Solutions on Service Quality to Improve the Satisfaction of Individual Customers at Ba Ria Vung Tau Electricity Company

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ABSTRACT: The study was carried out to test the theoretical model between service quality components and individual customer satisfaction at Ba Ria Vung Tau Electricity Company. From the obtained results, the study provides managerial implications for leaders to improve service quality in order to increase individual customer satisfaction. The study used qualitative research method combined with quantitative research. Qualitative research method (group discussion) is to adjust and supplement the scale of research concepts. Quantitative research method is to check reliability, allowable value (unidirectionality, uniqueness and convergent value), and test research hypothesis by AMOS-SEM analysis method. Research results show that service quality has a positive relationship with customer satisfaction, including:($\beta = 0.69$; $p = 0.000 < 0.01$).The research results give meaning to the leaders of Ba Ria Vung Tau Electricity Company in improving service quality in order to increase the satisfaction of individual customers. Finally, some limitations and directions for further research are mentioned.

KEY WORD: Service quality, Satisfaction

INTRODUCTION

Research on the quality of power supply services affecting customer satisfaction has been carried out by many domestic studies. Some case studies such as research by Le Hoang Viet (2010) researching solutions to improve customer service at Ho Chi Minh City Electricity Corporation, building a customer care center, improving quality quantity of electricity, taking care of customers, especially large customers, diversifying forms of electricity service business, improving the quality of construction investment management. Research by Dang Thi Lan Huong (2012) suggests that the satisfaction of individual customers is affected by 5 factors in order: reliability and quality of power supply, convenience, service capacity, facilities and empathy. Besides, research by Le Tan Viet (2013) proposes solutions to poor performance to help customer care work better. Next, the study of Tran Trinh Tien Vu (2016) determined that individual customer satisfaction is affected by 5 factors in order: reliability, responsiveness, empathy, and service capacity, and finally, tangible means. In addition, the research of Nguyen Thi Ngoc Han (2019) shows that the satisfaction factor is affected by 3 factors with an increasing order of impact: Responsiveness, Reliability, and Reliability.

Based on the above review, research on service quality affecting customer satisfaction at Ba Ria Vung Tau Electricity Company has not been carried out. In different spaces, the relationship between factors is different (Nguyen Van Thang, 2017). Therefore, the relationship between power supply service quality and customer satisfaction at Ba Ria Vung Tau Electricity Company is urgently needed to be examined.

LITERATURE REVIEW

The concept of service quality

Service quality is the degree to which the service meets the needs or expectations of the customer, or the gap between the customer's expectation and perception after using the service. Includes 5 specified distances as follows:

- The first gap: formed when there is a difference between the customer's expectations of the service quality and the supplier's understanding of the customer's expectations, created because the service provider does not understand the characteristics of the service and how to deliver them to customers to meet their expectations.

- The second gap: formed when the service provider encounters an obstacle in converting the perception of customer expectations into characteristics of quality. This is due to the professional ability of the staff as well as the many fluctuations in service demand.

- The third gap: This gap forms when the service staff does not perform the service according to the promised criteria.

- The fourth gap: The media also contributes to the impact of customers' expectations about service quality. Through advertising and promotions can increase customer expectations and will also reduce the quality customers perceive when they are not delivered as promised.

- The fifth gap: This gap occurs when there is a difference between the quality expected by the customer and the quality received. Quality is considered perfect if there is no difference between the expected quality and the perceived quality when consuming the service.

Quality of power supply service

The quality of power supply is an important criterion in evaluating the quality of power supply services, which is also a top concern of power companies. Because in the process of using electricity, if the quality of electricity is not guaranteed, the electrical equipment will be damaged, reducing the life of the machinery. Normally to evaluate the quality of power supply services through the following criteria: reliability of power supply, enthusiastic attitude, assurance, tangibles and sympathy:

Power supply reliability: The ability to provide stable and uninterrupted electricity services to consumers, with power quality (voltage and frequency) always ensuring compliance with regulations. They reflect the consistency and reliability of a provider's services.

Enthusiastic attitude: Enthusiastic attitude reflects the level of fulfillment of the service promise of the enterprise, referring to the will and self-discipline of electricity employees. Sometimes the customer will encounter a situation where the service staff disregards the customer's request, which will create a situation where customer feedback is not received. Customers waiting, especially waiting for no reason will make a negative effect on perceived service quality.

