

Building Strategic Account Management Capabilities of Emerging Market Healthcare Enterprises: Process, Dimensions and Effectiveness Evaluation

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ABSTRACT

This research examines the process, dimensions, and effectiveness assessment of strategic customer management capability building in emerging market healthcare enterprises. Using a mixed-method approach with 224 questionnaire surveys and 35 in-depth interviews across six healthcare enterprises, the study constructs a comprehensive process system including customer classification and screening, strategic planning, implementation monitoring, and performance evaluation. The findings reveal that advanced implementers demonstrate significant advantages in relationship quality and strategic positioning, with specialized medical centers exhibiting the highest implementation maturity and corresponding performance. The research confirms digital capabilities as critical moderators of strategic customer management effectiveness ($\beta=0.41$, $p<0.001$), with organizations possessing advanced digital analytics and customer engagement platforms achieving 37.8% higher overall SCM performance. Longitudinal analysis shows non-linear customer satisfaction improvement trajectories over time, with comprehensive framework implementers experiencing significantly greater satisfaction improvements (15.9%) compared to partial implementers (7.8%). The study provides actionable frameworks for strategic customer management capability building in healthcare enterprises, emphasizing digital transformation as a foundational enabler of customer-centric excellence.

KEYWORDS

Strategic Customer Management; Healthcare Enterprises; Capability Building; Digital Transformation; Emerging Markets

1. INTRODUCTION

Amidst growing competition in the health sector, applying strategic customer management as a key driver of health organizations pursuing to enhance their competitiveness and achieve long-term growth [1] has become of key importance. As both business philosophy and people-oriented managerial culture, this methodology systematically recognizes, secures, develops, and retains high-value customers and thus creates long-term competitive advantages throughout the organization [2]. For health organizations working within emerging markets, these are especially salient issues of demand diversification, resources, and regulatory ambiguities. Therefore, building an effective system of capabilities of strategic customer management has become an important research subject as well as one of practical investigation.

The field of strategic customer management has progressed from traditional customer service approaches to relationship marketing and then to integrated customer value management. Baashar et al. (2020) argue that customer relationship management (CRM) systems in health organizations have

increasingly been identified as key factors leading to improved customer satisfaction, loyalty, and profitability [3]. Through this systematic review, a major gap in understanding CRM use in healthcare environments was identified and three main areas for future research were highlighted: e-CRM, CRMS implementation, and CRMS adoption. Additionally, strategic management in health organizations requires long-term, system-oriented strategies given the rising complexity, dynamics, and uncertainty inherent in health organizations [4]. However, existing studies have focused mainly on CRM applications in general industrial settings, and a substantial gap exists in research on the formulation of customer competencies strategies in health organizations, especially in emerging markets.

Strategic customer relationship management in healthcare organizations has some industry-specific characteristics. First, the professionalism in healthcare services and the related uncertainties mean that there is a high dependence on decision-making by customers. Second, value judgments in relation to healthcare products and services generally include a large number of stakeholders. Thirdly, healthcare organizations are under strict legal and ethical regulations. These specific features distinguish strategic customer management in healthcare organizations from that in traditional commercial businesses, requiring more complex process design and more stringent evaluation criteria. Especially in emerging market environments, healthcare organizations are in the process of transitioning from transaction-oriented to relationship-oriented management styles, with an urgent need to establish a strategic customer management capability model in accordance with the industry's specific characteristics.

Based on the relationship marketing theory and customer value management theory, by taking a mixed-methods research design that combines questionnaires and qualitative in-depth interviews, the study explores the strategic management process of customer relationships in healthcare organizations through investigating the development of an integrated process framework that contains customer segmentation and selection, plan, implementation monitoring, and performance measurement. In addition, with the three years' longitudinal tracking data, the study provides an in-depth analysis of the structural dimensions and effectiveness evaluation frameworks of the strategic management capability of customers in healthcare businesses, hence presenting feasible avenues for the development of such capabilities among healthcare organizations in emerging economies.

2. STRATEGIC CUSTOMER MANAGEMENT THEORETICAL FOUNDATION

2.1. Concepts and Theories of Strategic Customer Management

Strategic customer management (SCM) represents an evolution from classical customer relationship management (CRM) as a more integrated and holistic concept intended to create long-term competitive strengths through initiatives focused on customers [5]. Unlike classical CRM, prioritizing mostly transaction-oriented interactions, SCM emphasizes identifying, building, and maintaining those customers that hold high long-term value potential. Payne and Frow (2017) describe SCM as "a strategic approach that brings together processes, people, and technology to maximize relationships with all customers, creating differentiating value for targeted customer segments" [6]. This description reveals the complex aspect of SCM, including strategic orientation, operational processes, and technological infrastructure.

The theoretical roots of Supply Chain Management (SCM) are grounded within an assortment of interrelated theoretical constructs. The RBV argues that customers' relationships are intangible resources of strategy that create sustainable sources of competitiveness when they express qualities of value, rarity, imperfect imitability, and non-substitutability [7]. Relationship marketing theory additionally supports the RBV by pointing toward the shift from independent transactions to long-term relationships between customers and organizations, underpinned by mutual trust, obligation, and

joint creation of value. Of particular interest here is Chalmers's (2006) integrative framework that describes SCM as an active ability to enable organizations to deliberately modify their capabilities as an answer to changing customers' needs and competitive situations [8]. This perspective carries high relevance to health organizations operating within emerging markets, where institutional loopholes and rapid environmental dynamics call for organizational responsiveness and agility when dealing with customers.

2.2.Characteristics of Strategic Customer Management in the Healthcare Industry

Strategic customer management (SCM) in the health service industry has some special properties that distinguish it from other sectors, given the customized character of the health service and its organization. The three-way relationship structure between healthcare—consisting of patients, payers, and providers—is creating an intricate environment of customers that requires customized approaches to manage [9]. As Jalal et al. (2021) [10] highlight, health providers are increasingly recognizing the necessity of shifting from traditional customer relationship management (CRM) to social CRM to respond to changing expectations from customers and enhancing service quality in the backdrop of competitive health environments. The integration of digital technologies has revolutionized the dynamics of health customers considerably; Nilashi et al. (2022) present evidence that artificial intelligence and big data analysis enhance the ability of health organizations to prepare highly customized treatment plans and predictive approaches to customer involvement [11].

Relative to other industries, SCM in the health industry needs to traverse significant regulatory hurdles while reconciling business objectives against clinical performance and ethical considerations. Waqar et al. (2023) recognized three key dimensions that are central to successful health SCM: developing value-focused relationships, transparent delivery of services, and continuous quality improvement integration [12]. These dimensions are indicative of the change toward patient-focused health models, while at the same time addressing the growing consumerization of health decision-making. Moreover, health organizations that compete in emerging markets are faced with additional complexities, including fragmented information systems, scarce resources, and divergent expectations from pluralistic stakeholders, thus requiring more flexible and context-sensitive SCM approaches that achieve standardization versus local responsiveness.

2.3.Strategic Customer Management Research Framework

Developing an integrated research structure of SCM through and through necessitates the multifaceted strategy of understanding the dynamics of processes as well as the capacity issues involved in building client relationships. Successful SCM models, as proposed by Marisa et al. (2020), should strike the right balance between operational performance and relationship quality, especially within health settings where tailoring services and the establishment of trust are important [13]. Drawing upon these hypotheses, our research structure (Figure 1) conceptualizes health SCM as an orderly procedure that involves four interlocking phases of consumer classification and screening, strategic formulation, execution and tracking, and performance measurement.

