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# Customers Perceive Quality Service, Satisfaction and Loyalty: The Case of Passenger Transport Service by Car in Northern Vietnam

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#### Abstract

The study was conducted to test the relationship between perceived service quality, customer satisfaction and loyalty to passenger transport services by car in the northern region of Vietnam. Research selects 6 components of perceived service quality including: tangible elements, service capacity, empathy, responsiveness, price and brand to evaluate the influence of These factors contribute to customer satisfaction and loyalty. The study uses primary data from survey results, with 276 valid questionnaires. The study used the SEM structural model and processed data through SPSS 24 and AMOS 24 software. Research results show that factors that perceive the quality of passenger transport services by car have an impact, positive to customer satisfaction. Among them, customer perception of price has the greatest influence on customer satisfaction. Besides, customer satisfaction has a positive influence on customer loyalty to passenger transport services by car. Management implications and future research directions are also discussed.

**Keywords:** Perceived Service Quality, Satisfaction, Loyalty, Passenger Transport

# **INTRODUCTION**

Road transportation in Vietnam is currently the most common form of transportation, playing a vital role in the development of the transportation sector as a whole and the socio-economic landscape of Vietnam. Among them, passenger transportation services are a significant mode of transportation within the road transportation sector today. Loyalty to services can be achieved by building relationships and providing excellent customer care services, thereby creating a competitive advantage for service providers [1]. Many companies and enterprises providing car passenger transportation services have emerged, leading to intense competition among passenger transportation businesses. To survive and thrive, businesses must excel in all aspects, from the quality of vehicles to the quality of services.

The question arises: how to achieve customer satisfaction? Factors influencing customer satisfaction include six factors: reliability, empathy, technical infrastructure, price, responsiveness, and service capacity. Among these, reliability is the most influential factor in customer satisfaction [2]. Service quality directly affects customer satisfaction and loyalty. Customer satisfaction acts as an intermediary variable in the relationship between service quality and customer loyalty, with service quality being a prerequisite for customer satisfaction [3]. In addition to these factors, user experiences such as safety, comfort, reliability, and above all, convenience, are crucial in determining transportation service needs. Evidence shows that users are willing to pay for convenience, and using metrics to evaluate and improve public transportation convenience makes it more effective and competitive [4].

Satisfaction with a business's services leads to customer loyalty. Customer loyalty is a competitive advantage and an important intangible asset for any organization [5]. Quality impacts trust, satisfaction, and loyalty [6]. The ease of using applications affects the level of loyalty in using transportation based on applications. Factors such as easy app usage, app display, service adjustments, and service assurance influence user attitudes [7].

Through research on service quality, customer satisfaction, and loyalty regarding car passenger transportation services, businesses can improve service quality, gain a competitive advantage, and sustain sustainable development. Therefore, the author proposes the research topic: "Studying the perception of service quality, satisfaction, and loyalty of customers towards car passenger transportation services in the northern region of

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Vietnam," to guide businesses, especially those in the northern region, in improving car passenger transportation services and enhancing customer experiences in today's business environment.

## THEORETICAL BASIS AND RESEARCH MODEL

#### **Theoretical Basis**

## i. Quality of passenger transport services

Karl Marx said: "Services are the offspring of the commodity production economy. When the commodity economy develops strongly, it requires a smooth, fluent, and continuous circulation to satisfy needs. As human beings grow, services are increasingly developed." According to Zeithaml [8], service is the behavior, process and way of performing a task that creates value for customers to satisfy customers. customer needs and expectations. According to Philip [9]: "A service is any activity or benefit that one entity provides to another entity, in which the object provided is necessarily intangible and does not lead to rights. owning an object, while the production of a service may or may not be associated with any physical product. According to Zeithaml, et al. [10]: "Services are behaviors, processes, ways of doing a certain job to create value for customers, satisfy needs and expectations. customer expectations".

Quality is a concept that has many different definitions depending on the field and perspective of each person. Parasuraman, et al. [11] study defined service quality as "the degree of difference between consumers' expectations of a service and their perception of the service's results".

