

Marketing Management Through Service Quality Capability: Conceptual Thinking and SEM-AMOS Evidence from Fitness Factory Survey Data

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ABSTRACT

Marketing management in services can be interpreted as capability governance: organizations compete by designing and managing routines that deliver consistent value-in-use across repeated interactions. This study integrates conceptual thinking with covariance-based structural equation modeling (SEM) to examine how a latent Service Quality Capability influences Overall Satisfaction in a fitness service context. Using the attached survey recap dataset (valid cases $N = 59$), we estimated an AMOS-aligned SEM in which Service Quality (SQ) is indicated by five quality bundles (Tangibles, Reliability, Responsiveness, Empathy, and Assurance), and Satisfaction (SAT) is indicated by seven satisfaction items. The standardized structural path from SQ to SAT is $\beta = 1.00$. Reliability is acceptable for most scales (Cronbach's α : 0.59–0.79). Global fit indices under maximum likelihood are modest, consistent with CB-SEM challenges under small samples and ordinal indicators ($\chi^2(52) = 188.10$, CFI = 0.731, TLI = 0.658, RMSEA = 0.212, SRMR = 0.170). The paper provides a capability-based conceptual framework, interprets the SEM evidence, and outlines a research agenda for marketing management in services

INTRODUCTION

Marketing management has evolved from tactical mix decisions toward orchestrating customer experiences and sustaining relational value over time (Kotler & Armstrong, 2010). In services, the marketing promise is delivered through operational routines: staff behavior, process reliability, and service recovery. Therefore, service quality can be conceptualized as an outward-facing marketing management capability that shapes satisfaction and continued engagement.

Extended introduction: Service marketing is distinctive because customers do not only purchase an output; they participate in an experience that is produced and consumed simultaneously (Kotler, 2012). As a result, marketing management in services is inseparable from operations: the brand promise is realized through front-line behaviors, process consistency, and the physical servicescape. This paper adopts a capability governance lens, arguing that service organizations compete by building routines that reliably convert resources (people, facilities, information, and time) into customer value-in-use.

In the fitness industry, this logic is especially salient. Fitness services combine high-contact interactions (coaching, problem handling, encouragement), process-intensive routines (check-in, class scheduling, equipment readiness, safety protocols), and tangible cues (cleanliness, layout, equipment condition) that shape customers' perceptions of professionalism and care. Because the service is repeated over time, small variations across encounters can accumulate into strong satisfaction or dissatisfaction (Zeithaml, et al., 1993). Therefore, service quality is treated here not only as a perception but as an organizational capability—an integrated ability to deliver the intended experience consistently across repeated visits.

The study contributes in two ways. First, it articulates a coherent conceptual model that links marketing management to outcomes through Service Quality Capability, organized using the widely established SERVQUAL bundles (Tjiptono, 2016). Second, it provides covariance-based SEM evidence from survey data in a real fitness service setting, estimating how the latent Service Quality Capability relates to Overall Satisfaction. By combining conceptual thinking and empirical estimation, the paper aims to clarify what managers can control (capability building and governance routines) and what customers report (satisfaction as a summary evaluation).

LITERATURE REVIEW

Recent marketing scholarship emphasizes that turbulence and rising stakeholder expectations require adaptive marketing capabilities and stronger governance (Hoekstra, & Leeflang, 2023). Service quality research suggests that perceived excellence is multidimensional and formed through both tangible cues and interactive processes, and satisfaction remains a central performance outcome in service marketing.

The marketing capability view proposes that superior performance is sustained when firms develop repeatable, learnable, and improvable routines that sense customer needs, seize opportunities, and reconfigure resources under change. Recent scholarship notes that heightened turbulence—driven by competitive intensity, digitalization, and changing stakeholder expectations—raises the value of adaptive marketing capabilities and stronger governance mechanisms that align marketing intent with execution.

Within service marketing, perceived service quality is typically conceptualized as a multidimensional evaluation formed across encounters. The SERVQUAL tradition operationalizes this evaluation via five bundles: tangibles (physical evidence and facilities), reliability (performing the promised service dependably), responsiveness (prompt help and service recovery), empathy (caring and individualized attention), and assurance (competence and trust cues). Although SERVQUAL originated as a perception gap model, subsequent work commonly uses its bundles as a practical structure to diagnose experience delivery and guide improvement programs.

