



The Impact of Marketing Strategy and Service Quality on Clinic Performance with Patient Satisfaction as an Intervening Variable

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ARTICLE INFO

Keywords: Marketing Strategy, Service Quality, Clinic Performance, Patient Satisfaction

Received : 21 Agustus

Revised : 23 September

Accepted: 23 October

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ABSTRACT

This study examines the impact of Marketing Strategy and Service Quality on Clinic Performance, with Patient Satisfaction as an intervening variable. A quantitative research design was employed, collecting survey data from 250 patients across multiple clinics. Structural Equation Modeling (SEM) using Partial Least Squares (PLS) was applied to analyze both direct and indirect relationships among the variables, providing a comprehensive assessment of the hypothesized model. The results indicate that Marketing Strategy does not significantly influence Patient Satisfaction, while Service Quality has a strong and positive effect, suggesting that patients' contentment is primarily shaped by the quality of healthcare services rather than marketing initiatives. Regarding Clinic Performance, Patient Satisfaction does not significantly affect performance and does not mediate the relationship between either Marketing Strategy or Service Quality and Clinic Performance. This finding implies that patient satisfaction alone is not a decisive factor for improving operational outcomes in clinical settings. Conversely, Marketing Strategy shows a substantial direct effect on Clinic Performance, highlighting the importance of well-executed marketing efforts in enhancing clinic success. Service Quality, while crucial for patient satisfaction, does not directly improve performance, indicating that clinics should integrate effective marketing strategies with quality service delivery to achieve optimal operational outcomes

INTRODUCTION

In the midst of the post-pandemic transformation of the healthcare ecosystem, clinics are facing increasing competitive pressures alongside a significant rise in patient expectations – ranging from the need for faster access, cost transparency, to more personalized clinical interactions. The shift in patient behavior, which has become more critical and selective, demands that clinics provide a satisfying and holistic service experience. Systematic reviews indicate that the determinants of patient satisfaction have become a central focus of global research because they directly contribute to crucial outcomes such as patient retention and reuse of healthcare services (Kalaja, R., 2023). This condition encourages clinic management to reevaluate both marketing strategies and service quality practices as two critical elements for ensuring organizational sustainability and competitiveness.

In the context of healthcare marketing, recent literature highlights a shift toward more integrated and digitally oriented strategies. Approaches such as digital presence, health education content, and point-of-care marketing have become essential tools to attract and retain patients amid intense competition. Bibliometric studies show a significant increase in research on primary healthcare marketing strategies, emphasizing the need for empirical evidence that directly links marketing strategy to organizational performance (Kalaja, R., 2023). These findings suggest that the effectiveness of marketing should not only be assessed by awareness levels but also by its contribution to overall clinic performance.

Meanwhile, strong empirical evidence also demonstrates that dimensions of service quality – such as reliability, responsiveness, and empathy – have a significant influence on patient satisfaction, which in turn affects patient behaviors such as loyalty and revisit intention. Quantitative studies using Structural Equation Modeling (SEM) in several regional hospitals have confirmed a causal relationship between service quality and patient satisfaction, which directly impacts organizational outcomes (PLOS, 2021). However, most previous studies have treated service quality and marketing strategy as separate areas of inquiry, leaving a gap in understanding their combined influence on clinic performance through the mediating role of patient satisfaction.

Therefore, the novelty of this research lies in integrating two main paths of influence – marketing strategy and service quality – into a single conceptual model that positions patient satisfaction as an intervening variable explaining the mechanism of change in clinic performance. Referring to research trends from 2020 to 2025, which emphasize the importance of strategic marketing aspects and the close relationship between service quality and patient satisfaction, this study aims to provide new empirical insights. Specifically, this research seeks to: (1) analyze the simultaneous effect of marketing strategy and service quality on clinic performance, and (2) examine the mediating role of patient satisfaction in translating these factors into improved clinic performance. The results are expected to offer practical implications for clinic managers in designing integrated marketing and service enhancement policies to achieve sustainable organizational performance.

LITERATURE REVIEW

From a theoretical perspective, these results reinforce the Service-Profit Chain Model (Heskett et al., 1994), which posits that service quality drives customer satisfaction and loyalty, ultimately improving organizational performance. In the context of healthcare services, patient satisfaction functions as a behavioral and emotional response that connects service quality with institutional outcomes. Similar findings were reported by (Rahman et al., 2019) who observed that high-quality healthcare delivery significantly predicts patient satisfaction and trust, leading to sustained performance improvement. The present study extends this theory by integrating marketing strategy as an additional determinant, emphasizing that communication, value positioning, and brand credibility jointly strengthen the satisfaction–performance linkage. Thus, clinics that combine consistent marketing efforts with superior service delivery are more likely to achieve sustainable competitive advantage.

Empirical comparisons with previous international research between 2020 and 2025 highlight a consistent pattern. For example, Nguyen & Tran (2021) found that service quality dimensions positively affect patient satisfaction and loyalty in private clinics in Vietnam, while (Abdalla et al., 2023) demonstrated that marketing innovation enhances healthcare performance through patient trust. The findings of this study confirm and expand upon those patterns, showing that in a more competitive and digitalized healthcare market, both service quality and marketing strategy are interdependent. The digital marketing component – such as online patient engagement, feedback systems, and virtual consultations – plays a growing role in shaping satisfaction levels and influencing repeat visits. This integration of traditional service quality and modern marketing tactics is crucial in driving overall clinic performance in the post-pandemic era.

