

FACTORS AFFECTING THE SERVICE QUALITY STANDARDS AT THE INTERNATIONAL AIRPORTS WHEN VIET NAM INTEGRATES TPP: A STUDY AT TAN SON NHAT AIRPORT, HO CHI MINH CITY, VIETNAM.

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ABSTRACT: *The results this study was to identify and analyze the factors the service quality standards at the Tan Son Nhat International airport according to 39 criteria following the International Association of Aviation standards. Qualitative and quantitative research methods were combined to conduct 575 passengers with 39 observed variables (the International Association of Aviation standards) to determine the factors affecting the service quality standards at the Tan Son Nhat International airport. The study results showed that 05 factor group is influenced (1) Competence, (2) Responsiveness, (3) Access, (4) Tangibles, (5) Reliability. The objects of the findings are as follows: First, to identify the factors that affect the service quality standards at the Tan Son Nhat international airport; Second, to determine the prior order of the impact degree of factors on affecting the service quality standards at the Tan Son Nhat international airport; Third, to propose solutions for service quality at Tan Son Nhat international airport following international standards in the trend of international integration.*

KEYWORDS: Service Quality, Customers Satisfaction, Competitiveness, Vietnam Airlines.

INTRODUCTION

Tan Son Nhat International Airport is the largest airport which is the gateway to particularly important economic development in Vietnam; however, it now is facing enormous challenges. One of the challenges is the service quality at the airport. In 2015, it welcomed 26 million passengers, although in design planning of Tan Son Nhat airport, it can only be exploited a maximum of 25 million passengers per year. Currently, there are 4 Vietnamese airlines and 39 international airlines using 33 international routes and 18 domestic routes. Flights to Tan Son Nhat airport are on the time slot from 8am - 12pm, 17pm – 20pm with a number from 30 to 35 flights taking off and landing per hour. Civil Aviation Administration of Vietnam said, it may be "frozen" the operations of Tan Son Nhat airport when the capacity reaches 32-35 million passengers per year. According to aviation experts, the number of tourists to Tan Son Nhat airport in the next few years might be up to 35 million. Only accounting for 10% growth per year, with a capacity of 26 million passengers per year like this year, it will reach 35 million passengers per year to 2018. This is huge pressure for running services at Tan Son Nhat Airport that endangers flight safety. According to the Civil Aviation Administration of Vietnam in 1 January 2016, service quality and the operations at Tan Son Nhat Airport is very urgent, because the airport was stuck from the sky to the runway, airport parking, terminal and gateway to the airport. *The Guide to Sleeping in Airports* ranked Tan Son Nhat as one of the worst airport in Asia in 2014 and 2015. Representatives of Tan Son Nhat international airport (Dang Tuan Tu, January, 2016) recognized that evaluation of this website about the service quality at the airport is correct.

Specifically, such as poor quality of shelters, crowded lounge crowded (only 800 seats), poor food service, simple shopping service, weak quality Wi-Fi (67 modems), dirty toilet, confused taxi service, lack of shuttle buses, unsuitable attitude of the airport staff (637 employees) and employees of airlines, harassment of the airport customs, lack of signs on aviation procedures, immigration, customs, incomprehensive infrastructure as waterproof ceiling, torn cushions, etc. Currently, Vietnam is promoting to build Long Thanh airport which replaces Tan Son Nhat airport, with a capacity of 100 million passengers per year, phase 1 is expected to complete in 2025. However, the projects are more likely to delay. Thus, improving and enhancing the quality of passenger service which is overload of Tan Son Nhat International Airport is another urgent request and more urgent demand for Vietnamese aviation for a vision of joining the TPP (Trans-Pacific Strategic Economic Partnership Agreement) in the future.

LITERATURE REVIEW

The service operations of airlines are different from other from production of normal businesses; it is very difficult to standardize service quality. Because it does not only depend on the quality policy of each airport, but also depends on many factors, especially the appreciation of customers (Bunn et al., 2013). The level of customers' satisfaction will determine the survival and sustainable development of the organization (Philip Kotler, 2011). There are many models, scales and observed variables to measure service quality. Service quality model of Cronin and Taylor Servperf (1992, 1995) is one of the models applied by many researchers because of its academic and practical values. This model inherits service quality of Servqual model (Parasuraman et al., 1985).