Assurance: Assurance refers to the capacity of the business, the courtesy to customers and the safety of operating the business. Competence only intellectual and technical is reflected in the service of the enterprise. Politeness refers to the attitude and behavior of service staff towards customers and customer property. Safety is an important factor in assurance; safety reflects customers' psychological requirements of not wanting to take risks and doubting.

Sympathy: It is to put yourself in the position of the customer and think according to them, care and pay special attention to the customer. A business with a passion needs to understand customer requirements and be able to provide the necessary service to customers.

Tangibles: Service is an intangible element, so customers will to some extent rely on the tangible element of the service environment, which includes the structure, equipment, appearance of service staff and financial resources. The tangible environment is a tangible manifestation that requires service staff to provide care and consideration to customers. If the gap between the customer's desire and perception is smaller, the customer's satisfaction with the service quality of the business is greater and vice versa.

Customer Satisfaction

Oliver (1997) stated that satisfaction is the consumer's response to the satisfaction of wants. Test and Wilton (1988) proposed that satisfaction is the extent to which consumers reflect on the estimated difference between previous expectations and the actual performance of the product. According to Kilter (2001), satisfaction is the degree to which a person's emotional state results from comparing the results obtained from a product with his or her expectations. Accordingly, satisfaction has 3 levels: (1) If the results received are less than the customer's expectations, the customer will feel dissatisfied; (2) If the results received are equal to the customer's expectations, the customer will feel satisfied; (3) If the result is more than the customer's expectation, the customer will feel very satisfied and enjoy the service.

Thus, from the concepts mentioned above, the satisfaction of power supply service quality can be understood as: customer satisfaction before, during and after using the electricity supply service. The customer's side of electricity companies is always associated with two factors, which are the needs of the customer and the actual response of the business. Therefore, in order to improve customer satisfaction, businesses need to take customer needs as a basis to improve the quality of their products and services.

Based on the service quality model theory SERVPERF of Cronin Taylor (1992). The author proposes the research model shown in Figure 1.
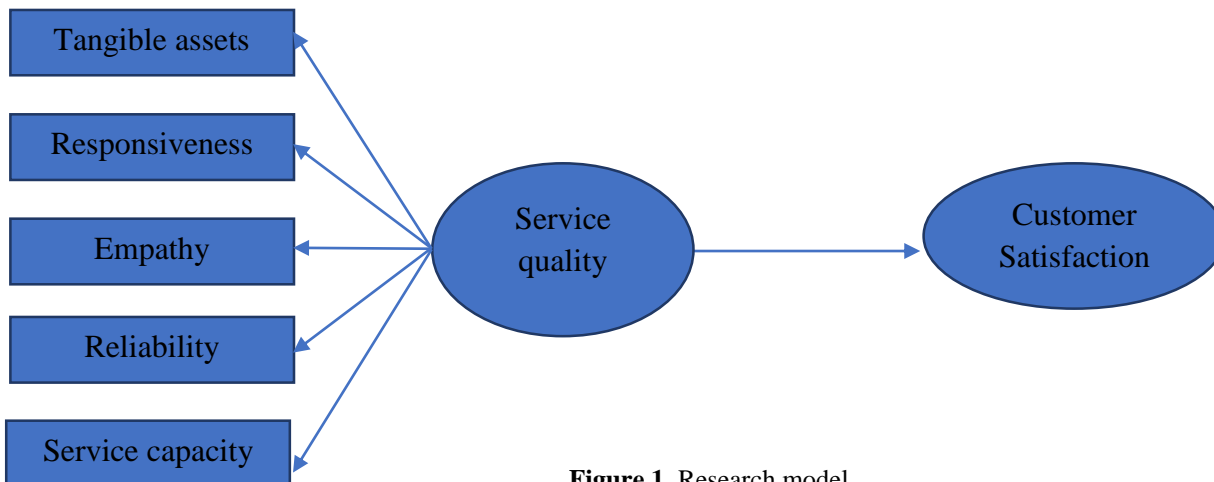
Figure 1. Research model

The proposed research model consists of 5 components (tangible assets, reliability, responsiveness, empathy, service capacity). In which, the first 5 components are inherited from the SERVPERF model due to similarities and appropriate adjustments. The service quality scale is a multi-component scale with a second-order structure. The components are shown as follows:

Tangible assets: reflected in appearance, staff's clothing, facilities and service equipment.