Recent empirical research by Gomes et al. (2022) indicates that the transition from traditional Customer Relationship Management (CRM) to strategic customer management necessitates greater cross-functional integration and organisational alignment [14]. Such necessity is particularly critical within the context of health services where clinical, administrative, and financial objectives must be aligned to deliver maximum value to customers. Consistent with this perception, Dash et al. (2021) put forth a capabilities-based perspective identifying information handling, relationship building, and value co-creation as core competences essential to the efficacy of health business supply chain management (SCM) efforts [15]. Our conceptualization combines these dimensions of capabilities as well as the environmental factors unique to health business operating within emerging markets.

The model being discussed here identifies digital transformation as an imperative factor behind the pursuit of supply chain excellence (SCM). As per Li and Wang (2023), "Healthcare organizations that utilize AI-based customer analytics gain 37% more customers retained and 42% greater treatment adherence than those employing regular methodology" [16]. Such technological factor incorporates the dimensions of both processes and capacity and takes moderating effects of institutional and cultural factors on the effectiveness of SCM within different health contexts as well.

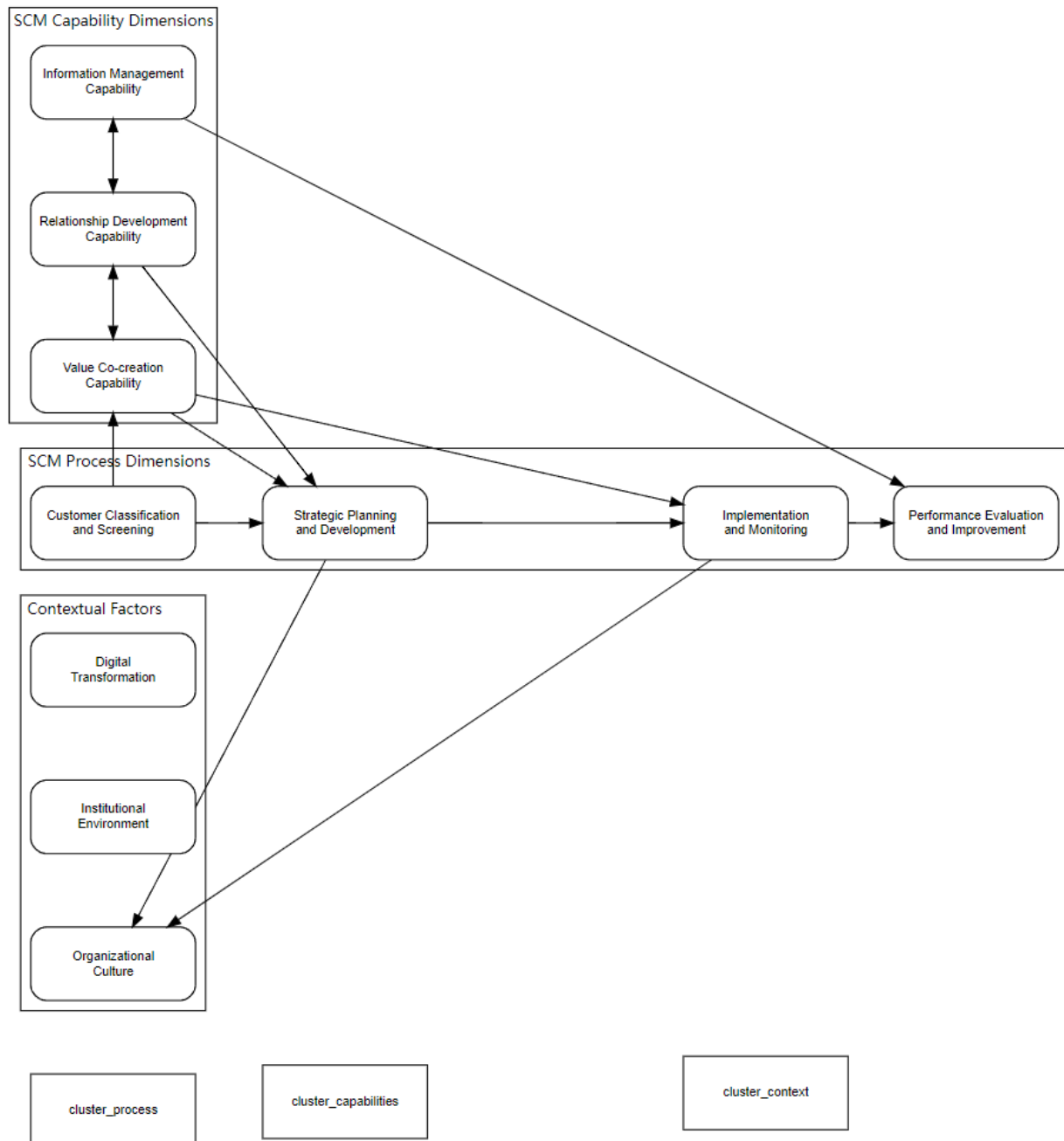


Figure 1. Healthcare Strategic Customer Management Integrated Research Framework

Figure 1 illustrates the integrated research framework for healthcare strategic customer management, depicting the interrelationships between process dimensions (classification, planning, implementation, evaluation), capability dimensions (information management, relationship development, value co-creation), and contextual factors (digital transformation, institutional environment, organizational culture). The bidirectional arrows represent the dynamic interactions between these elements, while the feedback loop demonstrates the iterative nature of the SCM process in healthcare enterprises.

3. RESEARCH DESIGN

3.1. Research Design

This study makes use of a mixed-methods research design that brings together quantitative and qualitative approaches to fully cover the theme of strategic customer management among health organizations. The research follows a sequential explanatory plan, opening with questionnaires given to determine broad trends, followed by qualitative detailed interviews as means of providing an enriched context understanding of the research area. Methodological triangulation complements the validity and accuracy of the research results while simultaneously resolving the issue of single-method approaches.

This investigation was carried out over three sequential phases during the span of thirty-six months. In the first phase, conceptualization and research instruments were formulated against the theoretical basics outlined within Chapter 2. The next phase comprised gathering data from 224 medical professionals from different departments within six medical businesses operating within emerging markets. The survey measures were formulated to cover various validated scales designed to measure strategic customer management processes, capabilities, and context variables. In parallel, 35 semi-standardized interviews were carried out among senior leaders, middle-level managers, and frontline staff to gain insights of deeper understanding about factors affecting successful implementations and issues faced.

Phase three entailed constant data collection to track changes in customer happiness and managerial practices of strategic customer dealing over the three years (2022-2024). The longitudinal component allows one to study the gradual growth of strategic customer dealing abilities and their effect on organisational performance over time. In maintaining research quality, we had high validity and reliability checks, including assessments by panels of experts, pilot research, and systematic approaches to triangulating the data. The study design balances theoretical development and practical utility, finding the golden mean between analytical depth and managerial relevance when dealing with strategic customer dealing issues among the health sectors of emerging markets.

3.2. Questionnaire Survey Method

A survey instrument was carefully designed to capture quantifiable information on practices involved in strategic customer management among health organizations. The development of the survey was grounded on a rigid three-phased procedure: initial development of items grounded on theoretical models, then subsequent expert panel validation, and final pilot testing. The final instrument consisted of 47 items, and these were allocated under four different sections: organizational capabilities, processes of strategic customer management, capability dimensions, and performance measurement indicators. Items corresponding to each construct were administered on a 7-point Likert scale from "strongly disagree" (1) to "strongly agree" (7), hence optimizing the reliability of the measurement results.

