

Service Quality and Performance Results through Customer Satisfaction at Small-Scale Hotels in Hanoi Area

Nguyen Quoc Dat, Nguyen Thu Hang

Hanoi University of Natural Resources and Environment

<https://orcid.org/0009-0003-8818-2856>

Hanoi University of Natural Resources and Environment

<https://orcid.org/0009-0008-7447-482X>

Abstract:

In the context of the Covid-19 pandemic, the hotel industry in Vietnam shows a strong recovery, businesses are continuously stepping up recruitment activities, expanding markets and increasing customer files. . The goal of the article is to clarify the impact of service quality on operational results through customer satisfaction. The research sample was collected by the author of the article from 119 survey questionnaires after 3 times distributing questionnaires to customers who used services at 5 small-scale hotels in the Hanoi area of Vietnam. Using quantitative research on the PLS-SEM linear structural model on SPSS 20 and AMOS 20 software, the results have identified 3 groups of recommended solutions for hotel managers in meeting demand. customers and improve operational results, including: (i) Organizing hotel staff, foreign language training, and professional behavior; (ii) Invest in equipment and facilities suitable to customer needs in different stages; (iii) Increase customer responsiveness, especially through the internet channel.

Keywords: Service quality, SERVQUAL scale, Vietnamese hotels, Vietnamese tourism, Operational results

1. Introduction

Vietnam's hotel industry has grown at a high rate in recent times, contributing greatly to the tourism industry in particular and the state budget in general. Therefore, Vietnam's Hotel-Tourism development strategy with a vision to 2030 is to basically become a spearhead economic sector with professionalism and a system of relatively synchronous and modern technical facilities. ; Tourism products are high quality, diverse, branded, imbued with national cultural identity, competitive with other countries in the region and the world. The Covid-19 pandemic has pushed the hotel industry, which is facing increasing competitive pressures in a high-growth, highly fragmented market, and challenges that threaten the industry's viability, as evidenced by recent consolidation, mergers and acquisitions, franchising and foreign collaborations (Chand, 2010).

According to CBRE Real Estate Consulting Company (UK), in the past three years, room capacity in Vietnam has continuously increased. Room occupancy rate in the city. Ho Chi Minh and Hanoi are close to major cities in Southeast Asia, such as Jakarta (Indonesia) and Kuala Lumpur (Malaysia). In the next three years, hotel supply forecast in Hanoi and City. Ho Chi Minh City will increase by 8%. According to STR Global, a company specializing in market consulting in the hotel industry, in 2014, room capacity in Hanoi increased by 2.4% (the percentage increases and decreases in the article are both compared to the same period last year). period or compared to 2013), up to 68%, in the City market. Ho Chi Minh City decreased by 1.7%, to 66.4%. Other data from STR Global shows that Vietnam's hotel industry is not very prominent. In 2022, the occupancy rate of Vietnam's hotel industry has decreased by 2.2%, to 62.3%, the average daily price of a room increased slightly, to 1.8%, about 2.7 million. VND/room, equivalent to 125.57 USD. Average room revenue decreased by 0.4%, to 1.7 million VND, equivalent to 78.18 USD. However, overall, the attractiveness of the Vietnamese economy is still clear on many fronts and the support for the hotel industry's growth lies not only in the increase in customers (according to [https:// www.noron.vn/post/thuc-trang-nganh-khach-san-hien-nay-o-viet-nam-1tahas1285tb](https://www.noron.vn/post/thuc-trang-nganh-khach-san-hien-nay-o-viet-nam-1tahas1285tb)).

2. Literature Review And Previous Research Studies

Service quality theory: According to Oliver (1980), if an organization's services do not meet customer satisfaction expectations, customers will evaluate that organization as having low quality, vice versa if that organization's services meet customer expectations. exceed customer expectations, customers will evaluate the organization as high quality. Satisfaction influences attitude change and purchase intention (Oliver, 1980).

