The Effect of Service Quality, Information Tracking System and Company Reputation on Customer Satisfaction in Logistic Industry

Do Viet Thanh,  
Phd Candidate,  
Vietnam Maritime University, Vietnam.  
E-mail: thanh@globalnetwork.com.vn

Nguyen QuangVinh,  
Dong Do University, Vietnam.  
E-mail: quangvinh191081@gmail.com

Abstract

Logistics has played an important role in integrating the supply chain of industries. To enhance the competitiveness, logistics companies have focused on developing relationship with customers to meet their requirements and enhance customer satisfaction in the competitive environments in Vietnam. The objective of this study is to propose and empirically analyze a conceptual framework that considers service quality, Information Tracking system and Company reputation as antecedents of customer satisfaction in logistic service context. We incorporate the complex interrelationships of all these constructs into the framework and test them in Vietnam Logistic Industrial Service Network setting. There are 240 manager of company that are using the service logistic were surveyed. Research results confirmed the customer satisfaction with the logistic service affected by three factors: Tracking system, Company reputation and Service quality. Finally, this study discussed the academicals contributions and offered managerial implications and for the logistics industry.

Key Words: Service Quality, Information Tracking System, Company Reputation, Customer Satisfaction, Vietnam Logistic Industry

JEL Classification: R41, N70, M 31
1. Introduction

In recent years, Logistics has played an important role in integrating the supply chain of industries. Because the market becomes more global, logistics is now seen as an important area where industries can decrease costs and improve their customer service quality (Akman and Baynal, 2014). Logistics in organization had played a significant role to the supply chain sector which was an element of business sector (Razak, Rowling, White, and Mason-Jones, 2016). Logistics was seemed to be an important factor in business around the world, because small and medium enterprises and industry sector have been used to increase their objectives as follows: reduce operation costs, save delivery times, improve customer service quality, company image and company reputation, (Liu and Wang, 2009). Logistics can be regarded as an important mechanism for driving better business world in the previous times. But on the other hand, small and medium enterprises sector and industry did not have apparently operation plan for running logistics sector to their work. Therefore, logistics outsourcing was used to solve problem inside organization by buildup more strong efficiency to their delivery operation. Moreover, logistics outsourcing always tried to develop themselves along with the variation of logistics (Vasudevan and Prakash, 2016).

As reported by World Bank (2014) While Vietnam has attained a strong track record of economic growth over the past 20 years, the drivers that fueled this growth are rapidly depleting, making it critical to develop new drivers of growth going forward. More competitive transport and trade logistics can become a new driver of sustained growth through their positive impact on productivity and their direct influence on business competitiveness. Logistics operations in Vietnam are costly relative to key regional peers like China, Malaysia, and Thailand, primarily because of the prevalence of unpredictability in supply chains. Unpredictability in supply chains increases logistics costs by making it necessary for businesses to carry more inventory than they would otherwise need to manage their everyday operations. It is estimated that Vietnam’s shippers spend approximately US$100 million annually in extra inventory carrying costs due to import-export clearance delays, an amount that is projected to reach US$180 million by 2020 (Nguyen, Nguyen, and Hoang, 2016).

As reported by Vietnam Logistics Association (VLA, 2015) Vietnam will be faced with many challenges while Asian Economic Communities (AEC) is operated. And not only with AEC, Vietnam also participated in several Agreement on trade as the Trans-Pacific Partnership (TPP), a free trade agreement with European (EU). For Vietnam’s key root causes of supply chain problem include: Cumbersome and inconsistently-applied government regulations; Lack of automation in key trade-related processes such as trade clearance; Fragmented modal planning in transportation; A belief among shippers and logistics service
providers that facilitation payments are necessary to avoid delays in supply chains; Low barriers to entry in trucking; and major supply-demand imbalances in infrastructure provision (Banomyong, Thai, and Yuen, 2015; Hơi, 2016).

