



Customer Satisfaction and Service Quality in Public Sector Banks: An Empirical Analysis

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Abstract

Customer satisfaction has become a central performance indicator for public sector banks because customers increasingly evaluate banks not only by financial safety and branch availability but also by speed, reliability, employee behaviour, problem resolution and technology-enabled convenience. This methodology paper develops an empirical framework for examining the relationship between perceived service quality and customer satisfaction in public sector banks. The proposed model combines the traditional service-quality dimensions of tangibility, reliability, responsiveness, assurance and empathy with technology-service quality and convenience, reflecting the changing retail-banking environment. The study proposes a quantitative, cross-sectional survey of active customers of selected public sector banks, using a structured questionnaire and five-point Likert scales. Established evidence shows that service quality precedes customer satisfaction, bank-specific dimensions such as access, reliability and assurance require context-sensitive measurement, and Indian retail-banking research confirms the importance of human behaviour, convenience and technology in customer evaluations. Reliability analysis, exploratory factor analysis, correlation and multiple regression are proposed, with structural equation modelling as an optional extension. As no primary survey dataset is supplied, the Results section presents expected or illustrative findings rather than invented empirical results. The methodology offers a replicable approach for identifying the service dimensions that public sector banks should prioritize to improve customer satisfaction and strengthen customer relationships.

Introduction

Banks operate in a service environment in which customers continuously compare branch service, employee responsiveness, transaction reliability and digital convenience. For public sector banks, the challenge is especially important because their broad branch networks and diverse customer base create significant variation in service expectations. Customers may value the security and reach of a public institution, yet dissatisfaction can arise from waiting time, slow complaint handling, inconsistent employee

interaction or difficulties in technology-based services.

Service quality and customer satisfaction are related but distinct constructs. Cronin and Taylor (1992) found that perceived service performance is an important antecedent of satisfaction, while Zeithaml, Berry, and Parasuraman (1996) showed that quality perceptions influence behavioural intentions. In banking, the relationship is particularly important because the service is ongoing and involves repeated encounters with employees, branches, ATMs,

websites and mobile systems. Hence, a customer forms an overall satisfaction judgment from several interconnected service experiences rather than a single transaction.

The present study therefore proposes an empirical analysis of how service-quality dimensions influence satisfaction among customers of public sector banks. The study is designed around performance perceptions and bank-specific service characteristics, with explicit attention to technology-based convenience in addition to the conventional interpersonal and physical aspects of service delivery.

Literature Review

The measurement of service quality has developed from general service frameworks toward industry-specific scales. Cronin and Taylor (1992) questioned expectation-minus-performance scoring and demonstrated the usefulness of performance-based service-quality measurement. Zeithaml et al. (1996) further established that better service quality is linked to favourable behavioural responses. These studies support the use of customer perceptions as a basis for evaluating banking services.

Banking research refined these ideas. Bahia and Nantel (2000) developed the Banking Service Quality (BSQ) scale with dimensions including effectiveness and assurance, access, price, tangibles, service portfolio and reliability. Jamal and Naser (2002) found that both core and relational aspects of retail-bank service quality were linked to satisfaction. Sureshchandar, Rajendran, and Anantharaman (2002) likewise concluded that service quality and satisfaction are separate but closely related, implying that improvements in specific quality factors are likely to improve satisfaction.

The behavioural importance of satisfaction is also supported by banking evidence. Caruana (2002) found that customer satisfaction mediates the effect of service quality on service loyalty among retail bank customers. This finding is relevant to public sector banks because satisfaction can act as the immediate outcome of operational service quality and a pathway

toward retention and favourable recommendation.

Researchers have also developed banking-specific measurement models across different national settings. Jabnoun and Al-Tamimi (2003) tested a modified SERVQUAL instrument for commercial banks and emphasized the need to determine which quality dimensions matter most to customers. Karatepe, Yavas, and Babakus (2005) developed a four-dimensional bank service-quality scale consisting of service environment, interaction quality, empathy and reliability. These studies support adapting general scales to the institutional and cultural context rather than assuming a universal factor structure.