Theory of reasoned action: According to Ajzen & Fishbein (1977), intentions influence behavior and intentions are determined by personal attitudes, along with the influence of subjective norms, that is, the influence of others also leads to the attitudes of others. family (Ajzen & Fishbein, 1977). Attitudes and subjective norms are important in behavioral intentions. The more positive the attitude and the stronger the subjective norm, the higher the relationship between attitude and demonstrated behavior. However, attitudes and subjective norms do not appear to be equally balanced in predicting behavior. Depending on the individual and situation, these factors can have a varying degree of impact on behavioral intention.

According to Yilmaz (2009), To measure the service quality performance of a hotel from a customer perspective, a performance-only scale (SERVPERF) can be used. The results of the study demonstrate that SERVPERF is a reliable and valid tool for measuring service quality in the hotel industry (Yilmaz, 2009). The tool includes four dimensions, namely “tangibility,” “responsiveness,” “empathy,” and “reliability.” Hotel customers are expecting more improved services from hotels in all aspects of service quality. However, hotel customers had the lowest perception score of tangible assets. It was also revealed that empathy is the most important aspect in predicting a hotel customer's overall service quality rating. Based on the results, possible managerial implications are discussed and future research topics are suggested.

According to Raspor (2010), to evaluate the perceived service quality of hotel attributes and determine the factor structure of perceived service quality from customers (Raspor, 2010). A revised service scale was used to assess perceptions of service quality from the perspective of domestic and international tourists. Data were collected at 15 hotels in Croatia, using self-administered questionnaires. Descriptive statistical analysis, exploratory factor analysis, and reliability analysis were conducted. Research results show that hotel guests have high expectations regarding service quality. “Reliability”, “employee empathy and competence”, “accessibility” and “tangibility” are the main factors that best explain customer expectations of customer service quality hotel. The results of a quantitative assessment of perceived service quality can provide some insight into how customers evaluate the service quality of a particular hotel. Therefore, these findings can be used as a guide for hotel managers to improve key quality attributes and enhance service quality and business performance.

According to Chand (2010), data was collected through a survey in 52 hotels in India that responded to a questionnaire including 52 human resource managers, 260 employees (5 from each hotel) and 260 guests. rows (5 from each hotel) (Chand, 2010). The results indicate that human resource management practices have a positive influence on improving service quality as well as customer satisfaction and hotel performance. The findings indicate that customer satisfaction value creation in hotels can be achieved through increased responsiveness to customer needs and that customer value creation has a positive impact to company profits. The results show that HRM practices improve hotel service performance and thus corporate performance to be replicated and extended in HRM context research. The study also suggests that management should emphasize the development of learning and relationship capabilities within departments.

According to Dedeoğlu & Demirer (2015), previous studies often tried to determine the level of customer service quality perception by mainly focusing on customers' quality assessment (Dedeoğlu & Demirer, 2015). However, the nature and characteristics of differences in service quality perceptions between customers, managers and employees have not been fully researched. Using multivariate analysis of variance was used to test for significant differences between stakeholders' perceptions of service quality, using a sample of 845 hotel stakeholders (guests). customers, employees and managers). The results show that employees perceive service performance as high, while customers perceive it as low. According to the post-hoc test, although managers' perception of service quality performance was lower than that of employees, no significant difference was found between them. Additionally, by second-order confirmatory factor analysis, it was determined that the lowest explanation rate was the tangible aspect in SERVQUAL.

According to Shah et al. (2018), investigate the impact of customer satisfaction and service quality on hotel performance by applying the SERVQUAL model (Shah, Jan, & Baloch, 2018) . Data were collected from 1429 hotel guests in selected cities such as Khyber Pakhtunkhwa (Peshawar, Swat, Chitral, Naran, Abbottabad, Galiat), Punjab (Lahore, Rawalpindi) and the capital (Islamabad) of Pakistan. The hotel sample included 10 hotels in each city and 20 customers in each hotel were selected as respondents. The researchers used regression and factor analysis to analyze the data. The results show that service attributes have a significant positive impact on customer satisfaction. Furthermore, service assurance was found to be a significant negative predictor of customer satisfaction. The results of the study show that a constructive connection exists between the actual and expected attributes of service quality and customer satisfaction. Research suggests that the customer experience at a hotel is a key factor in the hotel industry.

