

Mediating Effect of Trust in the Relation to Technology CSFs and Customer Satisfaction With Reference To Banking Sector

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Abstract:

The present study is focused on the mediation impact of CSF technologies (critical success factors) on customer satisfaction in the banking sector. The study considered a Stratified Sampling Methodology to determine the for primary data collection from bank staff (respondents). The study gathered three public and three private sector banks located in the Hyderabad region. Bankers have applied the adoption of customer relationship management through the CSF technology. The Bivariate Correlation has been applied, and the result showed that the CSF has a strong relationship with trust and customer satisfaction. The Mediation Effect Methodology was applied in order to know the indirect effect of CSF on customer satisfaction in relation to trust and the result stated that the Technology Critical Success Factors (CSFs) were found to have a significant positive impact on the trust and Customer Satisfaction, i.e. the improvement of the Technology enabled services or CSFs, the trust of the Customer. This study is useful for bankers who use technology extensively to deliver banking services, banking regulators, other institutions that stress that CRM in an effective way to engage clients with the organization.

Keywords: Automation, Confidentiality, Critical Success Factors, Customer Satisfaction, Internet and Trust.

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I. INTRODUCTION

CRM is an effective tools in the hands of the bank staff to build long-term relationship and loyalty of customers in the best possible way. Nonetheless, in order to reap the benefit for the successful implementation of the CRM, it is important to consider the factors that are key for its success. Banks are essentially thriving and are in existence today because of technology. Software has provided better tools for assessing credit-worthy clients (Credit Control and Credit Office), storing customer

information, and protecting all important information that, if placed in the wrong hands, may cost banks in lakhs of rupees. Such losses can also have adverse finances forcing banks to tighten their lending conditions and to charge higher interest rates to make-up for losses that will result from lack of space, storage and other technical efficiencies. Thanks to technology information as it has changed the way people get banking services. The customers can be rest assured that the money they put in the bank will be where they want it to be.

Technology CSFs have saved time and energy to make effective banking usage easier for customers to perform banking effectively. Technology has led to the transition of banking activities from bulk and waste of paper to paperless transactions. Advanced technology covers mobile banking (telephone technology), credit cards, debit cards (money transfer technology), electronic money, and automatic teller machines. Such innovations also created flexibility and time-saving ways for people to conduct business. More notably, development has contributed to better efficiency and healthier business-driven practices for everyone. Bank management or enforcement officers use devices and technologies to help ensure that banks identify, and comply with guidelines and monitor the threats in a diverse and modern environment in financial services. Protection has evolved for the years with the advent of technologies, moving from the manual examination of suspicious activity through the usage of sophisticated machines and systems that can detect suspicious activities, tests and even viruses (a modern age danger through banking). The advent of technology in banks has contributed to ease, speed, time savings and cheaper methods in banking. Nowadays, many people are increasingly eliminating conventional ways of accessing financial services or income, such as migrating from cheques to debit / credit cards and automated payment.

Technology CSFs:

In today's information explosion era, where consumers are the centre of any industry, many businesses are compelled to embrace the technology required to facilitate their customers. Software also helps to connect an organization with consumers, vendors, and internal stakeholders (**Hammer and Champy, 1993**). It in effect optimizes all potential experiences with clients, ultimately leaving them happier and loyal.

II. Review of Literature

Gaston Leblanc (1990) examined consumer reasons for the usage and non-use of Automatic Teller Machine (ATM) customers of a financial institution. Analysis of findings focused on socioeconomic factors showed substantial disparities between consumers and non-users in terms of education alone. Studies further reveal that easy entry to the financial institution and the avoidance of long queues are the key factors for having an automatic teller.

In their research 'Services Marketing-Challenges and Tactics,' **Chidambaram and Alameleu (1996)** proposed that banks could become technologically-friendly by investing in technology, so that a bank would build a market for itself. Well-furnished facilities are a necessity for both staff and clients to be happy. Professionalized. Well-trained and empowered workers would increase the marketability of the business.

The goal of **Robert Rugimbana and Philip Iversen's (2002)** research was to establish the correlation between customer ATM patterns of usage and their interpretation of ATM attributes by defining certain variables that differentiate users and non-users. Findings based on a survey of 630 retail banking customers from two independent Australian banking institutions indicate that positive marketing campaigns will concentrate on the most relevant qualities of ATMs, define specific customer segments and establish campaigns to increase their patronage.