Technology has become a further component of banking service quality. Ganguli and Roy (2011) identified customer service, technology security and information quality, technology convenience, and technology usage easiness/reliability as generic dimensions in technology-based banking. Their findings indicate that customer service and technology ease/reliability significantly affect satisfaction and loyalty. For public sector banks, this is important because customers increasingly combine branch-based and digital service experiences.

Indian evidence provides direct justification for the proposed study. Bose and Gupta (2013) compared public and new-generation private banks using SERVQUAL dimensions and demonstrated that perceived quality varies across bank types. Kaura (2013) examined antecedents of satisfaction in Indian public and private banks and found that service quality, price fairness and service convenience are important explanatory factors. Kaura, Prasad, and Sharma (2014/2015) reported that human behaviour and information-technology-related dimensions contribute to satisfaction among Indian retail-banking customers, while Kaura, Prasad, and Sharma (2015) further showed that service quality and convenience influence satisfaction and loyalty. Together, these studies justify a focused public-sector model incorporating both conventional and technology-enabled service quality.

Table 1. Selected Literature Used in the Study

Study	Context / focus	Contribution to present methodology
Cronin & Taylor (1992)	Service-quality measurement	Supports performance-based measurement and quality -> satisfaction relationship.
Bahia & Nantel (2000)	Retail banking / BSQ	Shows need for bank-specific dimensions such as access, assurance and reliability.

Jamal & Naser (2002)	Retail banking satisfaction	Links core and relational service quality with satisfaction.
Caruana (2002)	Retail bank customers	Positions satisfaction as an outcome/mediator of service quality.
Ganguli & Roy (2011)	Technology-based banking	Adds technology convenience, security/information quality and ease/reliability.
Kaura (2013); Kaura et al. (2015)	Indian banking	Supports human behaviour, convenience, technology and service quality as satisfaction drivers.

Although prior studies establish a strong connection between service quality and satisfaction, several issues justify a focused empirical analysis of public sector banks. First, general service-quality scales may not fully capture banking-specific issues such as transaction reliability, queue management, complaint resolution and access. Second, technology-enabled services now form part of the customer experience, but conventional branch-service dimensions remain important. Third, evidence from Indian public and private banks suggests that the relative importance of quality dimensions differs by bank type. A public-sector-specific model can therefore identify which dimensions require managerial priority.

The study has the following objectives:

To measure perceived service quality among customers of selected public sector banks.

To assess customer satisfaction with public sector banking services.

To examine the effect of tangibility, reliability, responsiveness, assurance and empathy on customer satisfaction.

To evaluate whether technology-service quality and convenience add explanatory power beyond conventional service dimensions.

To identify the strongest service-quality predictors of customer satisfaction.

The proposed hypotheses are:

H1: Tangibility has a positive and significant effect on customer satisfaction.

H2: Reliability has a positive and significant effect on customer satisfaction.

H3: Responsiveness has a positive and significant effect on customer satisfaction.

H4: Assurance has a positive and significant effect on customer satisfaction.

H5: Empathy has a positive and significant effect on customer satisfaction.

H6: Technology-service quality and convenience have a positive and significant effect on customer satisfaction.

H7: Overall perceived service quality significantly predicts customer satisfaction in public sector banks.

Conceptual Framework

The conceptual model treats perceived service quality as a multidimensional antecedent of customer satisfaction. The five conventional dimensions capture branch environment, dependable performance, prompt assistance, employee competence/trust and individualized attention. A technology-service component captures convenience, security/information quality, accessibility and ease/reliability of electronic services, consistent with Ganguli and Roy (2011) and Indian banking evidence from Kaura (2013).



Figure 1. Proposed Conceptual Framework for Service Quality and Customer Satisfaction in Public Sector Banks

Methodology

1. Research Design

A quantitative, descriptive and explanatory cross-sectional survey design is proposed. The design permits simultaneous measurement of customers' service perceptions and satisfaction and supports statistical testing of the proposed hypotheses. The unit of analysis is the individual retail customer of a selected public sector bank.