While much research has focused on service quality in relationship with customer satisfaction and loyalty (Shi, Prentice and He, 2014; Izogo and Ogba, 2015; Hapsari, Clemes and Dean, 2016. Patterson and Patterson, 2016. In organizational buyer-seller relationships, buyers are more likely to focus on long-term benefits and engage in cooperative actions, thus enhancing the competitiveness of both partners and reducing transaction costs (Yang, Zhao, Yeung and Liu, Y. (2016).). To date, however, limited attempts have been made to conceptualize the effect of service quality, Information Tracking system and Company reputation on customer satisfaction in logistic industry. As improving service quality, increasing IT capability and company’s reputation is a common strategy advocated to increase customer satisfaction. The objective of this study is to propose and empirically analyze a conceptual framework that considers service quality, Information Tracking system and Company reputation as antecedents of customer satisfaction in logistic service context. We incorporate the complex interrelationships of all these constructs into the framework and test them in Vietnam Logistic Industrial Service Network setting.

2. Literature Review

There are many definitions of customer satisfaction. According to Oliver (2014), the customer satisfaction is the emotional response / the whole feel of the customer to the service provider on the basis of comparing the difference between what they getting, compared to previous expectations. To put it simple, customer satisfaction is the status / customer perception of service providers after using the service. Or according to Kotler, Keller, Ancarani and Costabile, (2014) is the degree of satisfaction of the state of human feeling derived from comparing the results obtained from the product or service to his expectations. Meanwhile, Fornell, MorgesonIII, andHult, (2016) seems to believe that customer satisfaction is a corporate mission reflected the relationship between the value of products and services compared with expectations previously on our customers. And also based on the research, Peter, Churchill, and Brown (1993) was concluded satisfaction is also a state in which what customers need, want and expect in products and service packs are satisfied or exceeding satisfaction, resulting in repeat purchase, loyalty and word of mouth value of excitedly. There are many concepts of customer satisfaction, however, the authors seem to agree with different opinions. The satisfaction or non-satisfaction of the tourists are interested in emotions or frustrated by comparing the quality of service expected by customers. (Kotler, 2001). Accordingly, customer satisfaction is a function of the quality of service as perceived by customers.
Service quality and customer satisfaction are two very closely related and sometimes even identified concepts. Customer satisfaction is a key factor in assessing the quality of a service. If it is difficult to define the quality of service; it is even harder to determine the level of customer satisfaction. Caceres & Paparoidamis (2007), Gorla, Somers & Wong (2010) argue that service quality is the predecessor of customer satisfaction. Quality of service, as a concept, raises a high interest of scientists and researchers, as the quality of service is not only difficult to define, but to measure as well (Breja, Banwet, & Iyer, 2011; Hoang, Igel, & Laosirihongthong, 2010; Juga, Juntunen, & Grant, 2010). The main definitions of quality of service focus on the fact that the service has to meet the customer’s needs and expectations (Breja, et. Al., 2011; Carmignani, 2009) and is interpreted as a difference of terms of service provision and customers’ expectations of perceived service. It is necessary to keep in mind that customer satisfaction with the quality of service is not the objective assessment of the real situation, but an element of emotional nature. Customer expectations’ satisfaction is generally seen as a positive opinion of the client about the service after the service is performed. In other words, this is evaluation of the results of the process. Therefore, this paper put forward the following hypothesis:

Hypothesis 1: Service quality has a positive effect on customer satisfaction.