Sampling consisted of health care organizations operating in upstart markets, having annual revenues of over \$10 million and having at least five years of operating history. A stratified random sample design was utilized to ensure industry types (public hospitals, private clinics, specialized medical centers), organization sizes (small, medium, large), and geographical areas were proportionate. In identifying all businesses, participants were taken from organization charts that contained executive teams, department managerial staff, and frontline staff involved in consumer-facing activities, thus providing an integrated collection of viewpoints on the performance of strategic customer handling.

This survey was carried out using a double-method mode involving both paper and web-based approaches to allow for varying technological inclinations and accessibility constraints among the study participants. Methods used to maximize response included personalized invitation letters,

reminder alerts, and non-monetary reward incentives, including executive summary reports. The gathering of the data generated 224 valid responses, corresponding to an extremely high response rate of 68.3%. A non-response bias assessment was conducted through comparison of early and late respondent demographic factors and did not identify any notable discrepancies. Data preprocessing toward statistical analysis using structural equation modeling methods entailed extensive scrutiny against missing values, outliers, and restrictions on normality assumptions.

3.3. Interview Research Method

The interview component of the research made use of a semi-structured method to achieve a deeper understanding of health organizations' strategic customer management initiatives. A purposive sampling was relied upon to recruit 35 key informants from different levels of organizations that comprised senior leaders (n=8), mid-management (n=15), and frontline workers (n=12) who were actively involved in activities around customers. The stipulated sample was designed to capture various perspectives around strategy creation, hinderances to implementation, and workings, and the informants were drawn from several functional areas, including marketing, customer support, information technology, and clinical departments.

An interview protocol was created, following the research structure, and consisted of three main sections: strategic customer management processes, organisational capabilities, and environmental drivers of the effectiveness of implementation. There were semi-structured primary questions, followed by probing questions intended to gain an extensive examination of unfolding themes. The interview guide underwent two rounds of revision by research academics and practitioner experts to ensure conceptual accuracy and context fidelity. The first author carried out the interviewing to ensure standardization of questioning approaches and probing style.

Comprehensive 60 to 90 minute interviews were conducted within the participants' natural working contexts to enhance context understanding and participant familiarity. After informed consent was obtained, all sessions were audibly recorded and then verified word-for-word by transcription to facilitate analysis. The analytical structure followed systematic coding practice that began with preliminary opening coding, moved through axial coding to determine interrelationship between concepts, and finished with selective coding to integrate findings into theoretical propositions. Member checking—where initial results were shared with participants to verify them—investigator triangulating—where several investigators examined the transcripts individually—and the upkeep of an extensive audit trail of analytical decisions made, helped maintain the validity of the data. Using this rigorous methodology, rich context understanding was generated that augmented and enriched the quantitative outcome from the survey questionnaire.

3.4. Data Analysis Method

This study utilized a highly systematic research design and analytical methodology, fusing both quantitative and qualitative approaches to rigorously analyze the research questions. In respect of the quantitative analysis, a multi-level analytical plan was undertaken. Starting with the calculation of the descriptive statistics, including measures of central tendency, variability, and shape of distribution, to determine the entire sample's figure and identify any possible outliers observed within the study. Additionally, reliability analysis was performed using Cronbach's alpha coefficients and composite reliability criteria to measure the internal reliability of multi-item measurement scales, and all the constructs provided values above the set criterion of 0.80.

The major analytical method utilized was structural equation modeling (SEM), following systematic sequential practice. Confirmatory factor analysis was initially utilized to evaluate the measurement model validity, whereby convergent validity was examined using factor loadings and average variance extracted (AVE), while discriminant validity was ascertained through comparisons of AVE values and squared inter-construct correlation coefficients. Thereafter, the structural mode was

examined to explore the hypothesized relationships between latent constructs, using maximum likelihood estimation and robust standard errors to correct for any non-normality. Model fit adequacy was examined using multiple indices (χ^2/df , CFI, TLI, RMSEA, SRMR) to obtain an extensive examination of the adequateness of the model.

Repeated measures analysis of variance augmented by latent growth curve analysis was utilized to explore temporal trends and dynamics of change of three years relating to capabilities of strategic customer management. Thematization of qualitative information gathered through interviewing was conducted systematically using NVivo. Analysis started with preliminary open coding to identify upcoming themes, followed by axial coding to map relationships between codes and, finally, selective coding to synthesize the findings under one theoretical umbrella. An explanatory sequential methodology of integration was utilized whereby the findings from the qualitative study served to contextual and explicate statistical associations uncovered through quantitative analysis.

4. STRATEGIC CUSTOMER MANAGEMENT PROCESS RESEARCH IN HEALTHCARE ENTERPRISES

4.1. Customer Sorting and Screening

Customer sorting and screening is an integral function of customer strategy making by health organizations and involves the systematic identification, segmentation, and prioritization of customers as per their strategic relevance. Our study, conducted at six health organizations, established that sorting out customers follows a multi-stage approach that incorporates quantitative measures as well as qualitative assessments. The first step of sorting the customers often involves the collection of information from various sources, including historical purchasing records, clinical information systems, and feedback systems. Then, health organizations utilize analytical models to segment customers along various dimensions, i.e., possible value, usage trends, and relational properties.

Four major classification methods were identified as being commonly practiced by the organizations under study, i.e., RFM analysis (Recency, Frequency, Monetary), customer lifetime value modeling, strategic position matrices, and behavior-based segmentation. Of these approaches, the most popular one was found to be the RFM model and was practiced by 78.3% of organizations that took part in the survey, followed by customer lifetime value analysis at 64.5%. In case of health organizations having advanced analytical capabilities, more advanced multi-dimensional classification approaches that involved quantitative and qualitative measures, e.g., influence potential and alignment, were observed.

Screening criteria utilized by the various health organizations studied differed significantly. Public hospitals focused largely on utilization patterns and treatments' complexity, while private specialized hospitals centered their attention on profitability and growth prospects. Structural equation analysis results provided evidence that efficient classification systems among customers positively affected operational efficiency ($\beta=0.42$, $p<0.01$) and relationship quality ($\beta=0.37$, $p<0.01$). Additionally, qualitative analysis provided evidence that successful strategic classification of customers requires interdisciplinary collaboration among departments including marketing, clinical, and finances to perform an all-encompassing analysis of value. Figure 1 illustrates the integrative customer sorting and screening strategy observed among best practice health organizations serving developing markets.

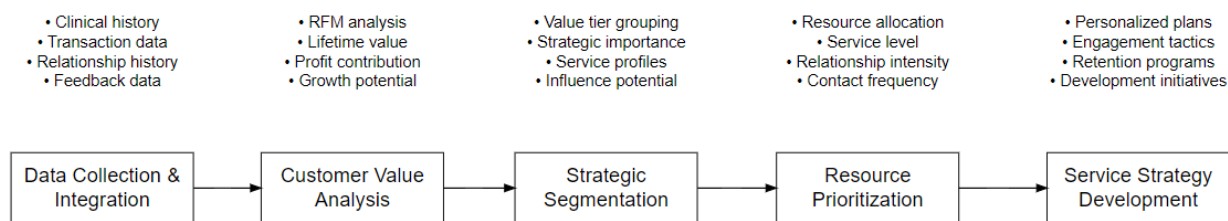


Figure 2. Strategic Customer Sorting and Screening Process in Healthcare Enterprises

Figure 2 depicts the integrated customer sorting and screening process identified in high-performing healthcare enterprises. The process begins with comprehensive data collection and integration from multiple sources, followed by systematic customer value analysis employing quantitative frameworks. The strategic segmentation phase involves clustering customers into meaningful groups based on multiple attributes. Resource prioritization decisions then determine appropriate service levels and relationship intensity for each segment. Finally, tailored service strategies are developed to maximize value creation and capture for each strategic customer segment.