The Servqual scale model (Parasuraman et al., 1985) is one key tool in marketing activities used to evaluate the service quality. Many authors studied and tested Servqual scale with different theories that are evaluated Servqual scale reliability and high value. This scale can be applied in the different types of services such as airlines, schools, retail sector, restaurants, hotels, hospitals, supermarkets and others. Servqual scale measures service quality based on the perception by customers using its service. Parasuraman et al., (1985) said that in any services the quality of service perceived by customers could apply to the scale of the model including the 10 components Reliable, Responsiveness, Competence, Access, Courtesy, Communication, Credibility, Security, Empathy, Tangibles. Later, many authors studied and tested selected models 05 scale model as noticed some overlapping scales and close correlation. Cronin and Taylor (1992, 1995) systemarized Servqual model into Servperf model which had 05 factors according to flexibility depending on the service sector. The model applied for this research includes 05 key factors determining the quality of the service including: reliability, responsiveness, competence, Access, and tangibles.

Based on the theoretical framework of Servqual model of Parasuraman et al., (1985) and Servperf model of Cronin and Taylor (1992, 1995) and other authors, ideas from 41 experts in the airlines sector are consulted and a formal model of study is proposed as following:

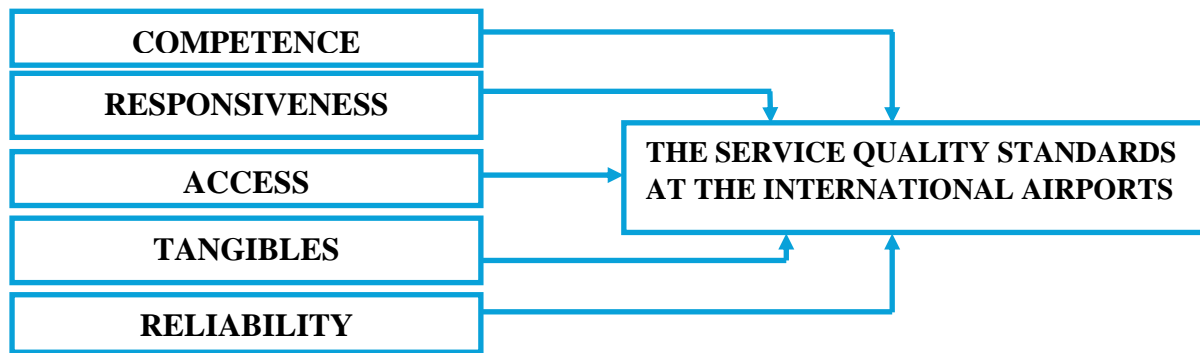


Figure 1 – Model study of the factors affecting the service quality standards at the airport

Competence (Service capacity): Competence refers to qualifications to perform the service, the ability to manifest when serving staff with customer contact employees directly performing services, research capabilities to capture information related need for customer service. In other words, the assurance of qualifications, the attitudes of staff and their ability create trust and confidence in clients. The spirit and enthusiasm of the staff is always ready to serve will ensure rapid implementation and quality. (Cronin and Taylor, 1992, 1995)

Hypothesis H1: There is relationship between “Competence” and the service quality standards at the Tan Son Nhat international airport.

Responsiveness (Availability of the company): the desire and willingness of staff to provide services to customers; the guarantee of the quality and quantity of sources; the on-time guarantee and delivery schedules; the assurance of processes and process test work shows class carriage of the service provider. (Cronin and Taylor, 1992, 1995)

Hypothesis H2: There is relationship between “Responsiveness” and the service quality standards at the Tan Son Nhat international airport.

Access implies the exposure and interaction with customers and business in introducing products and services. It is committed to the implementation of the service or in other words, the approach involves creating easy conditions for customers to access services such as shortening the waiting time of customers, serving locations and opening hours convenient for customers. [Cronin and Taylor, (1992, 1995)]

Hypothesis H3: There is relationship between “Access” and the service quality standards at the Tan Son Nhat international airport.

Tangibles is the set of elements as tangible evidence of physical material, equipment, people and information materials, service personnel costume, support equipment for the provision of services. (Cronin and Taylor, 1992, 1995)

Hypothesis H4: There is relationship between “Tangibles” and the service quality standards at the Tan Son Nhat international airport.

Reliability (Trust, reputation of the company’s brand): the term refers to the ability to perform services on time and fix right the first time, the ability to ensure the services is performed as promised with certainty exactly. (Cronin and Taylor, 1992, 1995)

Hypothesis H5: There is relationship between “Reliability” and the service quality standards at the Tan Son Nhat international airport.

