
Factors Affecting The Sustainable Development Strategy Of Vietnamese Logistics Sector In The Process Of Regional And International Integration

**Tran Phi Hoang, Nguyen Minh Tuan, Vo Huu Khanh, And Ngo Cao Hoai Linh
Industrial University Of Ho Chi Minh City, Ho Chi Minh City, Vietnam**

Abstract

The study results were conducted to analyze the factors affecting the sustainable development strategy of Vietnamese Logistics sector in the process of regional and international integration. Qualitative and quantitative study was carried out to survey 139 managers and experts in Logistics field at the seminar on "Vietnamese Logistics Development Strategy" in Ho Chi Minh City in November, 2015. The study results showed that Vietnamese Logistics Development Strategy is affected by the 5 following key factors: Service Quality, Human Resources Quality, Facilities – Infrastructure, Development Strategy, and Policy Mechanism. Based on study results, solutions are proposed in order to improve competitiveness for Vietnamese Logistics sector in the process of regional and international integration.

Keywords: Logistics, logistics services, service quality, competitiveness, competitive Strategy, and Vietnam

1. Introduction

Logistics services are commercial activities whereby enterprises implement one or many works including reception, transportation, storage, warehousing, customs procedures and other paperwork's, customer consulting, packaging, code marking, delivery or other services related to the goods as agreed with the customers for remuneration. Logistics plays increasingly important role in the national economy and people's lives. Index LPI (The Logistics Performance Index) from 2007 to 2010 indicated that for countries with an average income per capita is the same but any country with the best logistics development would be an increase of 1% of GDP and 2% of trade. According to the Vietnamese Logistic Association, there are more than 1,100 companies operating in logistics field. Trade logistics services in Vietnam started developing in the 1990s and now have significantly grown with many different types of services, contributing considerably to circulate of goods in the country, develop market, and increase exports and imports. However, Vietnamese logistics companies are not operating professionally and efficiently. 2014 LPI index, Vietnam was ranked 48/160 countries studied and 4th in ASEAN (after Singapore, Malaysia and Thailand). In 2014, logistics industry added about 3% of GDP for Vietnamese economy (Thailand was 3% in 2014, Singapore was 9.4% in 2014). The rate of outsource is currently around 30-35%, (China was 63.3% in 2010). Service provider qualifications of Vietnamese logistics company limited, reflecting that service prices were not competitive, service quality were not good, in which labor productivity and competitiveness were limited. Logistics costs are equivalent to about 21% of GDP in 2014, (China was 17.8%, in 2011), while in developed countries such as Singapore was about 9% - 14%.

At the Conference on the status of Vietnamese logistics development in HCM city in November, 2015 many experts said that on the way to integration goal, Vietnamese Logistics industry has also faced with many challenges such as infrastructure for logistics activities were poor, not comprehensive and limited to the development, leading to Vietnamese logistics costs are much higher than other countries; Logistics enterprises are small, operations are scattered and lack of professionalism; Logistics manpower trained and qualified to manage logistic is shortage; Logistics enterprises have no sustainable development strategy such as unfair competition; collaboration, link among businesses and phases in the chain of logistics operation are not good; logistics services quality is poor not having package solution, lack of value-added services for supply chain of the owners; The regulatory policy is still

insufficient, the differences in legal systems, customs clearance and other administrative procedures are the challenges for Vietnam in the logistics integration.