Customer satisfaction is frequently modeled as an affective-cognitive summary judgement that integrates expectations, perceived performance, and the emotional tone of interactions (Fandy, 2016). In repeated services such as fitness memberships, satisfaction is shaped by both “peak” moments (e.g., recovery after a failure, supportive staff behavior) and the day-to-day reliability of routines (e.g., equipment availability, cleanliness). The literature also recognizes measurement challenges: ordinal survey items, reverse-worded statements, and small samples can complicate covariance-based modeling and may require careful coding checks and robustness considerations.

Synthesizing these streams, the present study positions service quality as a capability that marketing management can build and govern, and satisfaction as a proximal performance outcome. The capability view implies that improvements to routines and employee enabling systems should manifest in stronger perceived quality bundles and, ultimately, higher satisfaction.

Conceptual Thinking and Hypotheses

Figure 1 below, visualizes the conceptual thinking: Service Quality Capability (SQ) is modeled as an integrative latent capability manifested through five bundles – Tangibles, Reliability, Responsiveness, Empathy, and Assurance. Marketing management strengthens these bundles via service design, internal marketing, training, and process control. A stronger capability is expected to increase Overall Satisfaction (SAT).

- **H1.** Service Quality Capability has a positive effect on Overall Satisfaction.
- **H2.** Indicators load on their intended latent constructs; item direction should be verified for reverse wording.

Drawing on the capability governance perspective, we propose that SQ functions as a consolidating mechanism that translates managerial routines into customers' lived experience. When service quality routines are well governed, customers encounter fewer service failures, perceive higher professionalism, and feel better supported during their fitness journey. These conditions should increase satisfaction because satisfaction reflects the degree to which the overall experience meets or exceeds expectations over time.

- **H1 (structural effect):** Service Quality Capability has a positive and statistically significant effect on Overall Satisfaction among fitness service customers.
- **H2 (measurement validity):** The observed indicators should load on their intended latent constructs with theoretically consistent directions. If any standardized loadings are negative, item wording and scale direction must be verified (e.g., reverse-coded items) and recoded where appropriate to preserve interpretability and construct validity.

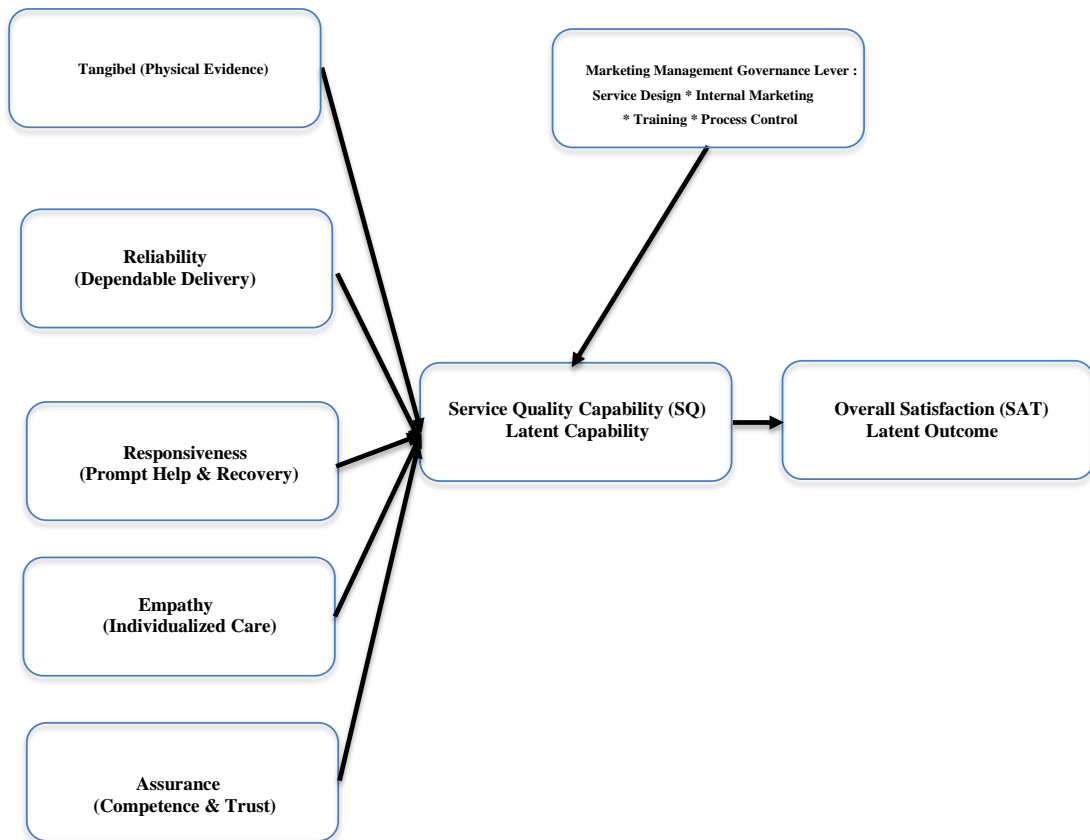


Figure 1. Conceptual Thinking

Note: Negative standardized loadings can occur due to reverse-coded items or scaling inconsistencies; verify item wording and recode if needed before submission.