Reliability: demonstrated by keeping appointments with customers, the ability to perform accurate, error-free service and attention to solving customer problems.

Responsiveness: expressed through employees' desire and willingness to provide timely service to customers.

Service capacity: demonstrated by the professional qualifications, communication skills and polite, courteous, and welcoming services to customers of the staff.

Empathy: showing care for each individual customer in service provision.

Customer satisfaction and service quality are two distinct but closely related concepts. Service quality is an objective, evaluative and cognitive concept, while satisfaction is a combination of subjective components, based on feelings and emotions (Shinwell et al., 1998).

Some researchers such as Parasuraman, Zeithaml, Berry, Bitner, and Bolton support the view that customer satisfaction leads to service quality. They believe that service quality is an overall long-term assessment while customer satisfaction is only an evaluation of a specific transaction. Other researchers suggest that service quality is a precursor to customer satisfaction. Which view is correct has not yet been confirmed because both views have theoretical basis as well as proven research results (Thongsamak, 2001).

In this study, the author also agrees with the views that it is not possible to assess the quality of products/services in general such as high or low service quality, but service quality must be measured by a set of many scales to measure the component concepts that are related to each other and they together create service quality (Nguyen Dinh Tho, 2007). Bloemer et al (1998); Pollack (2009); Ganguli and Roy (2011) argue that service quality is an antecedent of customer satisfaction. Based on this, the study proposes the following research hypothesis:

Service quality has a positive relationship with individual customer satisfaction at Ba Ria Vung Tau Electricity Company.

RESEARCH METHODS

From the research objective, the study synthesizes the theoretical basis (service quality theory, research concepts and previous studies) related. On that basis, research models, hypotheses and observed variables measuring the scale of research concepts are formed. The scale of the research concepts at this stage is called the draft scale 1. Through the group discussion method, the research model is evaluated to standardize the theoretical model, discover new factors and adjust/add scale for clarity, suitable for research context. The interview results were recorded, developed and adjusted to become a draft scale 2 to support preliminary quantitative research.

Preliminary quantitative research: Draft scale 2 was used to test interview with a sample of 110 individual customers by convenience sampling method. Quantitative preliminary study evaluates Cronbach's Alpha reliability coefficient and EFA analysis. After this step, the scale is completed and used for formal quantitative research.

Official research: Research data is collected by direct survey method, sending questionnaires via email, when survey subjects accept to participate. The purpose of this method is to evaluate the fit of the model and test the research hypothesis by AMOS SEM method.

RESEARCH RESULTS

Characteristics of the formal research sample with n = 220 customers classified by gender, education level and income.

Table 1. Study sample characteristics

		Frequency	Ratio %
Gender	Male	121	55.0%
	Female	99	45.0%
Academic level	Under the university	96	43.6%
	From university and up	124	56.4%
Income (VND)	Under 10 million	96	43.6%
	Over 10 million	124	56.4%

Source: Processing results from the author's survey data

Gender: There are 121 respondents who are male (55%) and 99 are female (45%).

Academic level: Customers with a bachelor's degree are 96 (accounting for 43.6%), from university and graduate are 125 people (accounting for 56.4%).

Income: Customers with income below VND 10 million are 96 people (43.6%) and income above VND 10 million are 124 people (56.4%).

