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RE-ENGINEERING RELATIONSHIPS: THE RISE OF DIGITAL RELATIONSHIP MANAGEMENT (DRM) IN BANKING AND HEALTHCARE SECTOR IN INDIA

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Abstract
There has been a major shift in Customer Relationship Management practices across various sectors. The relationship practices, which were predominately traditional, have moved towards digital form. This research paper sheds light on the concept of Digital Relationship Management (DRM), focusing its study on two major sectors that have immense contribution to the social justice of citizens of any country, i.e., the banking and the healthcare sectors. The paper tries to evaluate the DRM practices in both these sectors and tries to establish the key driving force that impacts the overall relationship management aspects in that respective segment. The study further focuses on cross-sectional insights from both sectors. The finding focuses on how, while the sectors increasingly depend on digital technology for its customer relations and research, it is also impacted by the regulatory frameworks, expectations, channels, etc. Banking majorly emphasizes convenience, cross-selling, and real-time services on the other hand, healthcare prioritizes patient continuity, empathy, and clinical integration. The paper concludes by giving a composite framework for DRM practices in India that serves the service industry and provides execution suggestions for digital design governance and human digital balance.
Keywords: Digital Relationship Management, CRM, Healthcare, Banking, India, Digital Platforms, Trust, Personalization, Service Quality.

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I. Introduction

The old paradigm of relationship management, which is based on the personal interaction, face to face interaction, and personalized attention by the relationship managers (RMs) is being disrupted in ways never seen before, as the banking and healthcare industries in India are rapidly being digitalized. Since 2025-2026, both industries are undergoing a paradigm shift in the manner in which organizations relate to, comprehend, and serve their customers and patients with the convergence of artificial intelligence, cloud platforms, improved data analytics, and omnichannel communication models that are collectively known as Digital Relationship Management (DRM). The banking sector of India is estimating IT expenditure of 15 billion dollars in 2025, and the digital healthcare market is a 37-billion-dollar opportunity with government programs such as the Ayushman Bharat Digital Mission (ABDM) generating 568 million unique health accounts. This is not merely a technological change, but a strategic one having the ability of relationship managers

to have deeper, more meaningful relationships at scale with the help of AI-driven insights, single customer data platforms, and real-time analytics, their portfolio of high-functioning client relationships may now grow by 37 to 50-60 people. Yet, there are also complicated issues associated with the emergence of DRM, such as the question of data security, regulatory compliance (particularly, related to patient privacy and the financial KYC requirements), the necessity of integrating the legacy systems, and the actual question of whether digitization increases or decreases the human factor in customer relationships. The study analyses the formation, operating mechanisms, success and hindrances of integrating DRM in the banking and healthcare sector in India, especially the critical role of relationship managers in mediating between digital competencies and human-oriented service provision.

II. Objectives of the Study

The research focuses on four primary objectives vis a vis Banking and Healthcare Sector:

1. To develop comparative framework for understanding DRM
2. To analyse DRM implementation practices in both the sector
3. To identify critical success factors and implementation challenges.
4. To propose recommendations to enhance DRM effectiveness.

III. Research Problem

The growth of service industry in India and rapid digitalisation has led to different sectors adopting various approaches of relationship management practices. The major problem that can be seen is that DRM is considered as a universal solution for enhancing customer relationship without taking into account the sector wise objectives, constraints, customer profiles, regulations and operation feasibilities. Also, there is lack of considerable comparative framework to understand the aspects of both banking and healthcare sector. Moreover, India unique demographic of digitally naïve urban population and digitally touched rural population creates unique implementation challenges. Basically, this research paper tries to focus on to find the way DRM practices, processes and outcomes differ between banking and healthcare sectors in India and the factors that create these differences.

IV. Scope of the Study

This study focuses on Digital relationship management practices in Indian banking and healthcare sector during the period 2020-2025. This timeframe is taken into account as it is marked by dependence on digital technology compelled by COVID-19 pandemic.

It includes public and private sector with special focus to Ayushman Bharat Digital Mission in healthcare and Reserve Bank if India's digital banking framework.

The study focuses on these two specific sectors due to their societal importance, high digital dependence and different service characteristics.

V. Limitations

- As secondary data-based research it heavily relies on published literature, industry reports, academic research rather than primary research.
- As the digital technology is ever evolving the published literatures may not give up to date capabilities being implemented as of today.
- The research focuses on institutional perspective rather than customer perspective. Hence the end user perspective or experiences in not the part of the study.