Logistics services in Vietnam are only the representative for the carrier issuing delivery orders to Imex businesses after the freight landing and representative collect the charge carriers; inform businesses the situation of the goods transported from port to port, but they have not contributed much to the process of production and business operations. Quality logistics services in Vietnam today are not high having negative impact on exports. Enterprise has faced many risks when hiring unprofessional transport companies, leading to rising costs, poor quality of goods, and the delivery time is not guaranteed. Meanwhile the foreign logistics companies are very interested in investing in their bonded warehouse to put products into storage, as they can import or export immediately in needed. Meanwhile Vietnamese bonded warehouses are too weak and poor. Many of Vietnamese goods have to be supplied at Singapore bonded warehouses which not only makes Vietnamese businesses difficult but also Vietnamese State loses great revenue. In fact, currently logistics services businesses are not proactive in shipping upon foreign carriers. Logistics companies are not freely struggling with shipping companies imposing their costs to manufacturing enterprises and exporters, leading businesses to be put more difficulties with impunity revenues for last time. The loss of goods during transport still often happens, overloaded trucks, traffic jams in Vietnamese urban have slowed the delivery time affecting quality and competitiveness of Vietnamese exporting goods. According to Vietnamese Logistics Association, the foreign logistics enterprises accounted for 75% of the market and the domestic enterprises can only meet 25% of logistics demand market and pause at providing some services for a number of phases in this important service chain with market size accounted for 25% of GDP, it certainly has a great influence on Vietnamese Logistics and Vietnamese economy in general. Take the example of current seaport exploitation, a number of Southern ports (Vietnam) recently raced down cargo rates at only 32 USD / 20 foot container and 50 USD / 40 foot container which is much lower compared to the same quality of service ports in the region like Thailand 55 USD / 20-foot container, Singapore 117 USD / 40 foot container, etc. This is the risk of losing market share in the exploitation of Vietnamese seaport and facing greatly with foreign investors. Because such low prices would lead to heavy losses for the seaports, and they have to sell and reduce shares, then foreign investors would have opportunities to hold dominant shares in Vietnamese logistics operations. It is clearly direct impact on Vietnamese Logistics and the interests and the economic development of the country. Besides, Vietnam implements the commitments on liberalization of logistics services in the WTO and ASEAN Integration Logistics and roadmap in 2014 was an opportunity but challenges for Vietnam in the Logistics Sector in the future.

2. Literature Review

In the study of competitive strategy, strategic development, experts have confirmed that in order to exist and develop countries, organizations must build a strategy for sustainable development. Michael Porter, a leading expert in this field also concluded this view in his study such as "Competitive Strategy" (1980), "Competitive Advantage of Nations" (1980) and "Marketing Strategy 2.0" (2011). In order to have sustainable development strategy, it is necessary to focus on core issues such as the quality of human resources, development policy, infrastructure, policy mechanisms, quality management, supply capacity, service quality management and marketing promotion. Many authors also inherit this theory in studying competitiveness. National competitiveness depends largely on internal factors such as national resources, internal resources of the enterprise, business development strategies, supply capacity, human resources, creativity, and other brand values (Kay Yang, 2011).

In the scientific seminars on "Development Strategy for Vietnamese Logistics" in HCM City (Vietnam), experts also shared the same above opinions and concluded that it is necessary to sustainably develop strategies for Vietnamese Logistics. According to experts, "facilities - infrastructure", "service quality", "human resources" are the key stages considered to create a breakthrough in Vietnamese logistics

development strategies. Good infrastructure could connect logistics supply chain. If facilities - infrastructure degraded, overloaded, it would slow delivery time, affecting service quality and the competitiveness of exports. The quality of human resources is the key factor determining competitiveness. The quality of human resources decides directly to service quality (Do Xuan Quang, 2015). If a logistics staff are qualified having knowledge, professional skills, attitude and high spirit of service, they will improve service quality and competitiveness. Besides, development of policies and mechanisms of government policy will create conditions promoting good development, on the contrary, it will restrain the growth (Nguyen Nhat, 2015). Based on the competitiveness theory of Michael Porter, his opinions in scientific seminars could be identified that the factors affecting the sustainable development strategy of Vietnamese Logistics sector in the process of regional and international integration (variable Y) include Service Quality, human resources quality, facilities – infrastructure, development strategy, and policy mechanism (variable X). Thus, the model study of factors affecting the sustainable development strategy of Vietnamese Logistics sector includes 01 dependent variables and 05 independent variables.

