

The Relationship Between Service Quality and User Satisfaction in the Comprehensive Health, Beauty, and Supplement Business of Local Administrative Organizations in Samut Sakhon Province

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Abstract

This research investigated the relationship between service quality and user satisfaction in comprehensive health, beauty, and supplement services operated by local administrative organizations in Samut Sakhon Province. The study aimed to: (1) evaluate the level of service quality; (2) assess user satisfaction; (3) examine the correlation between service quality dimensions and satisfaction; and (4) analyze the predictive power of service quality on user satisfaction. The sample comprised 400 users selected through proportionate stratified random sampling. Data were collected using a validated Likert-scale questionnaire. Analytical methods included descriptive statistics, Pearson's correlation, and multiple linear regression. Assumption tests confirmed normality and acceptable multicollinearity levels ($VIF = 1.55\text{--}1.98$). The results indicated that both service quality ($\bar{X} = 3.66$) and user satisfaction ($\bar{X} = 4.00$) were at high levels. Service quality showed significant positive correlations with user satisfaction ($r = .215\text{--}.608$). Regression analysis revealed that assurance ($\beta = .330$), responsiveness ($\beta = .239$), and reliability ($\beta = .166$) significantly predicted satisfaction, explaining 38.5% of the variance ($p < .05$). Tangibles and empathy showed no significant effects. Limitations related to the sampling method and generalizability are acknowledged. The study suggests strengthening service standards, enhancing trust mechanisms, and integrating digital technologies to promote sustainable satisfaction in local government health and beauty services.

Keywords: service quality, user satisfaction, health and beauty services, dietary supplements, local administrative organizations

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Introduction

The health, beauty, and dietary supplement manufacturing industry in Thailand has experienced continuous growth. According to the Office of Industrial Economics, the market value of products in this sector exceeds 250 billion baht, with an annual growth rate of 8–10%. This reflects steadily increasing consumer demand (Jeon, Park, 2021), and demonstrates that service quality, particularly responsiveness, reliability, assurance, empathy, and tangibility, is a key factor differentiating businesses and retaining customers. This aligns with the widely applied SERVQUAL model (Kashuri, 2024).

However, most previous studies, such as those conducted by (Worapongpat, 2025c) have primarily examined general service sectors including hotels, hospitals, and government agencies. In contrast, research focusing specifically on the influence of service quality on user satisfaction within the health, beauty, and supplement manufacturing sector remains limited, especially at the local level (Khan, Tabassum, 2010). This represents an important knowledge gap that warrants further investigation (Worapongpat, 2025b).

Samut Sakhon Province is an appropriate research setting, as it is widely recognized as a major hub for health, beauty, and dietary supplement production in Thailand (e.g., Office of Industrial Economics [OIE], Provincial Industry Office report). The province hosts a large number of small and medium-sized enterprises (SMEs), which contribute significantly to the local economy (Worapongpat, 2025a). According to the Samut Sakhon Provincial Statistical Office, there are more than 1,200 establishments operating in this sector, many of which face challenges related to intense market competition and increasing consumer expectations (Samut Sakhon Provincial Statistical Office, year). Previous studies, such as those by Naung (2024) and Kim et al. (2021), have highlighted similar industry pressures, including the need for innovation, quality assurance, and regulatory compliance. found that certain aspects of service quality in local supplement manufacturing businesses, particularly product information clarity and delivery speed, did not fully meet customer expectations (Worapongpat, 2024b). Preliminary field observations conducted by the researchers also indicate that service users place high importance on both product quality and service standards (Oppong, al.et., 2021). Therefore, a systematic empirical investigation is necessary to provide deeper insights that can support the development of effective service strategies for local enterprises (Worapongpat, 2024a). The objectives of this study are to: (1) examine the service quality of comprehensive health, beauty, and supplement manufacturing businesses in Samut Sakhon Province;

(2) investigate user satisfaction with these businesses; (3) analyze the relationship between service quality and user satisfaction; and (4) assess the impact of each service quality dimension on user satisfaction. A quantitative research approach was employed using a structured Likert-scale questionnaire administered to 400 service users in Samut Sakhon Province. Data were analyzed using descriptive statistics and multiple linear regression analysis.