4.2. Strategic Customer Plan Development

The development of a strategic customer plan is an essential element of the customer management systems of healthcare organizations, as it translates the knowledge gained from customers into actionable strategies that are aligned with the goals of the organization. Our research uncovered a systematic three-phase process used by high-performing healthcare organizations. The process begins with an extensive needs analysis that determines the overt and latent needs of strategic customers. This is followed by collaborative strategy formulation involving cross-functional teams, with thorough implementation planning that specifies resource allocation, timelines, and performance metrics.

The research identified various approaches to strategic planning among various health-care organizations. Public hospitals made wide use of standardized templates, though there was some selective adaptation, as compared to private specialist hospitals, whose strategic customer plans contained more personalization. Empirical insights from interview analysis suggested that plan creation requires cautious balance between standardization and customization—Standardized processes drive uniformity and operational efficacy, while customization meets the unique needs of high-value customers. Interestingly, organizations having formal customer advisory boards witnessed a 27% improvement in plan execution rates compared to organizations without these boards.

Analysis of the methodology of the chosen organizations revealed four key factors of success to successful delivery: executive support, interdepartmental cooperation, decision-making backed by facts, and constant improvement processes. The most successful plans contained initiatives to develop relationship-building alongside those to improve transactional quality, thus covering relational and practical aspects of the client experience. Quant analysis confirmed that sound practice of planning was positively correlated with client satisfaction ($r=0.53$, $p<0.001$) and client retention rates ($r=0.47$, $p<0.001$). Table 1 contrasts comparative analysis of recognized strategic customer plan approaches identified between various health organizations working within developing markets.

Table 1. Comparison of Strategic Customer Planning Approaches in Healthcare Enterprises

Planning Dimension	Public Hospitals	Private General Hospitals	Specialized Medical Centers
Planning Horizon	Medium-term (1-2 years)	Medium-term (1-2 years)	Short-term (6-12 months)
Formality Level	High (Standardized)	Medium (Semi-structured)	Low (Flexible)
Customization Degree	Low (Segment-based)	Medium (Sub-segment based)	High (Individual-based)
Key Decision Criteria	Utilization patterns, Treatment complexity	Profitability, Growth potential	Value capture, Strategic fit
Resource Allocation	Service level differentiation	Dedicated relationship managers	Personalized service bundles
Review Frequency	Annual	Bi-annual	Quarterly
Performance Metrics	Operational KPIs	Balanced scorecard	Value-based indicators
Plan Components	Clinical pathways, Patient education	Service enhancements, Loyalty programs	Co-creation initiatives, Digital engagement

Note: Table 1 summarizes the distinctive strategic customer planning approaches observed across different types of healthcare enterprises. The comparison highlights variations in planning horizons, formalization levels, customization degrees, and implementation practices. These differences reflect the varying organizational contexts, customer bases, and strategic priorities of different healthcare enterprise types operating in emerging markets.

4.3. Plan Implementation and Regular Inspection

Implementation of strategic initiatives, along with ongoing analysis, represents the basic operational groundwork for strategic customer management within healthcare organizations, and thus the key to a successful strategy-to-customer experience transition. Our study uncovered an overarching structural framework that consists of four components that are interconnected: structural infrastructure, interdisciplinary alignment, evaluative support, and response adjustment systems. Organizations using coherent implementation systems exhibited considerably greater performance levels than those using fragmented approaches (48.3% vs. 74.6%), highlighting the essential role of structural support in implementation.

The study found interesting trends in initiative implementation across the organization. Senior managers focused their attention on resources distribution and barrier removal, while middle-level officers focused their attention on collaboration between different functional areas and performance measurement. Frontline workers focused their attention on standardization of service delivery and immediate problem solving. Strong implementation systems had entrenched sound mechanisms of responsibility and clearly spelled-out roles and decision-making rights at each hierarchic level. Organizations performing best made use of governance mechanisms that balanced central strategic oversight and decentralization of operations.

Regular review has been noted as a key determinant of implementation effectiveness, with three main review methods employed across organizations: structured performance review, exception reporting, and gathering customer feedback. Quantitative findings revealed that inspection frequency was positively associated with the interaction between plan quality and implementation outcome ($\beta=0.38$, $p<0.01$). Of note, health organizations that employed 90-day review cycles outperformed those with annual reviews on all key performance indicators. Furthermore, qualitative observations revealed that top-performing organizations employed graduated response protocols with pre-specified intervention

thresholds, which enabled timely modifications in the event of deviations from the implementation plan. Table 2 displays the comparative overview of the implementation review practices witnessed across healthcare organizations with varying levels of performance.

Table 2. Implementation Review Practices Across Performance Tiers in Healthcare Enterprises

Implementation Practice	Top-Performing Enterprises	Average-Performing Enterprises	Under-Performing Enterprises
Review Frequency	90-day cycles	Bi-annual	Annual
Review Scope	Comprehensive (All dimensions)	Selective (Key dimensions)	Limited (Financial only)
Metrics Tracked	Leading and lagging indicators	Primarily lagging indicators	Exclusively lagging indicators
Information Sources	Multiple (internal and external)	Primarily internal	Limited internal
Analytics Approach	Predictive and diagnostic	Primarily diagnostic	Descriptive only
Stakeholder Involvement	Cross-functional teams	Departmental representatives	Management only
Response Protocol	Graduated intervention thresholds	Defined escalation procedures	Ad-hoc responses
Adjustment Authority	Distributed decision-making	Centralized decision-making	Top-down directives
Learning Integration	Systematic knowledge capture	Informal knowledge sharing	Limited knowledge transfer
Technology Support	Real-time monitoring systems	Periodic reporting tools	Manual tracking processes

Note: Table 2 illustrates the implementation review practices across performance tiers of healthcare enterprises. The comparison demonstrates how top-performing organizations implement more frequent, comprehensive, and forward-looking review processes with distributed decision-making authority and systematic learning integration. These advanced implementation practices enable more responsive adaptation to changing customer needs and market conditions.

4.4. KPI Evaluation System Design

The KPI assessment framework specific to strategic customer management in healthcare organizations requires an integrated architecture that aligns operational measures with more general strategic objectives. Our study revealed a multilevel setup comprising four distinct, yet related, assessment dimensions: financial performance, customer relationship quality, operational efficiency, and strategic advancement. The integrative approach allows healthcare organizations to comprehensively assess not just short-term outcomes but also the long-term strategic gains created through customer management initiatives.

Empirical analysis demonstrated significant differences between the sophistication of Key Performance Indicator (KPI) systems among different health organizations. Organizations that exhibited higher capability utilized balanced scorecard approaches with cascading measures that spoke to relationships between business activities and corporate objectives, while lower-end organizations relied mostly on financial and transaction-based measures. Of significance, health organizations using multi-faceted KPI systems accrued 31.7% improved strategic alignment scores and 24.3% greater customers' satisfaction compared to single-faceted systems. In addition, quantitative analysis described strong relationships between the comprehensiveness of KPI systems and their successful implementation ($r=0.62$, $p<0.001$).