## ii. Customer satisfaction

Anderson, et al. [12] defined satisfaction as an overall evaluation based on the total purchase and consumption experience with a good or service over time. On the other hand, Oliver [13] argues that satisfaction can be described as pleasant satisfaction, which is a measure of how the service provided meets or exceeds customer expectations, making them feel satisfied that service consumption meets their desires. According to Rizan, et al. [14]: "Satisfaction is a person's feeling of satisfaction or disappointment as a result of comparing

In the field of passenger transportation, satisfaction is an important factor in helping businesses succeed. It directly or indirectly impacts business results because customer satisfaction leads to repeat purchases, customer loyalty, and customers will share their experiences with others [15]. On the other hand, dissatisfaction will affect the performance and future of the business through customers trying to assuage their dissatisfaction by speaking negatively about the business to others, trying to influence them. to other potential customers by destroying the company's reputation (Technical Assistance Research Programs - TARP, 1986).

## iii. Customer loyalty

Customer loyalty is a source of competitive advantage and an important intangible asset for any organization [5]. Quality has an impact on trust, satisfaction and loyalty [6]. In addition, service quality is one of the most important factors in achieving customer satisfaction [16]. Christian, et al. [17] argue that ease of app use influences loyalty in app-based transportation usage.

Anderson [18] pointed out that user experiences such as safety, comfort, reliability and above all convenience are important in determining the demand for transportation services. Service loyalty, which can be achieved by building relationships and providing excellent customer service, is often a key factor in competitive advantage for service providers [19]

# Research Hypothesis and Model Proposed

Zeithaml [8] argue that service is an act, process, and manner of performing a task that creates value for customers to meet their needs and expectations. These expectations are influenced by many factors such as product quality, service quality, price, situational factors, and personal factors. Cronin Jr and Taylor [20] also show that service quality is a prerequisite for consumer satisfaction. Satisfaction is only assessed after using the service. Parasuraman, et al. [11] developed the SERVQUAL model to measure service quality and customer satisfaction. The model operates on the view that service quality depends on the customer's perception of the

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service. This perception depends on many factors such as reliability, reputation, tangibility, empathy, and responsiveness. The better the elements are implemented, the more complete they are, the greater the customer satisfaction.

In the transportation sector, customer satisfaction is fundamental to success. It directly or indirectly impacts business outcomes because customer satisfaction leads to repeat purchases, creates customer loyalty, and customers will share their experiences with others [21]. Surya and Yunus [16] indicate that service quality is one of the most important factors in achieving customer satisfaction. Quality includes the responsiveness of the platform and tangible elements related to motivation that impact customer trust, satisfaction, and loyalty [6].

Customer loyalty is a source of competitive advantage and an important intangible asset for any organization [5]. Service loyalty can be created by building relationships and providing excellent customer service [1]. Customer loyalty requires satisfaction with product quality, good service, and effective communication skills from the business to build and maintain a long-term, trusted, and valuable relationship.

The author synthesizes based on previous research overviews and related theoretical foundations as well as corresponding hypothetical arguments, the author has put forward the following seven hypotheses:

Hypothesis 1: Tangibles positively influence customer satisfaction.

Tangibles represent customer satisfaction when using the service. Meeting customer needs in terms of: vehicles, facilities, equipment, staff uniforms, etc. The study by Parasuraman, et al. [11] shows the relationship between tangibles and customer satisfaction, which influence each other. The relationship between tangibles and customer satisfaction in passenger transport services is a key factor in determining their experience. Modern, comfortable, and safe vehicles not only ensure convenience for passengers but also contribute positively to building trust and satisfaction. Tangibles demonstrate the business's concern for the customer service environment, through which customers evaluate service quality [22].

Hypothesis 2: Service competence positively influences customer satisfaction.

Service competence is reflected in the expertise, professionalism, attitude, and professional service of the service staff. Staff with good skills, expertise, and a friendly attitude will make customers feel more satisfied with the service [22]. Parasuraman, et al. [11] also affirm that service quality is influenced by service competence. The service competence of businesses in the hospitality industry is considered a key factor in creating a positive experience for customers, thereby increasing their satisfaction and loyalty. Parasuraman, et al. [11] and Gobena [23] also affirms that service quality, including the service competence of the organization, positively impacts customer perception. Service competence is a critical factor influencing customer satisfaction. Therefore, businesses need to focus on investing in improving service competence to create a good experience for customers, thereby increasing trust, engagement, and driving competitive advantage in the market.

