APPLICATION OF THE SERVPERF MODEL TO EVALUATE CITIZEN SATISFACTION WITH PUBLIC ADMINISTRATIVE SERVICE QUALITY: A CASE STUDY OF HAI CHAU WARD PUBLIC ADMINISTRATION SERVICE CENTER, DA NANG CITY, VIETNAM

Hien Truong Thi Thu*, Phuoc Mai Xuan

The University of Danang - University of Economics, Vietnam

*Corresponding author: hienttt@due.edu.vn

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Abstract - This study applies the SERVPERF model to evaluate citizen satisfaction regarding the quality of public administrative services provided at the Hai Chau Ward Public Administration Service Center (HCPASC), Da Nang City. Analytical results confirm that the measurement scales meet rigorous standards for reliability, convergent validity, and discriminant validity. Regression analysis reveals that Tangibles and Responsiveness exert the most substantial impact on citizen satisfaction, whereas Reliability, Assurance, and Empathy yield no statistically significant effects. Drawing on these empirical findings, the study proposes that grassroots local governments should prioritize the modernization of physical infrastructure to reinforce a professional and transparent image. Simultaneously, it is crucial to optimize responsiveness by streamlining administrative procedures, reducing actual waiting times, and enhancing the face-to-face support capabilities of civil servants, thereby fulfilling citizens' performance-driven expectations.

Key words - Service Quality; Public Administration; Commune-level local Government; Citizen Satisfaction; SERVPERF

1. Introduction

SERVPERF (Service Performance) is a specialized framework developed by Cronin and Taylor [1] to measure customer satisfaction relative to service quality. This model was built on the foundations of the SERVQUAL (Service Quality) model, initially proposed by Parasuraman, Zeithaml, and Berry [2]. While both frameworks aim to quantify service quality, they differ fundamentally in their evaluative approach: SERVQUAL focuses on “the gap between customer expectations and perceptions”, whereas SERVPERF exclusively measures quality based on customers' actual perceptions after service delivery, rather than comparing them with prior expectations [3].

Globally, the SERVPERF model has been widely applied to evaluate customer satisfaction across diverse sectors, including healthcare [4], education [5], business [6], and tourism [7], among others. Similarly, in Vietnam, the SERVPERF framework has been widely used to assess customer satisfaction across fields such as education [8], urban railways [9], and banking [10].

Customer satisfaction or dissatisfaction is the customer's reaction to the discrepancy between pre-consumption expectations and the perceived product or service following usage [11]. Customers will feel satisfied when the products and experiences they receive meet their expectations through three aspects: general or overall satisfaction, confirmation of expectations, and comparison with an ideal situation [12]. In this study, we clearly delineate two core concepts: Service quality, based on the SERVPERF model, is conceptualized as citizens' cognitive evaluation of actual service performance regarding tangibles, reliability, responsiveness, assurance, and empathy. Conversely, citizen satisfaction (CS) is defined as the overall emotional state reflecting their degree of fulfillment after experiencing the service. The research model hypothesizes that the dimensions of service quality serve as antecedents directly impacting this level of satisfaction.

The existing literature primarily validates SERVPERF in stable, well-resourced environments where citizens' basic expectations are consistently met. However, there is a notable research gap regarding its application at the grassroots administrative level in transition economies undergoing radical administrative reforms. By situating this study in Vietnam- specifically following the extensive streamlining of the state apparatus since July 2025-this paper adds value by empirically demonstrating how citizens' evaluation metrics shift during periods of intense institutional restructuring and resource optimization. In such contexts, baseline compliance is strictly mandated, fundamentally altering how citizens weigh the dimensions of public administrative service quality.

Researching the application of the SERVPERF model to measure citizen satisfaction with public administrative service quality at HCPASC- within the context of digital transformation and following the extensive streamlining of the state apparatus in Vietnam since July 1, 2025- is critically essential. This study will provide empirical evidence and a vital foundation for the local government of Hai Chau Ward in particular, and commune-level authorities across Vietnam in general, to gain further insights for developing solutions to enhance the quality of public administrative service delivery for society and its citizens.

2. Research methodology

2.1. Research Model

The SERVPERF model evaluates service quality through five core dimensions: Tangibles, Reliability, Responsiveness, Assurance, and Empathy [1]. This study

applies the SERVPERF framework to measure the quality of public administrative services at HCPASC and assess citizen satisfaction with these services (Figure 1). The application of the SERVPERF model in this context is theoretically grounded in the New Public Management (NPM) paradigm, which conceptualizes citizens as customers [13], [14]. Unlike the private sector, public administrative services are inherently monopolistic. Consequently, citizens' pre-service expectations are frequently biased by historical bureaucratic inefficiencies or universally high compliance demands, making the expectation-perception gap of SERVQUAL less reliable [3]. Thus, SERVPERF's performance-only approach provides a more pragmatic and accurate mechanism to gauge service quality in public institutions [1].