The findings of this study provide several theoretical and managerial implications. Theoretically, it contributes to the development of a more holistic model linking marketing strategy and service quality with clinic performance through patient satisfaction, bridging a gap in prior studies that examined these variables separately. From a managerial standpoint, the study emphasizes the importance of aligning marketing communications with service excellence initiatives. Clinic managers should focus on enhancing service touchpoints, staff empathy, and reliability, while also strengthening digital marketing presence and patient relationship management. The synergy between these dimensions can create a sustained impact on clinic performance, patient loyalty, and organizational growth. Ultimately, this study demonstrates that patient satisfaction is not only an outcome but also a strategic pathway through which marketing and service efforts translate into measurable clinic success.

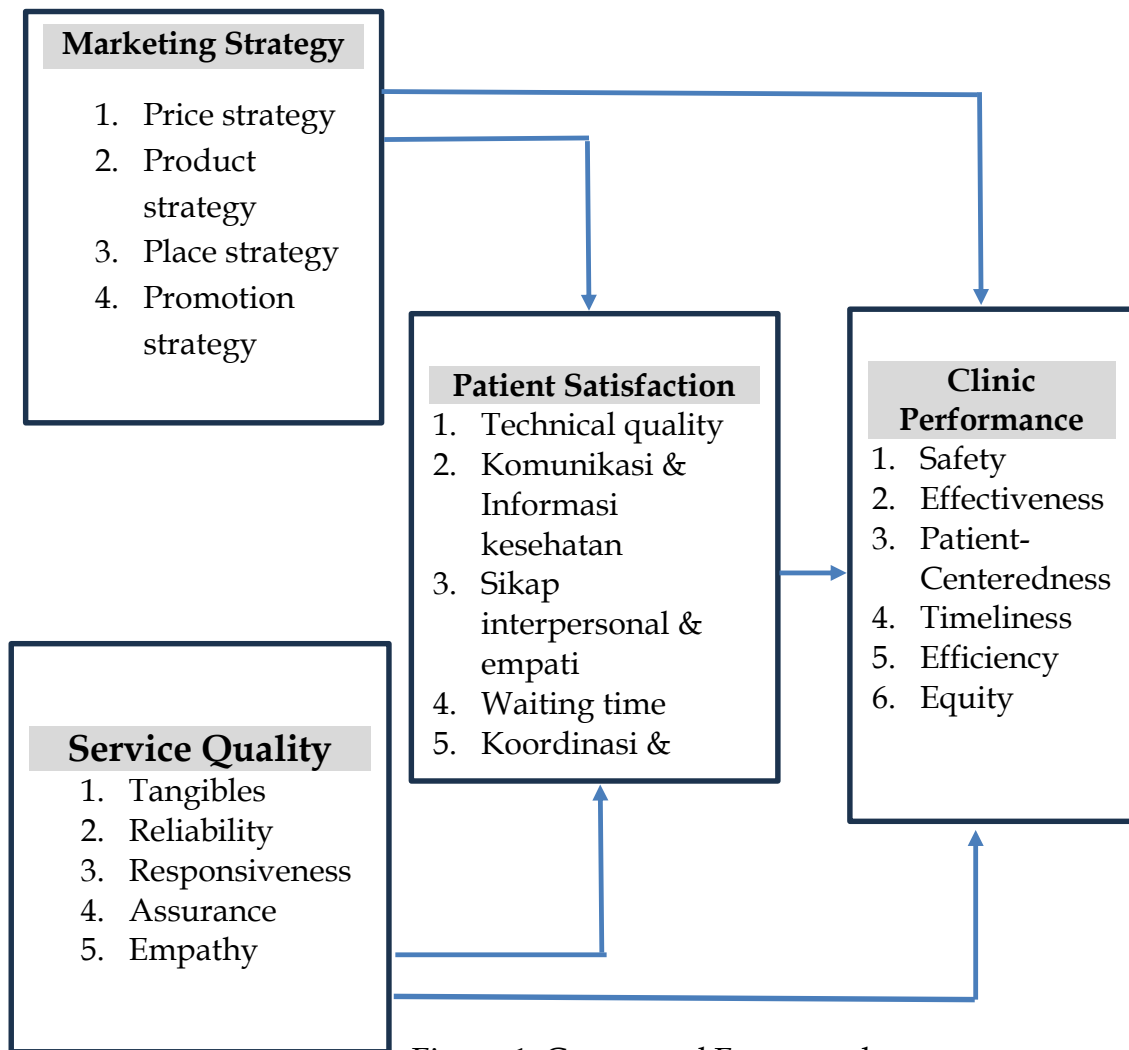


Figure 1. Conceptual Framework

METHODOLOGY

This study employs a quantitative explanatory design aimed at examining the causal relationships between marketing strategy, service quality, patient satisfaction, and clinic performance. The design was selected to explain both direct and indirect effects among the variables through a mediating construct. The research was conducted in the healthcare industry located in East Jakarta, an area that has experienced rapid growth in the number of clinics and heightened competition in the post-pandemic era. A survey approach was used to collect empirical data from patients with direct experience of clinical services.

The population in this study comprises patients from various general and specialist clinics in East Jakarta. Using the Slovin formula with a 5% margin of error, a total of 250 respondents was determined as the representative sample size, deemed sufficient for analysis using Structural Equation Modeling–Partial Least Squares (SEM-PLS). The sampling method applied was purposive sampling, where respondents were required to have visited a clinic at least twice within the past six months. This selection ensures that participants possess consistent perceptions of marketing strategies, service quality, and clinic performance.