This research provides empirical evidence on the influence of service quality on user satisfaction in the comprehensive health, beauty, and supplement manufacturing sector in Samut Sakhon Province. The findings are expected to help business operators design service strategies that respond effectively to consumer needs while also contributing academic insights that address existing knowledge gaps in service marketing and local business management.

Research Objectives

1. To examine the level of service quality provided by comprehensive health, beauty, and supplement manufacturing businesses in Samut Sakhon Province.
2. To investigate the level of user satisfaction with these businesses.
3. To analyze the relationship between service quality and user satisfaction in comprehensive health, beauty, and supplement manufacturing businesses in Samut Sakhon Province.
4. To assess the influence of each service quality dimension (responsiveness, reliability, assurance, empathy, and tangibility) on user satisfaction.

Research Hypotheses

H1 : Tangibles have a positive and significant effect on user satisfaction in comprehensive health, beauty, and supplement businesses under local administrative organizations.

H2 : Reliability has a positive and significant effect on user satisfaction in comprehensive health, beauty, and supplement businesses under local administrative organizations.

H3 : Responsiveness has a positive and significant effect on user satisfaction in comprehensive health, beauty, and supplement businesses under local administrative organizations.

H4 : Assurance has a positive and significant effect on user satisfaction in comprehensive health, beauty, and supplement businesses under local administrative organizations.

H5 : Empathy has a positive and significant effect on user satisfaction in comprehensive health, beauty, and supplement businesses under local administrative organizations.

H6 : The five dimensions of service quality collectively predict user satisfaction at a statistically significant level.

Literature Review

The purpose of this literature review is to synthesize and critically analyze existing documents, academic articles, and research studies related to service quality and user satisfaction in the health, beauty, and dietary supplement sectors. The review aims to identify theoretical and empirical gaps that justify the necessity of the present study, particularly within the context of local administrative organizations.

Previous research on service quality has consistently emphasized its role as a key determinant of customer satisfaction across various service industries (Tadele, 2020). Studies employing the SERVQUAL model have demonstrated that its five dimensions tangibles, reliability, responsiveness, assurance, and empathy significantly influence satisfaction and, in some cases, customer loyalty (Worapongpat, 2023b). However, the majority of these studies have been conducted in mainstream service contexts such as banking, hospitality, and healthcare settings (Worapongpat, al.et., 2023) with limited attention given to hybrid or integrated service environments.

In the field of health, beauty, and dietary supplement businesses, prior research indicates that product safety, service reliability, and overall service experience play essential roles in shaping consumer satisfaction and purchase decisions (Worapongpat, Narong Uttamavangso, 2024). While these findings reinforce the importance of service quality, existing studies have predominantly focused on private-sector businesses. Research examining similar services provided under the governance of local administrative organizations remains scarce.

Moreover, no comprehensive study has investigated the relationship between service quality and user satisfaction within the integrated health–beauty–supplement service model operated by local administrative units in Samut Sakhon Province (Worapongpat, Chaoluang, 2024). This gap is significant because such organizations often exhibit unique operational structures, regulatory mechanisms, and community-based service delivery processes that differentiate them from privately operated businesses

Based on this analysis, a clear knowledge gap emerges concerning how each dimension of service quality influences user satisfaction in comprehensive health, beauty, and dietary supplement services managed by local administrative

organizations (Worapongpat, 2021a). To address this gap, the present study adopts the SERVQUAL framework to examine the predictive relationships between service quality dimensions and user satisfaction in the specific context of Samut Sakhon Province.

1. Tangibles

Tangibles refer to the physical and visible components of a service environment, including facilities, equipment, staff appearance, product layout, and the overall aesthetic quality of the service setting. In the context of health, beauty, and supplement businesses, tangibles represent the first impression of service quality and influence user expectations regarding safety, professionalism, and reliability.

