only one click away there are no second chances to recover mistakes in these remote channels, X5 People resistance to change, X7 The fear of facing to the unresponsive or complex system had a factor loading of .811, .772, .745, .738 and .794. The statements X4 Data integration and IT architecture challenges, X6 Time and Budget in Implementation, X8 Employees are unwilling to adopt a new system had achieved factor loadings of .666, .656 and .529. These statements have secured low factor loadings when compared to other statements.

All the factors were again employed through total variance another step of factor analysis, and it has given two clusters viz, 10 Lack of trust and confidence 2. Infrastructure and other constraints.

Table 1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.468
Bartlett's Test of Sphericity	Approx. Chi-Square	2380.220
	df	28
	Sig.	.000

Table 2. Communalities

	Initial	**Extraction**
Building trust will be difficult	1.000	.811
Fickless among customers	1.000	.773
Only one click away there are no second chances to recover mistakes in these remote channels	1.000	.745
Data integration and IT architecture challenges	1.000	.666
People resistance to change	1.000	.738
Time and Budget in Implementation	1.000	.656
The fear of facing to the unresponsive or complex system	1.000	.794
Employees are unwilling to adopt a new system	1.000	.529
Extraction Method: Principal Component Analysis		

In Table Bartlett’s test of sphericity and KAISER MEYER OLKIN measures of sample adequacy were used to test the appropriateness of the factor model. Bartlett’s test was used to test the null hypothesis that the variables of this study are not correlated. Since the approximate chi-square satisfaction is 2380.220 which are significant at 1% level, the test leads to the rejection of the null hypothesis.

The value of KMO statistics (0.468) was also large and it revealed that factor analysis might be considered as an appropriate technique for analysing the correlation matrix. The communality table showed the initial and extraction values.

Table 3. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.959	49.483	49.483	3.959	49.483	49.483	3.620	45.256	45.256
2	1.752	21.905	71.388	1.752	21.905	71.388	2.091	26.132	71.388
3	.803	10.033	81.421						
4	.613	7.668	89.089						
5	.409	5.109	94.198						
6	.253	3.163	97.361						
7	.171	2.134	99.496						
8	.040	.504	100.000						
Extraction Method: Principal Component Analysis.									

From the table it was observed that the labelled "Initial Eigen Values" gives the EIGEN values. The EIGEN Value for a factor indicates the 'Total Variance' attributed to the factor. From the extraction sum of squared loadings, it was learnt that the I factor accounted for the variance of 3.959 which was 49.483%, the II factor accounted for the variance of 1.752 which was 21.905%. The two components extracted accounted for the total cumulative variance of 71.388%.

Determination of factors based on Eigen Values. In this approach only factors with Eigen values greater than 1.00 are retained and the other factors are not included in this model. The two components possessing the Eigen values which were greater than 1.0 were taken as the components extracted.

Table 4 Component Matrix[a]

	Component	
	1	**2**
Building trust will be difficult	.893	
Fickless among customers	.876	
Ony one click away there are no second chances to recover mistakes in these remote channels	.821	
Data integration and IT architecture challenges	.800	
People resistance to change	.736	
Time and Budget in Implementation		.758
The fear of facing to the unresponsive or complex system	.501	.737
Employees are unwilling to adopt a new system		.568
Extraction Method: Principal Component Analysis.		
a. 2 components extracted.		

Table 5. Rotated Component Matrix[a]

	Component	
	1	**2**
Building trust will be difficult	.867	
Only one click away there are no second chances to recover mistakes in these remote channels	.860	
People resistance to change	.851	
Fickless among customers	.836	
Data integration and IT architecture challenges	.799	
The fear of facing to the unresponsive or complex system		.874
Time and Budget in Implementation		.809
Employees are unwilling to adopt a new system		.700
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.		
a. Rotation converged in 3 iterations		

The rotated component matrix shown in Table is a result of VARIMAX procedure of factor rotation. Interpretation is facilitated by identifying the variables that have large loadings on the same factor. Hence, those factors with high factor loadings in each component were selected. The selected factors were shown in the table.

Table 6. Clustering of inducing varibales into factors

Factor	Inducing Variable	Rotated factor loadings
I (45.256) Lack of conviction and assurance	The fear of facing to the unresponsive or complex system X7	0.874
	Building trust will be difficult X1	0.867
	Only one click away there are no second chances to recover mistakes in these remote channels X3	0.860
	People resistance to change X5	0.851
	Fickless among customers X2	0.836
II (71.388) Infrastructure and other constraints	Time and Budget in Implementation X6	0.809
	Data integration and IT architecture challenges X4	0.799
	Employees are unwilling to adopt a new system X8	0.700

In this table two factors were identified as being maximum percentage variance accounted. The variable X7, X1, X3, X5 and X2 constitutes factor I and it accounts for 45.256 per cent of the total variance. The variable X6, X4 and X8 constitutes factor II and it accounts for 71.388 per cent of the total variance.