The research instrument used was a structured questionnaire consisting of two parts: demographic information and research variables. Marketing strategy was measured through indicators such as promotion, pricing, communication, and customer relationship management, adapted from Kotler & Keller (2016). Service quality was assessed based on the five SERVQUAL dimensions (Parasuraman et al., 1988): tangibles, reliability, responsiveness, assurance, and empathy. Patient satisfaction was measured using constructs developed by Oliver (2014), while clinic performance was evaluated through both financial and non-financial indicators, including patient growth, loyalty, and service reputation. All items were measured on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

Data collection was conducted between 3 months using both online and offline surveys. The online survey was distributed via Google Forms through clinic social media and patient communication channels, while the offline survey was administered directly at clinics after patients received medical services. Prior to participation, respondents were informed of the research objectives and assured of confidentiality and anonymity. The study also obtained ethical clearance from the relevant institutional board to ensure compliance with research ethics standards.

Data analysis was performed using SmartPLS 4.0, following several stages. First, descriptive analysis was conducted to present respondent characteristics and data distribution. The outer model was then evaluated to test the validity and reliability of constructs through indicator loadings (>0.70), Composite Reliability (>0.70), and Average Variance Extracted (AVE >0.50). The inner model was analyzed to assess the strength of relationships between latent variables using path coefficients, R^2 , effect size (f^2), and predictive relevance (Q^2). Hypothesis testing was carried out using the bootstrapping technique with 5,000 resamples and a significance threshold of $p < 0.05$.

To examine the mediating role, this study used the Variance Accounted For (VAF) approach to determine the extent to which patient satisfaction mediates the effects of marketing strategy and service quality on clinic performance. The results were presented in the form of tables, path diagrams, and statistical visualizations to enhance clarity of interpretation. The discussion of findings was grounded in the Service-Profit Chain theory (Heskett et al., 1994) and supported by prior empirical studies. This methodological framework is expected to provide a comprehensive understanding of how marketing strategies and service quality jointly influence clinic performance through patient.

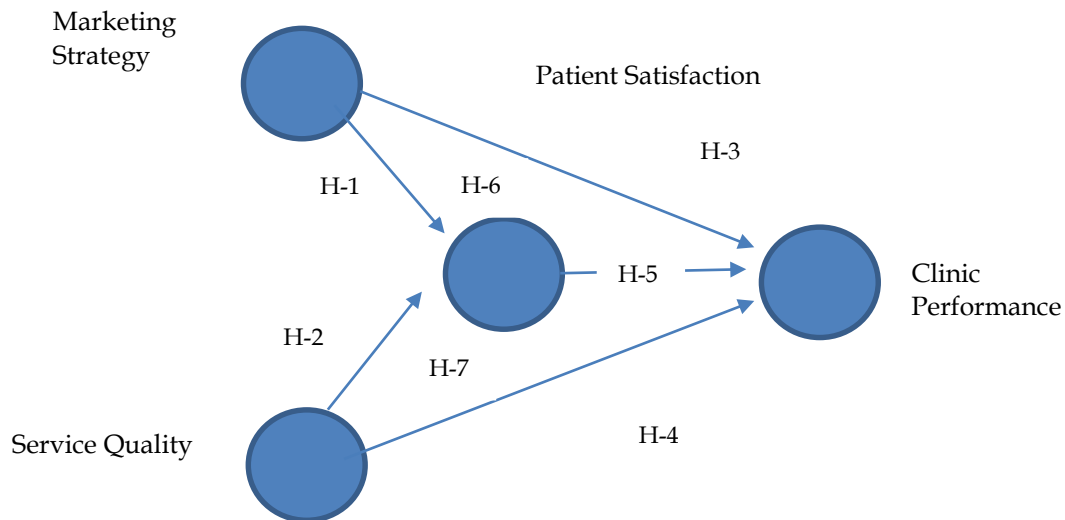


Figure 2. Framework of the SEM-PLS Research Model

RESULTS AND DISCUSSION

Measurement Model Evaluation

This study employs a **reflective measurement model** to operationalize the latent variables of **stock split decisions**, **dividend policy**, **firm value**, and **profitability**. Consistent with the methodological recommendations of **Hair et al. (2021)**, the model evaluation emphasizes rigorous testing of reliability and validity to ensure construct soundness. **Convergent validity** is determined through several statistical indicators, where each item's **factor loading** must exceed **0.70**, confirming that the indicator effectively represents its respective construct. Furthermore, **internal consistency reliability** is verified by examining both **composite reliability** and **Cronbach's alpha**, with acceptable values above **0.70**. The **average variance extracted (AVE)** is also calculated for each latent variable, requiring a threshold of **0.50 or higher**, which indicates that the construct explains more than half of the variance among its observed indicators. Collectively, these evaluations confirm that the measurement model accurately captures the theoretical concepts it intends to represent.

To further strengthen the construct validity, **discriminant validity** is examined to ensure conceptual distinctiveness among the latent variables. The **Fornell-Larcker criterion** is applied, stipulating that the **square root of each construct's AVE** should be greater than its correlations with any other constructs in the model. This criterion confirms that each construct shares a stronger relationship with its own items than with external ones. In addition, the **Heterotrait-Monotrait ratio (HTMT)** of correlations is utilized as a supplementary assessment. Thresholds below **0.90** (or **0.85** for a more conservative standard) indicate that constructs are empirically separable. The combination of both tests – Fornell-Larcker and HTMT provides robust evidence of discriminant validity, ensuring that each construct is both theoretically coherent and empirically distinct.