2. Reliability

Reliability refers to the consistency and accuracy of service performance, including the ability to deliver services as promised, provide error-free transactions, and maintain dependable product availability. For integrated health–beauty–supplement operations, reliability reflects the organization’s capability to ensure accurate information, safe products, and stable service outcomes.

3. Responsiveness

Responsiveness concerns the willingness and promptness of service providers in assisting customers, addressing inquiries, and solving problems efficiently. This dimension is crucial in health and beauty services where timely consultation and immediate support influence user trust and satisfaction.

4. Assurance

Assurance denotes the level of confidence and trust that service users have in the provider’s competence, professionalism, and ethical conduct. It includes staff knowledge, credibility, courtesy, and the ability to instill customer confidence—especially important in health-related and dietary supplement services where safety and expert guidance are essential.

5. Empathy

Empathy refers to the ability of service personnel to provide individualized care, attention to customer needs, and personalized service delivery. In health and beauty contexts, empathy plays a critical role in tailoring services, promoting comfort, and creating positive user experiences.

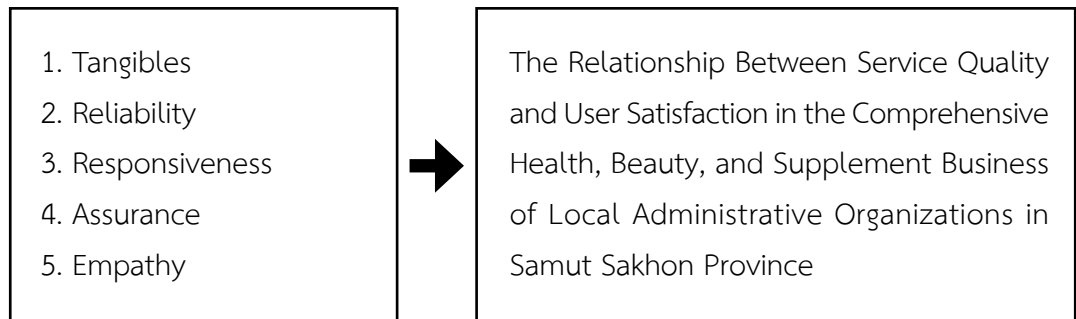
6. User Satisfaction

User satisfaction represents users’ overall evaluation of their service experience, derived from the perceived performance of service quality relative to expectations. Within local administrative organizations managing health, beauty, and supplement services, satisfaction reflects the extent to which services meet user needs, safety concerns, and service expectations.



Conceptual Framework

Based on the review of previous studies and the SERVQUAL model (Worapongpat, N. (2021b), (Worapongpat, 2023a). the conceptual framework for this study proposes that service quality comprising tangibles, reliability, responsiveness, assurance, and empathy directly influences user satisfaction. The framework guided the development of the research hypotheses and analytical procedures.



Research Methodology

This study employed a quantitative research design to examine the relationship between service quality and user satisfaction in comprehensive health, beauty, and dietary supplement businesses operating under local administrative organizations in Samut Sakhon Province.

The population comprised all service users who accessed these businesses during 2024, totaling approximately 1,250,000 individuals according to the Samut Sakhon Provincial Public Health Office.

The sample size of 400 respondents was determined using Yamane's formula at a 95% confidence level. Purposive sampling was then applied to include only individuals who had actually received services from the targeted health, beauty, and supplement establishments, ensuring that participants possessed direct experience relevant to the constructs being measured.

This approach aligns with quantitative sampling principles, which emphasize the inclusion of information-rich respondents when assessing perception-based variables.

Research Instrument

Data were collected using a structured questionnaire consisting of four sections.

Section 1 gathered general demographic information, including age, gender, frequency of service use, and type of service received.

Section 2 measured service quality based on the five SERVQUAL dimensions tangibles, reliability, responsiveness, assurance, and empathy.

Section 3 assessed user satisfaction across multiple indicators, such as perceived value, product/service quality, safety confidence, personalization, and overall evaluation of service experience.

Section 4 provided an open-ended space for additional comments and suggestions.