Lack of conviction and assurance: The employee of the bank feels that they will not be able to understand the complex system of implementing customer relationship management, and the customers will not have to forum to place the queries relating to the system. Hence the bank and the employees will not gain trust among the customers. The line of difficulty is followed, it is that the customers do not have second option to rectify the mistakes made by them while depositing, withdrawal and mention the dates. Further the bank must give time for the customers to change or accust to the new technologies. The current technologies have complex system and procedures which needs ample of time and attitude to get accost.

Infrastructure and other constraints: The implementation of the E-CRM in the banks are quite costlier and it requires various infrastructure developments. The developments include installing ATM's, cash depositing machines, cheque clearing boxes, air condition machines, heavy capacity bank risks, employee training and so on. Thus, the bankers have constraints data integration, IT architecture and budget constraints on implementing it.

The clustered variables were employed through ANOVA for drawing meaningful inferences. The various hypotheses ser were listed below:

1. Significant difference between lack of conviction and assurance and demographic profile.
2. Significant difference between infrastructure and other constraints and demographic profile.

The results revealed that, while testing the association between the lack of conviction and assurance factor with the type of bank, gender, age, monthly income, educational background, designation. It was understood that the variables such as the type of bank I which the employee works, gender of the employee, monthly income of the employee shows non- significance and the variables such as age of the employee, educational background of the employee and designation of the employee accounts for significance.

The infrastructure and other constraints factor were analysed through ANOVA. The variables viz., the type of bank, age of the employee, monthly income resulted with non-significance and variables viz, gender, educational background and designation resulted with significance.

Table 7. Significant difference between lack of conviction and assurance and demographic profile

H0: There is no significant difference between lack of conviction and assurance and the bank in which employee is employed, gender, age, monthly income, educational background, designation.

ANOVA							
Source of variance		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**	**Result**
Type of bank	Between Groups	4.957	2	2.479	2.613	.075	Non-Significant
	Within Groups	376.633	397	.949			
	Total	381.590	399				
Gender	Between Groups	1.572	2	.786	3.245	.040	Non-Significant
	Within Groups	96.178	397	.242			
	Total	97.750	399				
Age	Between Groups	2.296	2	1.148	4.865	.008	Significant
	Within Groups	93.704	397	.236			
	Total	96.000	399				
Monthly income	Between Groups	4.957	2	2.479	2.613	.075	Non-Significant
	Within Groups	376.633	397	.949			
	Total	381.590	399				
Educational background	Between Groups	23.291	2	11.645	37.372	.000	Significant
	Within Groups	123.709	397	.312			
	Total	147.000	399				
Designation	Between Groups	14.855	2	7.428	49.441	.000	Significant
	Within Groups	59.642	397	.150			
	Total	74.498	399				

Source: Computed from primary data
Level of Significance: 5 percent

Table 8. Significant difference between infrastructure and other constraints and demographic profile

H0: There is no significant difference between Challenges and the bank in which employee is employed, gender, age, monthly income, educational background, designation.

ANOVA							
Source of variance		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**	**Result**
Type of bank	Between Groups	4.936	2	2.468	2.601	.075	Non-Significant
	Within Groups	376.654	397	.949			
	Total	381.590	399				
Gender	Between Groups	8.842	2	4.421	19.742	.000	Significant
	Within Groups	88.908	397	.224			
	Total	97.750	399				
Age	Between Groups	1.330	2	.665	2.788	.063	Non-Significant
	Within Groups	94.670	397	.238			
	Total	96.000	399				
Monthly income	Between Groups	4.936	2	2.468	2.601	.075	Non-Significant
	Within Groups	376.654	397	.949			
	Total	381.590	399				
Educational background	Between Groups	13.121	2	6.560	19.454	.000	Significant
	Within Groups	133.879	397	.337			
	Total	147.000	399				
Designation	Between Groups	2.021	2	1.010	5.534	.004	Significant
	Within Groups	72.477	397	.183			
	Total	74.498	399				

Source: Computed from primary data.
Level of Significance: 5 percent.

Table 9. Findings based on the hypothesis

No	**Challenges faced by the employees in implementing the E-CRM**	**Demographic factors**	**Result**
1.	**Lack of conviction and assurance**	Type of bank	*Non- Significant*
		Gender	*Non- Significant*
		Age	*Significant*
		Monthly income	*Non- Significant*
		Educational background	*Significant*
		Designation	*Significant*
2.	**Infrastructure and other constraints**	**Demographic factors**	***Result***
		Type of bank	*Non- Significant*
		Gender	*Significant*
		Age	*Non- Significant*
		Monthly income	*Non- Significant*
		Educational background	*Significant*
		Designation	*Significant*

Conclusion. An overview of the challenges faced by bank employees in implementing Electronic Customer Relationship Management (E-CRM). The challenges are categorized into two main groups: Lack of conviction and assurance, and Infrastructure and other constraints. Here are the key points: Bank employees require more time to learn the new system and technologies associated with E-CRM. There is a fear among employees that the complexity of the system might result in customer loss. Equipping the bank with necessary infrastructure facilities, including

systems, database integration, and budget allocation, posed challenges for the maximum implementation of E-CRM. The challenges faced by employees in implementing E-CRM are grouped into two categories: Lack of conviction and assurance & Infrastructure and other constraints.

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