The study suggests the following hypotheses:

- H1: Hotel facilities (FAC) have a positive impact on customer satisfaction (SAT).
- H2: Hotel staff quality (QHS) has a positive impact on customer satisfaction (SAT).
- H3: Customer responsiveness (CUS) has a positive impact on customer satisfaction (SAT).
- H4: Customer satisfaction (SAT) has a positive impact on operating results (OPE)

3. Methodology And Proposed Model

Research using PLS-SEM linear structural model:

* Quantitative research goals. Testing the PLS-SEM linear structural model to determine the impact of service quality on operational results in small-scale customers in the Hanoi area, performed on SPSS 20 and AMOS 20 software (Arbuckle, 2011).

The model has the form: $OPE = f(SAT)$; $SAT = f(FAC, CUS, QHS)$

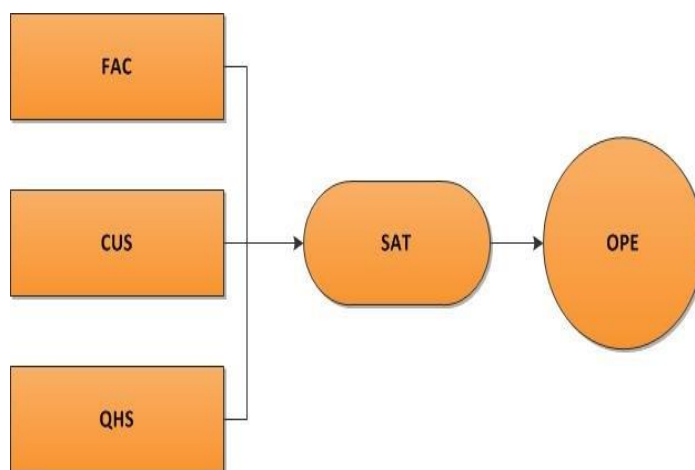


Figure 1: Research model

All variables in the model are measured using the 5-level Linkert scale (Likert, 1932), which is a series of answers related to attitudes in the survey questions and selected by customers. only one of those answers. Each answered content is given a score that reflects the level of interest and the corresponding scores can be aggregated to measure the responding employee's attitude.

Absolutely not	Disagree	Neutral	Agree`	Totally agree
1	2	3	4	5

* *Research data.* The study collected 119 questionnaires from all three times of distributing questionnaires from customers of 5 small-scale hotels in the Hanoi area. The data was cleaned before running the model using SPSS 20 software. and AMOS 20.

* **Structure of survey objects:** The results collected are customers who have used services at hotels, specifically:

Regarding gender: there are 88 male customers (accounting for 73.95%); female customers (15.97%) and 12 other gender customers (10.08%).

Regarding age: there are 6 customers under 18 years old (5.04%); 38 customers from 18 - 25 years old (31.93%); 55 customers are from 26 - 30 years old (46.22%) and 20 customers are over 30 years old (16.81%).

Regarding occupation: 25 customers are students (21.01%), 65 customers are workers and civil servants (54.62%), 15 customers are freelance workers (12.61%) and 14 retired customers (11.76%).

Regarding average income: there are 5 customers with an average income of less than 8 million VND (4.2%), 25 customers with an average income of 8 - 15 million (21.01%), 89 customers have an average income of over 15 million (74.79%).

Table 1. Characteristics of study subjects

No.	Characteristic	Customer (person)	Proportion (%)
1	Sex		
	- Male	88	73,95
	- Female	19	15,97
	- Other	12	10,08
2	Age		
	- Under 18	6	5,04
	- From 18 - 25 years old	38	31,93
	- From 26 - 30 years old	55	46,22
	- Over 30 years old	20	16,81
3	Job		
	- Student	25	21,01
	- Workers and Employees	65	54,62
	- Free labor	15	12,61
	- Retirement	14	11,76
4	Average income		
	- Under 8 million VND	5	4,20
	- From 8 - 15 million VND	25	21,01
	- From 15 - 20 million VND	89	74,79

Source: Compiled from the investigation process

Table 1 shows that the number of surveys is relatively uniform, and reflects reality. Based on theory, the author of the article built a scale as follows:

