The Factors Affecting Customer Satisfaction and Customer Loyalty — A Study of Local Taxi Companies in Ho Chi Minh City, Vietnam

Mai Ngoc Khuong and Ngo Quang Dai

Abstract—Recent years have seen that a wide range of service providers have realized the importance of customer loyalty. One of the key challenges they face is how to manage service quality, which is pivotal for satisfying customers, retaining them and creating loyalty among customers. This research was conducted to examine the factors affecting Customer Satisfaction (CS) and Customer Loyalty (CL) to help improve profit for the local taxi companies of Ho Chi Minh City, Vietnam. Five dimensions in service quality (SERVQUAL): Tangibility, Reliability, Responsiveness, Empathy, and Assurance and IDCTP model: Information, Dignity, Comfort, Trip time and Price have been considered for this empirical research. The research methodology was carried out in a survey cross-sectional applied to 288 respondents. The collected data was analyzed by using reliability method, factor analysis, correlation and regression. The empirical results showed that reliability, responsiveness, price and satisfaction directly affected customer loyalty. In addition, comfort and price indirectly affected customer loyalty through the mediation of satisfaction. Finally, this study assisted marketing managers better understand the key drivers of taxi service in order to generate and uphold user satisfaction as well as fidelity in an extremely intricate marketplace.

Index Terms—Service quality (SERVQUAL) dimensions, RECSA model, customer satisfaction, customer loyalty, taxi service.

I. INTRODUCTION

In an attempt to satisfy the basic mobility need of the individual, the demand for transport services come into play. In recent years, the taxi industry has undergone major changes. To a large extent, the changes have led to increase competition, particularly between the domestic and foreign company. Moreover, the business of transportation is developed with severe competition, fluctuations, and new challenges. With reference to this, local taxi companies are facing with the new competitors which are Uber, Grab and Easy Taxi. Nowadays, consumers become wiser and they require not only high quality but also better, more professional in service. They are used to experience famous brand with good reputation as well as good services. Meanwhile, two of the most brand awareness of Vietnamese in taxi industry are VINASUN and MAILINH being damaged the good reputation.

With the population nearly 8 million people, Ho Chi Minh City — the biggest city of Vietnam, becomes the most potential market for not only domestic but also foreign company to invest. One of the key roles to succeed in taxi industry is customer satisfaction. The more satisfaction customers can get, the more profit company can earn. It is not to say that customer loyalty is not important for modern-day business. First, customers are defined as a scare resource. A purchasing from an old customer is much easier than from a new customer. The second reason is that customer loyalty has a progressive effect on the profit of the company, as confirmed empirically. Customer loyalty leads to profits with an increase in profit from cross-selling and up-selling, the gaining of new customers by word of mouth, cost reduction, and price insensitivity in the customer [1].

So as to get a high position in customer’s attention, there are several aspects to measure and one of which is customer satisfaction. In a turbulent commerce environment, in order to sustain the growth and market share, companies need to understand how to satisfy customers, since customer satisfaction play an important part for establishing long-term client relationships [2]. In addition, companies want increase the demand of taxi users to maximize their profit then they must gain as much as possible the satisfaction from customers. Therefore, customer satisfaction is a critical issue in the success of any business system, traditional or online [3].

II. LITERATURE REVIEW

A. Customer Satisfaction

The idea of consumer satisfaction has gained huge interest in recent times in taxi industry. For every firm, consumer satisfaction is the vital aspect that needs careful attention. This is mainly due to the increased significance of the fact that superior consumer contentment can lead to a strong position in the rivalry marketplace by means of declining price elasticity, falling business costs, lessening failure costs along with reducing the all the expenses of acquiring new consumers [4].

For consumer researchers the issue of customer satisfaction is very important [5]. According to [3], customer satisfaction is a vital consideration for all those organizations that wish to create and keep a competitive advantage in present competitive scenario. [6] identified some well establish determinants of customer satisfaction such as expectations, disconfirmation of expectations, performance, affect and equity. Customers are said to be satisfied when actual performance outcome exceeds expectation (positive disconfirmation), and dissatisfaction
arises when expectation exceeds performance outcome (negative disconfirmation) [7]. As the assessment of satisfaction is expected to be based on a wide array of matters, there can be possibly numerous factors of customer satisfaction as the extent underlying satisfaction measurements are inclusive rather than precise [8]. Furthermore, [9] mentioned variations in purchasing criteria among diverse gender and age groups. Males treated reliability and brand loyalty to be key factors in respect of females who treated expert image and quality as vital.