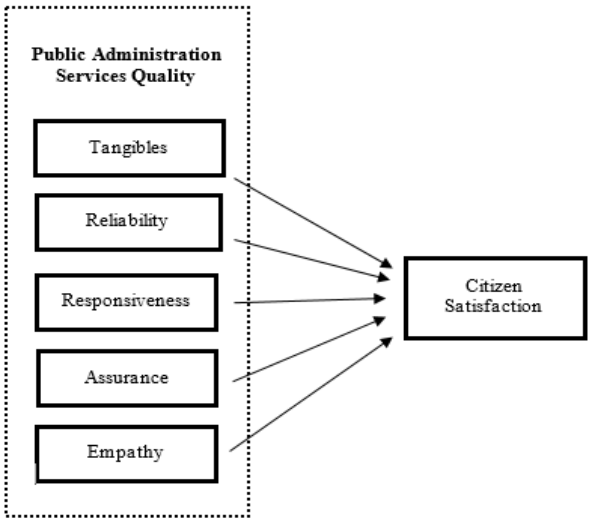

Figure 1. *Research model*

2.2. Hypotheses Development

While the relationships between SERVPERF dimensions and customer satisfaction are well-documented [1], applying them to grassroots public administration requires specific theoretical contextualization.

Tangibles and Citizen Satisfaction: Drawing upon Signaling Theory [15], [16], citizens often lack visibility into internal bureaucratic processes. Therefore, they rely on physical cues-such as modern facilities, clean waiting areas, and professional attire-as observable signals of institutional transparency, competence, and respect, which in turn enhances their satisfaction.

H1: Tangibles have a significant positive impact on citizen satisfaction.

Responsiveness and Citizen Satisfaction: Based on Social Exchange Theory [17], [18], when civil servants provide prompt support and address concerns enthusiastically, citizens perceive a reciprocal relationship of respect. This positive interaction reduces temporal and psychological costs for the citizens, directly driving higher satisfaction.

H2: Responsiveness has a significant positive impact on citizen satisfaction.

Reliability, Assurance, and Citizen Satisfaction: From the perspective of Institutional Trust [19], [20], strict adherence to administrative procedures (Reliability) and solid professional knowledge (Assurance) fulfill the fundamental social contract between the state and its citizens. Delivering accurate results as promised fosters a sense of security and trust in the local government.

H3: Reliability has a significant positive impact on citizen satisfaction.

H4: Assurance has a significant positive impact on citizen satisfaction.

Empathy and Citizen Satisfaction: In the framework of Citizen-Centric Governance [21], the bureaucratic apparatus can often seem rigid. Personalized attention and convenient operating hours (Empathy) humanize the administrative process, transitioning it from a purely authoritative procedure to a service-oriented interaction, thereby increasing overall satisfaction.

H5: Empathy has a significant positive impact on citizen satisfaction.

2.3. Research Design

The study employs a quantitative questionnaire to measure service quality using the Cronin and Taylor [1] framework and customer satisfaction as defined by Khairawati [12]. The instrument uses a 5-point Likert scale, adapted to the specific context of Vietnam (Table 1), to measure public administrative service quality and citizen satisfaction with it. Remarkably, the Citizen Satisfaction (CS) construct is measured using a single-item scale. The application of single-item scales for global concepts such as 'overall satisfaction' has been empirically shown to yield predictive validity comparable to multi-item scales in PLS-SEM contexts, while simultaneously reducing respondent burden [22], [23].