- Both the sectors are vividly different having specific characteristics, hence more common parameters are being compared rather having wholesome comparative study.

VI. Research Methodology

The study adopts qualitative, exploratory research design using secondary data sources to conduct comparative analysis of Digital Relationship Management Practices in Indian banking and healthcare sector.

- **Research Design**: The research adopts comparative case study approach treating banking and healthcare as distinct sectoral cases for proper comparison. This enables identification of sector specific practices and cross-sectional patterns enabling generalizable framework while acknowledging sectoral peculiarities.
- **Data Sources:** Academic literature, Industry reports, Regulatory and Government documents, Technology and Market analysis reports.
- **Data Analysis:** The study employed thematic content analysis to identify recurring patterns and themes within the reviewed literature. Key concepts and practices across different sectors were systematically compared using a structured analytical framework.

VII. Review of Literature

Sharma, R. (2020) explores how e-CRM emerged from internet and web technologies and shows that Indian banks increasingly use online channels to implement CRM strategies, integrate customer data, and support personalised services. Chaudhari.(2025) This paper analyses how E-CRM tools help Indian rural banks overcome low digital penetration and resource constraints, using digital engagement and data-driven services to improve satisfaction. Prema, S., & Dhanalakshmi, R. (2025) observed that the banking sector is one area that has been more successful with data integration strategy as compared to the outcome-based stratification experienced in healthcare. Recent research on the topic of digital relationship management in Indian banking, especially in the works by Singh and Kaur (2020) and Gupta (2023) demonstrates that the shift to technology-intensive e-CRM based on the use of internet banking, mobile apps, chatbots, and data analytics is the key change that determines the success of customer relationship management. Comparative readings of the sectors, in particular, Chaudhari (2025) and Baxi (2022) indicate that the Indian banking sector has been faster and more methodical in the implementation of integrated customer data and AI-based analytics to monetise relationships and the digitalisation of Indian healthcare has been influenced by the priorities of public policy around access, equity, and rights. The banking-related research, e.g., e-CRM analysis by Chaudhari, demonstrates that data integration, propensity modelling, and personalised offers are the key levers in cross-sell and long-term profitability in urban and rural banking settings, whereas the banking research by Baxi to the turn of the digitised healthcare sector indicates that digital health programmes are primarily concerned with outcome-backed stratification (e.g. cohort management and high-risk populations), but give a lot of consideration to governance, privacy, and human.

VIII. Evolution of Digital Relationship Management (DRM)

Customer relation management has undergone a radical change in the last seven decades as its landscape moves towards non-manual and non-paper-based systems that are based on artificial intelligence, or AI. In the pre-digital age, banking institutions used Rolodex systems and filing cabinets to store customer records which as a method was not only time-consuming but also extremely limited in their ability to scale. The retirement of the typewriter in the late 1980s with

the introduction of personal computers marked a turning point, and the contact-management software digitized these manual operations and added crude features of organisation. This was fastened in the 1990s using Sales Force Automation systems that automated routine processes and allowed the relationship managers to focus more on client engagement. By the 2000s, web-based and cloud-enabled CRM systems led to uninterrupted integration of all sales, marketing, customer-service operations in the banking sector, thus forming the operational CRM model that has now defined modern banking. The 2010s experienced a shift into expertise analytics and marketing automation that enabled banks to leave reactive and transaction-based strategies in favour of data-driven and predictive customer-segmentation strategies. Machine learning and artificial intelligence have become a groundbreaking concept, streamlining everything in the administration department, and enhancing the analytical skills of relationship managers with advanced pattern-recognition algorithms. The current AI-based solutions can give relationship managers a holistic, 360-degree view of customers and thus offer customers a very personalized advisory service, which was not accessible in the past due to manual analysis. The transformation of the digital-relationship-management is, therefore, not only a technological development, but a radical re-organization of the ability of the banking institution to comprehend, to foresee and to satisfy the customers in a more competitive and digitally -native financial-services environment.

IX. Digital Relationship Management (DRM) in Banking

The academic sources of digital relationship management in the banking industry predict the optimization of the customer lifetime value, effectiveness of the cross-selling programs, and transition to the digital channels. The strategic need behind banking DRM is not new: acquiring a new customer cost 5-7 times more than maintaining the existing one, and the nature and the duration of relationships becomes the key factors of profitability.