In addition, service frequency, reliability, convenience and responsiveness are service quality variables that are considered important in customer satisfaction [10]. According to [11] quality is consistently doing the right thing right. It is a complex process to measure consumer perception of service quality. Several studies have contributed immensely to the understanding and measurement of service quality [12].

In order to effectively gain an advantage over competitors, customer satisfaction should be measured and evaluated regularly [13]. Identification and measurement of the factors affecting satisfaction level of taxi users in Ho Chi Minh City are relevant due to the fluctuating nature of the highly competitive market. With insight on consumer satisfaction levels, local taxi companies may be able to maintain the current growth and gain a larger market share in comparison to its competitors (i.e., Uber, Grab, Easy Taxi and so on).

B. Customer Loyalty

Customer loyalty, the main consequence of customer satisfaction, has been defined and measured in many various ways over the past decades. [14] defines customer loyalty as “a deeply held guarantee to re-buy or re-patronize a favored product or service consistently in the future, despite issue influences and marketing efficiency having the potential to cause changing behaviors”. [15] defines customer loyalty as the relationship a customer maintains with the seller after the first transaction. [16] have proposed that the general feeling of satisfaction felt by a customer is a result of purchase encounters, it need not be based on previous transactional experience.

However, it is worth noting that customer satisfaction is not the only one in building relationship strength but environmental factors such as market concentration can also affect the longevity of the relationship [17]. The service management literature shows increasing interest in relationship strategies where the focus is evidently on building customer satisfaction and loyalty.

Another important input in the literature regarding customer loyalty measurement is according to [18], the priority goal of every firm is profitability and one way to achieve this for a company is to gain and maintain loyal customers. If a firm invests resources to enhance customer loyalty without focusing on profitability, it may lead to failure in the long run. Customer loyalty becomes important to a company when it results in purchase behavior. Firstly, it is much less expensive to retain current customer than it is to seek new ones [19]. Secondly, loyal customers are more likely to mention past service experiences positively than non-loyal customers, creating a potential for word-of-mouth advertising at no extra cost to the service providers [20]. Lastly, it secures the relationship between customer and service provider which means loyal customers will spend more time and money with the company.

Ref. [22] emphasizes the model of customer loyalty development including the following four-phases: (1) cognitive loyalty: the brand attribute information valuable to the consumer intimates that one brand is preferable to its alternatives; (2) affective loyalty: a liking or positive attitudes toward the brand has developed on the basis of cumulatively satisfying usage occasions; (3) conative loyalty (behavioral intension): the customer’s expressed future buying intension; (4) action loyalty: the motivated intensions in the previous loyalty states is converted into actions.

According to thousands literatures on loyalty, customer loyalty has several distinct dimensions. As discussed earlier, the antecedent of customer loyalty is customer satisfaction, and the consequence of customer loyalty is company performance. Using this perspective, customer loyalty is perceived as future intention-to-repurchase and commitment that reflects the cognitive and satisfaction associated with loyalty.

C. SERVQUAL and IDCTP Model

The most well-known scale of measurement for service quality is SERVQUAL, developed by [21]. From this study, ten dimensions of quality were proposed (reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the consumer, and tangibles). These dimensions were re-examined and refined during the SERVQUAL development period through an iterative process using the alpha coefficient, among others. The result includes the five dimensions: tangibles, reliability, responsiveness, assurance and empathy. [22] report that SERVQUAL has been used successfully to measure service quality in public and private companies in several different contexts, cultures and countries.

Ref. [8] have recommended that discussion groups be organized to ensure that no important aspects of service quality are left out of the tool’s questionnaire, and that the terminology used in the questionnaire is the same as the one used by the customers. [23] have suggested that a process similar to the one used by Parasuraman et al. be used to determine whether or not a measurement scale is appropriate for the context to be studied. If these recommendations and suggestions were to be followed, researchers could begin with small discussion groups to identify the elements of quality specific to the service studied. Then, they could add these elements to those already in SERVQUAL, and analyze the results using statistical techniques. Certainly, SERVQUAL is a good starting point for researchers wanting to study quality in the service sector, but as several authors have suggested, before using SERVQUAL, a preliminary study should be carried out to determine whether or not SERVQUAL should be adjusted for the study context.