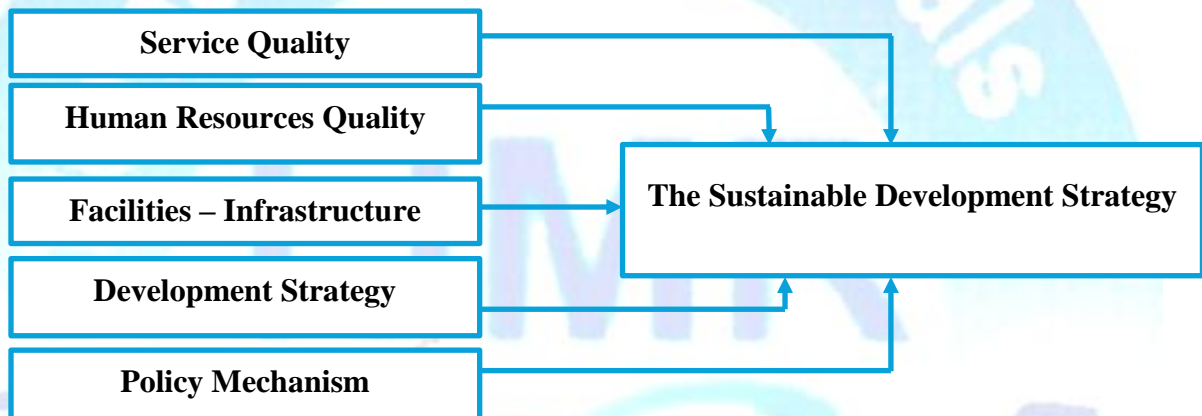


Figure 1: Research model for factors affecting the sustainable development strategy of Vietnamese Logistics

Facilities - Infrastructure

Facilities include logistics infrastructure consisting of facilities system to cater to the demand for cargo traffic such as warehouses, grounds, ports, airports, railway stations and the system of communication equipment’s, transport, loading and unloading, freight forwarders involved in the global supply chain.

Hypothesis H1: There is the same relationship between "Facilities - Infrastructure" and sustainable development strategy for Vietnam Logistics.

Service quality

Service quality is an assessment process providing freight forwarding services to customers. This process is to carry out a series of activities related to many factors, particularly the perception and the interaction among employees and customers. Service quality is expressed level of a brand and the culture of a business organization (Boulding, 1997).

Hypothesis H2: There is the same relationship between "Service quality" and sustainable development strategy for Vietnam Logistics.

Human resources quality

Human resources quality is related to the elements of qualifications, knowledge, expertise, skills, experience, productivity, industrial style, enthusiasm, spirit and attitude of employees for work.

Hypothesis H3: There is the same relationship between "Human resources quality" and sustainable development strategy for Vietnam Logistics.

Development Strategy

Development Strategy is a system of plans, strategies showing business philosophy, thinking and strategic vision of the organization and the business. It can affect negatively or positively to the sustainable development strategy of Vietnamese logistics industry in general and all sectors involved in the logistics sector in particular.

Hypothesis H4: There is the same relationship between "Development Strategy" and sustainable development strategy for Vietnam Logistics.

Policy mechanisms

Policy mechanism is a set of law principles and rules of the State or Government to manage and administer, control and affect the activities in logistics field. These rules and regulations can affect directly or indirectly to all sectors involved in logistics operations.

Hypothesis H5: There is the same relationship between "Policy mechanisms" and sustainable development strategy for Vietnam Logistics

3. Research Methodology

The researcher focused on 02 major research methods as qualitative research and quantitative research, the specific research process undergone three stages as follows. *Stage 1:* Based on the review of relevant theories and results of scientific research regarding the research topic, the researcher used qualitative method for group discussing and consulting leading experts to select and variables observed into appropriate factors groups. *Stage 2:* Based on the grouping of factors affecting the sustainable development strategy of Vietnamese Logistics sector in the process of regional and international integration, the researcher designed survey questionnaires to collect the opinions of 139 enterprises in HCMC and Ha Noi, during the conference on the "The sustainable development strategy of Vietnam Logistics" took place in October 2015. The research model included 05 scales, 27 observed variables (research questions), using Likert 5-point scale, Distance value = (Maximum - Minimum) / n = (5 - 1) / 5 = 0.8. Specifically: 1 = Completely disagree; 2 = Disagree; 3 = No opinion/Normal; 4 = Agree; 5 = Totally agree. Survey results are recorded using SPSS 20.0 and tested scale reliability using Cronbach's alpha coefficients. *Stage 3:* After testing the reliability by Cronbach's alpha coefficients, the researcher conducted Exploratory Factor Analysis (EFA) to "zoom out" and summarize the data of the scale (Hoang In Chu and Nguyen Mong Ngoc, 2005, "Quantitative Research SPSS"). This method is based on extraction ratio factor (Eigenvalue), under which only those factors extraction ratio or Eigenvalue are greater than 1 will be retained, while the smaller ones will not work for better information summarizes of the original variables; because after the original standardized variance, each variable equals 1. The method of extracting the main components (principal components) and original method of factor rotation (Varimax Procedure) were used to minimize the number of variables having multiple large coefficients at the same factor, which increases the ability to explain the factors. The results then were used to analyze multiple linear regressions to test the assumptions of the model, which consider the impact of factors affecting the sustainable development strategy of Vietnamese Logistics sector in the process of regional and international integration.