- **Transactional Intelligence**

Banking DRM uses extensive transactional data, including spending trends, cash-flow, and account-usage habits, to make personalized insights and recommendations. Transactional data intelligence enables banks to achieve a complete view of the financial situation of customers thus finding an opportunity to provide value-added services that reflect the real financial behaviour rather than the demographic assumptions.

- **Predictive Analytics**

Probability to buy particular products, to move to competitors, or to get financial support may be predicted with the help of advanced analytics and machine-learning methods that make it possible to see the probability of a customer buying particular items and moving to competitors or needing financial support. Empirical research shows that customer retention and product adoption increase significantly with propensity modelling with an Indian private-sector bank growing digital business fourteenfold in a single year through AI-driven customer interactions.

- **Relationship Manager Augmentation.**

Modern banking DRM never replaces human relationship managers, but it complements their functions with AI-driven insights, holistic view of customers, and automated support with administration. Empirical studies show that the provision of digital tools to relationship managers has the potential to increase revenue by 10-15, free up capacity by 15-20, and retain high performing relationship managers by 10-20.

- **Customer Lounge Lifetime Value Focus.**

Customer Lifetime Value (CLV) is becoming the key performance indicator of Customer Relationship Management within the banking sector, which is used to measure the overall

economic value of the expected contribution of each client relationship throughout its existence. CLV provides a future-oriented metric that balances a marketing investment, retention, and initiatives to improve the quality of services and long-term profitability goals.

X. Digital Relationship Management (DRM) in Healthcare

The literary sources on healthcare DRM focus on patient outcomes, adherence to treatment, care coordination, and value-based care transition. As opposed to banking, healthcare setting can be described as being significantly different in terms of the interactions; patients seek out the services of providers when vulnerable, and success is determined by the clinical outcomes, rather than financial transactions. Additionally, the regulatory systems are structured in such a way that consideration of patient safety and privacy is given priority rather than efficiency.

- **Patient Relationship Management Systems:** PRM platforms are health-specific platforms, which go beyond the traditional CRM to combine clinical data, electronic health records, patient portals, and care-management workflows. PRM systems allow providers to monitor patient pathways holistically, detect care gaps, decrease no-show by sending an automated reminder, and facilitate care coordination across settings and providers.
- **Risk Stratification:** Healthcare DRM utilises risk-stratification algorithms to group patients by their clinical complexity, chronic disease burden and risk of adverse events. This will allow specific allocation of resources, as the patients with high risk will be under the special care of the manager, and the low-risk groups will interact using automated digital services. Risk stratification will lessen the identification time by 30 percent and allow timely clinical interventions.
- **Telemedicine Integration:** Growth in telemedicine in India is a case in point where the eSanjeevani platform has supported more than ten million consultations in underserved locations, an example of how DRM can be used to overcome access barriers. The integration of telemedicine and PRM systems allows monitoring of patients, remote consultations, and patient care provision to the populations that have mobility limitations or are geographically isolated.
- **Value-Based Care Alignment:** Healthcare DRM assists in the shift to value-based care models instead of fee-for-service models of compensation in which the compensation given to providers is determined not by the number of services provided but by the results attained. Ayushman Bharat programme in India has started to use outcome-based assessment, where hospitals are evaluated on satisfaction of beneficiaries, readmission rates, out of pocket spending and improvement in the quality of life of the beneficiaries.

XI. Comparative Understanding of Varied Practices

Feature	Banking Practice (CRM)	Healthcare Practice (PRM)
Primary Goal	Cross-Sell & Retention. The goal is to deepen the financial relationship to increase profitability (LTV).	Adherence & Outcome. The goal is to ensure the patient follows the care plan to prevent decline.
Role of "Finance"	Asset. "Financial Health" is the product. Banks actively help users grow wealth.	Liability. "Financial Toxicity" is a side effect. High costs can cause patients to abandon care (e.g., skipping meds).
Segmentation	Profitability-Based. Clients are tiered (Retail vs. Private Bank) based on assets under management (AUM).	Risk-Based. Patients are tiered based on acuity (Healthy vs. Chronic Condition vs. Catastrophic).

Churn Dynamics	Voluntary. Customers leave for better rates or service. Retention teams offer incentives to stay.	Involuntary/Systemic. "Churn" often means referral leakage or death. "Retention" is about keeping care within the network.
Empathy Function	Service Recovery. Used to diffuse anger during errors (e.g., overdraft fees).	Clinical Efficacy. Used to build trust so patients reveal embarrassing symptoms or follow painful regimens.