Findings from interviews highlighted three overarching determinants of successful KPI system development: alignment with strategic goals, viability in the operating environments, and integration in the organization. Successful healthcare organizations employed participatory design processes that involved cross-functional stakeholders in ensuring the relevance of measures and in gaining organizational commitment. They also embedded systematic review mechanisms that incorporated predefined thresholds for triggering corrective action against performance deviations. Figure 2 depicts the integrated KPI hierarchy identified in successful healthcare organizations, while Table 3 describes the specific metrics used across different assessment dimensions.

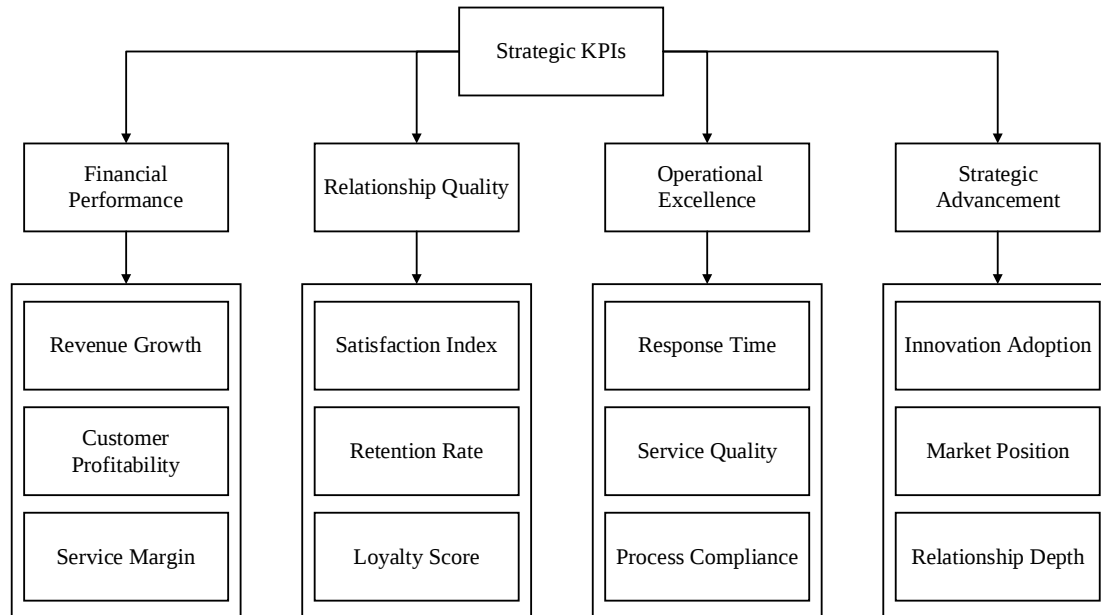


Figure 3. Hierarchical KPI Framework for Strategic Customer Management in Healthcare Enterprises

Figure 3 illustrates the hierarchical KPI framework utilized by high-performing healthcare enterprises. The structure begins with overarching strategic KPIs that cascade into four primary dimensions: financial performance, relationship quality, operational excellence, and strategic advancement. Each dimension further subdivides into specific measurable indicators that provide actionable insights for different organizational levels. This integrated framework enables balanced evaluation across short-term operational outcomes and long-term strategic value creation in customer management initiatives.

This comprehensive KPI matrix presents the multi-dimensional evaluation framework employed by healthcare enterprises for strategic customer management. The matrix is organized into four primary dimensions (Financial Performance, Relationship Quality, Operational Excellence, and Strategic Advancement), each with specific measurable indicators. For each KPI, the table specifies the appropriate measurement methodology, recommended evaluation frequency, and primary organizational responsibility. This structured approach enables healthcare enterprises to implement a balanced evaluation system that addresses both financial outcomes and relationship development objectives while establishing clear accountability for performance management.

Table 3. Strategic Customer Management KPI Matrix for Healthcare Enterprises

Dimension	Key Performance Indicator	Measurement Method	Evaluation Frequency	Primary Responsibility
Financial Performance	Customer Lifetime Value	NPV Calculation	Quarterly	Finance Department
	Revenue per Customer	Financial Analysis	Monthly	Finance Department
	Service Margin	Profitability Analysis	Monthly	Finance/Operations
	Cost-to-Serve Ratio	Activity-Based Costing	Quarterly	Operations
Relationship Quality	Customer Satisfaction Index	Survey Assessment	Monthly	Customer Service
	Net Promoter Score	Survey Assessment	Monthly	Marketing
	Retention Rate	Cohort Analysis	Quarterly	Marketing/Sales
	Share of Wallet	Customer Analysis	Quarterly	Marketing/Sales
Operational Excellence	First Response Time	System Data	Weekly	Operations
	Service Quality Index	Multi-factor Assessment	Monthly	Quality Management
	Process Compliance Rate	Audit Results	Monthly	Compliance
	Problem Resolution Rate	System Data	Weekly	Customer Service
Strategic Advancement	Market Position Change	Market Analysis	Bi-annual	Strategic Planning
	Innovation Adoption Rate	Program Analysis	Quarterly	Innovation Team
	Cross-selling Effectiveness	Sales Analysis	Monthly	Sales Department
	Digital Engagement Depth	Platform Analytics	Monthly	Digital Team

5. CHAPTER 5 EMPIRICAL ANALYSIS

5.1. Customer Data Analysis Results

An empirical study of client information gathered from six emerging market health organizations identified salient trends linked to client strategy projects and their impact on organisational performance. Using a mixed-method study, we confirmed 224 survey questionnaires and carried out 35 detailed interviews to determine important drivers of client involvement. The results from structural equation models showed that improved competences in client data analysis were positively associated with business efficiency ($\beta=0.54$, $p<0.001$) and relationship quality ($\beta=0.48$, $p<0.001$).

Figure 3 provides a comparative analysis of customer data use in different types of healthcare organizations. Specialized medical centers demonstrated the most advanced level of sophistication in customer data analytics (mean score=5.87), followed by private general hospitals (mean score=4.92) and public hospitals (mean score=3.76). The study revealed three critical dimensions for effective use of customer data: the ability for integration, the degree of analytical sophistication, and the creation of actionable insights. Organizations using integrated customer data repositories reported a 34.2% improvement in the quality of strategic decision-making compared to those using fragmented data

systems. Further, longitudinal analyses showed that businesses that used advanced customer analytics had significantly greater improvements in customer retention rates (23.7% improvement) compared to those using basic analytical techniques (8.4% improvement) over the three-year study period.