Table 2. Scale and variables in the PLS-SEM model

No.	Encode	Contents of survey question list	Citation
I. Hotel facilities (FAC)			
1.	FAC1	Location of the accommodation facility	(Ajzen & Fishbein, 1977), (Yilmaz, 2009), Raspor (2010), Chand (2010)
2.	FAC2	Interior quality of the accommodation facility: Waiting room, tables and chairs, bathroom, toilet, floor, bedroom amenities.	
3.	FAC3	Hotel space	
II. Customer responsiveness (CUS)			
4.	CUS1	Accommodation facility staff are always monitoring and ready to help customers book and use	Chand (2010), Dedeoğlu & Demirer (2015), (Shah, Jan,

No.	Encode	Contents of survey question list	Citation
		accommodation services	& Baloch, 2018)
5.	CUS2	Accommodation facility staff will contact you immediately upon request	
6.	CUS3	Accommodation facility staff respond immediately to service requests and complaints.	
III.	Hotel commitment (BRA)		
7.	BRA1	The hotel complies with its commitment to service quality to customers	(Yilmaz, 2009), Raspor (2010), Chand (2010), Dedeoğlu & Demirer (2015), (Shah et al., 2018)
8.	BRA2	When customers change services or have service problems, the problem is always responded to promptly	
9.	BRA3	Customers always feel safe and secure when booking and using hotel services	
IV.	Quality of hotel staff (QHS)		
10.	QHS1	Accommodation staff understand the needs, preferences and desires of customers	Chand (2010), Dedeoğlu & Demirer (2015), (Shah et al., 2018)
11.	QHS2	Proficiency in foreign language communication and professionalism in sympathizing with customers	
12.	QHS3	Accommodation facility staff are considerate and provide reasonable and accurate advice	
V.	Customer Satisfaction (SAT)		
13.	SAT1	I am satisfied when using the service at the hotel	(Yilmaz, 2009), Raspor (2010), Chand (2010), Dedeoğlu & Demirer (2015), (Shah et al., 2018)
14.	SAT2	I think this hotel is better than I expected	
15.	SAT3	I will recommend the hotel to my friends	
VI.	Operating Results (OPE)		
16.	OPE1	Number and market share of customers increased	Oliver (1980), (Ajzen & Fishbein, 1977)., (Yilmaz, 2009), Raspor (2010), Chand (2010), Dedeoğlu & Demirer (2015), (Shah et al., 2018)
17.	OPE2	Hotel profits increased	
18.	OPE3	Hotel staff income increased	

Source: Compiled from theoretical basis

The model has 6 scales and 18 observed variables.

4. Discussion

* Analyze the reliability of the scale. Perform Cronbach alpha test to evaluate the quality of the scale. Results of analyzing the reliability of the scale for the variables that make up the scale with overall alpha coefficient >0.7 and corrected item-total correlation >0.3, details Table 3 below.

Table 3. Scale analysis results for variables in the PLS-SEM model

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
FAC1	7.8612	2.563	.669	.448	.799
FAC2	7.8139	2.392	.707	.504	.762
FAC3	8.1735	2.315	.716	.515	.754
Alpha reliability = 0.836, good scale quality					
CUS1	5.43	3.252	.606	.367	.677

CUS2	5.55	3.388	.610	.372	.671
CUS3	5.67	3.748	.582	.339	.704
Alpha reliability = 0.765, good scale quality					
BRA1	5.08	2.006	.727	.565	.724
BRA2	4.76	2.286	.742	.573	.712
BRA3	4.97	2.499	.603	.365	.841
Alpha reliability = 0.829, good scale quality					
QHS1	7.12	2.707	.660	.452	.756
QHS2	7.25	3.015	.724	.525	.677
QHS3	6.89	3.542	.621	.401	.785
Alpha reliability = 0.811, good scale quality					
SAT1	4.75	2.067	.735	.545	.871
SAT2	4.66	2.238	.778	.630	.823
SAT3	4.29	2.351	.810	.665	.803
Alpha reliability = 0.715, good scale quality					
OPE1	7.83	2.209	.728	.572	.768
OPE2	7.78	1.609	.785	.635	.707
OPE3	7.73	2.247	.637	.415	.842
Alpha reliability = 0.841, good scale quality					

(Source: Statistics on SPSS 20 software)

* **Exploratory factor analysis.** Because the sample size is <370, the Absolute value below is selected as 0.25. The KMO measure has Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.14 within $0.5 < KMO < 1$; The Bartlett's Test of Sphericity is 0.000; Appropriate factor loading coefficients of observed variables (Factor Loading coefficients) > 0.3 ; Test the extracted variance, Cumulative coefficient $\% = 71.40\% > 50\%$. Thus, the EFA results meet the requirements.