XII. The Value Loop Comparison

Stage	Banking (CRM Value Loop)	Healthcare (PRM Value Loop)
Data Input	Transactional Data: Spending habits, income, credit score, lifestyle tags.	Clinical Data: Vitals, lab results, genomic data, social determinants of health (SDOH).
Insight Engine	Propensity Modelling: "Who is likely to buy a mortgage?" / "Who is at risk of churn?"	Risk Stratification: "Who is likely to be readmitted?" / "Who is non-compliant?"
The Action	Proactive Sales/Service: "Next Best Action" prompt to RM (e.g., refinance offer).	Clinical Intervention: Care coordinator outreach, medication reminder, appointment nudge.
The Value	Financial Wellness: Wealth growth, liquidity, security.	Physical Wellness: Symptom reduction, longevity, quality of life.
The Metric	LTV / NPS: Customer Lifetime Value, Net Promoter Score.	HCAHPS / Outcomes: Patient satisfaction scores, readmission rates.

XIII. Comparative Understanding of DRM In Banking and Healthcare Sector

Context	Banking DRM	Healthcare DRM
Process Involved	Transactional Data Input----Propensity Modelling -----Creation of personalised offers----Financial Wellness	Clinical data from Electronic Health records and wearables----Risk stratification---Interventions to improve treatment—Readmission rates
Performance metrics	• Customer Lifetime Value • Promoter Score • Transaction Volumes • Acquisition Costs	• HCAHPS Scores • Readmission rates • Cost efficiency metrics
Segmentation	• Profit based segmentation • High Value customers • Mass Market digital services	• Payment based • Risk based • Clinical Complexity • Intensive care
Technology Maturity	Matured system with 95% more transactions conducted digitally with AI Support.	Emerging but limited due to infrastructural constraints. Resistance from clinicians

Service Quality Framework	The SERVQUAL model aspects of reliability, responsiveness, assurance and empathy is extensively applied.	It relies heavily on patient reported Experience Measures (PREMs) and satisfaction surveys.
Implementation challenges	Data integration, Complaisance with strict regulatory standards, Security and privacy concerns.	Diverse clinical systems Security and privacy concerns. Telemedicine practice guidelines.
Human and Organisational Barriers	Successful DRM adoption requires structured training, digital skill developments and cultural transformation to support customer enabled customer engagement.	Effective DRM adoption necessitates comprehensive change management, clinical engagement and alignment of digital tools with clinical practices.
Digital Divide and Accessibility	Digital literacy gaps and uneven internet access particularly in rural and semi urban areas creates problem.	Digital literacy, health literacy and lack of digital patient engagement initiatives create hurdles.
Customer loyalty and retention strategy	Banking loyalty is driven by eight key factors: customer experience, trust and security, product and service innovation, personalised communication, ease of access, competitive pricing, community engagement and rewards programs.	Healthcare emphasizes on sustained patient engagement, continuity of care, trust in provider, coordinated service deliver.
Technological enables	Artificial learning and machine learning support advanced DRM through applications such as fraud detection, credit scoring, personalized product recommendations, chatbots and customer churn predictions.	Artificial Intelligence supports risk stratification, clinical decision support, patient communication automation, integration of laboratory systems, billing data and patient portals to crate holistic patient views.

XIV. Recommendations

Banking:

- Create more integrated and secured single 360-degree customer perspective by combining branch, ATM, mobile apps, internet banking and contact centre data to ensure all teams have a similar picture of the relationship.
- Implement AI-based analytics to do next-best-action (propensity models, churn risk, credit triggers) and integrate directly into RM and frontline dashboards.

- Incentivize relationships value, compensate the staff based on retention, depth of cross-selling, and NPS, but not the volumes of products or sales within a short period of time.
- Build trust by enhancing security, explicit permission, and transparency, providing a clear explanation of the use of data and allowing the customer to control the notifications, data sharing, and level of personalization.

Healthcare:

- Develop patient CRM systems that bring together EHR, lab results, teleconsultations, and portal communication into one longitudinal view of a patient.
- Increase patient portals and mobile booking, report, messages, and education tools that should be localized and use a straightforward user experience (UI) to accommodate different levels of literacy.
- Put value-based outcomes at the core of CRM, monitor readmissions, adherence, and patient-reported experience in addition to conventional volume rates.
- Integrate digital interaction into clinical processes to provide clinicians with brief, practical CRM notifications (follow-up messages, education recommendations) within their workplace systems so that they do not have to bear additional responsibility.

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