



# Influence of Total Quality Management on Customers' Satisfaction: An Indication from Cooperative Banks

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## ARTICLE INFO ABSTRACT

Total quality management is a management approach focused on quality, based on the participation of people in the organization, with the goal of long-term success'. This is accomplished through satisfaction with consumers, which benefits every stockholders of the institution and society. Banks are considered financial institutions. In today's uncertain and competitive This is accomplished through satisfaction with consumers, which benefits every member of the organization and society. environment, banks must utilize effective management techniques like Total Quality Management (TQM) to grow and remain competitive. (Majeesh.T & Ashraf.E, 2023). This article directs to evaluate the Total Quality Management (TQM) practices in cooperative banks in Kozhikode district of Kerala from the customers' side and assess their influence on 'customer satisfaction'. The primary data used for this article obtained from employees and customers from cooperative banks in Kerala. The findings of this research disseminated that, the TQM practice such as strategic planning based on TQM, service design, and information analysis had the favorable influence on client satisfaction.

**Key words:** *Total quality management, Customers' Satisfaction, Cooperative Banks*

## I. Introduction

In today's world, the service sector is crucial for the economic success of nation-states. The new economy has brought significant changes to traditional business processes across all industries, including the banking sector. "With the opening up of the economy, several private sector banks have entered the market, offering a wide range of products and services. They are redefining themselves as financial boutiques, thereby making the banking market more competitive" (E.Ashraf & Dr.K.Venugopalan, 2016).

The notion of "Total Quality Management" originated in the late 1930s and gained traction in Japan after World War II. During this time, the manufacturing industry focused on improving quality and implementing quality control methods. TQM eventually spread to the United States, the United Kingdom, and other countries, where it was adopted in both the manufacturing and service sectors. (ASHRAF.E, 2019) This management approach empowers all employees by giving them more authority. It encourages every individual to participate, contribute, and share ideas for improvement as part of TQM.(Talib, Rahman, & Qureshi, "Impact of Total Quality Management and Service Quality in the Banking Sector", 2012) In today's uncertain and competitive business environment, banks must utilize effective management techniques like Total Quality Management (TQM) to grow and remain competitive.

## II. Statement of the Problem

In today's world, all organizations face challenges driven by global competition and increasingly sophisticated customers. Customer needs are also changing, so companies strive to achieve customer satisfaction. Banks must be able to meet customer needs and achieve customer satisfaction as well. The cooperative sector in Kerala engage in a key part in the growth of the state, with many institution working in the cooperative sector, especially cooperative banks. Co-operative banks were established to serve the needs of the low-income sectors of society. Total quality management (TQM) is a buzzword today. Nationalized and private sector banks are customer-oriented financial institutions that adopt the 'philosophy of total quality management' to achieve business excellence & customer satisfaction. To sustain and develop, cooperative banks must update their policies and technologies and use methods such as total quality management. Therefore, the findings of this

research is to assess the 'TQM practices' of cooperative banks in Kerala from the customer's perspective and analyze its impact on customer satisfaction.

### III. Significance of the study

Since 1991, due to the adoption of liberalization measures, new banks have been established in our nation. The Indian banking industry currently comprises 'scheduled commercial banks', 'public sector banks', 'private banks', and 'international banks'. There is intense competition in the banking industry. Nowadays, banks are employing various strategies to retain their clientele and market share. The needs of the clients are given more priority. The focus of the global business environment is on the client. Due to this, banks are required to adopt new and innovative strategies, such as 'Total Quality Management (TQM)', to maintain and gain a competitive edge in the banking industry. To retain current customers and attract new ones, banks need to carry out ongoing improvement programs that enable them to optimize available resources and enhance operational efficiency. So a study is needed to assess the TQM practices of cooperative banks in Kerala from the customer's perspective and analyze its impact on customer satisfaction.

### IV. Study Objectives

1. To evaluate the influence of 'TQM practices on customer satisfaction' among cooperative banks' customers in Kerala.
2. To examine the correlation among 'TQM practices and customer satisfaction' in cooperative banks in Kerala.
3. To identify the TQM practices that contribute to customer satisfaction in banking services provided by cooperative banks in Kerala.