METHODS OF RESEARCH

The two major research methods, qualitative and quantitative research are focused, specifically; the research process has three stages. First, based on theory and the related results mentioned the above, qualitative research method was used for group discussing and leading experts consulting to select the variables and observed variable groups. Second, based on the factors on affecting the service quality standards at the Tan Son Nhat international airport, a questionnaire survey is designed and conducted to collect the opinions of 575 foreign passengers. The research model includes 5 scales, 39 observed variables (questionnaires), using 5-point Likert scale, Distance value = (Maximum - Minimum) / $n = (5 - 1) / 5 = 0.8$: 1. Completely disagree; 2. Disagree; 3. No opinion / Normal; 4. Agree; 5. Totally agree. Survey results were entered SPSS 20.0 and Cronbach's Alpha coefficient was used to test reliability of the scale. Third, After testing the reliability using Cronbach's alpha coefficient, Exploratory Factor Analysis - EFA was analyzed to shrink and summarize the data of the scale (Dinh Phi Ho, et al., 2012 "Quantitative Research SPSS"). This method is based on extraction ratio factor (Eigenvalue), under which only those factors having ratiom (Eigenvalue) greater than 01 will be kept, those smaller than one will not show information better than origin variable because after standardizing, each original variance is 01. The method of extracting the main components (Principal components) and original method of factor rotation (Varimax Procedure) were used to minimize the number of variables that have large coefficients for the same factor, which increases explaining the factors. The above results is used to analyze multiple linear regression to test the assumptions of the model, which is considered the impact level of these factors to the service quality standards at the Tan Son Nhat international airport

RESEARCH RESULTS

Table 1- Descriptive statistics

Code	QUESTIONS	N	MEAN
RE01	Taxi availability and prices [3]	575	3.31
RE02	Cleanliness of Washroom facilities [21]	575	3.00
RE03	Prices charged in retail outlets [26]	575	3.01
RE04	Prices charged in bars, cafes and restaurants [28]	575	3.25
RE05	Lost luggage services [38]	575	3.20
RE06	Perception of security and safety standards [39]	575	3.29
RS01	Public transport options, efficiency and prices [2]	575	3.02
RS02	Availability of luggage trolleys (airside & landside) [4]	575	3.39
RS03	Seating facilities throughout terminals [7]	575	3.44
RS04	Baggage Delivery times [36]	575	3.43
RS05	Priority Baggage Delivery efficiency [37]	575	3.44
RS06	Children's play area and facilities provided [24]	575	3.03
RS07	Choice of Shopping - tax free and other outlets [25]	575	3.42
AC01	Getting to and from the Airport, Ease of Access [1]	575	3.35

AC02	Immigration - queuing times / system[8]	575	3.20
AC03	Flight Info Screens - clarity / quality of information [15]	575	3.04
AC04	Friendliness of Airport Staff [16]	575	3.03
AC05	Ease of Transit through Airport [18]	575	3.18
AC06	Internet facilities and WiFi availability [29]	575	3.07
AC07	Standards of disabled access and facilities [35]	575	3.10
CM01	Immigration - staff attitude [9]	575	2.97
CM02	Waiting times at Security screening [10]	575	3.11
CM03	Courtesy and Attitude of Security staff [11]	575	3.06
CM04	Language skills for Airport Staff [17]	575	2.95
TA01	Terminal comfort, ambience and design [5]	575	3.21
TA02	Terminal cleanliness, floors, seating and public areas[6]	575	3.14
TA03	Check-In facilities, queuing systems and seating[12]	575	3.16
TA04	Terminal signage, boarding, transfer and arrivals [13]	575	3.06
TA05	Clarity of Boarding Calls and Airport PA's [14]	575	3.36
TA06	Choice of bars, cafes and restaurants[27]	575	3.17
TA07	Quiet areas, Day rooms, Hotel facility, rest areas [23]	575	3.29
TA08	Business centre facility [30]	575	3.20
TA09	Telephone and fax locations [31]	575	3.27
TA10	ATM facilities [33]	575	3.39
TA11	Smoking policy / Smoking lounges[34]	575	3.23
TA12	Bureau de change facilities [32]	575	3.19
TA13	TV and Entertainment facilities [22]	575	3.31
TA14	Location of Airline Lounges [19]	575	3.22
TA15	Washroom and Shower facilities in terminal [20]	575	3.26
GT01	I am very pleased with the quality of service your airport	575	3.18
GT02	I will continue using your services in the future	575	3.30
GT03	I will introduce my relatives and friends to use your services	575	3.23