Hypothesis 3: Empathy has a positive effect on customer satisfaction.

Empathy is shown through understanding, respecting and always listening to customers' needs. Empathy has a close relationship with customer satisfaction. When employees show empathy, customers will feel cared for and respected, thereby increasing customer satisfaction with the business. Batson, et al. [24] said that "Empathy motivates behavior to help others." other". In addition, it will improve customer experience. Hoffman and Novak [25] affirmed "Empathy helps create positive relationships between customers and businesses". Weiner, et al. [26] commented, "Empathy helps build trust between two parties." When customers trust a business, they will tend to return to using the service and recommend the business to others.

Hypothesis 4: Price has a positive influence on customer satisfaction.

Price is the customer's assessment of the suitability of the price with the customer's perceived service quality. When buying products and services, customers have to pay a certain cost in exchange for the value they need.

In their research on the relationship between perceived price and customer satisfaction, Varki and Colgate [27] also demonstrated that these two factors interact with each other depending on customers' sensitivity to price.

as well as the relationship between service users and service providers. Factors such as customer perceptions of price and cost (usage costs) do not affect service quality but will impact customer satisfaction [20, 28]. Only when customers perceive that the perceived service quality is greater than the cost of use is the price considered competitive and customers will be satisfied and vice versa. In many previous studies on customer satisfaction, the impact of price has received little attention compared to other criteria. However, with increasingly strong market competition and changes in customer perceptions of products and services, researchers have determined that price and customer satisfaction are closely related, deep relationship with each other.

Hypothesis 5: Image has a positive influence on customer satisfaction.

Brand image refers to the general impression created in the minds of customers and the public about a particular organization based on aspects such as the organization's name, products and services, and the interaction between the organization and customers. row. A professional, attractive and trustworthy image can increase customer trust and confidence in your services. Brand image refers to everything that people associate with an organization [29]. Brand image refers to the general impression created in the minds of customers or the public about a particular organization based on aspects such as the organization's name, services, and the interaction between the organization and customers [30]. The image plays an important role in creating an impression on customers and influencing their satisfaction with passenger transport services. A professional, attractive and trustworthy image can increase customer trust and confidence in your services.

Hypothesis 6: Responsiveness has a positive effect on customer satisfaction.

Responsiveness is expressed through the level of response to customer needs and desires quickly and accurately. At the same time, always ready to serve customers. According to Bismo, et al. [31] responsiveness, refers to a company's willingness and ability to help their customers across sales channels. According to Parasuraman, et al. [11], responsiveness affects service quality. In many previous studies on customer satisfaction, the impact of price has received little attention compared to other criteria. However, with increasingly strong market competition and changes in customer perceptions of products and services, researchers have determined that price and customer satisfaction are closely related, deep relationship with each other [32].

Hypothesis 7: Satisfaction has a positive influence on customer loyalty.

Customer satisfaction with passenger transport services is the customer's mood and feeling about the transport service when the customer's expectations are satisfied or exceeded during the time the customer uses them. service use. According to Oliver [33]: "Customer satisfaction occurs through product use, which is a necessary step to determine loyalty. Loyalty has a positive influence on attitude [34]. This positive attitude is sought to modify attitudes toward the product or brand, such as increasing the level of trust, increasing purchase intention.". Oliver [13] and [35] illustrated that satisfaction becomes loyalty when customers satisfy their desires. Studies have shown that satisfaction positively and significantly affects passenger loyalty [36], [37, 38].