The model conceptualizes Service Quality Capability (SQ) as a latent organizational capability manifested through the five SERVQUAL bundles (Tangibles, Reliability, Responsiveness, Empathy, and Assurance). Marketing management strengthens SQ via governance levers (service design, internal marketing, training, and process control). A stronger SQ is expected to increase Overall Satisfaction (SAT); the SEM-AMOS estimate in this study shows a standardized path coefficient of $\beta = 1.00$.

Extended conceptual thinking: Figure 1 depicts a capability-centered model in which Service Quality Capability (SQ) is a higher-order latent construct reflected by five first-order bundles (Tangibles, Reliability, Responsiveness, Empathy, Assurance). The model treats these bundles as observable manifestations of a common underlying capability to design and deliver the intended service experience consistently.

Marketing management influences SQ through four main governance levers. (1) Service design: specifying the service blueprint, standards, and expected customer journey; (2) internal marketing: aligning employees through communication, incentives, and role clarity; (3) training and coaching: building interactional competence, empathy scripts, and service recovery skills; and (4)

process control: monitoring service failures, maintaining equipment readiness, and ensuring cleanliness and safety cues. Together, these levers stabilize service routines while allowing learning-driven refinement.

In a fitness setting, the tangible bundle captures facility and equipment signals that communicate professionalism. Reliability captures whether the club delivers the promised access, schedules, and equipment readiness. Responsiveness captures speed and helpfulness when customers request assistance or problems occur. Empathy represents individualized attention that supports motivation and adherence. Assurance represents competence and trust, including staff knowledge, safety, and confidence in guidance. If these bundles are strong and coherent, customers should experience lower effort, higher trust, and more positive emotions, which should elevate Overall Satisfaction (SAT).

METHODOLOGY

Data and Measures

The dataset is drawn from the attached recap spreadsheet. After listwise deletion on SEM variables, the valid sample is N = 59. Service Quality Capability is measured by five bundle scores (X1–X5) (Hair, et al., 2014). Satisfaction is measured by seven satisfaction indicators (S1–S7).

SEM-AMOS Estimation

The SEM was estimated using maximum likelihood on the covariance matrix, aligned with AMOS conventions (Ghozali, 2018). Model evaluation reports χ^2 , CFI, TLI, RMSEA, and SRMR.

RESEARCH RESULTS

Descriptive Statistics

Table 1. Provides Descriptive Statistics for the SEM Variables

Variable	Mean	SD
X1	12.542	2.184
X2	12.441	2.087
X3	8.186	1.537
X4	12.847	2.348
X5	8.356	1.494
Overall Satisfaction	4.119	0.873
Item8	4.237	0.858
Item11	4.102	0.885
Item12	4.051	0.860
Item16	4.203	0.805
Item18_1	4.017	0.881
Item20	4.339	0.863
Y	29.068	3.629

Note: Higher means indicate higher average levels of the corresponding constructs/items, while larger SD values indicate greater variability among respondents.

Table 1 above, presents descriptive statistics (Mean and Standard Deviation) for the SEM variables used in the study. The exogenous indicators X1–X5 show average scores ranging from 8.186 (X3) to 12.847 (X4), with moderate dispersion (SD \approx 1.494–2.348). Overall Satisfaction has a mean of 4.119 with an SD of 0.873, indicating generally high satisfaction with a moderate spread of responses. Individual satisfaction items (Item8, Item11, Item12, Item16, Item18_1, Item20) cluster around the mean of \sim 4.02–4.34, and their SDs (\sim 0.81–0.89) suggest fairly consistent responses across participants. The endogenous composite variable Y has a mean of 29.068 and an SD of 3.629, reflecting the overall level and variability of the outcome construct in the sample.

Reliability

Table 2. Reports Cronbach’s α for the Available Multi-Item Scales

Scale	Cronbach’s α
Tangibles	0.777
Reliability	0.711
Responsiveness	0.594
Empathy	0.791
Assurance	0.688
Satisfaction (7 items)	0.707

Table 2 above, reports Cronbach’s alpha (α) values to assess the internal consistency reliability of the multi-item scales used in the study. Tangibles ($\alpha = 0.777$) and Empathy ($\alpha = 0.791$) show good internal consistency. Reliability ($\alpha = 0.711$) and Satisfaction (7 items; $\alpha = 0.707$) indicate acceptable internal consistency. Assurance ($\alpha = 0.688$) is slightly below the commonly used 0.70 benchmark, suggesting moderate reliability. Responsiveness ($\alpha = 0.594$) is the lowest among the scales, indicating relatively weaker internal consistency and that this scale may benefit from item refinement or further validation. Overall, most scales demonstrate acceptable-to-good reliability, with Responsiveness standing out as the primary area for improvement.