(Source: The researcher's collecting data and SPSS)

The average results showed that most of the scales are average from 2.95 to 3.44. However, the scale "competence" is quite low, the observed variables range from 2.95 to 3.11. Thus, Customers have not fully rated the knowledge, qualifications, professional and attitude of the staff, especially "Language skills for Airport Staff" (CM04: 2.95) and "Immigration - staff attitude" (CM01: 2.97). The above results reflect the actual quality of the human resources of the aviation industry of Tan Son Nhat airport in particular and Vietnam in general that local and foreign media reviewed in the past.

Testing the Results of Reliability Scales

Table 2- Cronbach's Alpha

	Code	Factors	Cronbach's Alpha
Independent variable	RE	Reliability	0,909
	RS	Responsiveness	0,814
	AC	Access	0,902
	CM	Competence	0,911
	TA	Tangibles	0,879
Dependent variable	GT	The service quality standards	0,817

(Source: The researcher's collecting data and SPSS)

The test results scale shows that the scale has good accuracy with Cronbach's alpha coefficient > 0.7 and the correlation coefficients of the total variables of measurement variables meet the allowed standard (> 0.3), the scale will be accepted. The observed variables are used for factor analysis to discover in the next step.

Exploratory Factor Analysis (EFA)

Table 3. Exploratory Factor Analysis

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	11.685	29.215	29.215
2	4.696	11.739	40.953
3	3.019	7.546	48.500
4	2.628	6.569	55.068
5	1.977	4.942	60.012

(Source: The researcher's collecting data and SPSS)

The results of EFA (Exploratory Factor Analysis) shows the total variance extracted is 60,012% greater than 50%. This means that the withdrawing factors would explain 60,012% for model, 39,988% is explained by other factors. Extraction ratio factor (Eigenvalue) is greater than 01 that is kept.

Table 4. Factor Analysis

Code	Component				
	1	2	3	4	5
CM04	.765				
CM03	.761				
CM01	.727				
CM02	.673				
RE02		.791			
RE03		.772			
RE06		.758			
RE05		.749			
RE01		.744			
RE04		.743			
AC05			.733		
AC06			.729		
AC03			.675		
AC04			.660		
AC02			.660		
AC01			.558		
TA05				.805	
TA01				.777	
TA02				.767	
TA08				.732	

TA04				.703	
TA07				.699	
TA06				.653	
TA03				.630	
TA12				.767	
TA09				.731	
TA13				.698	
TA14				.642	
RS05					.798
RS02					.765
RS01					.759
RS07					.721
RS06					.702
RS04					.697
RS03					.642

(Source: The researcher's collecting data and SPSS)

The above results show that the model of EFA (Exploratory Factor Analysis) is consistent with the data, calculated into 5 groups of factors and these results may be used for a multiple regression analysis.

Analysis of Multiple Linear Regressions

Table 5. Summary model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.735 ^a	.540	.532	.446	.540	63.699	2	572	.000	1.964

(Source: The researcher's collecting data and SPSS)

The above result shows the correlation coefficient adjustment: $R^2 = 0,532$ (verification F, sig. < 0.05); which means 53,2 % of the variable Y shift is explained by the five independent variables (Xi). Coefficient Durbin - Watson (d) = 1,964; some observers n = 575, parameter k = 5, the level of significance of 0.01 (99%), in the statistical tables Durbin - Watson, d_L (less statistical value) = 1.623 and d_U (statistical value over) = 1,725. So ($d_L = 1.623$) $<$ (d = 1,964) $<$ [$4 - (d_U = 1.725) = 2.275$] proved that the model has no autocorrelation.

