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## CUSTOMER TRUST VS. TECHNOLOGY ADOPTION: HOW PUBLIC AND PRIVATE BANKS BALANCE HUMAN TOUCH AND DIGITAL CRM

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### Abstract

The rapid shift to digital banking has changed how customers interact with financial institutions. While technology-driven Customer Relationship Management (CRM) offers speed, convenience, and cost savings, customers still associate trust and confidence with human interactions. This article explores how public and private sector banks in India manage the tension between personal service and digital CRM. It highlights the importance of customer trust, service quality, and technology adoption, and explains how banks balance innovation with personalized engagement. This study examines the relationship between customer trust and technology use in both public and private banks. Although digital CRM systems improve efficiency, maintaining human contact remains vital for building trust and loyalty. Using survey data from 250 customers (150 from public banks, 100 from private banks), the study assesses trust levels, digital adoption, and satisfaction. Statistical analyses, including correlation and average comparisons, show that public banks foster greater trust through personal interactions, while private banks lead in digital adoption. The findings provide strategic insights for balancing traditional and digital CRM strategies.

This study examines the balance between digital Customer Relationship Management (CRM) and human interaction in public and private sector banks. Using data from 200 respondents, the study compares customer trust, satisfaction, and technology adoption levels. Findings show public banks lead in trust while private banks excel in digital services.

**Keywords:** CRM, Public bank, Private bank, Customer Trust, Digital CRM

### Introduction

The banking industry is witnessing a strong push toward digital transformation driven by fintech competition, changing customer expectations, and policy initiatives such as Digital India. Mobile banking, AI chatbots, automated service platforms, and CRM analytics have enhanced efficiency. Adoption of online banking, mobile applications, and AI-driven CRM systems promises operational efficiency and improved service delivery. However, customer trust, shaped by human interactions, remains a cornerstone of banking relationships. Striking a balance between technology-driven services and personal attention is particularly critical, as public and private banks operate in distinct environments. This study investigates how customer trust correlates with technology adoption and satisfaction in public and private banks. This contrast raises a key question: *How can banks integrate digital CRM without undermining customer trust and emotional connection?*

**Need for the study:** In a rapidly developing country, CRM Practices in private and public banks remain at the forefront, making this an engrossing subject for research. The study has determined the relationship between Customer Trust and Technology Adoption, and how Public and Private Banks Balance Human Touch and Digital CRM.



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## 2. Review of Literature

(Morgan & Hunt, 1994). Human touch, such as personalised service and relationship management, fosters loyalty. Trust is foundational for long-term banking relationships.

(Payne & Frow, 2005). CRM technologies streamline customer service and enhance engagement, but excessive reliance on digital tools can reduce perceived relational quality

**Public vs Private Banks:** Public banks often emphasise relationship banking, while private banks focus on technological sophistication and convenience. Balancing human touch and digital services is critical for both sectors.

## 3. Objectives of the Study:

- To analyse customer trust levels in public and private banks.
- To assess technology adoption among customers of both bank types.
- To examine customer satisfaction in relation to human touch and digital CRM.
- To investigate the correlation between human touch and technology adoption.

## 4. Hypotheses

**H1:** Public bank customers exhibit higher trust due to greater human interaction than private bank customers.

**H2:** Private bank customers adopt digital banking technologies more extensively than public bank customers.

**H3:** There is a significant positive correlation between customer trust and satisfaction in both banking types.

**H4:** A balance of human touch and digital CRM positively influences overall customer satisfaction.

## 5. Statistical Tools used in the study:

Simple quantitative methods like percentages, mean, Standard Deviation, and correlation were used to analyse the data furnished below:

Percentage =  $(\text{Frequency} / \text{Total}) \times 100$ , Mean (Average):  $\text{Mean} = \Sigma X / N$ . Standard Deviation (SD):  $\text{SD} = \sqrt{\Sigma (X - \text{Mean})^2 / (N - 1)}$  and Pearson Correlation (r):  $r = \Sigma [(X - \text{Mean}_x)(Y - \text{Mean}_y)] / \sqrt{\Sigma (X - \text{Mean}_x)^2 \times \Sigma (Y - \text{Mean}_y)^2}$

**6. Period of the Study:** The study period of the present study covered ten years of data.

## 7. About Customer Trust in Banking

Customer trust is shaped by factors such as reliability, transparency, privacy, past service experience, and employee interaction. In developing economies like India, many customers—especially older populations and rural communities—prefer the assurance of face-to-face communication. Trust acts as a psychological safety net when making sensitive financial decisions, such as loans, investments, or digital transactions. Thus, banks must protect security, ensure confidentiality, and maintain relationship continuity even when services shift to digital platforms.