Mark R Nelson (2004) has been researching themes and developments around the configuration of roles for marketing and financial services knowledge. Most banking firms have discovered that the roles of marketing and information systems are not compatible or combined. Improvement of this design will lead to a more effective usage of IT for marketing in many banks.

In the study by **Ali Yakhlef (2008)**, the banks are focused on improving their communication strategy and reinventing their business model, as the transaction processing burden is gradually taken up by technology. Modern bank branches with money management systems were turned into an open field environment where bank professionals work directly with customers and include professional advisory teams with an expanded focus on retail banking.

Shiva kumar B. Burli et al., (2012) noticed that there is a strong direct link between assistance, human resource management, project preparation, quality improvement and efficiency of the rice industry. This indicates that the dream and purpose of quality control will be embraced by top management. The corporation will concentrate on quality development in all procedures practiced by the organisation. System gradual changes need to be driven and cross-functional teams need to be built up to tackle and resolve method problems.

Awolusi, Olawumi Dele (2013) has demonstrated that, in order for quality to be achieved, staff must be able to set goals and regular team success evaluation, coordination, top management engagement, combining organizational strategy with quality management, a consistent vision for quality delivery, continuous analysis of strategies and expenditures, efficient process preparation and monitoring, and quality assurance techniques.

Irungu Kagwaini John (2014) concluded that commercial banks that merge strategy with banking-critical success factors are able to succeed and have a competitive edge over other commercial banks. The study described customer service, product availability and pricing, as well as ICT deployment, as the most important factors of performance.

III. Objectives of the Study

1. To study relationship of Technology CSFs with Banking Customer Satisfaction
2. To identify the mediating effect of trust in relation to technology CSFs on the Banking Customer Satisfaction.

HYPOTHESIS OF THE STUDY

H₀₁: There is no relationship between the Technology CSFs with Customer Satisfaction.

H₀₂: There is no Significant impact of Technology CSFs on the banking Customer Satisfaction.

SCOPE OF THE STUDY

The present study has been emphasized on the technology CSF (critical success factors) effect on the banking customer's satisfaction. The study has considered the banking sector employees as the respondents, who are part of the organization in delivering the services to the customers with the technology enabled services. The study has considered the following banks in Hyderabad region

- **State Bank of India** – PSU Bank.
- **Bank of Baroda** – PSU Bank.
- **Punjab National Bank** – PSU Bank.
- **HDFC Bank** – Private Sector Bank.
- **ICICI Bank** – Private Sector Bank.
- **AXIS Bank** – private Sector Bank.

IV. Research Methodology

Research Design

The goal of this research was to study “Mediating Effect of Trust in the Relation to Technology CSFS and Customer Satisfaction With Reference To Banking Sector”. The system construction of the present research (see Figure 1) was a systematic

process that started with a thorough analysis of the literature. Likewise, the a priori relationship between models and theories was envisaged on the basis of the literature, the relevance of which was checked through the compilation of data from employees of select banks.

Data Collection:

A total of 155 questionnaires were administered to bank employees in the Hyderabad district of Telangana State, India. With a response receipt rate of 86.95 per cent, 134 questionnaires were received and only 128 were considered suitable for analyses, resulting in a modified answer rate of 82.5 per cent.

Many bank names and addresses were inserted into computer software — SPSS — to offer a randomly selected bank name. Employees were approached through stratified random sampling. The stratification was focused on the role of the workers in the chosen banks.

Measurement development:

The creation of the research instrument was focused on the different measures proposed by **Churchill and Iacobucci (2005)**, including the definition of the relevant material, the pre-testing and the revision of the questionnaire. The questionnaire was split into three parts covering topics relating to CSF infrastructure, confidence, consumer loyalty, and demographics of respondents. Different measurements for CSF technologies have been established as researchers have not been able to find any previous experiments that explicitly answer any of the problems in this report. Furthermore and where appropriate, established steps that had already been implemented have still been utilized. The "confidence" topics have been adapted from **Flavian et al. (2005)** and "customer service" things have been adapted from **Levesque and McDougall (1996)**. Across the first

four pages, the respondents were instructed to check the appropriate box to each query on a five-point rating scale, ranging from highly agreeable (1) highly disagreeable (5).

After Pre-testing:

The original script pre-test was planned to show some ambiguity and to assess the face validity of the device. Pre-test topics detect a: few scholars and specialists in communications, linguistics and statistics. Their recommendations were implemented by eliminating the ambiguity in the drafted questionnaire, which was supported by a standardized survey.