The critical model is also known as the overall measurement model, in which the research concepts are interrelated (Nguyen Dinh Tho & Nguyen Thi Mai Trang, 2011). In this study, the critical model is established by linking the scale as the independent variables and the scale as the dependent variable of the CFA model.
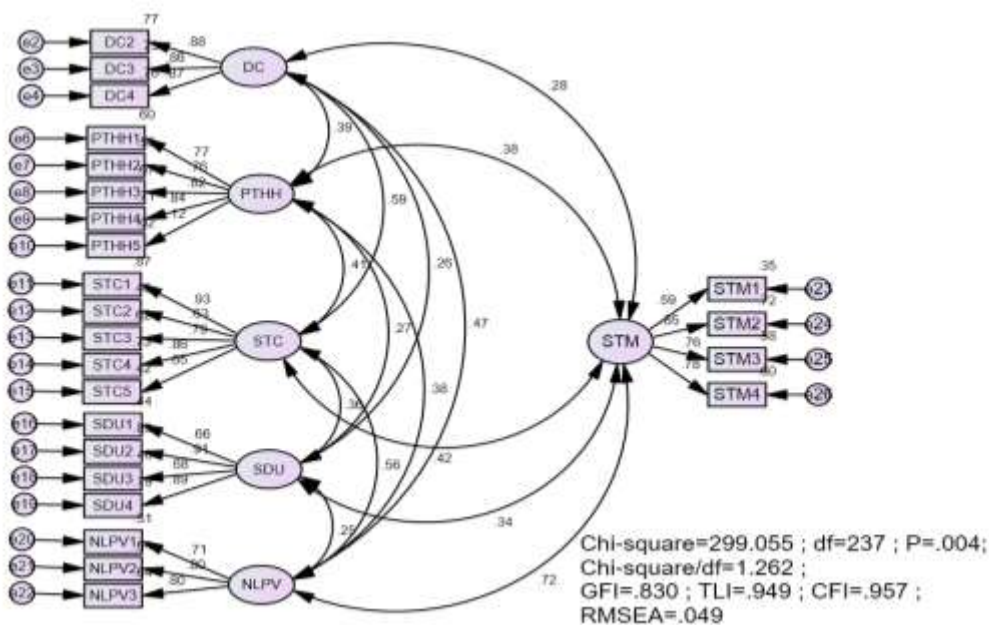

Chi-square=299.055 ; df=237 ; P=.004;
Chi-square/df=1.262 ;
GFI=.830 ; TLI=.949 ; CFI=.957 ;
RMSEA=.049

Figure 2. CFA (normalized) results of the research model
Source: Processing results from the author's survey data

The results of CFA analysis with the critical model show that this model has statistical value$\chi 2[237]$ = 299,055 (p = 0.000). If adjusted by degrees of freedom with CMIN/df = 1.262 < 2, the compatibility requirement is met. Other indicators such as TLI = 0.949 > 0.9; CFI = 0.957 > 0.9; and RMSEA = 0.049 < 0.80 are satisfactory. The results show that the CFA weights of all observed variables are large 0.5. Therefore, it can be concluded that the critical model achieves compatibility with market data and confirms the unidirectionality and convergent validity of the scales used in the research model.

This section presents the results of testing the theoretical model and the basic research hypothesis. The theoretical model has 246 degrees of freedom. SEM results show that the model has a Chi-squared of 321,664 (p = 0.000).If adjusted for degrees of freedom with CMIN/df = 1.308 < 2, other criteria are met: GFI = 0.814; TLI = 0.940; CFI = 0.947; RMSEA = 0.053. Thus, the SEM results show that the model is compatible with market data. In the SEM model, the Heywood phenomenon (negative error variance) does not appear in the estimation process and most of the standardized residuals are less than |2.58|.

The estimated results of the (normalized) theoretical model are shown in Figure 3. These results show that the hypothesis H1 is accepted at 99% confidence. Service quality has a positive relationship with individual customer satisfaction (normalized beta β = 0.69, p = 0.000 < 0.01) (see table 4.15).
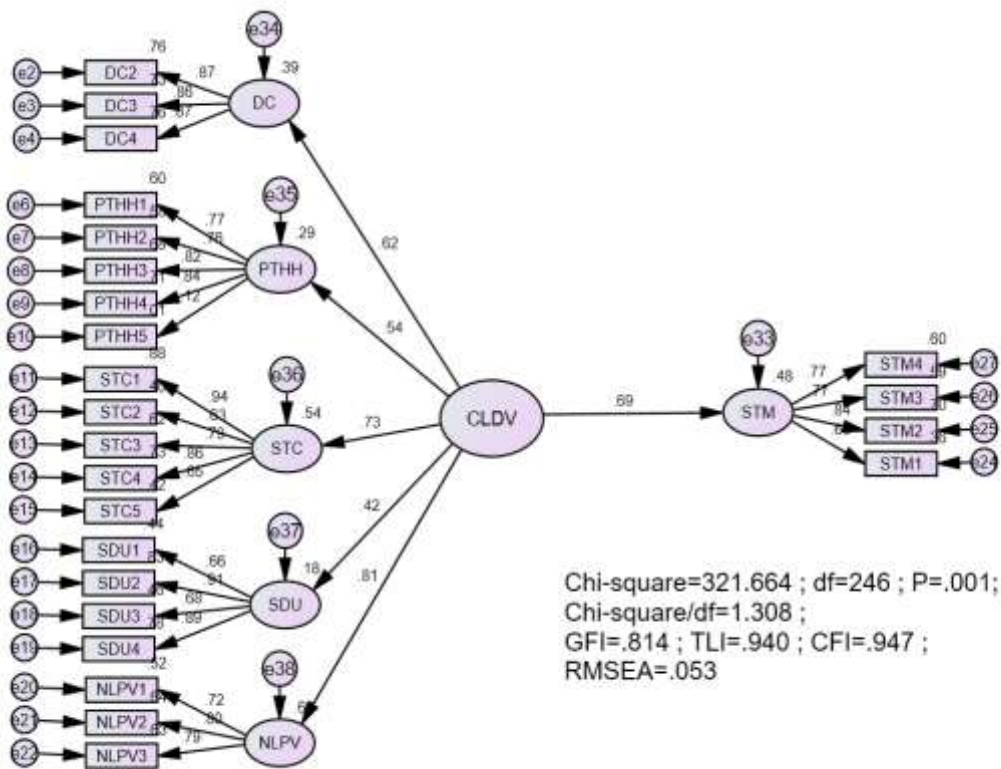