2. Population, Sampling and Sample Size

The target population consists of active adult customers of public sector banks who have maintained an account for at least six months and have used at least two service channels, such as branch service, ATM, internet banking or mobile banking. The empirical fieldwork may include customers of three to five major public sector banks in an urban or mixed urban-rural study area. A stratified convenience approach is proposed: bank branches form the first strata, and eligible customers are approached within each selected bank. A target of 300 usable

questionnaires is recommended, with roughly balanced representation across banks. This size is sufficient for descriptive analysis, reliability testing, exploratory factor analysis and multiple regression, while also allowing subgroup comparisons.

3. Questionnaire and Measurement

The instrument should contain three sections. Section A records demographic and banking characteristics such as age, gender, education, occupation, type of account, relationship length, visit frequency and digital-service usage. Section B measures service-quality perceptions. Items should be adapted from performance-based service-quality research (Cronin & Taylor, 1992), bank-specific scales (Bahia & Nantel, 2000; Karatepe et al., 2005), technology-based banking dimensions (Ganguli & Roy, 2011), and Indian banking studies (Bose & Gupta, 2013; Kaura, 2013). Section C measures overall satisfaction, including satisfaction with service experience, fulfilment of expectations and willingness to continue using the bank. All substantive items are rated on a five-point Likert scale from 1 = strongly disagree to 5 = strongly agree.

Table 2. Operationalization of Variables

Variable	Indicative indicators	Items / scale	Role
Tangibility	Branch facilities, equipment, appearance, signage	4 items; 5-point Likert	Independent
Reliability	Accurate transactions, dependable service, error-free records	4-5 items	Independent
Responsiveness	Prompt service, waiting time, complaint response	4-5 items	Independent
Assurance	Employee knowledge, courtesy, security and confidence	4 items	Independent
Empathy	Personal attention, understanding needs, convenient attention	4 items	Independent
Technology quality / convenience	Ease of use, availability, security, information quality, convenience	5-6 items	Independent
Customer satisfaction	Overall satisfaction, expectations met, continued preference	4 items	Dependent

Step-by-Step Data Collection Procedure

Step 1 - Obtain permission from selected bank branches or recruit customers outside normal transaction areas without disrupting banking operations.

Step 2 - Pilot the questionnaire with 25-30 customers to check clarity, completion time and ambiguous wording.

Step 3 - Revise items based on pilot feedback and expert review to strengthen content validity.

Step 4 - Screen respondents for account tenure and recent use of public sector bank services.

Step 5 - Administer the questionnaire in paper or secure online form and obtain informed consent.

Step 6 - Check completed questionnaires, code responses and create an analysis-ready dataset.

4. Reliability, Validity and Data Analysis

Internal consistency should be evaluated with Cronbach's alpha, with coefficients of approximately 0.70 or higher preferred for multi-item constructs. Exploratory factor analysis should assess whether items group into the proposed dimensions. Sampling adequacy may be checked using the KMO statistic and Bartlett's

test. Construct scores can then be computed from retained items. Descriptive statistics will summarize service-quality and satisfaction levels; Pearson correlation will test bivariate relationships; and multiple regression will estimate the independent effects of tangibility, reliability, responsiveness, assurance, empathy and technology-service quality on satisfaction. Multicollinearity should be reviewed using tolerance and VIF statistics. Statistical significance may be evaluated at $p < .05$, with standardized beta coefficients and adjusted R-squared used to judge practical explanatory strength.

5. Ethical Considerations

Participation should be voluntary and anonymous. Respondents should receive a short statement explaining the academic purpose of the study, confidentiality of responses and their right to stop at any time. No account numbers, passwords, transaction details or other sensitive banking credentials should be collected. Results should be reported only in aggregate form.

Results

Because no primary survey dataset was supplied, the following results describe the expected analytical pattern and reporting format rather than actual findings. Based on the literature, overall service quality is expected to show a positive relationship with customer satisfaction. The strongest predictors are likely to arise from

reliability, responsiveness, assurance/employee behaviour and technology-service convenience, although the relative ordering must be determined empirically from the proposed sample.