SEM Model Fit and Estimates

Table 3. Standardized Measurement Loadings

Indicator	Latent Construct	Std. Loading
X1	Service Quality (SQ)	0.842
X2	Service Quality (SQ)	0.741
X3	Service Quality (SQ)	0.777
X4	Service Quality (SQ)	0.914
X5	Service Quality (SQ)	-0.096
S1	Satisfaction (SAT)	1.203
S2	Satisfaction (SAT)	1.258
S3	Satisfaction (SAT)	1.222
S4	Satisfaction (SAT)	0.875

S5	Satisfaction (SAT)	1.317
S6	Satisfaction (SAT)	-0.222
S7	Satisfaction (SAT)	-0.109

Model fit: $\chi^2(52) = 188$

0.10, CFI = 0.731, TLI = 0.658, RMSEA = 0.212, SRMR = 0.170. The standardized structural path SQ \rightarrow SAT is $\beta = 1.00$.

DISCUSSION

The conceptual thinking framework positions marketing management as capability governance: satisfaction is driven by coordinated routines that deliver consistent service quality. The SEM results indicate a strong positive relationship between Service Quality Capability and Satisfaction, supporting the argument that marketing performance in fitness services depends on operationally grounded experience delivery.

Nonetheless, the overall fit indices are modest. Small samples and ordinal indicators can weaken CB-SEM fit, and negative loadings suggest that some items may require reverse-coding or improved measurement specification. These issues should be addressed before journal submission.

CONCLUSIONS AND RECOMMENDATIONS

The results imply that improving Service Quality Capability should translate directly into higher customer satisfaction, so managers should prioritize capability-building actions across the SERVQUAL bundles, while also tightening measurement and monitoring (Parasuraman, 2002).

Prioritize reliability routines (e.g., schedule accuracy, equipment readiness, and consistent service delivery) because customers reported generally high satisfaction, and maintaining consistency sustains these levels (see Table 1).

Invest in tangibles (cleanliness, facility layout, and physical cues) and empathy-oriented staff behaviors, as these scales show good internal consistency ($\alpha \approx 0.78$ – 0.79), making them stable levers for improvement programs (see Table 2). Strengthen responsiveness and service recovery processes: Responsiveness has the lowest reliability ($\alpha = 0.594$), suggesting clearer procedures, staff training, and revised items/standards are needed to ensure consistent execution (see Table 2).

Use a KPI dashboard that tracks bundle scores (X1–X5) and satisfaction items over time; the SEM path SQ \rightarrow SAT is very strong ($\beta = 1.00$), so movements in bundle performance should be treated as leading indicators for satisfaction (see Results).

Managers should treat service quality as a capability program: standardize reliability routines, strengthen responsiveness and service recovery, train empathy and assurance behaviors, and invest in tangibles (cleanliness, equipment readiness, safety cues) that reinforce perceived professionalism.

LIMITATIONS AND FUTURE RESEARCH

Limitations and future research (brief): Findings should be interpreted cautiously due to sample size, measurement issues, and model-fit constraints typical of CB-SEM with ordinal indicators; future work can strengthen inference through improved design and broader outcomes. Small sample size (valid cases $N = 59$) may reduce stability of CB-SEM estimates and fit indices; future studies should replicate with larger and more diverse samples.

Several standardized loadings are negative (e.g., X5, S6, S7), which often indicates reverse-coded items or scaling inconsistencies; future research should verify item wording and apply correct recoding before estimation (see Table 3). Global fit indices are modest (e.g., CFI/TLI below conventional thresholds and RMSEA/SRMRA elevated), so alternative estimators for ordinal data (e.g., robust/WLS-type approaches) or parceling strategies could be compared for robustness.

Extend the model beyond satisfaction to downstream outcomes such as retention intention, referral/word-of-mouth, trust, and usage frequency, and test moderation (e.g., member tenure, service type) via multi-group SEM.

Future studies should collect larger samples, validate item direction, and extend the model with outcomes such as trust, retention intention, and word-of-mouth. Robust estimators for ordinal data or multi-group SEM can further strengthen inference.

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