While these dimensions are important aspects of service quality, many scholars have doubts about whether they are applicable when it comes to evaluating service quality in other service industries [24]. However, other researchers
have rejected the SERVQUAL model as it is seen as being based on perception. The following study by [25], which aims to use quality attributes to estimate the demand for taxi services, was conducted in Sweden. He used, among others, the quality index developed by [26] to develop his postal questionnaire with the complete list of the five dimensions (information, dignity, comfort, trip time and price). From all of these studies on quality as defined by user perceptions, it appears that the most important dimensions and attributes are not the same for various groups of users. In addition, it seems that different user groups do not have the same level of satisfaction with respect to the different service attributes.

Table I presents a comparison between the original model and the restructured model of the quality dimensions.

<table>
<thead>
<tr>
<th>TABLE I: ORIGINAL MODEL COMPARED TO THE RESTRUCTURED MODEL BETWEEN 10 DIMENSIONS OF SERVQUAL AND IDCTP MODEL</th>
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<tbody>
<tr>
<td><strong>Original model</strong></td>
</tr>
<tr>
<td>Reliability</td>
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<tr>
<td>Comfort Assurance</td>
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<tr>
<td>Information</td>
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<tr>
<td>Responsiveness</td>
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<tr>
<td>Trip time</td>
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<tr>
<td>Dignity</td>
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<tr>
<td>Tangibles</td>
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<tr>
<td>Price</td>
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</tbody>
</table>

According to all above dependent and independent factors this research hypothesizes that:

\(H_1\): Independent factors of Reliability, Comfort, Information, Responsiveness, Dignity, Tangibles and Price has significantly impact on customer satisfaction.

\(H_2\): Independent factors of Reliability, Comfort, Information, Responsiveness, Dignity, Tangibles, Price and Customer Satisfaction has positively impact on Customer Loyalty.

\(H_3\): The effect of Reliability, Comfort, Information, Responsiveness, Dignity, Tangibles and Price are mediated by Customer Satisfaction.

III. METHODOLOGY

A. Questionnaire Design and Data Collection

This research paid high attention on customer loyalty and customer satisfaction. Quantitative data collection method is used for this study which means using numbers, mathematics, statistics and so on, to measure precisely research data in order to accept or reject research hypotheses and answer research questions. Most of the questions in the survey were designed based on five point Likert scale, respondents rate the items on the five point scale, on which 1 indicated “strongly disagree” and 5 indicated “strongly agree”.

The survey questionnaires were directly sent to people who have experienced on using taxi service. Participants include both females and males. To get more consistency, only people who using taxi service within three months will be nominated. This research applied the convenience sampling method with 288 respondents were asked to fill in the questionnaire. The questionnaires were mainly distributed in the public places including supermarket, office, parks, cafeterias, food court and so on.

B. Factor Analysis and Reliability

Two exploratory factor analyses (EFA) were conducted for the two group of variables; 33 items of the independent variables and 10 items of the dependent variables. The principal component extraction method and varimax rotation were employed to find the relationship among variables. In addition, descriptive statistics were used to describe the demographic data and all other variables in the research model. Moreover, multiple regressions were used to determine the effects of the independent variables on the dependent variables of customer satisfaction and customer loyalty. The results of the EFAs showed that the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.806 for the independent variables and 0.729 for the dependent variables. According to [27] the KMO index ranges from 0 to 1 and the suggested minimum value for a proper factor analysis is 0.6, this means that the data were suitable for further analysis. The Bartlett’s test: the factor analysis was considered appropriate when significant ≤ 0.05 [27].

<table>
<thead>
<tr>
<th>GIVEN NAMES</th>
<th>NUMBER OF ITEMS</th>
<th>ALPHA</th>
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<tbody>
<tr>
<td>1. RELIABILITY (RELI)</td>
<td>6</td>
<td>0.906</td>
</tr>
<tr>
<td>2. RESPONSIVENESS (RESP)</td>
<td>4</td>
<td>0.681</td>
</tr>
<tr>
<td>3. COMFORT (COMFORT)</td>
<td>3</td>
<td>0.629</td>
</tr>
<tr>
<td>4. PRICE (PRICE)</td>
<td>2</td>
<td>0.656</td>
</tr>
<tr>
<td>5. INFORMATION (INFOR)</td>
<td>2</td>
<td>0.725</td>
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</table>