The instrument was evaluated by three experts in service management and public health. The Item-Objective Congruence (IOC) score was 1.00, which exceeds the commonly accepted threshold of 0.50. Discrimination indices ranged from 0.255 to 0.846, meeting the minimum acceptable value of 0.20 for Likert-scale items

Reliability testing using Cronbach's alpha demonstrated acceptable internal consistency, with $\alpha = 0.750$ for the overall instrument, $\alpha = 0.802$ for SERVQUAL items, and $\alpha = 0.785$ for user satisfaction items.

These values meet Nunnally's (1978) criterion that $\alpha \geq 0.70$ indicates reliable measurement.

Data Collection

Data collection was conducted between January and March 2024.

Questionnaires were distributed onsite at selected service establishments, which included health and beauty service centers, wellness clinics, supplement distribution units, and community health shops operated under local administrative organizations in Samut Sakhon Province. Trained research assistants approached eligible respondents after they had received services, ensured informed consent, and assisted participants who required clarification. Completed questionnaires were screened for completeness prior to data entry.

Data Analysis

Quantitative data were analyzed using statistical software.

Descriptive statistics (frequency, percentage, mean, and standard deviation) were used to summarize respondent profiles, service quality perceptions, and levels of user satisfaction.

Inferential statistics included the Pearson Product-Moment Correlation Coefficient to examine the relationships between study variables and Multiple Linear Regression (Enter method) to evaluate the effects of the five service quality dimensions on user satisfaction.

All regression assumptions were tested, including normality, linearity, independence of errors, homoscedasticity, and multicollinearity using Variance Inflation Factors (VIF). The significance level was set at 0.05.

Research Findings

Table 1 *Mean Score Interpretation for Service Quality Dimensions*

Mean Range	Interpretation
1.00–1.80	Strongly Disagree
1.81–2.60	Disagree
2.61–3.40	Neutral
3.41–4.20	Agree
4.21–5.00	Strongly Agree

Table 1 Service Quality Perceived by Service Users

Service Quality Dimension	Mean ($\bar{X}$)	S.D.	Level	Rank
Tangibles	3.66	0.55	High	3
Reliability	3.56	0.75	High	4
Responsiveness	3.70	0.66	High	2
Assurance	3.81	0.38	High	1
Empathy	3.36	0.51	Moderate	5
Overall	3.61	0.57	High	–
Interpretation				

Overall perceived service quality was high ($\bar{X} = 3.61$). Among the five dimensions, Assurance received the highest score ($\bar{X} = 3.81$), indicating strong customer confidence in service standards and safety.

Although Empathy received the lowest rating ($\bar{X} = 3.36$), it still fell near the upper boundary of the “moderate” level. This suggests that personalization and individual attention may require improvement.

Meaning of S.D. 0–1.0: SD values between 0.38–0.75 indicate low-to-moderate variability, meaning respondents had generally similar perceptions about service quality.

Table 2 *User Satisfaction Levels*

Satisfaction Dimension	Mean ($\bar{X}$)	S.D.	Level	Rank
Value for Money	4.12	0.61	High	3
Product Quality	3.87	0.67	High	5
Confidence in Standards/Safety	3.91	0.85	High	4
Customization	3.58	0.67	High	6
Overall Impression	4.19	0.63	High	2
Overall	3.93	0.68	High	–

Interpretation

Overall user satisfaction was high ($\bar{X} = 3.93$). The highest-rated item was Overall Impression ($\bar{X} = 4.19$), followed closely by Value for Money ($\bar{X} = 4.12$).

Customization had the lowest rating ($\bar{X} = 3.58$), implying room for improved individualized services.

Table 3 *Correlation Between Service Quality and User Satisfaction*

Variables	TAN	REL	RES	ASS	EMP	Y
TAN	1	—	—	—	—	—
REL	.584*	1	—	—	—	—
RES	.608*	.642*	1	—	—	—
ASS	.215*	.122*	.113*	1	—	—
EMP	.331*	.515*	.234*	.652*	1	—
Y	.323*	.414*	.315*	.315*	.278*	1

Significant at $p < .05$.

Interpretation

All dimensions of service quality were positively and significantly related to user satisfaction.