Table 1. *Scale for measuring public administrative service quality and citizen satisfaction*

Dimensions	Items	
Tangibles	TAN1	Modern, spacious, and clean physical facilities (waiting areas, seating, etc.).
	TAN2	Modern and well-functioning equipment (queue management systems, computers, printers, etc.).
	TAN3	Clear and easily accessible signage and public posting of administrative procedures.
	TAN4	Civil servants' attire is professional, neat, and tidy.
Reliability	REL1	Procedures are processed accurately and in compliance with regulations from the very first instance.
	REL2	The results are returned exactly as scheduled in the appointment slip.
	REL3	Civil servants fulfill their promises and commitments to the citizens.
Responsiveness	RES1	The wait time for administrative procedures is brief and efficient.
	RES2	Civil servants are always ready and enthusiastic to assist citizens.
	RES3	Questions and concerns are addressed promptly and satisfactorily.
Assurance	ASS1	Civil servants possess solid professional knowledge and handle tasks with

		professionalism.
	ASS2	Civil servants maintain a polite and respectful attitude toward citizens.
	ASS3	I feel reassured and have complete confidence in the outcomes processed by the civil servants.
Empathy	EMP1	Civil servants listen to and understand citizens' specific concerns.
	EMP2	Citizens receive personalized attention and support whenever necessary.
	EMP3	HCPASC's operating hours are convenient for citizens.
Citizen Satisfaction	CS1	The citizens' level of satisfaction with the quality of public administrative activities at HCPASC.

(Source: Adapted from [1] and [12])

2.4. Sample Size

According to Hair et al., the ideal ratio of observations to each analyzed variable is 10:1 [23]. This study includes 17 items measured on a 5-point Likert scale. Therefore, at least 170 observations are required.

2.5. Data Collection

The survey was conducted directly at the HCPASC. A total of 215 questionnaires were distributed. The target respondents were citizens visiting the center to utilize public administrative services. The survey was conducted over 3 months, from October 26, 2025, to January 30, 2026.

2.6. Data Analysis

The data analysis process was conducted in three fundamental steps: Step 1: Data cleaning and descriptive statistics of the sample characteristics. Step 2: Assessment of the measurement model. Step 3: Assessment of the structural model. The parameters for Steps 2 and 3 were processed using SmartPLS 4.1.7.

3. Findings

3.1. Data Cleaning and Descriptive Statistics

Of the 215 individuals surveyed at the HCPASC regarding administrative procedures, 199 responded. Among these, 23 were found to be invalid due to straight-lining patterns. Of the 176 valid responses, the demographic characteristics are presented in Table 2.

Table 2. *Descriptive Statistics of Sample Characteristics*

Characteristics		Frequency	Percentage (%)
Gender	Female	105	59.7
	Male	71	40.3
Age group	Under 30	77	43.7
	31-45	58	33.0
	46-60	28	15.9
	Over 60	13	7.4
Frequency of Visits to the Center	First time	62	35.2
	Frequently	60	34.1
	Rarely	54	30.7

(Source: Compiled by the authors)

3.2. Assessment of the Measurement Model

3.2.1. Assessment of Indicator Reliability

Based on the PLS-SEM results, the Outer Loadings were examined (Table 3). The results indicate that all indicators have outer loadings exceeding 0.7. This signifies that all observed variables effectively reflect their respective latent constructs, providing strong representation and suitability for the latent variables.

Table 3. *Outer Loadings*

	ASS	CS	EMP	REL	RES	TAN
ASS1	0.839					
ASS2	0.792					
ASS3	0.813					
CS		1.000				
EMP1			0.796			
EMP2			0.831			
EMP3			0.823			
REL1				0.785		
REL2				0.816		
REL3				0.798		
RES1					0.777	
RES2					0.836	
RES3					0.894	
TAN1						0.794
TAN2						0.812
TAN3						0.768
TAN4						0.780

(Source: PLS-SEM 4.1.7 analysis)

3.2.2. Assessment of Construct Reliability

Referring to the Construct Reliability and Validity report from the PLS-SEM algorithm, the results (Table 4) show that Cronbach's Alpha, Composite Reliability (rho_a), and Composite Reliability (rho_c) are all above the acceptable threshold of 0.7. This confirms that all factor structures achieve high reliability, and the indicators within each scale exhibit strong internal consistency, effectively measuring the same underlying concept.

Table 4. *Scale Reliability*

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
ASS	0.747	0.749	0.855
EMP	0.750	0.751	0.857
REL	0.719	0.720	0.842
RES	0.785	0.793	0.875
TAN	0.797	0.799	0.868

(Source: PLS-SEM 4.1.7 analysis)

3.2.3. Assessment of Convergent Validity

From the PLS-SEM algorithm results, under the Construct Reliability and Validity section, the Average Variance Extracted (AVE) values for all constructs exceed the acceptable threshold of 0.5 [24]. This indicates that all factor structures achieve convergent validity, as an AVE ≥ 0.50 implies that, on average, the latent construct explains at least 50% of the variance of its respective indicators.