Chi-square=321.664 ; df=246 ; P=.001;
Chi-square/df=1.308 ;
GFI=.814 ; TLI=.940 ; CFI=.947 ;
RMSEA=.053

Figure 1. SEM results of the theoretical model (normalized)
Source: Processing results from the author's survey data

Table 2. SEM estimation results

Relationship			REMOVE	β	SE	CR	P
STM	<---	CLDV	0.769	0.691	0.19	4.04	***

B: unnormalized estimate, β: normalized estimate

CONCLUSION

The results of the measurement model section show that, after adjusting and supplementing, the scales are reliable and satisfy the allowed values. The research results show that the components measuring power supply service quality to individual customer satisfaction include: empathy, responsiveness, reliability, service capacity, and tangible assets. Finally, the unidirectional scale is individual customer satisfaction. The contributions of the above results are shown below:

About the research method: The research results have added to the system of measuring components of power supply service quality and customer satisfaction in the world by adding them to the Vietnamese market. This will help applied researchers to carry out their research in the Vietnamese market. Researchers can use, adjust and add scales in their research. According to the research results, the components measuring the quality of power supply services and customer satisfaction are measured by 24 observed variables. In which, the tangible means scale has 5 observed variables, the response scale has 4 observed variables, the reliability scale has 5 observed variables, the service capacity scale has 3 observed variables, and the service capacity scale has 3 observed variables. The empathy measure has 3 observed variables, and the satisfaction scale includes 4 observed variables.

Regarding behavioral research: The results of the measurement model in this study contribute to motivating researchers in the field of behavioral science in general as well as in the service sector in particular, that the measurement scales in this study must be evaluated. validity and reliability when using them to measure.

The research results bring practical value to the leaders/managers of Ba Ria Vung Tau Electricity Company in improving the quality of power supply services for businesses operating in Vung Tau city.

The company's leaders see the importance of improving the quality of power supply services. The results show the role of Service quality has a positive relationship with customer satisfaction. Therefore, the company's leaders need to improve service quality to contribute to increasing the satisfaction of individual customers. Some suggested implications are presented in Section 5.3.

The research results have new theoretical contributions as follows:

First, this study synthesized the theory of service quality of Parasuraman (1991) and Cronin and Taylor (1992).

Second, the proposed research model is a combination of background theories, research concepts and some empirical studies.

Final, the study adjusted and tested the scales of the research concepts, and added to the set of observed variables for the factors measuring the quality of power supply services and the satisfaction of individual customers and employees at Ba Ria Vung Tau Electricity Company.

This study was conducted only at the research space at Ba Ria Vung Tau Electricity Company. The results show that there is a positive relationship between the power supply service quality components and individual customer satisfaction. Furthermore, this study uses a convenient sampling method according to a sufficient number of analyzed samples for the general model. Therefore, the ability to generalize the study results will be higher if it is repeated in some other provinces. Therefore, the next research direction is to repeat studies in other provinces to generalize the research results.

The test research model shows that service quality explains customer satisfaction 48% of the variance of the dependent variable. Therefore, it is possible that there are other factors involved in explaining individual customer satisfaction but have not been included in the research model. The next research needs to carry out qualitative research (in-depth interviews) to discover many factors, to form a general picture of the factors affecting customer satisfaction.

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