Through the research process of previously conducted theories and research models, the research team decided to propose an official research model as follows:

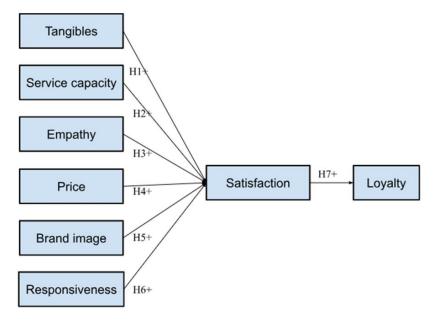


Figure 1: Proposed Research Model

# Research Hypotheses

- H1: Tangible media has a positive influence on customer satisfaction.
- H2: Service capacity has a positive influence on customer satisfaction.
- H3: Empathy has a positive effect on customer satisfaction.
- H4: Price has a positive influence on customer satisfaction.
- H5: Image has a positive influence on customer satisfaction.
- H6: Responsiveness has a positive effect on customer satisfaction.
- H7: Satisfaction has a positive influence on customer loyalty.

## **RESEARCH METHODS**

#### Research Design

The research was conducted on the basis of data from customers using passenger transport services by car in the North. The authors collected data using a questionnaire designed on Google Forms and processed with SPSS 24 and Amos 24 software.

The measurement model includes 8 observed variables. In which the tangible means scale - TA includes 4 observed variables, the service capacity scale - CS includes 4 observed variables, the empathy scale - EM includes 4 observed variables, the price scale - PR includes 3 observed variables, the brand image scale - BI includes 3 observed variables, responsiveness scale - RE includes 5 observed variables. Inherited and developed from the scale of Stank, et al. [39], Dang Trung Kien et.al [40]. The customer satisfaction scale (SA) includes 3 observed variables inherited from the scale of Stank, et al. [39]. The customer loyalty scale (CL) includes 3 observed variables inherited from the scale of Ngo Duc Chien [41].

#### Collect Data

The authors received 281 survey forms, of which 5 were invalid because the customers conducting the survey were not within the scope of the study (the scope of the study was the North, Vietnam). Therefore, 276 valid surveys are also the official sample size of this study.

Table 1. Descriptive statistics of the study sample

Factor	Component	Quantity	%
Sex	Male	82	29.7
	Female	194	70.3
Age	18 - 25	60	21.7
	26 - 35	99	35.9
	36 - 50	93	33.7
	Over 50	24	8.7
Transportation	Bus	43	15.6
	Passenger car	121	43.8
	Car	112	40.6

(Source: author's own compilation)

#### **RESULTS**

# Assess the reliability of the scale using Cronbach's Alpha coefficient

To evaluate the scales, the study used the evaluation standard: Cronbach's Alpha coefficient (Ca) with Ca > 0.7and total correlation coefficient > 0.3. In particular, Ca values range from 0.833 to 0.948, all greater than 0.7. The results obtained about the reliability of the measurement scales are shown in the table below:

Table 2: Cronbach's alpha reliability statistics

Factor	Cronbach's Alpha (Ca)
Tangibles	0.948
Service capacity	0.856
Empathy	0.835
Price	0.915
Brand image	0.833
Responsiveness	0.884
Satisfaction	0.891
Customer loyalty	0.871

(Source: author's own compilation)

Cronbach Alpha results show that the scales are reliable. Cronbach Alpha of the scales is also high. The smallest is the brand image scale (0.833). Therefore, all observed variables will be used in the next EFA analysis.

# **EFA Exploratory Factor Analysis**

Exploratory factor analysis (EFA) for the independent variable group

Table 3: Results of KMO coefficient and Bartlett's test for group of independent variables

KMO coefficient	0.884			
Bartlett's Test of Sphericity	Bartlett's Test of Sphericity Approx. Chi-Square			
	df	406		
	Sig.	0.000		

(Source: author's own compilation)

The results of factor analysis show that the KMO index is 0.884 > 0.5, which proves that the data used for factor analysis is completely appropriate.

The result of Barlett's test is 5537.412 with significance level (p\_value) sig = 0.000 < 0.05, so the variables are correlated with each other and meet the conditions for factor analysis.