Table 4. Summary of exploratory factor analysis

KMO and Bartlett's Test						
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.					.714	
Bartlett's Test of Sphericity					Approx. Chi-Square	3479.626
					Df	153
					Sig.	.000
Pattern Matrix ^a						
	Component					
	1	2	3	4	5	
BRA2	.897					
BRA1	.862					
SAT2	.830					
SAT1	.802					
SAT3	.753					
BRA3	.607					
OPE1		.966				
OPE2		.837				
OPE3		.723				
FAC2			.893			
FAC3			.876			
FAC1			.796			
QHS1				.967		

QHS2				.724	
QHS3				.626	
CUS1					.894
CUS3					.783
CUS2					.761

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

(Source: Statistics on SPSS 20 software)

* **Linear structure analysis.** The measurement model that fits the actual data must be consistent with five measures: (i) Cmin/df; (ii) TLI; (iii) CFI; (iv) NFI; and (v) RMSEA.

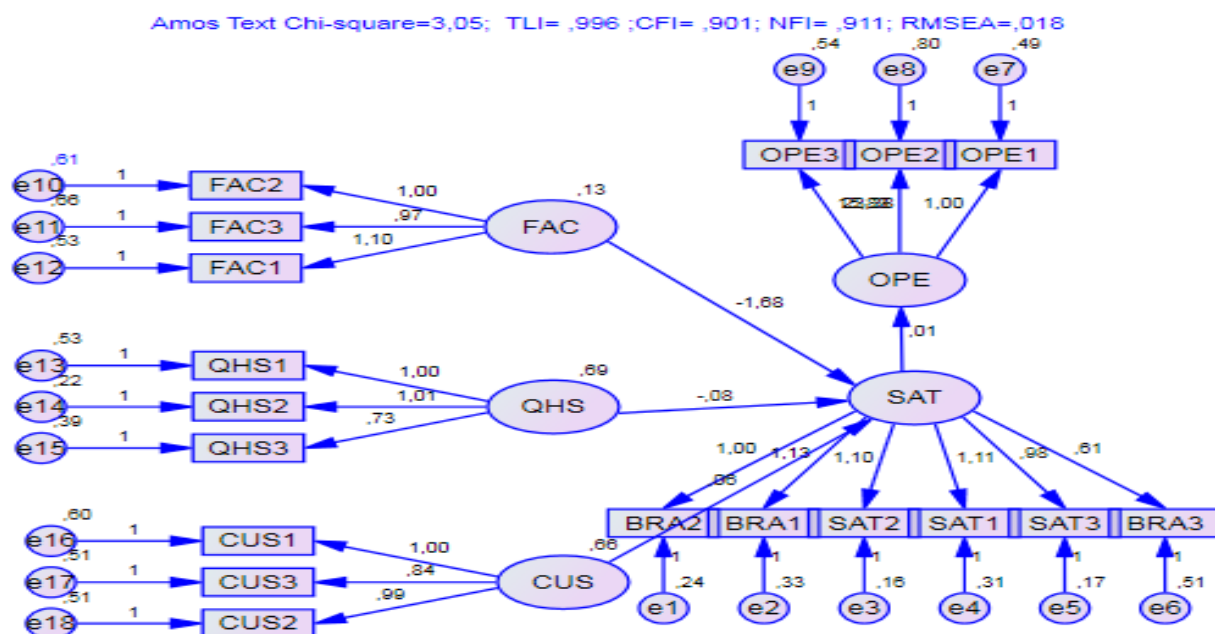


Figure 2. Model regression estimation results

(Source: Statistics on AMOS 20 software)

Table 5 shows that the integrated model is consistent with actual data because it meets the testing criteria.