Table 6. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.352	5	12.670	63.679	.000b
	Residual	53.905	572	.199		
	Total	117.257	573			

(Source: The researcher's collecting data and SPSS)

Accreditation ANOVA is to assess the relevance of the theoretical regression model. The test results $F = 63,679$ value and $\text{Sig.} = 0.000 < 0.05$ shows the building model is consistent with the data set and the variables included in the model are related to the dependent variable. Generally, regression analysis is 99% reliability, corresponding to the selected variables with statistically significant at the $p < 0.01$; the results also show that all variables satisfy the demand. Verification of conformity of the model show that multicollinearity phenomenon does not violate ($\text{VIF} < 10$)

Table 7- The factors affecting the service quality standards at the Tan Son Nhat International airport

Influenced factors	Unstandardized Coefficients		Standardized Coefficients (Beta)	t	Sig.	Collinearity Statistics	
	B	Std.Error				Tolerance	VIF
(Constant)	.255	.198		1.288	.199		
X1 (CM)	.297	.044	.347	6.700	.000	.593	1.628
X2 (RE)	.144	.048	.135	2.996	.003	.796	1.256
X3 (AC)	.170	.052	.177	3.292	.003	.519	1.928
X4 (TA)	.130	.042	.138	3.110	.002	.844	1.185
X5 (RS)	.182	.045	.199	4.036	.000	.723	1.381

(Source: The researcher's collecting data and SPSS)

The results of regression analysis showed the factors affecting the service quality standards at the Tan Son Nhat International airport and expressed the following priorities: (1) Competence: $\beta = 0,347$; (2) Responsiveness: $\beta = 0,199$; (3) Access: $\beta = 0,177$; (4) Tangibles: $\beta = 0,138$; (5) Reliability: $\beta = 0,135$. The regression equation is: $Y = 0,347X1 + 0,135X2 + 0,177X3 + 0,138X4 + 0,199X5$. This finding is the basis for proposing solutions to improve the satisfaction of customers to service quality at Tan Son Nhat airport.

CONCLUSIONS

The research results showed that all t value > 2 was statistically significant and high data reliability. Besides, the regression coefficients were positive. This showed that the effects of independent variables in the same direction with the service quality standards at the Tan Son Nhat International airport. In this research, the results had the Variance Inflation Factor (VIF) and Tolerance shown to be the following $\text{VIF} < 10$. ($1 < \text{VIF} < 10$). This showed that there was not multicollinearity.

We had the component 1 (X1): The competence affecting the service quality standards at the Tan Son Nhat International airport with significance level of 5%.

We had the component 2 (X2): The reliability affecting the service quality standards at the Tan Son Nhat International airport with significance level of 5%.

We had the component 3 (X3): The access affecting the service quality standards at the Tan Son Nhat International airport with significance level 5 %.

We had the component 4 (X4): The tangibles affecting the service quality standards at the Tan Son Nhat International airport with significance level 5 %.

We had the component 5 (X5): The responsiveness affecting the service quality standards at the Tan Son Nhat International airport with significance level 5 %.

RECOMMENDATIONS

First, "competence" for staff should be enhanced throughout the system, because the service at the airport is an integrated and relevant supply chain, specifically, improving qualifications, knowledge and professional skills, particularly language training and awareness-raising, spirit, and enthusiasm for directly serving passenger part.

Second, administration system should be developed and enhanced to ensure perfect supply chain of airport service. Special equipment such as computer systems for checking in online to avoid overloading when guests gathering check in at the same time, sign system need investing, positioning for passengers in many areas of the terminal. Expanding and upgrading wireless systems in the lounge need investing; quality of toilets, quality shopping services need improving etc.

Third, in this era of digital and social media technology, the airport should boost the interaction with customers such as building integration systems with mobile devices, lap top, ipad, and internet in the station area, lounge ... in order to take advantage of receiving ideas and feedback from the customers. Besides, it is necessary to organize refresher courses on communication psychology, winning art for customers for Lost & Found Counter, Customer service, Customer Care for them with knowledge and skills to serve customers the best.

Fourth, the quality of the facilities, machinery and equipment serve should be invested to improve and enhance facilities, machinery, and equipment to serve passengers, shelters, toilets, dining area, shopping, trolleys, and etc. towards the world Association of Aviation standards which are polite, civilized and modern

Fifth, The results showed that "Reliability" in particular and the assessment of customers given to service quality at Tan Son Nhat airport in general are of average to fair-average level, but such levels are inadequate to recent studies in the field. Bernd Strauss and Neuhauss Patricia (1997, 2009) discovered that if the customer satisfaction only reaches "average" or level 4 on Likert 5-point scale, there are still chances that the customers deny service quality given by the provider at any time and select other better service providers instead. In the only case that the customers perceive highest level of satisfaction towards service provided by the providers, they can win customer loyalty. Therefore, improving service quality is the continuous revolution of the airports in accordance strategic and sustainable development.

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