### V. Review of Literature

In his study titled "Globalization's Impact on Banks and the TQM Strategy," Dr.R. Krishna Kumar recommended that the banking industry should embrace a modern version of Total Quality Management (TQM) to effectively address the challenges brought about by globalization. This strategy would enable banks to sustain continual growth by striving for 100% customer satisfaction in their daily operations. Mr. X highlighted that the key components of the modern TQM approach include a focus on prevention, universal accountability, customer-centricity, and ongoing improvement. (Dr.R. Krishna Kumar, 2011)

(Durgesh Pattanayak, 2011) discovered a significant correlation among 'TQM practice and customer satisfaction' in the Indian banking sector while examining their relationship in the paper titled "Effect of TQM on Customer Satisfaction in the Indian Banking Industry: A Literature Review."

(Pattanayak & Dr. K. Maddulety, 2011) emphasized the 'value of Total Quality Management (TQM) in the banking sector'. They explored the concept that customers are a bank's most important asset and that loyal customers can boost a bank's profitability. TQM can improve a bank's performance by ensuring customer satisfaction, reducing expenses, increasing revenue, and empowering staff members. Customer satisfaction is vital in the banking sector.

After conducting a comprehensive literature review, the authors aimed to identify the essential 'Total Quality Management (TQM) practices' for maintaining quality service across various service industries. "He identified seventeen key practices as follows: supply chain management, employee involvement, training and education, customer focus, innovation, and continuous improvement, process management, quality systems, benchmarking, quality culture, human resource management, strategic planning, employee encouragement, teamwork, product and service design, and communication". (Talib, Rahman, Siddiqui, & Jamshed, 2011)

The 2013 study by Shah and Mandvi examined the impact of globalization on the management strategy of the Indian banking sector. The study concluded that to overcome the challenges posed by globalization and achieve sustained growth, the banking sector needed to implement the following Total Quality Management (TQM) practices: supplier integration, statistical thinking, teamwork, employee participation, employee empowerment, training, value addition, benchmarking, and identification of reasons for corrective action. (J & Mandvi, 2013)

In a study conducted by Priya in 2015, 'the impact of Total Quality Management (TQM) practices on the profitability and service quality of public sector commercial banks in Chennai' was analyzed. The survey included employees from three banks. A 'multiple regression analysis' was carried out to investigate how TQM parameters affect profitability and service quality. The study found that staff empowerment, staff training and education, and customer satisfaction are three TQM components that have a positive correlation with the financial performance and quality of service of Chennai's public sector commercial banks. (D.T Priya, 2015)

In the study "The influence of total quality management on customer satisfaction by Nguyen, T. L. H., & Nagase, K. (2019)", Patient satisfaction and the perception of service quality were found to be significantly impacted by total quality management. Furthermore, it was discovered that patient satisfaction was positively influenced by perceived service quality. By using TQM and the perception of service quality, a model was created to demonstrate how both variables directly affected patient satisfaction. This work has important implications for

healthcare organizations, which should consider these findings when strategically planning to enhance consumer satisfaction. Those responsible for ensuring service quality should take these elements into account. (Nguyen & Nagase, 2019)

## VI. Methodology

The study was analytical and relied on primary data. A questionnaire is created for analysis, and a comprehensive set of TQM practices and an executive framework is developed to implement the methodology. Statistical techniques are used for analysis and interpretation.

### i. Questionnaire design

All the items shown in the questionnaire is asked to managers, officers and other employees. They are asked to fill the questionnaire and rate the performance of the items based on five point Likert scale.

### ii. Research population and sample

#### a. Research population

Secretaries, Managers, other staff members, and customers of the four cooperative banks such as “The Badagara Co-operative Rural Bank Ltd. No F 1264”, “Chorode Service Cooperative bank Ltd. No D:139”, “The Nadakkuthazha Service Co-operative Bank Ltd., No.D.2668” and “Uralungal Service Cooperative Bank Ltd No: 7264” in Kozhikode district are selected as the research population (Majeesh.T & Ashraf.E, 2023).

#### b. Research sample

Random sampling method is used for selecting samples from different categories of respondents.

### iii.Hypotheses

1. Customer satisfaction is unaffected by TQM practices in cooperative banks' customers in Kerala.
2. TQM practices and customer satisfaction in Kerala cooperative banks do not significantly correlate