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The results of the rotation matrix are shown in the table below:

Table 4 Rotated matrix table of factors

Observed variables	Factor group								
	1	2	3	4	5	6	7	8	
TA1	.913								
TA2	.922								
TA3	.906								
TA4	.898								
SC1		.790							
SC2		.666							
SC3		.691							
SC4		.781							
EM1			.706						
EM2			.857						
EM3			.707						
EM4			.651						
PR1				.842					
PR2				.892					
PR3				.862					
BI1					.594				
BI2					.722				
BI3					.732				
RE1						.742			
RE2						.611			
RE3						.857			
RE4						.823			
RE5						.735			
SA1							.961		
SA2							.783		
SA3							.766		
CL1								.889	
CL2								.681	
CL3								.859	
Eigenvalue	1.144					•	•		
Total Variance	74.306								

(Source: author's own compilation)

The analysis results show that 29 observed variables are divided into 08 groups according to the original proposal. In general, the results of the factor analysis are consistent with the initial assumptions of the research model, the observed variables and factors in the independent variable group are all maintained, qualified for further analysis.

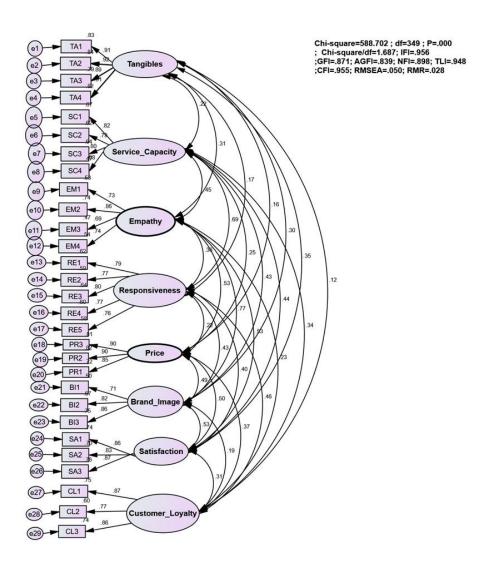
## Test the scale using CFA

# Testing the Unidimensionality

To ensure unidimensionality for the set of observed variables, the necessary and sufficient condition is that the measurement model is suitable for the collected research data, except in cases where the errors of the observed variables are correlated [42]. To determine this suitability, this study uses the following indicators: CMIN, CMIN/df, CFI, GFI, TLI and RMSEA index.

According to the analysis results, CFI reached 0.955; GFI reached 0.871 (8<GFI<9). Because of the limitation of sample size, GFI = 0.871 is still acceptable according to Homburg and Baumgartner [43] and Doll, et al. [44]; TLI reached 0.948 and RMSEA index reached 0.050 (less than 0.8) with TLI and CFI standards greater than 0.9; CMIN/df has a value of 1.687 < 2 and RMSEA has a value of < 0.8 [42], then the model is considered suitable for the research data obtained.

Thus, after CFA analysis, the results show that the measurement model is consistent with the actual data collected, so we can conclude that the scale satisfies the evaluation conditions and achieves unidimensionality.



(Source: author's own compilation)

Figure 2: Standardized critical measurement model

The study continues to carry out related tests to ensure reliability, convergence and discrimination to ensure the accuracy of analytical results, avoid causing discrepancies in analytical results and ensure ensure the meaning of the data in reality.

# Testing Reliability, Convergence and Discriminant Validity

To test reliability, the study evaluated standardized factor loadings ( $\geq$ 0.5) and composite reliability (CR $\geq$ 0.7). Test results show the indicators in the table below.

NO Elationship NO Estimate Elationship Estimate SC RE5 <---RE .759 SC4 <---.683 15 CL1 CL.867 RE2 RE .770 <---<---16 SC1 <---SC .816 RE1 <---RE .790 17 SC2 SC .786 EM4 EM .736 18

Table 5: standardized factor loadings

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5	SC3	<	SC	.802	19	EM3	<	EM	.689
6	TA2	<	TA	.919	20	EM2	<	EM	.863
7	TA3	<	TA	.890	21	EM1	<	EM	.725
8	TA4	<	TA	.906	22	PR1	<	PR	.848
9	BI2	<	BI	.817	23	PR2	<	PR	.904
10	BI3	<	BI	.864	24	PR3	<	PR	.901
11	CL2	<	CL	.775	25	TA1	<	TA	.912
12	CL3	<	CL	.861	26	TA1	<	ТА	.710
13	RE3	<	RE	.799	27	SA3	<	SA	.871
14	RE4	<	RE	.775	28	SA2	<	SA	.835
					29	SA1	<	SA	.862

Through the data table, all standardized loading factors are greater than 0.5, so all variables meet the standards. We can conclude that the scale used in the study meets the standards of reliability or the reliability of the scale is guaranteed.