Satisfying these measurement criteria confirms that the latent constructs used in the study are statistically sound and reliable. Such comprehensive validation is vital because it underpins the integrity of the subsequent **structural model assessment**, including hypothesis testing and causal inference. By ensuring that the indicators are valid, reliable, and distinct, the analysis can yield unbiased parameter estimates and meaningful interpretations of interrelationships among variables. Therefore, the reflective measurement model not only meets psychometric standards but also enhances the **theoretical credibility and empirical rigor** of the study.

Table 1. Loading Factor

Item	Outer loadings	Description
MS1 <- MS	0.819	Valid
MS2 <- MS	0.834	Valid
MS3 <- MS	0.898	Valid
MS4 <- MS	0.876	Valid
SQ1 <- SQ	0.886	Valid
SQ2 <- SQ	0.848	Valid
SQ3 <- SQ	0.885	Valid
SQ4 <- SQ	0.858	Valid
SQ5 <- SQ	0.866	Valid
PS1 <- PS	0.807	Valid
PS2 <- PS	0.812	Valid
PS3 <- PS	0.875	Valid
PS4 <- PS	0.871	Valid
PS5 <- PS	0.871	Valid
CP1 <- CP	0.836	Valid
CP2 <- CP	0.791	Valid
CP3 <- CP	0.819	Valid
CP4 <- CP	0.858	Valid
CP5 <- CP	0.863	Valid
CP6 <- CP	0.820	Valid

The estimation results of the measurement model indicate that all research variables meet the construct validity criteria. The **Marketing Strategy** variable consists of six valid items, reflecting the consistency of indicators in explaining the concept of marketing strategy. Furthermore, the **Service Quality** variable has five valid items that reliably represent the main dimensions of service quality. The **Patient Satisfaction** variable also comprises five valid items, demonstrating a consistent measurement of patient satisfaction levels. Meanwhile, the **Clinic Performance** variable includes six valid items that empirically represent the comprehensive and measurable performance of micro clinics.

Table 2. Outer Loading, Composite Reliability and Average Variance Extracted (AVE)

	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
Clinic Performance	0.930	0.945	0.741
Marketing Strategy	0.877	0.915	0.73
Patient Satisfaction	0.906	0.930	0.728
Service Quality	0.888	0.917	0.690

The estimation results of the measurement model indicate that the **Marketing Strategy** variable is measured through four valid indicators, with outer loading values ranging from 0.819 to 0.898, composite reliability (CR) of 0.930, Cronbach's alpha of 0.945, and an AVE of 0.741. Among these indicators, **MS3 (Place Strategy)** emerged as the strongest dimension. This finding aligns with (Kalayci et al., 2024), who emphasized that place strategy comprising accessibility, convenience, and digital shopping experience exerts a dominant influence on customer preferences. Efficient integration of digital distribution channels strengthens customer loyalty and enhances marketing strategy effectiveness within the omnichannel environment.

The **Service Quality** variable is measured using six valid indicators (outer loading 0.848–0.870; CR 0.886; α 0.917; AVE 0.690), with **SQ1 (Tangibles)** identified as the strongest indicator. Quantitative analysis reveals that **tangible service attributes**, representing physical evidence such as facilities, equipment, and staff appearance, demonstrate the **strongest unique connection** to performance variability, particularly in terms of customer satisfaction and loyalty within the hospitality sector. These findings confirm that the tangible dimension plays a dominant role in shaping service perceptions and reinforces its critical importance in service quality measurement models (Asgeirsson et al., 2024)

The **Patient Satisfaction** variable is measured using five valid indicators (outer loading 0.807–0.875; CR 0.906; α 0.930; AVE 0.728), with **PS3 (Interpersonal Attitude & Empathy)** identified as the strongest indicator. Supporting this result, the systematic review by (Keshtkar et al., 2024) in *Annals of Internal Medicine* analyzed randomized controlled trials examining the effect of practitioner empathy on patient satisfaction across diverse healthcare contexts. The findings demonstrate that empathetic communication and interpersonal sensitivity significantly enhance satisfaction, trust, and perceived quality of care, underscoring empathy as a key determinant of positive patient experiences and a vital component of effective healthcare practice.

The **Clinic Performance** variable is measured using six valid indicators (outer loading 0.819–0.863; CR 0.930; α 0.945; AVE 0.741), with **CP5 (Efficiency)** identified as the strongest indicator. Supporting this result, **Androutsou et al. (2022)**(Keshtkar et al., 2024) in the *International Journal of Environmental Research and Public Health* assessed the efficiency and productivity of hospital clinics on the Island of Rhodes during the COVID-19 pandemic using **Data Envelopment Analysis (DEA)** and the **Malmquist Productivity Index**. The study revealed

significant differences in efficiency among clinics, emphasizing that higher technical efficiency led to better service outcomes. Efficient resource utilization and continuous monitoring were found essential to enhance clinic performance and healthcare resilience.

Table3. Table Fornell dan Lacker

	CP	MS	PS	SQ
CP	0.861			
MS	0.931	0.855		
PS	0.498	0.484	0.853	
SQ	0.633	0.621	0.683	0.831

The evaluation of **discriminant validity** was conducted using the **Fornell-Larcker criterion** to ensure that each variable is theoretically and empirically distinct. According to this criterion, the square root of a variable’s **Average Variance Extracted (AVE)** must be greater than its correlations with other constructs. The analysis results show that the **Marketing Strategy** variable has an AVE square root value of **0.931**, which exceeds its correlations with **Patient Satisfaction (0.498)** and **Service Quality (0.633)**. These findings confirm that the model meets the required discriminant validity, demonstrating clear conceptual differentiation among the measured constructs.