Jamal and Naser (2002) indicate that both core and relational aspects of bank service contribute to satisfaction, while Sureshchandar et al. (2002) show that quality and satisfaction are closely associated across specific factors. The expected role of reliability reflects customers' need for correct and dependable transactions, whereas responsiveness captures waiting time and the bank's willingness to resolve requests. Assurance is likely to matter because banking involves financial risk and customers depend on employee competence and trustworthy processes. Empathy may be especially relevant for elderly, rural or less digitally confident customers who require individual assistance.

Technology quality should also contribute positively to satisfaction. Ganguli and Roy (2011) found significant roles for customer service and technology usage ease/reliability in technology-based banking. Indian studies similarly emphasize service convenience and information-technology dimensions (Kaura, 2013; Kaura et al., 2014/2015). In public sector banks, strong digital channels may therefore reduce pressure on branches while improving convenience for customers who are willing and able to use them.

Table 3. Illustrative Hypothesis-Testing Format

Hypothesis	Expected direction	Illustrative interpretation
H1: Tangibility -> Satisfaction	Positive	Better branch environment may improve perceptions, but effect may be weaker than process factors.
H2: Reliability -> Satisfaction	Positive / strong	Accurate, dependable transactions should strongly improve satisfaction.
H3: Responsiveness -> Satisfaction	Positive / strong	Prompt service and complaint resolution should reduce dissatisfaction.
H4: Assurance -> Satisfaction	Positive	Competence, courtesy and security should increase confidence and satisfaction.
H5: Empathy -> Satisfaction	Positive	Personal attention should improve the service experience.
H6: Technology quality -> Satisfaction	Positive / strong	Easy, reliable and secure digital access should raise convenience and satisfaction.
H7: Overall quality -> Satisfaction	Positive / significant	Combined service dimensions should explain meaningful variation in satisfaction.

Discussion

The expected relationships are consistent with the central proposition that service quality is an antecedent of satisfaction (Cronin & Taylor, 1992). Banking-specific evidence indicates that customers evaluate service through both

operational and relational criteria. Bahia and Nantel (2000) emphasize effectiveness, access and reliability; Karatepe et al. (2005) identify service environment, interaction quality, empathy and reliability; and Jabnoun and Al-Tamimi (2003) show that the importance of

service dimensions must be assessed within the banking context. Thus, public sector banks should not treat customer satisfaction as a single outcome disconnected from service processes.

The Indian evidence is especially relevant. Bose and Gupta (2013) found differences in perceived SERVQUAL dimensions between public and private banks, suggesting that customers evaluate bank types differently. Kaura (2013) and Kaura et al. (2015) show that service quality, convenience and related factors substantially influence satisfaction and loyalty in Indian retail banking. For public sector institutions, the managerial implication is to combine traditional strengths such as trust, physical reach and institutional stability with improvements in response speed, employee interaction, queue management, grievance resolution and digital reliability.

Customer satisfaction may also have downstream behavioural value. Caruana (2002) reported that satisfaction mediates the relationship between service quality and loyalty, while Zeithaml et al. (1996) linked service quality with favourable behavioural intentions. Consequently, improving quality dimensions can affect more than immediate satisfaction; it can support retention, positive word-of-mouth and continued use of the bank.

Conclusion

This paper provides a step-by-step methodology for empirically examining customer satisfaction and service quality in public sector banks. It integrates conventional SERVQUAL-type dimensions with technology-service quality and convenience, allowing the study to represent both branch-based and digital experiences. A cross-sectional survey of approximately 300 active customers, supported by reliability testing, factor analysis, correlation and multiple regression, can identify the service dimensions that most strongly explain satisfaction. The methodology is grounded entirely in literature published up to 2015 and is suitable for adaptation to a specific city, state or group of public sector banks. Future empirical work should collect primary data before reporting numerical coefficients and may extend the model by testing loyalty, demographic differences or branch-versus-digital service segments.

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