### iv. Variables for the study

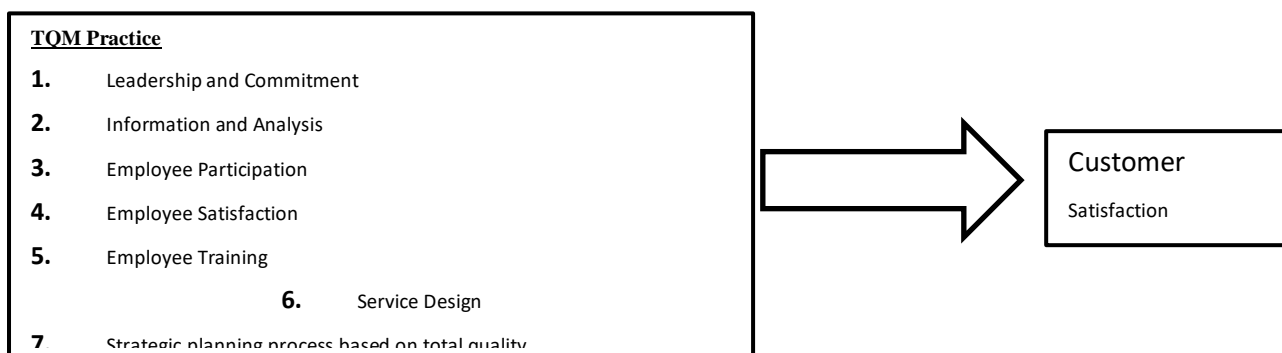
#### a. Independent Variables

1. Leadership and Commitment (L&C)
2. Information and Analysis (IA)
3. Employee Participation (EP)
4. Employee Satisfaction (ES)
5. Employee Training (ET)
6. Service Design (SD)
7. Strategic Planning Process based on Total Quality (SPP)
8. Employee Empowerment (EE)

#### Dependent Variables

1. Customer Satisfaction (CS)

#### v. Research Framework



### 1. Reliability Analysis

A reliability test assesses the level of consistency and stability among measurements of multiple variables. With a widely recognized lower limit of 0.7, Cronbach's alpha is a commonly used measurement technique. (Nunnally., 1967).

**Table i – Analysis of Reliability**

Variable	No	'Cronbach's Alpha'
Leadership and Commitment	9	0.929
Information and analysis	4	0.721
Employee Participation	11	0.911

Employee Satisfaction	5	0.750
Employee Training	5	0.779
Service Design	2	0.829
Strategic planning process based on total quality	4	0.944
Employee Empowerment	6	0.798
Customer Satisfaction	8	0.923

An overview of the reliability values is depicted in the above table. The table shows that each alpha coefficient exceeded the required threshold of 0.7. Consequently, the study's measurements demonstrate reliability and validity. A 'multiple regression analysis' was carried out to ascertain the significance of TQM practice in forecasting client satisfaction.

## 2. 'Descriptive Statistics'

**Table ii - Means and SD**

Variable	Mean Value	SD	Degree
Leadership and Commitment	3.83	0.708	High
Information and analysis	3.76	0.815	High
Employee Participation	3.59	0.688	High
Employee Satisfaction	4.10	0.467	High
Employee Training	3.71	0.620	High
Service Design	3.85	0.901	High
Strategic planning process based on total quality	3.55	0.899	High
Employee Empowerment	3.50	0.712	High
Customer Satisfaction	3.58	0.897	High

Variable		CS	L&C	IA	EP	ES	ET	SD	SPP	EE
CS	'Pearson(r)'									
	'Sig. (2 tailed)'									
L&C	'Pearson(r)'	.520								
	'Sig. (2 tailed)'	.0								
IA	'Pearson(r)'	.795	.673							
	'Sig. (2 tailed)'	.0	.0							
EP	'Pearson(r)'	.779	.734	.839						
	'Sig. (2 tailed)'	.0	.0	.0						
ES	'Pearson(r)'	.133	.399	.396	.406					
	'Sig. (2 tailed)'	.239	.0	.0	.0					
ET	'Pearson(r)'	.278	.605	.414	.371	.407				
	'Sig. (2 tailed)'	.0	.0	.0	.0	.0				
SD	'Pearson(r)'	.813	.633	.709	.756	.126	.433			
	'Sig. (2 tailed)'	.0	.0	.0	.0	.264	.0			
SPP	'Pearson(r)'	.828	.591	.768	.802	.260	.333	.775		
	'Sig. (2 tailed)'	.0	.0	.0	.0	.0	.0	.0		
EE	'Pearson(r)'	.635	.704	.687	.634	.267	.674	.770	.713	
	'Sig. (2 tailed)'	.0	.0	.0	.0	.0	.0	.0	.0	

(Norms for Degree: 'Low >1.5, Medium 1.5-3.5, High <3.5')

Table ii demonstrates that the most prevalent TQM practice, as evidenced by the highest mean scores (Mean = 4.10, SD = 0.467), is employee satisfaction. This is followed by Service Design (Mean = 3.85, SD = 0.901), Leadership and Commitment (Mean = 3.83, SD = 0.708), Information and analysis (Mean = 3.76, SD = 0.815), Employee Training (M = 3.71, SD = .620), Employee Participation (M = 3.59, SD = .688), Strategic planning

process based on total quality (Mean = 3.55, SD = 0.899), and Employee Empowerment (Mean = 3.50, SD = 0.712). All of these practices were rated highly by the Kerala Cooperative Bank. The relatively high standard deviations in a widely dispersed distribution indicate a significant dispersion, suggesting a standard relationship between TQM practices and customer satisfaction.. This suggests that respondents supported customer satisfaction as well.