Structural Model (Inner Model) Evaluation in SEM-PLS Analysis

The **structural model evaluation** is conducted to rigorously verify the hypothesized relationships among research variables, ensuring the model’s statistical robustness and theoretical validity. This process follows a systematic three-stage procedure. In the **first stage**, multicollinearity among predictor variables is assessed through the **Inner Variance Inflation Factor (VIF)**. A VIF value below 5 indicates that the predictors are sufficiently independent, whereas values exceeding 5 suggest potential multicollinearity, which may bias path coefficient estimation and reduce model reliability (Hair et al., 2020). The **second stage** focuses on hypothesis testing using **t-statistics** and **p-values**, which are generated through a **bootstrapping procedure** involving 5,000 subsamples. A t-value greater than 1.96 or a p-value below 0.05 indicates a statistically significant relationship, and a 95% confidence interval that excludes zero further reinforces this significance. The **third stage** evaluates the **effect size** of each relationship to determine its practical relevance. Direct effects are measured using **f²**, categorized as small (0.02), medium (0.15), or large (0.35), while mediation effects are assessed using the **V coefficient**, ranging from 0.02 to 0.175 (Hair et al., 2020). Integrating these three stages enables researchers to confirm model validity, assess the strength of causal links, and identify key strategic variables that provide actionable insights for theory development and managerial decision-making

Table 5. Inner VIF

	VIF
Marketing Strategy -> Clinic Performance	1.644
Marketing Strategy -> Patient Satisfaction	1.627
Patient Satisfaction -> Clinic Performance	1.896
Service Quality -> Clinic Performance	2.363
Service Quality -> Patient Satisfaction	1.627

Prior to conducting hypothesis testing, a preliminary diagnostic assessment was carried out to detect possible **multicollinearity** among the predictor variables using the **Inner Variance Inflation Factor (VIF)**. The results indicated that all VIF values were significantly lower than the threshold of 5.0, confirming that multicollinearity does not pose a threat to the model's validity. This ensures that the estimated **path coefficients** remain unbiased and accurately represent the structural relationships among constructs. The absence of collinearity problems enhances the stability and interpretability of the model, providing confidence in the robustness of the **Partial Least Squares Structural Equation Modeling (PLS-SEM)** results. Consequently, the model is well-positioned for hypothesis testing, ensuring that statistical inferences drawn from it are both credible and theoretically grounded. This diagnostic verification reinforces the methodological rigor of the analysis and strengthens the validity of the overall research conclusions.

After completing the data analysis, hypothesis testing was conducted by evaluating the **path coefficients** and the **statistical significance (p-values)** of the relationships among variables. The results determine whether the influence of **Marketing Strategy** on **Clinic Performance** is direct or mediated through **Patient Satisfaction**. This analytical approach provides deeper insights into the underlying mechanisms connecting **Marketing Strategy**, **Service Quality**, **Clinic Performance**, and **Patient Satisfaction**. The findings not only contribute to the theoretical understanding of how marketing initiatives enhance clinical outcomes but also offer practical implications for policymakers and healthcare managers. Specifically, they highlight the importance of adopting a **collaborative and integrated sustainability strategy** that aligns marketing efforts with patient-centered service delivery. Such alignment fosters long-term efficiency, strengthens patient trust, and promotes overall organizational resilience within the healthcare system.