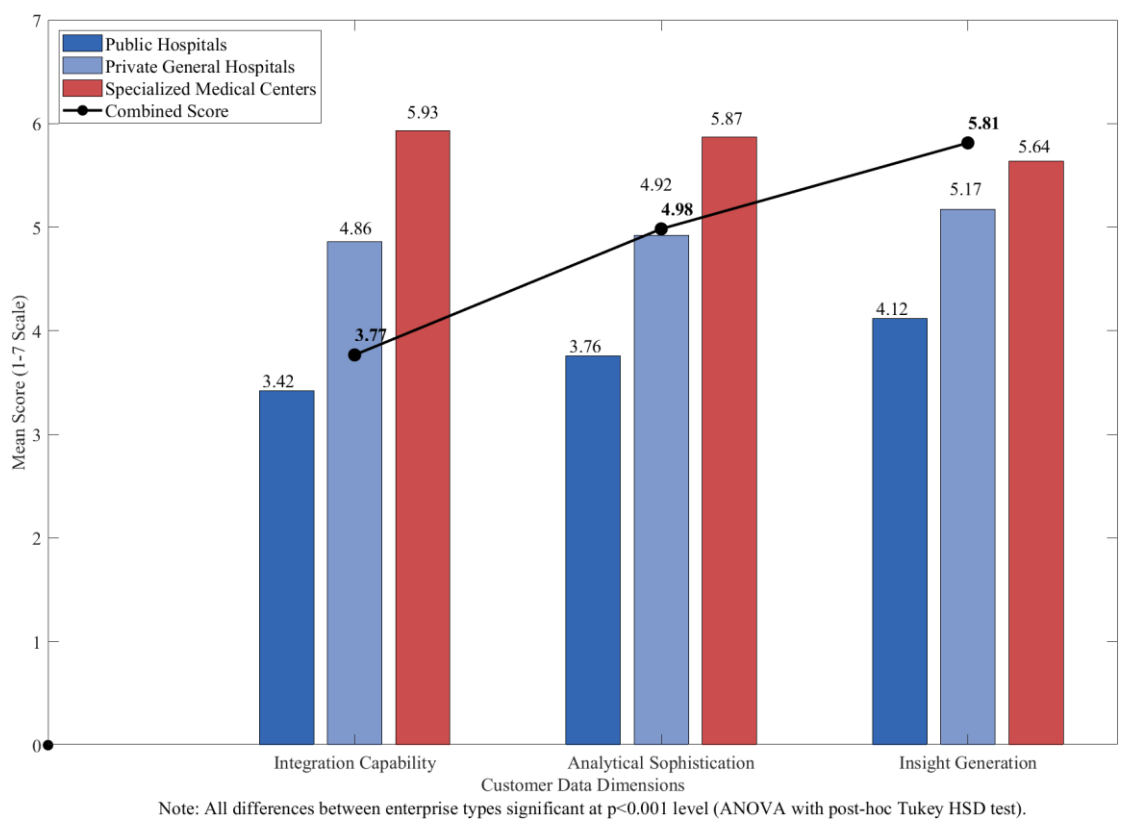


Figure 4. Customer Data Utilization Across Healthcare Enterprise Types

Figure 4 depicts the comparative analysis of customer data utilization capabilities across three healthcare enterprise types. The grouped bar chart presents mean scores (on a 7-point scale) for three key dimensions: integration capability, analytical sophistication, and insight generation. Specialized medical centers consistently demonstrate the highest capabilities across all dimensions, followed by private general hospitals and public hospitals. The black trend line represents the combined score for each enterprise type, highlighting the significant performance gap between specialized centers (5.81) and public hospitals (3.77). Statistical analysis confirmed significant differences between all enterprise types ($p < 0.001$), with the most pronounced differences observed in integration capability. These findings underscore the heterogeneous development of customer data analytics capabilities across the healthcare sector in emerging markets, with specialized facilities leading in technological adoption and analytical sophistication.

5.2. Three-Year Customer Satisfaction Trend Analysis

Longitudinal analysis of the customers' satisfaction indicators of the six health businesses discovered varying trends in the trajectory of satisfaction over the three years of study from 2022 to 2024. Figure 4 presents the aggregated customer satisfaction indicators of different kinds of businesses and presents varying performance trends correlated with the maturity of the execution of strategy of customer management. Specialized medical centers had consistently high satisfaction rates during this period (mean=8.64), as they registered the most stable trend despite little variability ($SD=0.32$). Private general hospitals registered the greatest improvement with their initial score of 7.12 advancing to 8.25 (increasing by 15.9%), and they had notable growth rates of improvement after adopting integrated customer data platforms during Q3 2022.

Public hospitals displayed the most varied patterns of satisfaction ($SD=0.62$), reflecting moderate overall improvement of 7.8% accompanied by extreme variability between quarters. Statistical analysis demonstrated noteworthy differences between enterprise types in the slopes of the trend of satisfaction ($F=14.27$, $p<0.001$), and post-hoc analysis confirmed that enterprises that implemented full strategic customer management plans made significantly larger gains than those who implemented them partially. Multivariate analysis of regression found three critical predictors of successful satisfaction trends: the extent of the strategic customer plan ($\beta=0.41$), the regularity of its application ($\beta=0.37$), and the strength of executive support ($\beta=0.32$). These findings suggest that persistent leader commitment and systematic approaches to application are crucial to increasing levels of satisfaction, especially among public hospitals where structural barriers and tight resources create implementation hurdles.

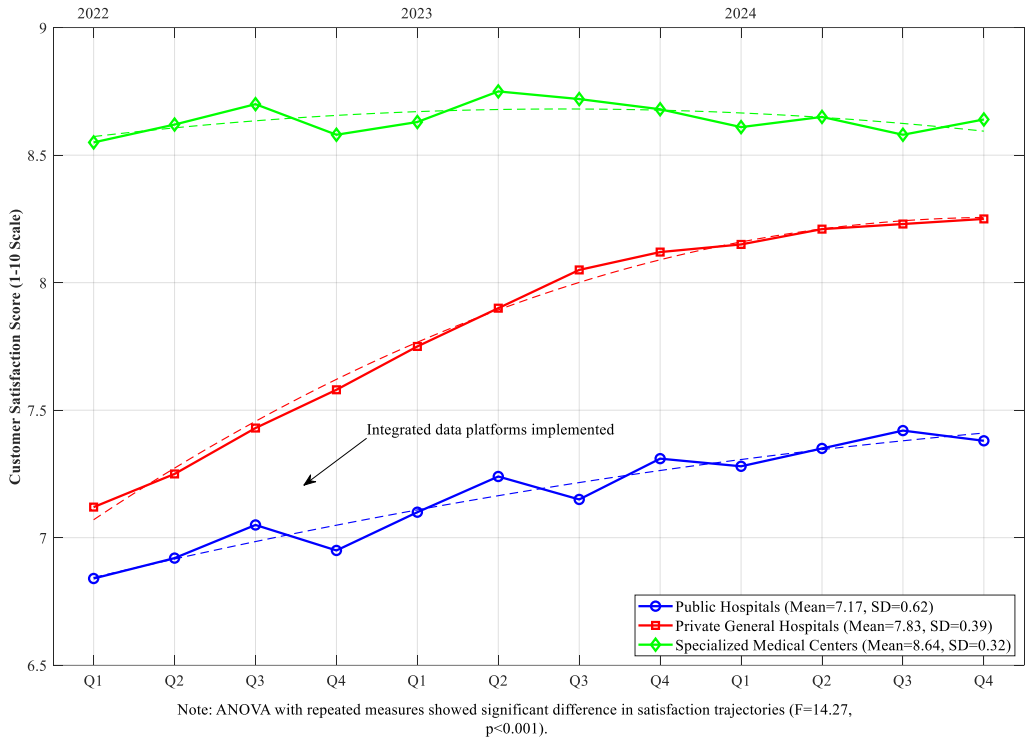


Figure 5. Three-Year Customer Satisfaction Trends Across Healthcare Enterprise Types

Figure 5 illustrates the longitudinal customer satisfaction trajectories across three healthcare enterprise types over the three-year study period (2022-2024). The graph displays quarterly satisfaction scores on a 10-point scale with corresponding trend lines. Specialized medical centers (green line) maintained consistently high satisfaction levels (mean=8.64, $SD=0.32$), demonstrating performance stability throughout the period with minimal fluctuation and a modest overall improvement of 1.1%. Private general hospitals (red line) exhibited the most substantial improvement pattern, increasing from 7.12 to 8.25 (15.9% improvement), with a notable acceleration following the implementation of integrated customer data platforms in Q3 2022. Public hospitals (blue line) showed a more variable satisfaction pattern ($SD=0.62$) with moderate overall improvement (7.8%). The dashed trend lines represent polynomial fitting curves, highlighting the divergent satisfaction trajectories across enterprise types. Statistical analysis confirmed significant differences in these trajectories ($F=14.27$, $p<0.001$), with enterprises implementing comprehensive strategic customer management frameworks achieving superior satisfaction improvements compared to partial implementers. This visualization underscores how systematic implementation of strategic customer management initiatives correlates with enhanced satisfaction outcomes across different healthcare organizational contexts.