Beside, tracking system is Tracking of shipments and conveying the tracking information to customers are perceived to be important to customer satisfaction and they are often considered industry norms rather than a potential competitive advantage for logistics service providers (LSPs) (Lun, Lai, Wong and Cheng, 2015). Shamsuzzoha and Petri (2011) state that the importance of tracking and tracing of shipments is considered quite high for manufacturing firms in terms of customer service and essential for managing logistics networks efficiently. Global industries are facing problems both from tracking and tracing in their logistics networks that creates huge coordination problems in the overall product development sites. The academic communities along with standardization organizations are also actively looking forward in efforts to develop global identification methods for items or products (Huvio, Grönvall and Främling, 2002). The standard procedures developed so far are mainly concern with identification of items and as such, do not directly define any connection to product tracking systems. The complexity of the logistics chains in global industry has meant an increasing interest in improving their manageability (Artto, Heinonen, Arenius, Kovanen and Nyberg, 1998). The whole process of managing and monitoring supply chain, right from inbound logistics, with a long complex distribution network inside central warehouses, moving to distribution warehouses, to transportation terminals, and finally to delivery at the specific customer’s premises is a lengthy and cumbersome process. The entire operation requires an efficient management process that leaves no scope for errors or manipulation of goods and commodities. The traditional system fails to make the tracking
process hassle and error free, hence the need arises for a proper Logistics Tracking & Monitoring system in place. “As long as repeat business is important, and as long as customers have a chance to go somewhere else, employees must deliver high levels of satisfaction for a company to be successful.” In other words, satisfied customers often become repeat customers and one way to ensure satisfaction is to provide complete visibility from sale to delivery (Jie, Subramanian and Ning, 2015). Simply stated, an efficient logistics supply chain accurately tracks and traces the delivered materials used to create finished products and then stores the inventory until picking, packing, shipping, and delivery of sold products are completed. Track/Trace solutions can provide numerous bits of information such as purchase order numbers, container numbers, bill of lading numbers, customer information, item counts, weight, status and delivery date, freight charges, and more. In addition, track/trace solutions can be integrated with your order entry and accounting systems to ensure accurate information and inventory. Therefore, this paper put forward the following hypothesis:

Hypothesis 2: Tracking system has a positive effect on customer satisfaction.

Company reputation is considered as a significance factor for the success of the enterprise in the market. Accordingly, the concept of corporate image building also mentioned a lot on the mass media. The image is now understood to be thinking, feeling of others, ie the consumers, of the state management agencies, business partners of the business, rather than the assessment of its own about himself. Each smallest business are required though aware of the role of corporate image and should endeavor to build its image (Jie et al., 2015). It is noted that even if you do not consciously build corporate image, more or less, the market still has the look of you. There are elements "silently" creates images of businesses like corporate logos, product packaging, clothing, behavior of officials and employees ..., even the little things that people to think like business cards, store design, or even the smell of the store ... Corporate image is the basis for customer reception towards corporate messages. With service businesses, the image is more important than one level. The image associated with the enterprise product positioning and market, affecting the effectiveness of marketing activities. The effectiveness of the messages consistent with corporate image will help businesses save time and money because the messages will support each other and promote the sale of products. Positive corporate image also helps businesses attract customers and quality employees, to please investors (Govindan, Khodaverdi and Vafadarnikjoo, 2016) And especially it was preparing the way for the introduction of new products ... The threat of customer defection in deregulated markets requires power supply companies to examine the marketing instruments and measures required to inhibit customer willingness to switch power suppliers. This study demonstrates the need to focus on monitoring and increasing customer satisfaction. The importance of reputation and satisfaction will ultimately be assessed on the basis of their customer-related consequences and their economic relevance to companies.
(Zameer, Tara, Kausar and Mohsin, 2015). The construct of corporate reputation has attracted significant attention among marketing scholars, although almost no work can be found that focuses on the most important stakeholder group, namely customers. This paper addresses this research gap. The identification of context-specific reputation and satisfaction effects on customer defection offers both practical implications for marketers and contributes to the theoretical knowledge base of an increasingly important domain in services marketing. Therefore, this paper put forward the following hypothesis:

Hypothesis 3: Company reputation has a positive effect on customer satisfaction.

From the discussion of literature and come out with hypothesis, this paper forward the following research framework.

Figure 1: Research Framework

![Research Framework Diagram]

3. Methodology

3.1 Research Questions

Quantitative research was conducted to test the scale of the research model. This is a detailed analysis of the data collected through questionnaires sent to the reader to determine the logic, the correlation of these factors together and then set out the specific results of the research project lamb.

This study used the questionnaire (in the level of Likert from 1 - strongly disagree to 5 - completely agree) to collect data to test hypotheses quantitative approach is applied to the test the hypothesis of this study.