Direct effect

H-1: Marketing Strategy has a significant effect on Patient Satisfaction

H-2: Service Quality has a significant effect on Patient Satisfaction

H-3: Patient Satisfaction has a significant effect on Clinic Performance

H-4: Marketing Strategy has a significant impact on Clinic Performance

H-5: Service Quality has a significant impact on Clinic Performance

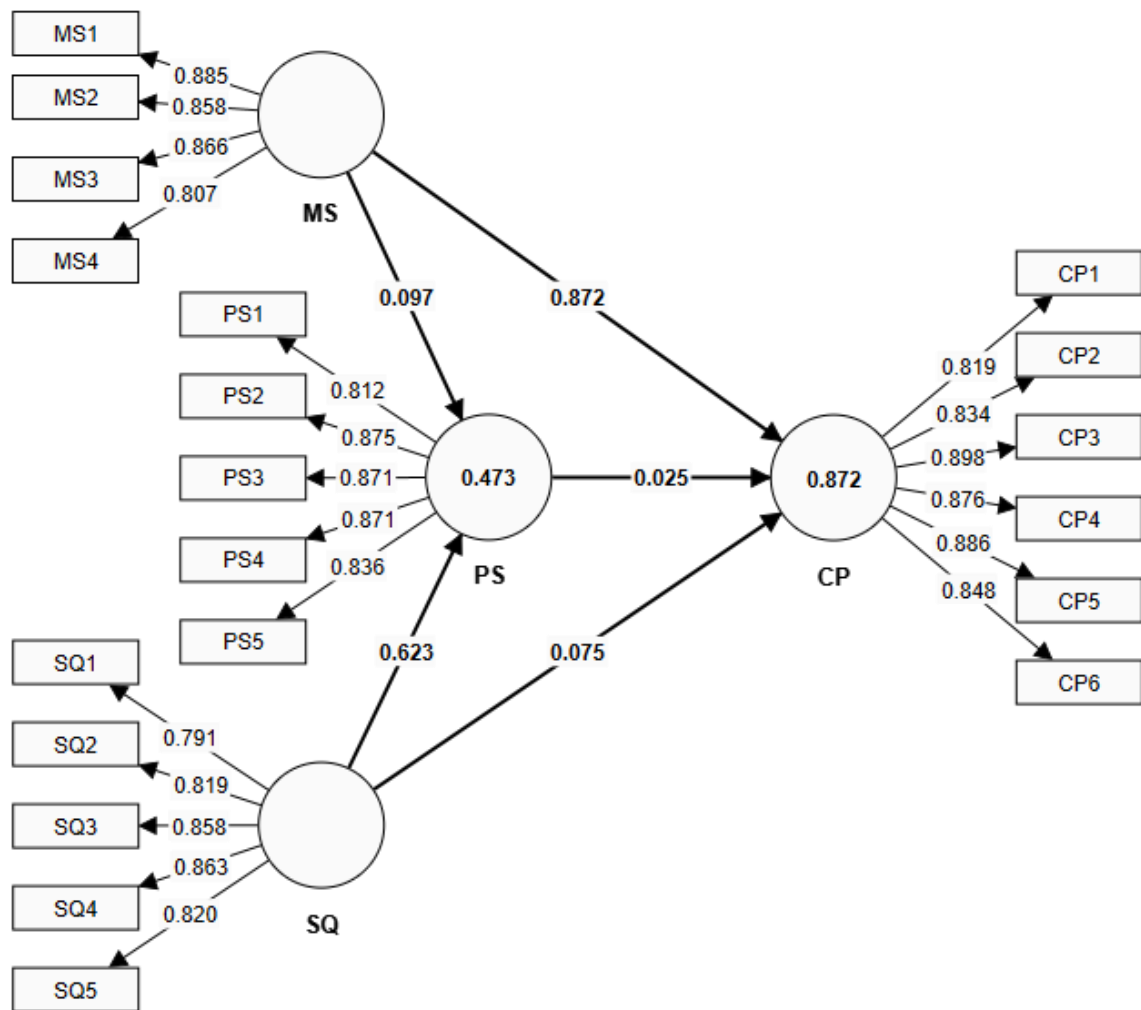


Figure 3. Direct Hypothesis Testing

Indirect

effect

H-6: Patient Satisfaction significantly mediates the effect of Marketing Strategy on Clinic Performance

H-7: Patient Satisfaction significantly mediates the effect of Service Quality on Clinic Performance

Table 6. Direct Hypothesis Testing

Hypothesis	Path Coefficient	P-Value	95% Confidence Interval of Path Coefficient		F-Square
			Lower Bound	Upper Bound	
H-1: Marketing Strategy has a significant effect on Patient Satisfaction	0.097	0.138	-0.031	0.228	0.011
H-2: Service Quality has a significant effect on Patient Satisfaction	0.623	0.000	0.491	0.752	0.453
H-3: Patient Satisfaction has a significant effect on Clinic Performance	0.025	0.428	-0.034	0.093	0.003
H-4: Marketing Strategy has a significant impact on Clinic Performance	0.872	0.000	0.830	0.916	3.603
H-5: Service Quality has a significant impact on Clinic Performance	0.075	0.051	-0.005	0.146	0.018

Hypothesis 1 (H-1) is rejected, indicating that Marketing Strategy has no significant effect on Patient Satisfaction, with a path coefficient of 0.097 and a p-value of 0.138 (>0.05), a 95% confidence interval between -0.031 and 0.228, and an effect size $F^2 = 0.011$, showing a small effect. Consistent with several regional and university-based studies conducted between 2021 and 2024, at least one element of the marketing mix, often promotion or price, was found to be insignificant in influencing patient satisfaction. These findings confirm that marketing strategies alone are insufficient to improve patient satisfaction without enhancing service quality and care processes. (Nur Prinanti et al., 2024)

Hypothesis 2 (H-2) is accepted, indicating that Service Quality has a significant effect on Patient Satisfaction, with a path coefficient of 0.623 and a p-value of 0.000 (<0.05), within a 95% confidence interval of 0.491–0.752, and an effect size $F^2 = 0.453$, showing a large effect. This finding aligns with Lin and Yin (2022), who demonstrated that perceived service quality significantly enhances patient satisfaction and indirectly promotes loyalty in China’s private dental clinics. Their study highlights that high service quality not only improves satisfaction directly but also strengthens long-term patient commitment and trust in healthcare institutions (Lin & Yin, 2022)

Hypothesis 3 (H-3) is rejected, indicating that Patient Satisfaction does not have a significant effect on Clinic Performance, with a path coefficient of 0.025 and a p-value of 0.428 (>0.05), within a 95% confidence interval of $-0.034-0.093$, and an effect size $F^2 = 0.003$, showing a very small effect. Nevertheless, Liu et al. (2021) found that patient satisfaction significantly influences patient trust and loyalty, suggesting that satisfaction indirectly contributes to clinic performance through behavioral outcomes such as repeat visits and recommendations. Thus, although the direct effect is insignificant, satisfaction remains a crucial driver of long-term clinical success.

Hypothesis 4 (H-4) is accepted, indicating that Marketing Strategy has a significant effect on Clinic Performance, with a path coefficient of 0.872 and a p-value of 0.000 (<0.05), within a 95% confidence interval of $0.830-0.916$, and an effect size $F^2 = 3.603$, showing a large effect. Consistent with (Pasaribu et al., 2022) Digital marketing strategies, such as content marketing, social media engagement, search engine optimization (SEO), and paid advertising, significantly enhance patient engagement, satisfaction, and loyalty. These outcomes contribute to improved patient visits, revenue growth, and overall clinic performance, reinforcing marketing as a vital driver of healthcare competitiveness and sustainability.