CR AVE MSV MaxR(H) CLSC TA EMRE PR ΒI SA CL0.874 0.698 0.210 0.881 0.835 SC 0.856 0.598 0.469 0.863 0.342 0.774 TA 0.822 0.949 0.117 0.217 0.907 0.949 0.120 EM0.841 0.572 0.523 0.859 0.227 0.452 0.311 0.756 0.685 0.361 RE 0.885 0.606 0.469 0.886 0.458 0.174 0.779 PR 0.915 0.783 0.284 0.919 0.372 0.247 0.157 0.533 0.219 0.885 ΒI 0.841 0.639 0.593 0.857 0.185 0.428 0.300 0.770 0.435 0.492 0.800 SA 0.892 0.733 0.282 0.893 0.311 0.445 0.347 0.528 0.403 0.500 0.531 0.856

Table 6: CR, AVE, and SQRTAVE evaluation results

To test the convergence, the research is evaluated based on the AVE value (Average Variance Extracted) with the criterion that the AVE index must be greater than or equal to 0.5. The analysis results show that all AVE values meet the requirements (≥.5), so convergence is guaranteed.

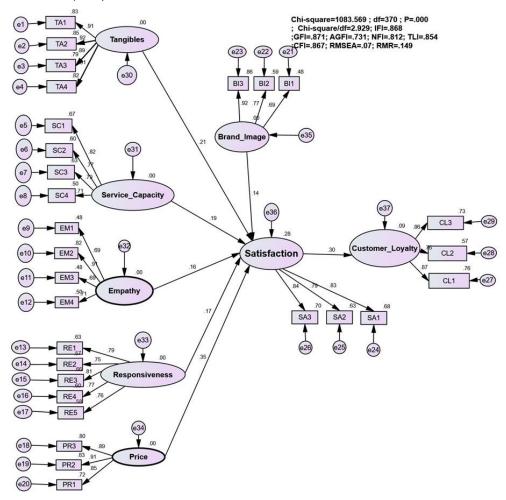
To achieve discrimination, Maximum Shared Variance (MSV) < Average Variance Extracted (AVE). Besides, the square root of the average variance is extracted Square Root of AVE (SQRTAVE) > Inter-Construct Correlations in the Fornell and Larcker table.

Observing the statistical data in the table, the concepts all meet the requirements in terms of validity as well as reliability, the number of factors and variables measured on those factors are consistent with expectations on the theoretical basis. was previously set up. Therefore, the appropriate scale uses subsequent linear structural model analysis.

## **SEM Structural Model Analysis**

The testing results show that the relevant analytical indicators all meet the necessary standards, confirming that the research model is suitable for the collected research data. Specifically: Chi-square reached 1083,560; df reaches 370 and the very small p value reaches 0.000; Chi-square/df reaches a value of 2.929, less than 3; GFI

reached 0.871; CFI reached 0.867; TLI reached 0.854. Thus, the two indexes CFI and TLI are both greater than 0.8 and 0.8<GFI<0.9. At the same time, the RMSEA index reached 0.07, smaller than 0.08 according to the standards of Hair et al. (2010).



(Source: author's own compilation)

Figure 3: Results of analysis of the normalized linear structural model

Table 7. Regression coefficients are not standardized

Hypothesis		Correlate	;	Estimate	S.E	C.R	P
H1	SA	<	TA	.157	.044	3.550	***
H2	SA	<	SC	.168	.057	2.967	***
Н3	SA	<	EM	.174	.070	2.490	***
H4	SA	<	RE	.155	.057	2.706	***
H5	SA	<	PR	.296	.053	5.630	***
H6	SA	<	BI	.152	.068	2.221	***
H7	CL	<	SA	.361	.083	4.350	***

(Source: author's own compilation)

Through statistical indicators, the author tests the proposed research hypotheses. The official research model includes 8 factors: PTHH, NLPV, DC, KNDU, GC, HATH, SHL, and LTT. Through the results of SEM analysis, all proposed hypotheses from H1 to H7 are accepted. The test results show that all relationships in the research model are statistically significant with 95% confidence because all p values are less than 0.05. On the other hand, the estimates corresponding to each relationship show different values, including positive

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relationships. Therefore, hypotheses H1 to H7 are accepted. At the same time, testing the model also confirms that the measurement scale of concepts in the model has theoretical value.