**3. Correlation Analysis: How the Variables are related to each other**

“Correlation matrix is defined as a set of correlation coefficients between a number of variables (Kline, 1998)”. Correlation was employed to determine the degree of association between the variables.

**Table iii- An Overview of the Relationship between Customer Satisfaction and TQM Practices ‘Pearson Correlation Coefficient’**

In the above Table, It is evident that TQM practices and customer satisfaction have a direct and positive relationship, as indicated by the Pearson correlation coefficient. However, the research indicates that the highest coefficient of correlation between TQM practices and client satisfaction is .828, which is below the threshold for collinearity issues of 0.90. Therefore, it can be concluded that there is no problem of multicollinearity in our study. These relationships provide additional proof of the ‘reliability and validity’ of the assessment scales employed in this research. (Hair J.F & Tatham R.L., 1998).

Customer satisfaction and all Total Quality Management (TQM) practice were found to be strongly positively correlated by the study. With a p-value of 0.000, this connection was significant at the 1% . However, there was no favorable conection between TQM procedures and employee satisfaction (r = .133, n = 80, ‘Sig.value’ = 0.239). The outcome reveals that customers who perceived a higher level of TQM awareness had more favorable responses in terms of client contentment. Thus, hypothesis H0 was not true, indicating that all TQM practices, except for employee satisfaction, had a considerable and direct effect on client satisfaction in Kerala cooperative banks.

**4. ‘Multiple Regression Analysis’**

‘A useful technique for analyzing the relationship between a single dependent variable and several independent variables is multiple regression analysis. (Hair J.F & Tatham R.L., 1998).’ This study aimed to assess the influence of ‘TQM practices on customer satisfaction’.

**Table i(a): Results of the regression between client satisfaction and TQM practices**

‘Model Summary’

‘Model’	‘R’	‘R Square’	‘Adjusted R Square’	‘Std. Error of the Estimate’
1	.909 <sup>a</sup>	.826	.806	.39499

Predictors: (Constant), Empowerment of Employees, Employees' Satisfaction, Employees' Participations, Employees Training, Leadership and Commitment, Strategic Planning on the bases of TQM, Information and its Analysis, Service Design

Dependent Variable: Customer Satisfaction

The R (correlation coefficient) is 0.909, showing a strong direct relationship among the variables. The R Square (Coefficient of Determination) is 0.826, meaning that 82.6% of the variation in client satisfaction explained by TQM practices such as Empowerment of Employees, Employees' Satisfaction, Employees' Participations, Employees Training, Leadership And Commitment, Strategic Planning on the bases Of TQM, Information and its Analysis and Service Design. This demonstrates a high degree of influence between the two variables.

**b. ‘Analysis of Variance’**

‘Mode’l	‘Sum of Squares’	df	‘Mean Square’	‘F’	‘Sig.’
1 Regression	52.473	8	6.559	42.041	.000 <sup>b</sup>
Residual	11.077	71	.156		
Total	63.550	79			

ANOVA analysis shows a favorable relationship among TQM practices and client satisfaction. The Sig.value, which is less than 0.01, indicates a strong association. This means that customer satisfaction is significantly predicted by TQM practice, with a 99% confidence level.



**. Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients <sup>b</sup>		Standardized Coefficients <sup>c</sup>	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.876	.428		2.045	.045
Leadership and Commitment	-.193	.113	-.152	-1.712	.091
Information and its Analysis	.419	.110	.380	3.794	.000
Employees' Participations	.184	.162	.141	1.135	.260
Employees' Satisfaction	-.232	.122	-.121	-1.911	.060
Employees Training	.000	.113	.000	-.003	.997
Service Design	.363	.102	.365	3.561	.001
Strategic Planning on the bases of TQM	.323	.101	.324	3.196	.002
Empowerment of Employees	-.111	.137	-.088	-.812	.419

The following regression equation shows how customer satisfaction is affected by employee empowerment, employee satisfaction, employee participation, employee training, leadership and commitment, strategic planning based on TQM, information and its analysis, and service design.