Table 5. Model fit assessment

No.	Measure	Symbol	Reference value	Model value
1	Chi square adjusted for degrees of freedom (Cmin/df)	$\chi^2/d.f$ (Cmin/df)	$\chi^2/d.f \leq 5$ Cmin/df ≤ 5	3,05
2	Tuker-Levis Index (TLI)	TLI	TL > 0,90	0,996
3	Comparative Fit Index (CFI)	CFI	CFI > 0.90 and closer to 1 the better	0,901
4	Normal Fit Index (NFI)	NFI	NFI close to 1 is good	0,911
5	RMSEA index (Root Mean Square Error Approximation)	RMSEA	RMSEA < 0.05 is appropriate	0,018

(Source: Author compiled from SEM model report)

Table 6, significance level of estimated coefficients: p-value ≤ 0.05 ; Confidence level $\geq 95\%$, factors included in the model are statistically significant and the hypotheses are accepted.

Table 6. Hypothesis testing results

Hypothesis	Impact	Estimate	S.E.	C.R.	P	Label
------------	--------	----------	------	------	---	-------

H1	SAT	<---	FAC	0,176	0,228	1,367	***	Accept
H2	SAT	<---	QHS	0,878	0,738	2,063	0,039	Accept
H3	SAT	<---	CUS	0,059	0,04	1,452	0,046	Accept
H4	OPE	<---	SAT	0,906	0,867	0,89	0,028	Accept

(Source: Statistics on AMOS 20 software)

5. Policy implications

Based on the results of PLS-SEM regression testing, the author of the article proposes groups of solutions to help hotel managers meet customer needs and thereby improve business performance. specifically:

First, organize hotel staff, foreign language training, and professional behavior. The findings from the model results show that the role of hotel human resources is the most important in affecting customer satisfaction.... Therefore, hotel managers need to organize professional human resources through recruitment and training activities, appropriate job arrangements, evaluation and salary, and meet specific criteria. according to the article's scale. The quality of employees must be professional, enthusiastic, careful, quick and demanding.

Second, carefully deploy investment in equipment and facilities to suit the needs of tourists in different stages. This is the tangible element that through the model results The PLS-SEM linear structure gives results with a high impact on customer needs.

Third, Increase the ability to respond to customers, especially through the internet channel, tasks include (1) Respecting all customer needs; (2) Provide services according to standards. Committed to providing perfect services, saving time and costs for customers; (3) Provide full after-sales services; (4) Always be conscious of environmental protection; (5) Comply with relevant legal regulations...

6. References

1. Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological bulletin*, 84(5), 888.
2. Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.
3. Arbuckle, J. L. (2011). IBM SPSS Amos 20 user's guide. *Amos development corporation, SPSS Inc*, 226-229.
4. Bentler, P. M. (1980). Multivariate analysis with latent variables: Causal modeling. *Annual review of psychology*, 31(1), 419-456.
5. Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological methods & research*, 21(2), 230-258.
6. Chand, M. (2010). The impact of HRM practices on service quality, customer satisfaction and performance in the Indian hotel industry. *The International Journal of Human Resource Management*, 21(4), 551-566.
7. Dedeoğlu, B. B., & Demirer, H. (2015). Differences in service quality perceptions of stakeholders in the hotel industry. *International Journal of Contemporary Hospitality Management*, 27(1), 130-146.
8. Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). Multivariate data analysis 6th Edition. In: Pearson Prentice Hall. New Jersey. humans: Critique and reformulation
9. Hu, L.-t., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological methods*, 3(4), 424.
10. Likert, R. (1932). A technique for the measurement of attitudes. *Archives of psychology*.
11. Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of marketing research*, 17(4), 460-469.
12. Raspor, S. (2010). Measuring perceived service quality using SERVQUAL: a case study of the Croatian hotel industry. *Management (18544223)*, 5(3).
13. Shah, S. N. U., Jan, S., & Baloch, Q. B. (2018). Role of service quality and customer satisfaction in firm's performance: Evidence from Pakistan hotel industry. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 12(1), 167-182.
14. Yilmaz, I. (2009). Measurement of service quality in the hotel industry. *Anatolia*, 20(2), 375-386.
15. <https://www.noron.vn/post/thuc-trang-nganh-khach-san-hien-nay-o-viet-nam-1tahas1285tb>