Sample characteristics

Descriptive analyzes showed that the bulk of respondents were Male with a proportion of 56.8 per cent to the study. The bulk of respondents are part of the age segment of 25 to 34 years, with a minimum of 48.39 per cent, reflecting their significant effect on the study. It is also relevant to highlight that more answers (56%) were obtained from married individuals. In spite of their quality of qualifications, half of the respondents (45.6 per cent) were students with at least one Bachelor's degree. It has been observed that the responses from the each bank in Hyderabad region are having the statistically significant. In the present study, State bank of India has been depicted as the major contributor with the total responses rate with the 38.26 %. The study further reveals that 56.72 per cent of respondents are working in the same organization over the last 4 years and rest of the respondents are with the same bank varied from one to three years.

Attributes of the questionnaire

The study applied the Cronbach's alpha reliability test on the Likert scale. The study has framed the three key segments along with the customer satisfaction and trust in relation to the CRM through technology

enabled banking services. The reliability value near to 1 depicts the stability of the data and the present data reliability value has been calculated (0.893), which is greater than the base value of 0.60.

Statistical Tools:

Bivariate Correlation: The study has considered the Bivariate Correlation to know the relationship between the banking technology CSF and the customer satisfaction and trust.

Mediation Effect (Regression): The study applied the mediation effect statistical methodology which is mainly used when indirect effect is there on the dependent variable.

V. Tabulation of Data Analysis

Objective1: To study relationship of Technology CSFs with Customer satisfaction

This objective made an attempt to find out the relationship between the Technology CSFs with Customer satisfaction, for this Bivariate correlation has applied for the collected data and hypothesis is framed as follows

Null Hypothesis: There is no relationship between the Technology CSFs with Customer Satisfaction.

Alternative Hypothesis: There exists a relationship between the Technology CSFs with Customer Satisfaction.

Table -1: relationship of Technology CSFs with Customer satisfaction

Parameters	Method	Technology CSFs	Trust	Customer Satisfaction
Technology CSFs	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	128		
Trust	Pearson Correlation	.774	1	
	Sig. (2-tailed)	.006		
	N	128	128	
Customer Satisfaction	Pearson Correlation	.628**	.533	1
	Sig. (2-tailed)	.010	.012	
	N	128	128	128
**. Correlation is significant at the 0.01 level (2-tailed).				

Source: Primary Data

Table -1 illustrates that the Technology CSFs (Critical Success Factors) are found to be strong relationship with Customer Trust and Level of Satisfaction, while the Customer Satisfaction is found to be moderately

correlated with the Customer Trust. Signification value (P-value) is less than 0.05 which indicates the rejection of Null hypothesis and Acceptance of Alternative Hypothesis i.e., Relationship existing

between the Technology CSFs with Customer Satisfaction and Trust.

Objective 2: To identify the mediating affect of trust in relation to technology CSFs and Customer satisfaction.

This objective made an attempt to evaluate the mediating effect of trust in relation to Technology CSFs and Customers Satisfaction. Here, it considered Six Technology CSFs factors, Four Trust factors and Five Customer satisfaction related factors that are combined and interlinked simultaneously to create a hypothesized model. For this, first the model estimated goodness of fitness index followed by model consistency which indicates the model is significant. Finally, the hypothesized model (SEM model) has been framed to identify the estimated results of the model.