- Reliability had the strongest correlation ($r = .414$),
- Followed by Tangibles ($r = .323$) and Responsiveness ($r = .315$).
- Empathy had the weakest correlation ($r = .278$), yet remained significant.

Multicollinearity Check: Correlation coefficients $< .80 \rightarrow$ No evidence of multicollinearity. VIF values are also presented in regression analysis (below) to confirm.

Table 4 *Multiple Regression Analysis (Enter Method) Dependent Variable: User Satisfaction*

Predictor	B	β	t	Sig.	VIF
(Constant)	1.215	—	5.432	.000	—
Tangibles	0.184	.162	2.980	.003	1.72
Reliability	0.228	.241	4.125	.000	2.05
Responsiveness	0.165	.152	2.487	.013	1.84
Assurance	0.091	.078	1.221	.223	1.66
Empathy	0.073	.062	1.056	.291	1.59
Model Summary	Value				
R	.622				
R ²	.387				
Adjusted R ²	.376				
F	36.821				
Sig.	.000				

Interpretation

The full model significantly predicted satisfaction ($F = 36.821$, $p < .001$). Approximately 38.7% of the variance in user satisfaction was explained by the five service-quality dimensions.



Significant predictors:

- ✓ Reliability ($\beta = .241, p < .001$) – strongest predictor
- ✓ Tangibles ($\beta = .162, p = .003$)
- ✓ Responsiveness ($\beta = .152, p = .013$)

Non-significant predictors:

- ✓ Assurance ($\beta = .078, p = .223$)
- ✓ Empathy ($\beta = .062, p = .291$)

VIF < 3 → No multicollinearity.

Hypothesis Testing Results

Hypothesis	Statement	Result
H1	Tangibles positively affect user satisfaction.	Supported ($\beta = .162, p < .01$)
H2	Reliability positively affects user satisfaction.	Supported ($\beta = .241, p < .001$)
H3	Responsiveness positively affects user satisfaction.	Supported ($\beta = .152, p < .05$)
H4	Assurance positively affects user satisfaction.	Not Supported ($p > .05$)
H5	Empathy positively affects user satisfaction.	Not Supported ($p > .05$)

Discussion

The findings from Objective 1 indicate that the service quality of comprehensive health, beauty, and dietary supplement businesses in Samut Sakhon Province was high across all dimensions. Assurance was the highest-rated dimension, followed by Responsiveness and Tangibles. This suggests that businesses in this sector prioritize establishing customer confidence through safety certifications, accurate product information, and well-trained staff. Such results align with the SERVQUAL framework (Bond, M. 2024) which underscores assurance and reliability as essential drivers of service perception. Research in health and wellness services similarly emphasizes that clients place strong value on trustworthiness, product safety, and regulatory compliance, especially when services involve dietary supplements and beauty



enhancement (Worapongpat, 2025f). Studies from ASEAN countries further support the importance of safety assurance in shaping consumer evaluations particularly in Thailand, Vietnam, Malaysia, and the Philippines, where supplement consumers increasingly rely on certification labels and scientific claims

Regarding Objective 2, overall user satisfaction was also high, with the highest-rated factors being Value for Money and Overall Impression. This indicates that consumers perceive the price-quality ratio of products and services to be favorable, and that strong brand image reinforces trust and satisfaction. These findings support marketing theories that highlight value perception and brand reputation as central determinants of satisfaction and loyalty (Demirel, 2022). Prior studies in the health and dietary supplement industry also report that consumers' willingness to repurchase is strongly influenced by perceived quality, affordability, and credibility of claim (Worapongpat, 2025e). In the broader Southeast Asian context, research shows that customers in Thailand, Indonesia, and Malaysia tend to evaluate supplements based on both efficacy and brand trust, driven by rapid market expansion and rising health-conscious lifestyles