Table 5. *Convergent Validity*

	Average variance extracted (AVE)
ASS	0.664
EMP	0.667
REL	0.640
RES	0.701
TAN	0.622

(Source: PLS-SEM 4.1.7 analysis)

3.2.4. Assessment of Discriminant Validity

Based on the Discriminant Validity results from the PLS-SEM algorithm using the Fornell-Larcker criterion (Table 6), all model factors achieve discriminant validity. This is evidenced by the fact that no correlation between any two constructs exceeds the square root of their respective AVE values.

Table 6. *Discriminant Validity*

	ASS	CS	EMP	REL	RES	TAN
ASS	0.815					
CS	0.584	1.000				
EMP	0.752	0.621	0.817			
REL	0.695	0.575	0.667	0.800		
RES	0.790	0.697	0.775	0.691	0.837	
TAN	0.725	0.677	0.727	0.720	0.803	0.789

(Source: PLS-SEM 4.1.7 analysis)

In conclusion, the measurement model is deemed appropriate as it ensures indicator reliability, internal consistency, convergent validity, and discriminant validity of the scales.

3.3. Assessment of the Structural Model

3.3.1. Collinearity Assessment of Latent Variables

From the PLS-SEM algorithm results, under the Collinearity Statistics (VIF) section (specifically the Inner Model - List view), the results (Table 7) indicate that there are no collinearity issues within the model. This is confirmed as all VIF values are below the threshold of 5, thereby satisfying the necessary conditions to proceed with further analysis [25].

Table 7. *Collinearity Statistics*

	VIF
ASS -> CS	3.303
EMP -> CS	3.062
REL -> CS	2.462
RES -> CS	4.171
TAN -> CS	3.457

(Source: PLS-SEM 4.1.7 analysis)

3.3.2. Coefficient of Determination R^2

According to the PLS-SEM algorithm results, the R-square section was examined to assess the model's explanatory power (Table 8). The analysis reveals an R^2 value of 0.533, indicating that the independent variables explain approximately 53.3% of the variance in the CS construct. Furthermore, the Adjusted R^2 reached 0.519, demonstrating that the model maintains a moderate level of explanatory power after adjusting for the number of predictors. This result confirms that the research model possesses a good fit with the empirical data at HCPASC.

Table 8. *Coefficient of Determination R^2*

	R-square	R-square adjusted
CS	0.533	0.519

(Source: PLS-SEM 4.1.7 analysis)

3.3.3. Effect Size f^2

From the PLS-SEM results, the f-square section was examined to assess the magnitude of impact (Table 9). The analysis reveals that the two variables with the most notable effect on CS are RES (f^2 = 0.071) and TAN (f^2 = 0.045). The remaining constructs (ASS, EMP, and REL) demonstrate negligible effects on the CS variable.

Table 9. *Effect Size f^2*

	ASS	CS	EMP	REL	RES	TAN
ASS		0.002				
CS						
EMP		0.011				
REL		0.005				
RES		0.071				
TAN		0.045				

(Source: PLS-SEM 4.1.7 analysis)

3.3.4. Assessment of Path Coefficients and Statistical Significance

To analyze specific impacts, the data used to assess the significance and relevance of the model's variables were obtained via bootstrapping. From the Bootstrapping results, the Path coefficients was examined to evaluate the hypothesized relationships, and the results are illustrated in Figure 2.

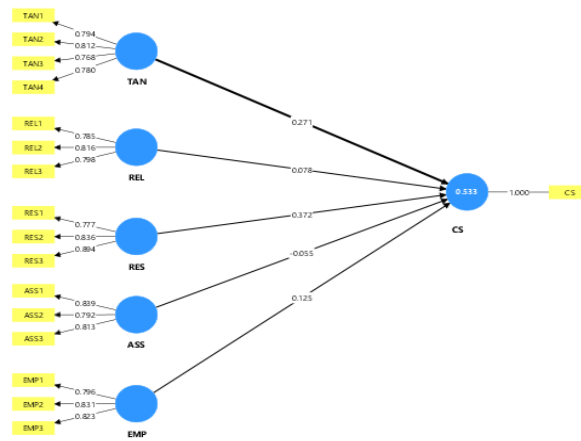

Figure 2. *Path Coefficients Results of the PLS-SEM Structural Model*

Figure 2 shows that, except for the ASS variable, the remaining path coefficients are positive (+), indicating that the model's relationships are directional. The results further reveal that only two relationships are supported at the 5% significance level, as their P-values are less than 0.05 and t-statistics exceed 1.96 (Table 10).