## 7.1. Technology Adoption and Digital CRM

Digital CRM systems integrate customer data, predict behaviour, and automate service delivery. Key components include:

- **Mobile and Internet Banking Platforms**
- **AI-Based Chatbots and Virtual Assistants**
- **Data Analytics and Customer Segmentation Tools**
- **Automated Service Requests & Complaint Management**
- **Omnichannel Service Integration**

Technology enables faster service, lower costs, and greater convenience. However, excessive automation may produce an “impersonal” service experience, particularly when resolving complex or emotionally sensitive issues such as loan restructuring, fraud disputes, or financial planning.

## 7.2 Comparative Perspective on Public and Private Banks

### (a) Public Sector Banks (PSBs)

- **Strengths:** High trust, strong social reputation, relationship-based banking, long-standing rural presence.
- **Challenges:** Slower digital adoption, traditional processes, understaffing, and resistance to technological change.
- **CRM Strategy:** Blend conservative digital expansion with strong branch-based human interaction.

### (b) Private Sector Banks

- **Strengths:** Superior technology, responsive service, advanced CRM infrastructure, innovative digital products.
- **Challenges:** Perception of aggressive selling, lower rural penetration, and higher customer turnover.
- **CRM Strategy:** Digital-first approach supported by selective high-quality personal engagement.

### (c) Balancing Human Touch and Digital CRM

- **Service Models:** Banks increasingly adopt hybrid CRM – using digital tools for efficiency and human staff for trust-intensive interactions. Examples: Video KYC, Video Banking, and assisted Digital banking kiosks.
- **Relationship Managers (RMs) Supported by Technology:** Private banks integrate tech-based insights for RMs while maintaining personal relationships with high-value clients.
- **Empathy-Driven Digital Experience:** AI chatbots are being trained to use emotional language, anticipate customer needs, and transfer complex queries to human staff.
- **Digital Literacy and Customer Education:** Banks—especially PSBs—conduct digital awareness campaigns to build trust in mobile and online banking services.
- **Ensuring Security and Transparency:** Strong cybersecurity, clear communication, OTP-based authentication, and data privacy measures help build digital trust

## 8. Research Design

Research design is an important aspect of any study since it provides a framework or blueprint for achieving the research objectives. Research design is a set of steps that together offer a strategy for addressing research questions and evaluating hypotheses. A research design is a set of rational decision-making principles or guidelines that help researchers produce accurate and reliable study results.



## 9. Selection of study area

The researcher has selected Hyderabad city as the study area. The researcher chose 250 customers, of whom 150 were from the public bank and 100 from the private bank. The sample subjects for the present research are current male and female bank customers from different age groups and socio-economic classes.

## 10. Demographic profile of the respondents

**Table 1: Customer Demographics**

### A. Age Profile

Type of the Bank	Mean Age	SD
Public Bank (n=150)	42.3 years	±10.5
Private Bank (n=100)	38.7 years	±9.2

### Interpretation

Public bank customers are, **on average, 3.6 years older**. A higher SD in public banks (10.5) implies **greater age** variability. Private banks have a relatively younger, more homogeneous customer base.

### B. Gender Distribution

Type of the Bank	Male	Female	Total
Public Bank	85 (56.7%)	65 (43.3%)	150 (100%)
Private bank	60 (60%)	40 (40%)	100 (100%)

Both banks show **male-dominant customer bases**. Private Banks have a slightly higher male proportion (60%). Gender representation is similar across bank types.