Sampling is considered as favorable and reasonable method because time and cost. Questions will be distributed to customers who are using the logistic service in the northern of Vietnam the goal is to collect 200 samples of the survey questions different units. All observation variables are using Likert scale of 5 levels with a choice of 1 - strongly disagree and 5 - strongly agree with the statement. Contents of the observed variables in the components are adjusted to suit the characteristics of press industry.
4. Results and Discussion

4.1 Respondent Profiles

In this study, the author used the questions based on documents and previous research. The questionnaire consists of two parts. In the first section, structured questionnaire included questions on: the factors affecting the customer satisfaction. The second part of the question includes the personal information of the respondents such as gender, age, work placements and work experience. The survey was conducted in northern of Vietnam. Then, the data collected was analyzed using SPSS software.

There are 240 manager of company that are using the service logistic were surveyed of which male officials accounted for 51% and female accounted for 49% female. The results showed that respondent age form 18-35 accounted for 42%. Whereas from 36-50 accounted for 44.8% and expert who is more that 50 year old accounted for 13.2%. Related to work experience, officials have from 1 to 10 years of experience is only 30%, from 11 to 20 years is 46% and over 20 year’s experience accounted for 24.0%. This shows the high quality of the sample, the result also shows that the sample in this study have height levels of education with bachelor's degree, master's and doctoral is 74%.

4.2 Reliability and Factor Analysis

In this study, the principle component method is used to analyze the factors explored. 3 factors to be taken into 15 components analyzed system. Results showed that Kaiser-Meyer-Olkin value is .854 and test of Bartlett statistical significance at 0.000. The value of each element are greater factor 1.0 and the observed variables with loading factors are greater than 0.5. There is no element smaller than 0.5 suggests appropriate model to conduct further analysis.

To check the reliability and internal consistency of each factor, Cronbach alpha test was conducted. Results showed that the Cronbach α coefficients ranged from 0.875 to 0.851 proving that all the elements have been accepted as recommended by Nunnally (1978).

Table 2. Factor Analysis

<table>
<thead>
<tr>
<th>Component</th>
<th>Service quality</th>
<th>Tracking system</th>
<th>Company reputation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ1</td>
<td>.843</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SQ2</td>
<td>.805</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SQ3</td>
<td>.813</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SQ4</td>
<td>.708</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SQ5</td>
<td>.906</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS1</td>
<td></td>
<td>.829</td>
<td></td>
</tr>
<tr>
<td>TS2</td>
<td></td>
<td>.815</td>
<td></td>
</tr>
<tr>
<td>TS3</td>
<td></td>
<td>.780</td>
<td></td>
</tr>
</tbody>
</table>
Correlation analysis results shown in Table 3 shows that the independent variables have fairly strong linear correlation with the dependent variable, the correlations are statistically significant at the 1% level of significance achieved. Moreover, the correlation coefficient between the independent variables are not too large value, so the possibility of multicollinearity phenomenon is negligible.

**Table 3: Correlation**

<table>
<thead>
<tr>
<th></th>
<th>SQ</th>
<th>TS</th>
<th>CR</th>
<th>CS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>.550**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>.298**</td>
<td>.335**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>.548**</td>
<td>.626**</td>
<td>.513**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).**

**4.3 Hypothesis Testing**

Regression results in Table 4 shows that, adjusted R Square = 0.535, means a linear regression model was built multiples are in line with data and 53.5%.

We see the results of testing according to table 4 (ANOVA) with significance level Sig. = 0.000 <0.01 show a multiple regression model just built is consistent with the overall study and can be used for further testing. Beside the Durbin-Watson<2, which measured multicollinearity problem no significant influence on the regression results.