**Customer Satisfaction = 0.876 + 0.419 Information and its Analysis + 0.363 Service Design + 0.323 Strategic Planning on the bases of TQM.**

### VIII. ASSESSMENTS AND SUMMARY

The rational behinds of this study was to evaluate the influence of different 'Total Quality Management (TQM) practices on customer satisfaction'. The study outcomes indicated a strong positive relationship among all TQM practices and client satisfaction, except for employee satisfaction, which showed no significant association with consumer satisfaction. The study's hypothesis testing showed that strategic planning based on TQM, service design, and information analysis had the most significant influence on customer satisfaction.

The multiple regression analysis's findings demonstrate that strategic planning based on Total Quality Management (TQM) and service design are important TQM practices in the cooperative banking sector in Kerala for predicting customer satisfaction. Additionally, The results show that client satisfaction is not directly and significantly influenced by employee aspects of TQM practice. (Ashraf.E, 2020)

### IX. MANAGERIAL IMPLICATION

The current study suggests that directors and policy makers in Kerala cooperative banks should focus on and enhance the TQM practices that have the greatest impact on customer satisfaction. From an administration standpoint, TQM procedures are a crucial factor in achieving customer satisfaction. Our findings have clear implications for managerial decision-making processes. According to these findings, bank managers should prioritize strategic planning based on Total Quality Management (TQM) and service design in order to effectively improve customer satisfaction. (E.Ashraf & Dr.K.Venugopalan, 2016)

### REFERENCES

1. ASHRAF.E. (2019). *mpact Of Total Quality Management On Service Quality A Comparison Of Scheduled Commercial Public Sector*. Coimbatore: Department of Commerce - Bharathiar University.
2. Ashraf.E. (2020). Impact of Employees Empowerment on Employees Satisfaction:Acomparison between Public Sector and Private Sector Banks in Kerala. *International Journal of Creative Research Thoughts (IJCRT)*, 8(7).
3. D.T Priya. (2015, May - June). The Impact of Total Quality Management Practices on the Profitability and Service Quality of Public Sector Commercial Banks in Chennai. *International Journal of Economics and Management Studies (SSRG-IJEMS)*, 2(3).
4. Dr.R. Krishna Kumar. (2011, September 3). "Globalization Impact on Banks the TQM Strategy". *International Referred Research Journal*, 3(32), 27-28.
5. Durgesh Pattanayak. (2011). "Effect of TQM on customer satisfaction in Indian Banking industry: A literature review". *European Journal of Business and Management* .

6. E.Ashraf, & Dr.K.Venugopalan. (2016). Impact of Service Quality Dimensions on Customers' Satisfaction, Retention and Loyalty: An Empirical Evidence from Commercial Banks in Kerala. *IJIRMPS 1609003*, 4(5).
7. Hair J.F, J. R., & Tatham R.L., B. W. (1998). "*Multivariate Data Analysis*" (5th Edition ed.). Upper Saddle River, NJ.: Prentice-Hall International .
8. J, S., & Mandvi. (2013, October- December). The globalization impact of total quality management strategy in the indian banking sector. *International Journal Of Transformations In Business Management (IJTBM)*, 3(4).
9. Kline, R. (1998). "*Principles and Practice of Structural Equation Modelling*". New York, NY.: The Guilford Press.
10. Majeesh.T, D., & Ashraf.E, D. (2023). A Study on Key Factors For Successful Implementation of TQM In Kerala's Co-Operative Banking Sector. *Journal of Research Administration*, 5(2), 6024-6033.
11. Nguyen, T. L., & Nagase, K. (2019). The influence of total quality management on customer satisfaction. *International Journal of Healthcare Management*, 12(4), 277–285.
12. Nunnally., J. (1967). "*Psychometric Theory*". McGraw-Hill, Inc: New York.
13. Pattanayak, D., & Dr. K. Maddulety. (2011). "Effect of TQM on customer satisfaction in Indian Banking industry: A literature review". , *European Journal of Business and Management*.
14. Talib, F., Rahman, Z., & Qureshi, M. (2012). "Impact of Total Quality Management and Service Quality in the Banking Sector". *J Telecommun Syst Manage*, 1:102.
15. Talib, F., Rahman, Z., Siddiqui, M., & Jamshed, Q. (2011). "Total quality management and service quality: an exploratory study of quality management practices and barriers in service industry". *International Journal for Services and Operations Management*, 10.