### C. Education Level

Type of the Bank	Public Bank	Private bank
Graduate	60 (40%)	45 (45%)
Postgraduate	50 (3.3%)	40 (40%)
Other	40 (26.7%)	15 (15%)
Total	150 (100%)	100 (100%)

Private banks have a **more educated customer base**, with **85% of customers being graduates/PGs**. Public banks have a higher proportion of “Other” qualifications (26.7%). Private banks likely attract more education-oriented customers due to tech-driven services.



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#### D. Occupation Distribution

Type of the Bank	Public Bank	Private bank
Salaried	80 (53.3%)	60 (60%)
Business	50 (33.3%)	30 (30%)
Other	20 (13.3%)	10 (10%)
Total	150 (100%)	100 (100%)

Salaried employees dominate both banks. Private banks have a higher percentage of salaried customers (60%). Public banks cater more to businesses and other professions than private banks do.

Table 2: Customer Trust Scores)

Type of Bank	Mean	± SD
Public Bank	4.32	± 0.68
Private Bank	3.85	± 0.74

**Analysis:** Public banks score higher on trust, supporting  $H_1$  that human touch enhances trust. Public banks enjoy **higher trust levels** (4.32) compared to private banks (3.85). Lower SD in public banks suggests greater **consistency** in respondents' trust. Despite technological improvements in private banks, trust remains higher in public banks, possibly due to perceived government backing and reliability.

Table 3: Technology Adoption Levels (1–5 Scale)

Digital Service	Public Bank (Mean ± SD)	Private Bank (Mean ± SD)
Online Banking	3.2 ± 1.1	4.1 ± 0.9
Mobile Banking	2.9 ± 1.2	4.3 ± 0.8
Digital Payments & Wallets	3.0 ± 1.0	4.0 ± 0.9

**Analysis:** Private banks significantly outperform public banks across all digital services. The following differences have been observed.

**Online Banking:** +0.9 higher

**Mobile Banking:** +1.4 higher

**Digital Payments:** +1.0 higher



SDs are lower in private banks, suggesting more uniform technology adoption. Public banks show moderate adoption with more variability. Private bank customers adopt digital services more actively, confirming H2.

**Table 4: Customer Satisfaction Scores (Mean  $\pm$  SD)**

Type of Bank	Mean $\pm$ SD
Public Bank	4.1 $\pm$ 0.65
Private Bank	4.0 $\pm$ 0.70

Overall, customer satisfaction is **high for both banks**. Public banks have a slightly higher mean satisfaction score. Despite higher digital adoption in private banks, satisfaction levels are nearly equal, indicating that factors such as trust, human touch, and stability remain essential drivers. Satisfaction is high for both bank types, with slightly higher satisfaction in public banks, likely driven by personal interactions.

**Table 5: Correlation between Human Touch and Digital CRM Adoption**

Variable	Public Bank ( r )	Private Bank( r )
Human Touch vs Tech Adoption	0.45**	0.52**

Interpretation

Both correlations are statistically significant ( $p < 0.01$ ).

A positive correlation means that when human interaction quality improves, customers are **more likely to adopt digital CRM services**. A higher correlation in private banks (0.52) indicates that digital adoption there depends **more strongly on a supportive human touch**. Public banks also benefit from good human touch, but digital adoption is slightly less responsive.

## Summary of the results

**From a Demographics point of view, the** Public Bank customers are older and more diverse. Private bank customers are younger and more educated. And Public banks score higher on trust. Whereas in **Technology Adoption**, Private banks significantly outperform public banks in digital service usage. **Customer** Satisfaction is high in both, slightly higher in public banks. Human touch plays a crucial role in the adoption of digital CRM. Impact is more substantial in private banks.

## 11. Findings

1. Customers value digital convenience but still rely on human interaction for trust and reassurance.
2. Public sector banks maintain trust but lag in advanced digital CRM capabilities.
3. Private banks excel in technology but must soften perceptions of aggressive marketing.





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4. A hybrid CRM approach yields the highest customer satisfaction.
5. Trust is built through security, transparency, and humanised digital interfaces.
6. Digital adoption increases efficiency but cannot fully substitute empathy-based service.