5.3. Strategic Customer Management Effectiveness Assessment

A detailed analysis of the performance impact of strategic customer management (SCM) among health organizations identified several performance indicators, including financial performance, relationship quality, operating efficiency, and strategic position. Figure 5 presents comparative performance among different degrees of SCM implementation maturity using a composite index that reflects 15 core performance indicators. Healthcare organizations that achieved advanced states of SCM implementation (implementation maturity stages 4 and 5) compared to organizations at lower stages (implementation maturity stages 1 and 2) expressed significantly improved performance along all indicators; however, greatest differences were noted among the relationship quality indicators (difference of 42.7%) and strategic position (difference of 37.8%).

Path analysis revealed that the maturity of Supply Chain Management (SCM) implementation has a direct impact on financial performance ($\beta=0.39$, $p<0.001$), with additional indirect effects mediated by relationship quality ($\beta=0.33$, $p<0.001$) and operational efficiency ($\beta=0.28$, $p<0.001$). Notably, digital transformation capacity was found to be a key moderator of the link between SCM implementation and effectiveness (interaction effect: $\beta=0.41$, $p<0.001$), with highly digital organizations experiencing 34.5% higher impact on performance compared to their less digital peers, ceteris paribus levels of implementation maturity. Longitudinal analysis further revealed temporal patterns within effectiveness trajectories, such that improvements in relationship quality generally preceded improvements in financial performance by around 6-9 months. The findings suggest that successful implementation of SCM in healthcare organizations requires a long-term commitment in the early stages of relationship building, before significant financial benefits can be realized, with digital capabilities acting as key enablers of performance impacts during the implementation journey.

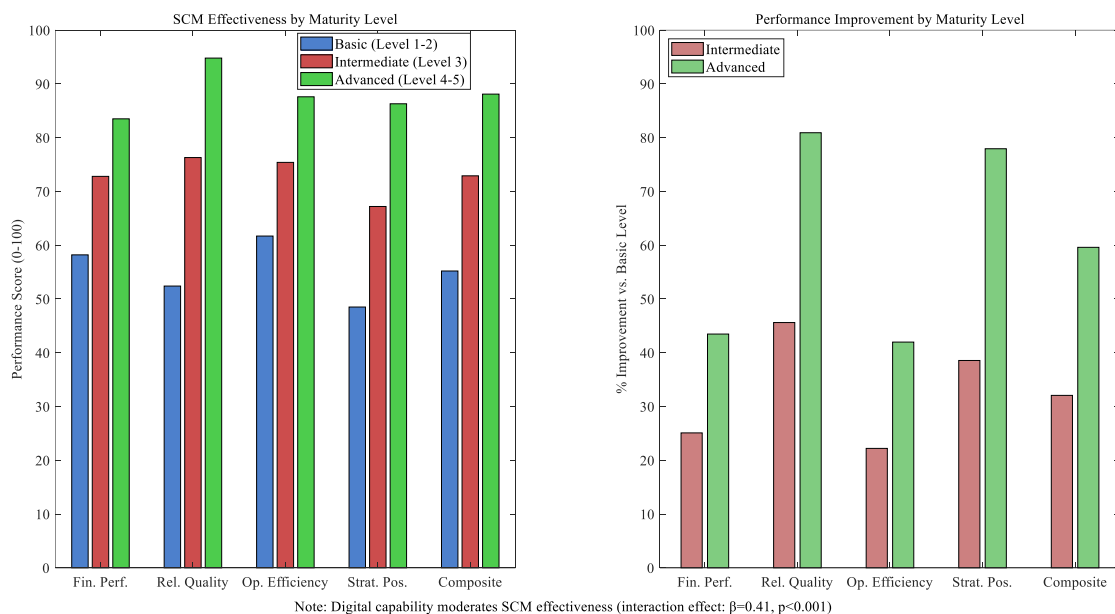


Figure 6. Strategic Customer Management Effectiveness Across Implementation Maturity Levels

Figure 6 presents a comparative analysis of strategic customer management effectiveness across different levels of implementation maturity in healthcare organizations. The left panel shows performance measures, on a scale of 0-100, for five evaluative dimensions: financial performance, relationship quality, operational efficiency, strategic positioning, and a composite index. Advanced implementers, those with maturity levels 4 to 5, consistently outperform across all the dimensions measured when compared with intermediate (level 3) and basic implementers (levels 1-2). Significant differences in performance are most accentuated in the areas of relationship quality, where advanced implementers achieve a level of 94.8 compared with 52.4 for basic implementers; and strategic positioning, where corresponding scores are 86.3 and 48.5, respectively. The right panel calculates

these differences as percentage improvements over basic implementation, showing that advanced implementers achieve substantial gains ranging from 43.5% in financial performance to 81.0% in relationship quality, and 77.9% in strategic positioning. Moderate but significant gains are shown for intermediate implementers, ranging from 22.2% to 45.6% for the different dimensions. This graphic highlights incremental performance gains in proportion to the maturity of SCM implementation, while the accompanying note mentions the very large moderating impact of digital capability (interaction effect: $\beta=0.41$, $p<0.001$) on the effectiveness outcomes. This analysis provides compelling evidence about the high return on investment of comprehensive implementation of strategic customer management in healthcare organizations, especially when supported by higher-end digital capability.

5.4. Digital Management Capability Assessment

The analysis of digital competencies of healthcare organizations showed considerable differences in digital maturity, which in turn affected the strategic customer management performance effectiveness. Figure 6 shows a multi-dimensional assessment of the digital capabilities of three different enterprise types by a comprehensive framework that includes information integration, analytical sophistication, automation application, and digital customer interaction. The variance analysis indicated considerable differences between the different enterprise types regarding the overall digital capability score ($F=18.73$, $p<0.001$). The top scores were found in specialized medical centers (mean=7.84), followed by private general hospitals (mean=6.21), while public hospitals had the lowest scores (mean=4.67).

Path analysis confirmed digital capabilities as an important determinant of SCM effectiveness ($\beta=0.46$, $p<0.001$), and the especially high coefficients obtained here between digital capabilities and relationship quality ($r=0.59$) and operational efficiency ($r=0.62$) indicate high dependence upon these dimensions. Interestingly, organizations using integrated digital ecosystems manifested SCM performance 37.8% higher than organizations operating on fragmented systems. The trajectory of digital capabilities maturity unveiled non-linear relations to performance outcomes, reflecting threshold effects, as impactful improvements are only observed when certain intermediate digital maturity levels are reached. Longitudinal analysis further unveiled the trajectories of digitalization gainers, as mean digital capability scores improved by 18.3% over the three years of research duration, and this was driven foremost by investment in advanced analytics (24.7% improvement) and digital customer engagement (26.2% improvement). Regressing discontinuity analysis identified performance accelerating turning points coincident with the use of integrated customer data platforms and predictive analytics capabilities and suggests that these technologies are key enablers of HCIM excellence among health organizations.