The study provides evidences that there were 5 components extracted and all Eigenvalues are greater than 1. The Cronbach’s coefficients ranged from 0.629 to 0.906 illustrating the internal consistency of these variables as shown in Table II and Table III. Moreover, the table of model summary (a) indicates the value of R square of five factors on CUSATIS is 0.286, which means the mode show 28.6% of the variance in five independent factors on Customer Satisfaction. Similarity, the table of model summary (b) shows the value of R square of five factors on CUSLOY is 0.596. It means that five factors which are: INFOR, COMFORT, PRICE, RESPON and RELIA can explain 59.6% the variation of CUSLOY (Customer Loyalty). Moreover, the Adjusted R square receives a high value at 0.586 (p>0.5) which is considered as acceptable for further research.
This study found that CUSLOY was affected by independent variables in two ways: direct and indirect effects. The direct effect can be observed through the unstandardized regression coefficient ($\beta$) and was presented in the path model. In addition, the indirect effect of independent factors on CUSLOY was calculated by multiply the effects of independent variables on CUSATIS.

C. Direct Effects on Customer Loyalty

The results of the first multiple regression, which tested hypothesis 2 ($H_2$), showed that the CUSLOY was mainly predicted and affected by three important predictors; RELIA ($\beta = 0.550, p<0.01$), RESPON ($\beta = 0.135, p<0.01$), PRICE ($\beta = 0.296, p<0.01$). In addition, the result of the simple linear regression between CUSATIS and CUSLOY, which tested hypothesis 3 ($H_3$), showed that the CUSLOY was significantly affected by the CUSATIS ($\beta = 0.184, p<0.01$). As the result, with the higher rate of reliability, responsiveness and price, marketers could increase customer loyalty by focus on those factors.

D. Indirect Effects on Customer Loyalty

The indirect effect of an independent variable on the dependent variable through the intervening variable was the total product of the effects of that independent variable on the intervening variables and the effect of the intervening variable on the dependent variable of customer loyalty [28]. The result of the second multiple regression, which tested hypothesis 1 ($H_1$), showed that 27.2 percent of the variance in the CUSATIS could be explained by reliability, responsiveness, comfort, price and information as independent variables of the model. The CUSATIS was also mainly predicted and affected by two important factors: COMFORT ($\beta = 0.297, p<0.01$) and PRICE ($\beta = 0.327, p<0.01$). Thus, when providers want to create satisfaction for their customers, they should pay more attention to the comfort, and adjust the price as possible. Consequently, through the intervening factor of customer satisfaction, the study indicated that the factors of comfort and price had indirect impacts on customer loyalty. As the result, this research suggested that taxi service which formed high reliability in customers, had well enter customer’ interest, and appropriate price would lead to high rate of customer loyalty.

\[ \text{CUSLOY} = \beta_1 \text{RELIA} + \beta_2 \text{RESPON} + \beta_3 \text{COMFORT} + \beta_4 \text{PRICE} + \beta_5 \text{CUSATIS} \]

E. Significant of the Indirect Effects

Table VI showed the results of the bootstrapping method recommended by [28] to test the significance of indirect effects or mediations. The output provided the bootstrapped...
confidence intervals (at the 95%). If there is a zero (0) lies within the interval range between the lower boundary (LL) and the upper boundary (UL), then we can conclude that, with 95% confidence, there is no mediation or indirect effect. On the other hand, if zero does not occur between the LL and the UL, then we can conclude that, with 95% confidence, the mediation or indirect effect is significant [29]. As can be seen in the output of Table V, the indirect effects of COMFORT and PRICE were estimated to lie between 0.0256 (LL) and 0.0891 (UL), 0.0312 (LL) and 0.0941 (UL), respectively. Therefore, it is concluded that, the indirect effects of COMFORT and PRICE on CUSLOY were significantly, thus the mediation of CUSATIS in this study was true.

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>CAUSAL EFFECTS</th>
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<th>LL</th>
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<tr>
<td>RELIA</td>
<td>.550</td>
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<td></td>
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<tr>
<td>RESPON</td>
<td>.135</td>
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<td>.135</td>
<td></td>
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<tr>
<td>COMFORT</td>
<td>---</td>
<td>.048</td>
<td>.048</td>
<td>.0256</td>
<td>.0891</td>
</tr>
<tr>
<td>PRICE</td>
<td>.296</td>
<td>.067</td>
<td>.363</td>
<td>.0312</td>
<td>.0941</td>
</tr>
<tr>
<td>CUSATIS</td>
<td>.184</td>
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<td>.184</td>
<td></td>
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<tr>
<td>TOTAL</td>
<td>1.165</td>
<td>.115</td>
<td>1.280</td>
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CUSATIS affected by 2 important predictors: PRICE ($\beta = 0.363, p = 0.000$) considered the most important factor with largest Beta value and COMFORT ($\beta = 0.261, p = 0.000$). CUSLOY affected by 4 important factors: RELIA ($\beta = 0.415, p=0.000$) considered the most important factor with largest Beta value, PRICE ($\beta = 0.296, p = 0.000$), RESPON ($\beta = 0.135, p = 0.000$) and CUSATIS ($\beta = 0.184, p = 0.000$).