## 12. Suggestions

- Strengthening digital training for staff across both sectors.
- Improve cybersecurity communication to enhance trust.
- Expand video banking and assisted digital service centres in rural regions.
- Design AI chatbots with emotional intelligence and escalation options.
- Personalize digital CRM by integrating customer history and preferences.
- Encourage human follow-up after major digital transactions or loan approvals.

**Implications for Public Banks:** Maintain human-centric services while enhancing digital channels to meet evolving customer expectations. In **Private Banks**, invest in relationship-building initiatives to complement high-tech offerings.

**Balanced CRM Strategy:** Banks should deploy a hybrid approach that combines personalised interactions with efficient digital services.

## 13. CRM Challenges Faced by Banks

- Digital fraud and cyberattacks erode trust
- Resistance among elderly and rural customers
- Service gaps occur when chatbots cannot understand complex problems
- Digital divide between urban and rural populations
- Overreliance on automated responses is causing customer frustration

Banks must therefore ensure that technology adoption does not enhance human relationships. Customer trust is stronger in public banks due to personalised interactions.

- Technology adoption is more advanced in private banks.
- A hybrid CRM strategy that blends human touch with digital tools maximizes customer satisfaction.
- Banks should monitor customer feedback continuously to fine-tune the balance between digital efficiency and human engagement.

## 14. Policy Suggestions to Public and Private Banks

- Banks should offer multichannel CRM systems that enable customers to switch easily between human assistance and digital channels without losing service continuity.
- Continuous training programs must be implemented to enhance employees' digital skills, service quality, and customer service competencies.
- Cybersecurity frameworks should be strengthened with advanced monitoring systems, two-factor authentication, and customer awareness campaigns.
- Banks should adopt user-friendly mobile applications with vernacular language options to ensure accessibility for rural and elderly customers.
- Private banks should increase physical interactions through relationship managers, community engagement programs, and personalised financial counselling.
- Public banks should modernize legacy systems, upgrade server capacities, and reduce service latency to improve digital performance.



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- Banks in both sectors must utilise customer data analytics ethically to develop personalised products while ensuring transparency and privacy.
- Regulatory bodies should create guidelines for AI-based banking tools to ensure fairness, accountability, and the protection of consumer rights.
- Feedback systems (such as post-transaction surveys, service rating tools, and grievance tracking dashboards) should be strengthened to monitor CRM effectiveness.

#### 14.1 Banking Sector

- (i) **Hybrid CRM Strategy:** Adopt policies integrating digital tools with personal interaction, including follow-ups for high-value customers.
- (ii) **Digital Literacy Programs:** Implement customer workshops and tutorials to increase comfort with digital banking tools.
- (iii) **Relationship Management Incentives:** Incentivise staff to engage in meaningful personal interactions in private banks.
- (iv) **Customer Feedback Mechanisms:** Establish systematic feedback collection to inform CRM improvements.
- (v) **Balanced Service Metrics:** Evaluate staff performance on both digital transactions and relational quality metrics.
- (vi) **Data Privacy and Trust Assurance:** Enforce strong data protection policies to enhance trust in digital channels.
- (vii) **Targeted CRM Personalisation:** Use analytics to differentiate between customers who prefer personal interaction vs. digital self-service.

#### 15. Conclusion:

The future of banking lies in a strategic blend of human touch and digital CRM. While technology adoption is necessary for competitiveness and operational efficiency, customer trust remains rooted in personalised interactions and perceived care. Public and private banks must craft CRM models that combine empathy, relationship-building, and advanced analytics. Banks that successfully balance these elements will strengthen customer loyalty and sustain long-term growth.

#### 16. Scope of Further Research

- Future studies can include larger and more diverse samples across multiple states and banking categories.
- Longitudinal research can track changes in customer trust and technology usage over time.
- Comparative studies between urban and rural banking behaviour can provide deeper insights.
- Analysis of AI-driven CRM tools, machine learning adoption, and chatbot performance can be explored.
- Future research may also examine the impact of regulatory changes on digital CRM effectiveness.
- Studies can focus on cybersecurity perceptions and their influence on customer trust.

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