The regression equation showing the relationship expressed customer satisfaction with the dependent factors is written as follows:

$$CS = .231 + .242SQ + .388TS + 311CR$$
Table 4: Regression Result

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.231</td>
<td>.186</td>
<td>1.243</td>
</tr>
<tr>
<td>SQ</td>
<td>.196</td>
<td>.043</td>
<td>.242</td>
<td>4.513</td>
</tr>
<tr>
<td>TS</td>
<td>.352</td>
<td>.049</td>
<td>.388</td>
<td>7.128</td>
</tr>
<tr>
<td>CR</td>
<td>.311</td>
<td>.048</td>
<td>.311</td>
<td>6.524</td>
</tr>
</tbody>
</table>

R²/Adjusted R²: .535/.529; F/P-value: 90.513/ P<0.05

The order level of the influential factors in the model to customer satisfaction in logistic service from high to low, as follows:

1. Tracking system (beta = 0.388)
2. Company reputation (beta = 0.311)
3. Service quality (beta = 0.242)

This means, in the context of other factors constant, then: when Factors “Tracking system” improved by 1 unit, the rate of customer satisfaction improved further 0.388 units; when factors " Company reputation " is improved by 1 unit, the rate of customer satisfaction is improved further 0.311 units; the factor " Service quality " improved further by 1 unit, the proportion of customer satisfaction is improved further 0.242 units.

Table 5: Hypothesis Result

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statement</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Service quality have a positive impact on customer satisfaction</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>Tracking system have a positive impact on customer satisfaction</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>Company reputation have a positive impact on customer satisfaction</td>
<td>Supported</td>
</tr>
</tbody>
</table>

5. Conclusions and Recommendations

Research results confirmed the customer satisfaction with the logistic service affected by three factors: Tracking system, Company reputation and Service quality. This result is consistent with the research of (Choy et.al, 2014; Jie, et.al, 2015; Govindan et.al, 2016) in understanding the needs of customers, relieve anxiety and ready to give customers more benefits than any competitor in the field is the motto of our activity. Besides, we built a standard operating model right from the reception requirements of customers, the plan outlines a reasonable shipping and the necessary legal provisions for goods received and not continuous improvement, optimization modeling work. Logistics company are committed to creating transport service quality, to avoid damaging to the maximum in the process of
unloading and transporting goods on time to be agreed upon in the contract, meet all requirements of the customers that are still completely in accordance with the procedures and ensure compliance with the law (Zameer, et.al, 2015; Lin and Zhang, 2015). To balance the needs of customers with profitable growth, the company has increasingly promoted the strong operating improvement of supply chain management. Their efforts are reflected in the seven principles of supply chain management which, if skillfully applied can boost sales, control costs and optimize the use of assets as well as the satisfaction of customer. The successful application of these principles has proved convincingly that company can make the customer satisfied concurrently with securing profitable growth. As the use of technology assists logistics operations in many ways, such as cutting down information and processing lead-time, improve efficiency and minimize errors to the minimum. Perhaps, the logistics companies should look at the long-term benefits of technology and gradually engage its use to streamline their operations (Shaukat and Hua, 2006). As pointed out by Parasuraman, (1998) drawing on insights from the extant service-quality literature (which is dominated by an end-consumer focus), this paper examines customer service in business-to-business markets. It first presents a typology of seller-customer links and discusses the domain of customer service in business-to-business contexts. It then develops a research agenda by identifying a variety of issues pertaining to the scope, measurement, and potential impact of customer service in such contexts. It is hoped that this agenda will stimulate further discussion on the role of customer service in business and industrial marketing, and motivate much-needed research on this topic.

From the result of this research, this study have several recommendation for logistic company in order to improve the performance: 1. Segment customers based on demand. Segment customers based on their needs into separate groups and application management supply chain to serve these segments effectively. 2. Individualized logistics network, Personalized logistics network for each service request and profitability level of each customer segment. 3. Listen to the signals of the market needs to plan accordingly. Listening to the market effectively seal and joint planning with the respective needs of the entire supply chain, ensuring that the predictions are consistent and optimal resource allocation.4. Differentiate product closer to the customer. Differentiate product closer to customers and accelerate the change corresponding supply chain. 5. Develop sourcing strategies. Manage supply strategically to reduce total cost of materials and services. 6. Develop strategic information technology applications throughout the supply chain. Development strategy of technology applications throughout the supply chain that can support multiple levels in decision-making and help give a clearer view of the flow of products, services and information. 7. Apply length meter measuring systems efficiently in a variety of channels.
Construction expanded measurement systems across multiple channels to evaluate the success sum towards final consumers effectively and performance.

References


Vietnam Logistics Association (2015) logistic industry report