Table 10. *Bootstrapping Results for the Structural Model*

Hypothesis	Relationship	O	M	St. Dev	t	P	Result
H1	TAN -> CS	0.271	0.275	0.115	2.355	0.019	Accept
H2	RES -> CS	0.372	0.373	0.113	3.289	0.001	Accept
H3	REL -> CS	0.078	0.071	0.083	0.931	0.352	Reject
H4	ASS -> CS	0.055	0.058	0.096	0.570	0.569	Reject
H5	EMP -> CS	0.125	0.131	0.106	1.181	0.238	Reject

(Source: Compiled by the authors)

4. Discussion

The research results indicate that the SERVPERF model is appropriate for assessing citizen satisfaction with the quality of public administrative services provided by HCPASC. However, only two factors were found to have a significant positive impact on citizen satisfaction: Responsiveness and Tangibles. Responsiveness emerged as the most influential factor with an impact level of 0.372. This implies that faster waiting times, the readiness and enthusiasm of civil servants to support citizens, and the timely, satisfactory resolution of inquiries are key drivers of citizen satisfaction. Tangibles ranked second most influential, with an impact level of 0.271. Modern, clean facilities, well-functioning equipment, clearly posted administrative procedures, and the professional appearance of civil servants significantly contribute to higher satisfaction levels. This finding presents an interesting theoretical contrast to previous studies conducted in stable or developed contexts (e.g., [5]), where Reliability and Assurance typically dominate. In the context of grassroots public administration in Vietnam, where fundamental legal compliance and professional standards are now strictly standardized post-reform, these 'soft' dimensions are taken for granted. Instead, citizens prioritize immediate, visible improvements in physical infrastructure and the swift, on-the-spot problem-solving attitude of frontline civil servants. This provides empirical evidence of a paradigm shift in citizen expectations, demonstrating that SERVPERF dimensions become highly context-dependent and strictly hierarchical during periods of institutional stress, thereby offering a pragmatic resource-allocation matrix for local authorities operating under severe budget constraints. The negligible impact of Reliability, Assurance, and Empathy may be explained by a shift in citizens' expectations. Amidst the rapid acceleration of digital transformation, citizens increasingly perceive procedural compliance and professional competence as fundamental, indispensable requirements. Consequently, core emotional values now center predominantly on actual processing efficiency, as manifested through Tangibles and Responsiveness.

5. Conclusion and policy implications

This study provides critical empirical evidence for local authorities at the commune level to formulate policies that optimize public service quality and enhance citizen satisfaction. While traditional governance models often prioritize internal processes, these findings emphasize a strategic shift toward external performance metrics grounded in actual citizen experiences, specifically expectations for infrastructure and speed. The decisive roles of Tangibles and Responsiveness suggest that policy breakthroughs must focus on modernizing physical public service interfaces and shortening on-site response times. This is particularly vital in the current context of administrative reform and digital transformation.

Grassroots managers can utilize these findings to reallocate resources, moving beyond mere procedural completion toward creating a professional, high-response service environment that meets the practical demands of the digital age. Accordingly, local commune-level authorities should:

(i) Modernizing physical infrastructure (Tangibles): Continued investment is required to upgrade the waiting areas and technical equipment at the HCPASC to uphold a professional and transparent image. Prioritize budget allocation to upgrade physical waiting areas (ensuring they are spacious and clean), install reliably functioning on-site electronic queuing systems, and ensure administrative procedures are clearly and accessibly posted at the physical premises in compliance with administrative ISO standards.

(ii) Optimizing Responsiveness: It is imperative to review and streamline intermediate steps in coordination workflows to reduce actual waiting times, while simultaneously fostering a proactive and supportive attitude among frontline civil servants at the HCPASC. Develop streamlined workflows at the Center to reduce physical waiting times. Simultaneously, provide face-to-face communication skills training for civil servants to ensure on-site complaints and inquiries are resolved with enthusiasm and to the citizens' satisfaction.

6. Research limitations

This study is not without its limitations. First, the reliance on a single-item scale to measure citizen satisfaction, while pragmatic for this context to reduce respondent burden, may not fully capture the multidimensional nuances of the construct. Future research should consider employing multi-item scales to enhance measurement robustness. Second, the data was collected using a convenience sampling method at a single local administrative unit (Hai Chau Ward) with a relatively small sample size of 176 valid responses. Consequently, the generalizability of the findings to other geographical regions or higher-level administrative bodies in Vietnam should be interpreted with caution. Future studies could expand the sampling scope and utilize stratified random sampling to validate these results across broader contexts.

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