Table – 2: Model Fitness Statistics

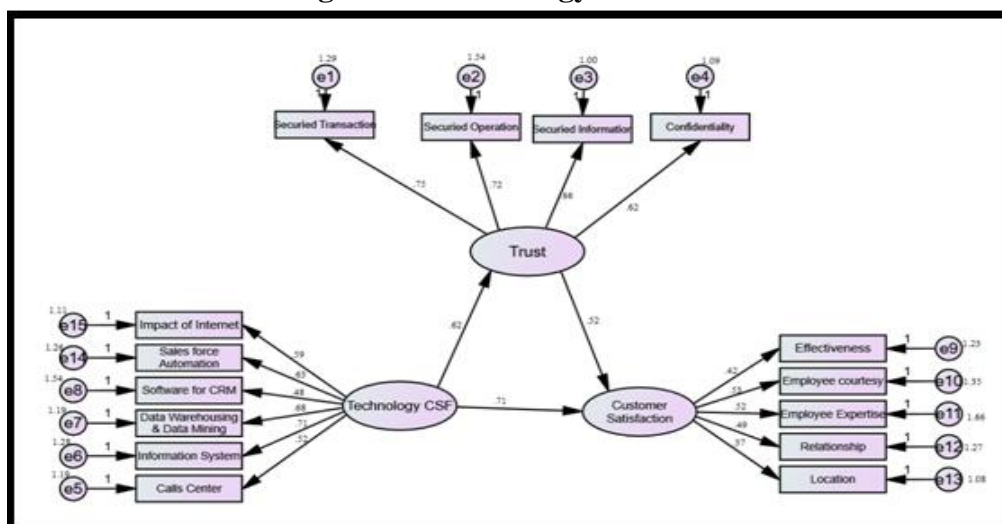
Fit statistic	Recommended Value	Obtained Value
Chi square		162.25
Df		36
Chi square significance	$p < = 0.05$	0.014
Goodness Fit	>0.90	0.904

Index		
Adj. Goodness Fit Index	>0.90	0.907
Normed Fit indexes	>0.90	0.982
Relative Fit Index	>0.90	0.989
Comparative Fit Index	>0.90	0.917
Tucker Lewis Index	>0.90	0.925
RMSEA	<0.05	0.011

Source: Primary Data

Table -2 Goodness of measure indicates that calculated chi square seems to be above the critical value, implies significant association among the factors variable. GFI (“Goodness Fit Index”) of the model is 0.904 and “Adjusted Goodness of fit Index” is 0.907 which are above the recommended level. Normed fit Index seems to be greater than 0.90 and Relative fit index is 0.989. Goodness index like Comparative Fit index (0.917) and Tucker Lewis Index (0.925) are observed to be above the cut off level. Root mean Square is 0.021 which implies that significant of the model. Hence goodness of fit index concluded that the model is satisfactory.

Figure - 1
Path diagram of Technology enabled services



Source: Primary Data

Path diagram represent the mediating effect of trust in relation to Technology CSFs and Customers Satisfaction. The result signifies that Technology Critical Success Factors (CSFs) are found to be having significant positive impact on the Trust and Satisfaction level of Customer, meaning that the with the improvement of Technology enabled services or CSFs, Trust of the customer are increasing day by day and satisfaction level of customer are moderately effect during the present survey and found to be increase in future. Further, it represent that Information system, Data Warehousing and Data Mining and Sale force enforcement had significant and strong impact on the trust of the customer and satisfaction level. Secured Transaction and Secured Operation are dominant factors which are observed to be have high impact on the Trust of Customer. Employee courtesy and Employee Expertise are two key factors which have significant impact on the Customer satisfaction. Hence it is concluded that Technology CSFs are positively related and have a strong impact on the Customer trust and satisfaction.

VI. Findings of the Study

The study derived the following findings from the statistical analysis for the framed objectives. They are,

1. Technology CSFs (Critical Success Factors) are strongly correlated with Customer Trust and Level of Satisfaction
2. Information system, Data Warehousing and Data Mining and Sale force enforcement had significant and strong mediation effect on the trust of the customer and satisfaction level.
3. Secured Transaction and Secured Operation are dominant factors which are observed to be having high impact on the Trust of Customer.
4. Employee courtesy and Employee Expertise are two key factors which have significant impact on the Customer satisfaction
5. Technology Critical Success Factors (CSFs) are found to be having significant positive impact on the Trust and Satisfaction level of Customer

VII. Conclusion of the Study

The study examined the CRM practice parameters of technology CSF (critical success factor) in relation

with the trust effect on the customer satisfaction level in the banking sector. The study observed that the banks are effectively utilizing the technology in every area including customer engagement with the CRM practices. The study has collected the primary data from the six banks (i.e., three PSU banks and three private sector) with the stratified sampling methodology. The study applied the Bivariate Correlation and the result states that CSF is having the significant relationship with the trust and the customer satisfaction. The mediation effect method has been applied to know the significant impact on the customers' satisfaction and the result stated that Technology Critical Success Factors (CSFs) were found to have a significant positive impact on the trust and satisfaction level of the Customer, i.e. the improvement of the Technology enabled banking services or CSFs, the trust of the Customer. Hence, there is a need to do further research in this area by considering the comparison of CSF effect on the customer satisfaction between the private, foreign and public sector banking.

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