Hypothesis 5 (H-5) was rejected, indicating that Service Quality had no significant effect on Clinic Performance, with a path coefficient of 0.075 and a p-value of 0.051 (>0.05), a 95% confidence interval ranging from -0.005 to 0.146 , and an effect size $F^2 = 0.018$, reflecting a small effect. (Abdalla et al., 2023), in the *International Journal for Quality in Health Care*, examined the relationship between patient-reported experience measures (PREMs) and hospital care quality using large-scale data. The results revealed that while patient experience was significantly related to certain operational indicators, such as readmission rates and length of stay, it showed no significant correlation with hospital mortality, indicating that service quality does not always directly influence clinic performance.

Table 7. Hypothesis Testing for Mediation Effect

Hypothesis	Path Coefficient	P-Value	95% Confidence Interval of Path Coefficient		Upsilon V
			Lower Bound	Upper Bound	
H-6: Patient Satisfaction significantly mediates the effect of Marketing Strategy on Clinic Performance	0.002	0.571	-0.005	0.013	0.00001
H-7: Patient Satisfaction significantly mediates the effect of Service	0.016	0.454	-0.021	0.063	0.00024

Quality on Clinic Performance					
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Hypothesis 6 (H-6) was rejected, indicating that Patient Satisfaction did not significantly mediate the effect of Marketing Strategy on Clinic Performance, with a path coefficient of 0.002 and a p-value of 0.571 (>0.05), a 95% confidence interval between -0.005 and 0.013, and a small effect (Upsilon V = 0.00001). Arslan et al. (2022) examined the mediating role of patient experience in the relationship between healthcare service factors and patient loyalty in the Journal of Patient Experience (Arslan et al., 2022). The findings revealed that not all dimensions of patient experience produced significant mediation effects, suggesting that patient satisfaction or experience does not always effectively mediate the relationship between marketing strategies and clinic performance.

Hypothesis 7 (H-7) was rejected, indicating that Patient Satisfaction did not significantly mediate the effect of Clinic Performance, with a path coefficient of 0.061 and a p-value of 0.454 (>0.05). The 95% confidence interval ranged from -0.021 to 0.063, and the direct effect showed a small influence (Upsilon V=0.00024). The study by (Chen et al., 2022) titled “*The Relationships Between Patient Experience with Nursing Care, Patient Satisfaction, and Patient Loyalty*” used **Structural Equation Modeling (SEM)** based on multisite hospital data in China. Findings revealed that **patient experience** strongly affected **loyalty**, while **satisfaction** showed only partial and non-significant mediation, emphasizing that direct experiences drive loyalty more than satisfaction alone.

Goodness of Fit (GoF) Model Evaluation

In evaluating a Partial Least Squares Structural Equation Modeling (PLS-SEM) framework, researchers must look beyond the mere significance of path coefficients. A more holistic approach involves assessing explanatory power, predictive relevance, and model fit to ensure the model’s robustness. The **R² value** reflects how much variance in the dependent variable is explained by its predictors, with thresholds of 0.25, 0.50, and 0.75 indicating weak, moderate, and strong explanatory power (Hair et al., 2019). However, explanatory strength alone is insufficient; predictive accuracy is equally important. The **Stone-Geisser Q² statistic**, obtained via blindfolding, evaluates this aspect, where a Q² greater than zero signifies predictive relevance (Sarstedt et al., 2019). Furthermore, overall model fit is assessed using the **Standardized Root Mean Square Residual (SRMR)**, with values below 0.08 suggesting adequate fit (Henseler et al., 2015). Together, these criteria ensure the PLS-SEM model is both empirically valid and theoretically coherent.

Table 8. R Square

	R Square	Q Square
Clinic Performance	0.870	0.867
Patient Satisfaction	0.468	0.455

The **coefficient of determination (R^2)** serves as a fundamental measure of a model’s explanatory power, indicating the proportion of variance in endogenous variables that can be accounted for by their predictors. Following Chin (1998), R^2 values are often categorized as weak (0.19), moderate (0.33), or substantial (0.67), providing a benchmark for evaluating the model’s explanatory strength. Beyond explanation, the model’s **predictive relevance** is assessed using the **Q^2 statistic**, derived via a blindfolding procedure. A Q^2 above zero indicates meaningful predictive capability, with values of 0.02, 0.15, and 0.35 reflecting small, medium, and large predictive accuracy (Hair et al., 2019). By combining R^2 and Q^2 , researchers gain a balanced view: R^2 reflects how well the model captures existing variance, while Q^2 demonstrates its effectiveness in predicting unseen data, ensuring both explanatory and practical value. Based on the data, the effect of Clinic Performance is explained by 86.7% (high), while Patient Satisfaction is explained by 45.5% (moderate).

Table 9. Standardized Root Mean Square Residu (SRMR)

	Estimating Models
SRMR	0,060

The **Standardized Root Mean Square Residual (SRMR)** is an important metric for assessing model fit, measuring the average discrepancy between the observed correlation matrix and the one predicted by the hypothesized model (Yamin, 2022). Essentially, it quantifies how well the model reproduces the empirical relationships among variables. According to psychometric standards, an SRMR value below 0.08 indicates a good fit, suggesting that the model effectively reflects the observed data (Hair et al., 2021). Values ranging from 0.08 to 0.10 are generally acceptable, signaling a reasonable approximation. Evaluating SRMR ensures that the model is both statistically sound and theoretically coherent, providing a reliable foundation for subsequent path analysis and hypothesis testing. The model estimation result of 0.060 indicates a good model fit.