Table 8. Standardized regression coefficient

NO	Correlate	Estimate		
1	SA	<	TA	.212
2	SA	<	SC	.187
3	SA	<	EM	.155
4	SA	<	RE	.168
5	SA	<	PR	.354
6	SA	<	BI	.137
7	CL	<	SA	.298

(Source: author's own compilation)

Through the standardized estimated coefficient of the level of influence between factors, we can evaluate the importance of each factor in influencing loyalty. Accordingly, among the factors that directly affect loyalty, price shows the strongest influence. The absolute value of the standardized estimate coefficient of the influence of price on loyalty reaches 0.354.

Regarding factors affecting satisfaction, price is still the factor with the strongest impact, followed by the factors service capacity and responsiveness with absolute values of 0.354, 0.187, 0.168 respectively. Influencing the price factor to increase customer satisfaction can affect the revenue of transportation companies. Therefore, businesses can focus on two factors: service capacity and responsiveness to satisfy customer needs, thereby increasing customer loyalty.

#### **DISCUSSION**

From the proposed research model, the project researches a model including 8 research concepts, with a total of 7 research hypotheses that need to be tested. The proposed research model is a linear structural model. multiple SEM. Specifically, the study combines quantitative techniques such as testing the reliability of Cronbach's Alpha scale, EFA exploratory factor analysis, and confirmatory factor analysis. With the 7 research hypotheses set out, and the test results with 95% confidence we can conclude that 7 hypotheses are accepted.

Among them, the factors that impact customer satisfaction are tangibles, service capacity, empathy, price, brand image, and responsiveness. Customer satisfaction impacts their loyalty to the service. These factors all have a positive impact on customer loyalty. Among the factors affecting loyalty, the factor with the strongest weight is satisfaction.

Research on perceived service quality, customer satisfaction, and loyalty to services, especially passenger transport services by car, very few studies fully present the relationship between Factors that impact customer satisfaction and loyalty such as tangibles, service capacity, empathy, price, brand image, and responsiveness, future research should focus on presenting this relationship and the research results of the report have helped contribute to research projects affecting customer satisfaction and loyalty.

Research results compared to previous research, for the study of Rizan, et al. [14] satisfaction has an impact on customer expectations. Curry and Gao [45] argue that customer satisfaction has a stronger impact in predicting passenger repurchase loyalty than service quality. Studies have shown that satisfaction positively and significantly affects passenger loyalty [37, 46]. From the authors' research projects, we can see that all studies support the finding that brand loyalty is positively influenced by customer satisfaction.

With this research result, the author also agrees with previous studies that service quality factors have a relationship with satisfaction and satisfaction has a relationship with customer loyalty. However, the level of impact of the factors is somewhat different from previous related studies in terms of weight values and order of impact due to the presence of contextual, external, and target group factors between the studies. research is different.

The research has academic and practical significance, however, in this study, the author found that there are still some limitations: First, because some customers do not want to share or do not have time to participate. Participating in surveys, and collecting information from customers is sometimes very difficult. This may reduce the accuracy of the results. Second, this study only evaluated the scales using the Cronbach Alpha reliability coefficient method and the EFA exploratory factor analysis method, and the CFA confirmatory factor analysis method. To better measure, evaluate scales, and test theoretical models, it is necessary to use more modern methods and tools. Third, this research focuses on Northern Vietnam. The topic has not researched customer loyalty nationwide to make comparisons, from which more effective solutions will be found. This is a direction for further research. It is proposed that in the future, testing on different models and a larger scale will be done to build a set of standard measurement scales to serve research work.

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