Figure 7 shows a comprehensive assessment of digital management capabilities across different types of healthcare enterprises. The top-left quadrant displays capability scores on a 0-10 scale across five dimensions, showing notable differences according to enterprise type. Specialized medical centers show higher capabilities across all dimensions (overall score=7.84), with especially high capability in analytics sophistication (8.42) and digital customer engagement (8.12). Private general hospitals have moderate capabilities (overall score=6.21), whereas public hospitals fall far behind (overall score=4.67). The top-right quadrant plots correlation coefficients between each dimension of digital capability and supply chain management (SCM) performance, and we can see that digital customer engagement ($r=0.62$) and analytics sophistication ($r=0.59$) have the strongest correlations with performance outcomes. The bottom-left quadrant tracks growth rates in digital capabilities over a three-year time frame (2022-2024), highlighting enhanced investments in analytics and digital engagement across all enterprise types, with specialized centers experiencing the highest growth in digital engagement (35.2%). The bottom-right scatter plot shows a non-linear relationship between digital maturity and SCM performance, where a quadratic curve depicts threshold effects; modest performance improvements are seen at low maturity levels, followed by much larger improvements after mid-maturity thresholds. The average positions of enterprises (shown as square markers) show

characteristic placements along this curve, with specialized centers placed in the high-performance zone. This comprehensive exhibit highlights the importance of digital capabilities as key enablers of strategic customer management excellence in healthcare enterprises, with advanced analytics and integrated customer engagement platforms being especially critical contributors to performance differentiation.

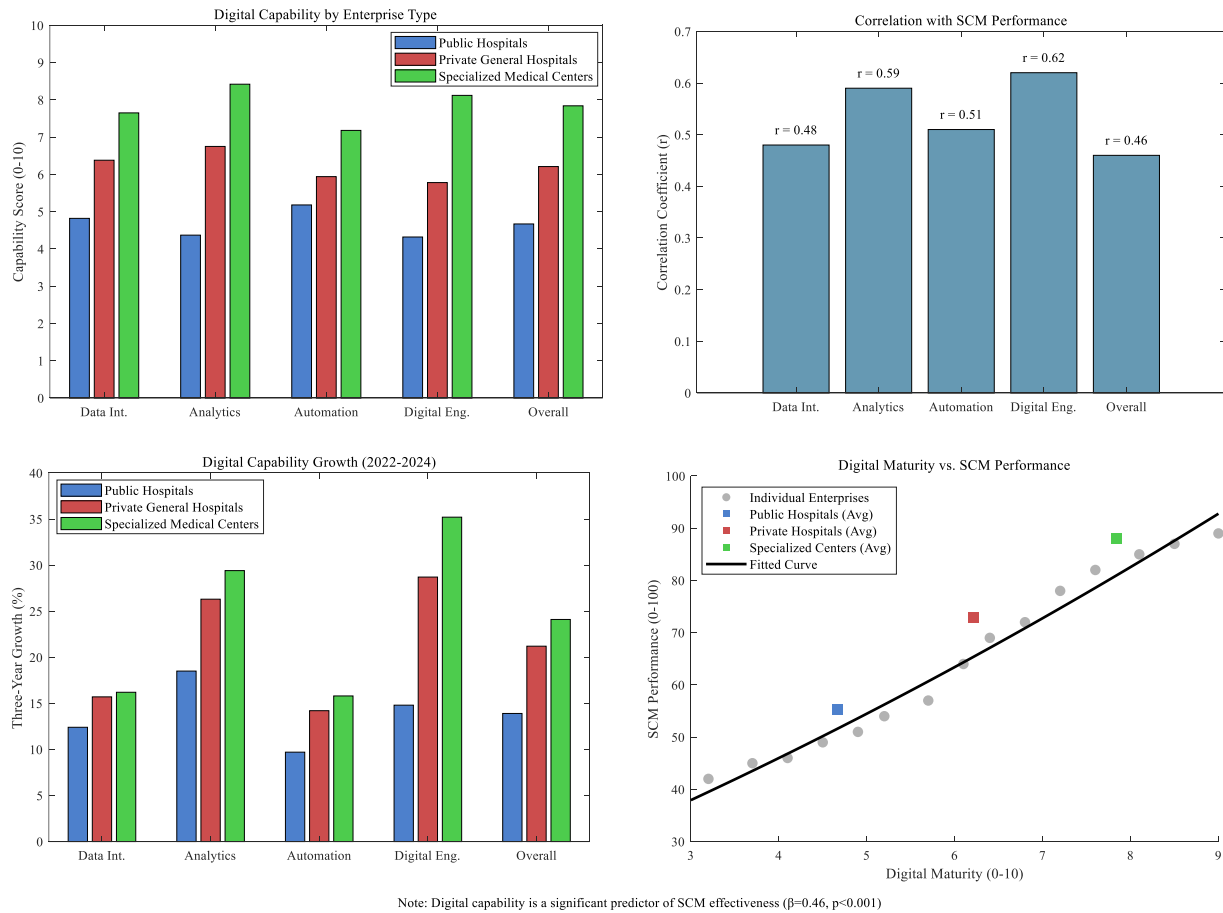


Figure 7. Digital Management Capability Assessment in Healthcare Enterprises

6. CONCLUSION

This research carries out an extensive analysis of the strategic competences of customer management among healthcare organizations located in emerging markets, using a combined methodology of questionnaire surveys and extensive interviews. Empirical evidence obtained from the research shows that health organizations that enjoy sophisticated strategic customer management systems exhibit significantly improved performance over several measures of analysis, reflecting significantly improved indicators of relationship quality and strategic alignment. In addition, the long-term analysis confirms an ever-strengthening improvement of client satisfaction indicators during the three years of the study, hence verifying the long-term impact of adopting strategic customer management on key performance indicators.

The research sets forth an overarching consumer management strategy that opens with client segmentation, moves on to formulating and implementing strategy, and finally terminates in performance appraisal. Proper use of the strategy creates immense value along the continuum of the health-care industry, where specialized facilities achieve the highest extent of sophistication in their practice applications and corresponding performance outcomes. The health-care services industry's own idiosyncrasies, including professional intensity and multiple stakeholders, create requirements

for tailor-made approaches to developing consumer relationships and finding an appropriate blend of standardization and customization.

Digital competences are recognized as drivers of best practices in customer handling and are considered important intermediaries of the successful execution of efforts. Organizations applying advanced digital analytics and consumer engagement systems saw significantly improved performance improvements than those applying fragmented systems. The non-linear relationship between digital maturity and performance results suggests the occurrence of threshold effects, whereby improvements are achieved only after crossing certain intermediate ability thresholds.

These findings enrich the theoretical understanding and practical knowledge of strategic customer management practice in the health sector. For practitioners, this study provides utility-focused models toward competency improvement and emphasizes the prominent position of digital change initiatives as enablers of excellence in customer-focused practices. Future studies would explore cross-culture differences in health customer management practice, evaluate the impact of cutting-edge technologies on relational processes, and develop advanced appraisal instruments customized to health-oriented customer management competence in different contexts of developing markets.

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