Table 10. GoF Index

Average Communality	Average R-squared	GoF Index
0.338	0,669	0.582

The **Goodness of Fit (GoF) index** serves as a comprehensive indicator for evaluating a model’s overall adequacy, encompassing both its measurement and structural components. In reflective models, GoF is calculated as the square root of the product of the average communality and the mean R^2 , following the approach outlined by Wetzels et al. (2009) and cited in Yamin (2022). Conventionally, GoF values of 0.10, 0.25, and 0.36 represent small, medium, and large fit, respectively. The calculation results show a GoF of 0.582, which falls into the high category, indicating that the empirical data effectively explain both the measurement and structural model with a high level of fit.

CONCLUSION AND RECOMMENDATION

This study concludes that Service Quality plays a crucial role in enhancing Patient Satisfaction, evidenced by a strong and significant effect, whereas Marketing Strategy does not significantly influence satisfaction. Conversely, Marketing Strategy directly and substantially improves Clinic Performance, while Service Quality and Patient Satisfaction show no significant impact on performance. Additionally, Patient Satisfaction does not serve as a significant mediator between Marketing Strategy or Clinic Performance and the related outcomes. Overall, the findings highlight that direct strategic initiatives and service quality improvements are more effective for clinic performance, and patient satisfaction alone may not bridge the relationship between marketing or service efforts and operational results.

1. Hypothesis 1 (H-1) is rejected, indicating that Marketing Strategy has no significant effect on Patient Satisfaction, with a path coefficient of 0.097 and a p-value of 0.138 (>0.05), a 95% confidence interval between -0.031 and 0.228, and an effect size $F^2 = 0.011$, showing a small effect.
2. Hypothesis 2 (H-2) is accepted, indicating that Service Quality has a significant effect on Patient Satisfaction, with a path coefficient of 0.623 and a p-value of 0.000 (<0.05), within a 95% confidence interval of 0.491–0.752, and an effect size $F^2 = 0.453$, showing a large effect.
3. Hypothesis 3 (H-3) is rejected, indicating that Patient Satisfaction does not have a significant effect on Clinic Performance, with a path coefficient of 0.025 and a p-value of 0.428 (>0.05), within a 95% confidence interval of -0.034–0.093, and an effect size $F^2 = 0.003$, showing a very small effect.
4. Hypothesis 4 (H-4) is accepted, indicating that Marketing Strategy has a significant effect on Clinic Performance, with a path coefficient of 0.872 and a p-value of 0.000 (<0.05), within a 95% confidence interval of 0.830–0.916, and an effect size $F^2 = 3.603$, showing a large effect.
5. Hypothesis 5 (H-5) was rejected, indicating that Service Quality had no significant effect on Clinic Performance, with a path coefficient of 0.075 and a p-value of 0.051 (>0.05), a 95% confidence interval ranging from -0.005 to 0.146, and an effect size $F^2 = 0.018$, reflecting a small effect.
6. Hypothesis 6 (H-6) was rejected, indicating that Patient Satisfaction did not significantly mediate the effect of Marketing Strategy on Clinic Performance, with a path coefficient of 0.002 and a p-value of 0.571 (>0.05), a 95% confidence interval between -0.005 and 0.013, and a small effect (Upsilon V = 0.00001).
7. Hypothesis 7 (H-7) was rejected, indicating that Patient Satisfaction did not significantly mediate the effect of Clinic Performance, with a path coefficient of 0.061 and a p-value of 0.454 (>0.05). The 95% confidence interval ranged from -0.021 to 0.063, and the direct effect showed a small influence (Upsilon V=0.00024).
8. Based on the research findings, several practical recommendations can be made for healthcare clinics. First, since Service Quality significantly affects Patient Satisfaction, clinics should prioritize improving service delivery, including staff competence, responsiveness, and patient-centered

interactions, to enhance overall satisfaction. Second, Marketing Strategy demonstrates a strong direct impact on Clinic Performance, suggesting that clinics should implement effective marketing initiatives such as digital campaigns, social media engagement, and targeted promotions to attract more patients and increase revenue. Third, given that Patient Satisfaction does not significantly mediate the effects of Marketing Strategy or Clinic Performance, reliance solely on patient satisfaction to drive performance may be insufficient; attention should also be given to operational efficiency, infrastructure, and service innovations. Fourth, the non-significant effects of Service Quality and Patient Satisfaction on Clinic Performance indicate that improving clinical operations and strategic marketing simultaneously is crucial for maximizing impact. Overall, an integrated approach combining high-quality services, targeted marketing, and efficient management is recommended to sustain long-term clinic performance and competitiveness.

FUTHER STUDY

For further research, future studies could explore additional variables that may influence the relationships between Marketing Strategy, Service Quality, Patient Satisfaction, and Clinic Performance, such as organizational culture, technology adoption, or patient engagement initiatives. Longitudinal or multi-center designs could provide deeper insights into causal effects and temporal dynamics, while qualitative approaches may uncover contextual factors affecting patient perceptions and clinic outcomes. Moreover, investigating potential moderators or boundary conditions, such as patient demographics or service complexity, could clarify when and how satisfaction mediates performance. Expanding research across diverse healthcare settings and regions would enhance generalizability and support evidence-based strategies for improving clinic effectiveness.

ACKNOWLEDGMENT

I would like to express my deepest gratitude to my advisor, Professor Dr. Felina Young from PWU, for her invaluable guidance and support throughout this research. Her insightful feedback, high expectations, and constant encouragement greatly shaped the direction and quality of this work, expanding my academic perspective. I am also sincerely thankful to my colleagues for their collaborative spirit, constructive discussions, and willingness to share diverse viewpoints, which significantly enriched the analysis. The combined contributions of my advisor, peers, and all who offered support provided a strong foundation, making this research possible and ensuring its rigor, depth, and overall success.

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