V. DISCUSSIONS AND RECOMMENDATIONS

In order to identify the influences of independent factors on customer satisfaction, Multiple Regressions Analysis was conducted. Only two factors which are comfort and price are positively significant effect on customer satisfaction at the 99% confidence level. In addition, comfort, price and price can explain 28.6% the variation of Customer Satisfaction ($R^2 = 0.286$). This finding is partially similar to the results of [25] and [26].

Similarity, Multiple Regressions Analysis was also conducted to test the impacts of independent factors on customer loyalty. Four predictors which are reliability, responsiveness, price and customer satisfaction directly affect customer loyalty in the positive direction and at the 99% confidence level. Those 4 factors can also explain 59.6% the variation of customer loyalty ($R^2 = 0.596$).

Furthermore, by conducting path analysis, the indirect impact of independent factors which are comfort and price on customer loyalty through customer satisfaction are also illustrated. Regarding to the total effects, price also has the strongest total effect on customer loyalty with $\beta = 0.964$, followed by reliability with $\beta = 0.399$. Responsiveness has the lowest effect on customer loyalty with $\beta=0.153$ only. The total effect of these factors on customer loyalty is 1.833.

Therefore, the frequency of taxi users can be predicted by the adjusted price of local companies as well as their satisfaction about using these services. The cheaper the price and higher satisfaction level, the higher ability they intend to use taxi in the future. This finding is also supported by some previous results, such as studies of [14] and [25].

Furthermore, this research finding indicates that price not only has a significant effect on customer satisfaction but also has an impact on customer loyalty. Thus, it is concluded that with cheaper price, most people will prefer using taxi for the convenience and fastest way to travel around the city especially in Ho Chi Minh City.

With such a competitive price of Uber, Grab and EasyTaxi, many local taxi companies have to deal with the problems of adjust the price. However, Transport Associations appreciate the benefit of application that Uber and Grab have been used. Moreover, many managers and marketers must have a look on what Uber and Grab done to attract more and more customers. With the massive technology development, more and more people are familiar with smartphone. Therefore, to improve service quality, the Association recommends the traditional taxi business should innovate management methods and operations also, so that they can reduce the coefficient of empty vehicles and reduced transportation cost. Local taxi companies must promptly applying new technologies to keep pace with modern life.

Last but not least, based on descriptive statistics of customer loyalty and customer satisfaction, the mean value of both aspects is nearly the same at the average of 3.5 which is considered as neutral or not satisfy much. Therefore, local taxi companies should provide more suitable strategies as well as enhance the service quality in order to compete with foreign taxi companies in Ho Chi Minh City.

VI. CONCLUSION

First of all this research found four variables which had direct effects on customer loyalty (CUSLOY), namely reliability, responsiveness, price and customer satisfaction. In addition, there were two variables directly affect customer satisfaction, namely comfort and price. Simultaneously, these variables caused indirect effects on customer loyalty. As the result, this study also recommended suggestions to improve customer satisfaction and customer loyalty.

The research applied the multivariate statistical techniques with factor analysis, standard multiple regression and path analysis to investigate the relationships among variables of customer loyalty model. Interpretation and recommendations were proposed basing on the empirical findings of the research. In term of correlations between variables, bivariate correlations and Pearson product-moment correlation coefficients were used to examine the relationships and its strength between each independent variable and customer loyalty, likewise between each mediating variable and the dependent variable of customer loyalty. The direct and indirect of independent variables on
customer loyalty were interpreted and discussed in order to give clear answers and evidences for supporting all the research hypotheses.

As the result of the research, not all the factors have direct and indirect impacts on customer loyalty. Moreover, the study only showed the direct effect of customer satisfaction on customer loyalty; this will be interesting for future study to explore the relationship between brand equity and customer loyalty.

REFERENCES


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