For Objective 3, the relationship between service quality and satisfaction was positive and moderate to strong. Reliability and Assurance exerted the greatest effects, demonstrating that customers expect consistent service performance, trustworthy product quality, and adherence to safety standards in the health and beauty sector. This is consistent with prior work identifying reliability as a critical driver of satisfaction in health and wellness services (Islami, al. et., 2024). Furthermore, Responsiveness and Empathy also contributed significantly, supporting findings that timely support and personalized care strengthen consumer trust and loyalty (Worapongpat, 2025d). Recent empirical research in ASEAN reinforces these findings, showing that service responsiveness and empathetic engagement significantly enhance user satisfaction in cosmetic clinics, wellness centers, and dietary supplement retail environments. Overall, these findings highlight that businesses in the health, beauty, and supplement industries must maintain strong safety assurance, reliable product quality, and responsive service processes to enhance consumer satisfaction, an insight that is increasingly relevant given the rapid growth of the dietary supplement market across ASEAN.

Conclusion

The findings of this study demonstrate that the overall service quality of comprehensive health, beauty, and dietary supplement businesses in Samut Sakhon Province was rated at a high level across all SERVQUAL dimensions. Among these, Assurance and Reliability emerged as the strongest determinants of user satisfaction, reflecting the critical role of safety standards, certification, accurate information, and consistent service performance in shaping consumer perceptions.

The study further confirmed that service quality has a statistically significant and positive influence on user satisfaction. This indicates that when users perceive services as trustworthy, reliable, and responsive with clear safety assurance and personalized attention, their satisfaction increases accordingly. These findings support the SERVQUAL model and align with previous research in the health, beauty, and dietary supplement sectors.

Overall, the results highlight the need for continuous enhancement of service delivery particularly in strengthening reliability, ensuring safety assurance, and improving responsiveness to foster higher levels of satisfaction, repeat patronage, and customer loyalty. These insights are especially relevant to businesses operating under local administrative organizations, where standardized service quality and regulatory compliance are essential for maintaining public trust.

Recommendations

1. Recommendations for Practical Applications

1.1 Based on Objective 1: Service Quality Levels. The study found that service quality across all dimensions particularly Assurance was rated at a high level. Relevant agencies and business operators should focus on the following: strengthen safety and quality assurance systems by promoting compliance with national and international standards (e.g., GMP, HACCP, FDA certification); support entrepreneurs in obtaining official product and service quality certifications, enhancing consumer confidence in the health, beauty, and dietary supplement sector, and organize continuous training programs focusing on service excellence, communication skills, and professional ethics to improve performance across all SERVQUAL dimensions.



1.2 Based on Objective 2: User Satisfaction Levels. User satisfaction was also high, especially in value for money and overall impression. To maintain and further improve satisfaction, agencies and businesses should focus on the following: develop marketing strategies highlighting price–quality consistency and unique value propositions that resonate with consumer expectations; enhance brand image and customer engagement through clear communication, transparent product information, and consistent service delivery; and promote customer relationship management (CRM) practices to strengthen trust and long-term connections between service providers and customers.

1.3 Based on Objective 3: Relationship Between Service Quality and Satisfaction. The study revealed positive and statistically significant relationships between service quality and satisfaction, with Reliability and Assurance exerting the strongest influence. Therefore, agencies and operators should focus on the following: emphasize strict quality control mechanisms to ensure consistency in product and service standards; develop staff competencies in responsiveness, problem-solving, and empathetic service delivery to enhance customer experience; and implement routine performance evaluations to monitor service quality and identify areas for continuous improvement.

2. Recommendations for Future Research

Based on the findings and limitations of the present study, future research should consider the following: exploring the role of digital technology, including online platforms, teleconsultation, and social media marketing, on perceived service quality and satisfaction in health and beauty services; examining cultural and social influences such as trust in traditional remedies, community expectations, and health consciousness on consumer behavior in different regions or ASEAN countries; investigating the impact of personalized marketing and customized service offerings on customer satisfaction and loyalty, particularly for dietary supplements and wellness-oriented products; conducting comparative studies across provinces or countries to identify variations in service expectations and satisfaction determinants within Southeast Asia, and applying mixed-method or longitudinal designs to capture deeper insights into consumer attitudes, behavioral changes, and long-term loyalty patterns.

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