4. Research Results and Discussion

Table 1- Descriptive Statistics

| Observed variables | N | Mean |
|---|-----|------|
| CLNS1: Qualifications and knowledge of staff are low | 139 | 3.49 |
| CLNS2: Logistics professional is not high | 139 | 3.34 |
| CLNS3: The professional of staff is not high | 139 | 3.44 |
| CLNS4: Attitude and serving spirit of staff is not high | 139 | 3.32 |
| CLNS5: Percentage of personnel trained is not high | 139 | 5.81 |

| | | |
|---|-----|------|
| CLNS6: Business training is limited | 139 | 4.64 |
| CSVC1: Warehousing, cargo handling System is poor and weak | 139 | 3.47 |
| CSVC2: Basis machinery equipment in supply chain operators | 139 | 3.96 |
| CSVC3: Transportation systems are poor and lack of uniformity | 139 | 4.49 |
| CSVC4: Traffic jams frequently happen | 139 | 5.88 |
| CSVC5: Quality of roads is poor | 139 | 5.24 |
| CLPT1: Market Accessment to enterprise is poor | 139 | 4.30 |
| CLPT2: Price competition among enterprises is still common | 139 | 3.60 |
| CLPT3: Collaboration and alignment of the Vietnam are weak | 139 | 5.68 |
| CLPT4: Vietnamese Enterprises have small and medium capital | 139 | 4.40 |
| CLPT5: Percentage of businesses engaged in most phases of logistics in the supply chain are limited | 139 | 4.97 |
| CLDV1: Goods loss during transport still happens | 139 | 4.66 |
| CLDV2: Good Quality reduced during transport still occurs | 139 | 4.22 |
| CLDV3: Time freight, storage, demurrage are too long | 139 | 5.86 |
| CLDV4: Customs procedures time is too long | 139 | 4.75 |
| CLDV5: The packaging, code marking have been not professional | 139 | 3.82 |
| CLDV6: Customer consultant is limited | 139 | 3.34 |
| CCCS1: Implementing e-customs procedures is weak | 139 | 4.60 |
| CCCS2: The laws with integrity, transparency and consistency is not high | 139 | 4.23 |
| CCCS3: Businesses do not understand the rules, the bilateral and multilateral trade agreements which Vietnam has signed with other countries. | 139 | 3.33 |
| CCCS4: "Negative charge" in transactions shipping is high. | 139 | 5.47 |
| CCCS5: There are many inappropriate logistcs laws. | 139 | 5.76 |

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

The average inspection results of the scale shows that most of the scales are highly average value from 3.32 to 5.88. This shows that their agreement levels on limitation of Vietnamese logistics is very high. In which, "Facilities- Infrastructure", "Service Quality" and "Human Resources Quality" are rated the worst. The results also reflect the real situation of Vietnamese logistics industry nowadays. Vietnamese traffic infrastructure system includes over 17,000 km of asphalt, more than 3,200 km of railways, 42,000 km waterway, 266 ports and 20 airports. However, the quality of this system is uneven, there are some ways unguaranteed technical. Currently, only 20 ports can work in international goods transport; in addition, the ports are in the process of finalizing, they can only receive small fleets and are not equipped with modern container handling equipment which lack of experience in operating and handling containers. Currently, there are not enough cargo vehicles (aircraft) for the transport in the peak season. Only Tan Son Nhat airport is sufficient for international cargo planes. The ability to maintain and develop road is poor which is not apparently designed for transport containers, specialized truck fleet is currently old, railway transport capacity are not effectively applied because of not being modernized. According to data from the General Statistics Office, the volume of rail transport of goods accounted for about 15% of goods flows. However, Vietnamese railway is simultaneously using two different rail widths (1,000 and 1,435 mm) with low load. The fastest train from Hanoi - Ho Chi Minh City (1,630 km) requires 32 hours. Moreover, there are many intercity and inter-district routes seriously degraded.

The results of this study are similar to the evaluation results of service quality as well as the World Bank results last time. In the survey conducted in early 2014, the World Bank increased countries surveyed up to 166 countries and Vietnamese LPI index has changed rapidly from 53/155 to 48 / 166 countries from

the previous survey. Despite high growth rates (average 20%), Vietnamese logistics services quality has not really developed proportionally

Table 2: LPI index and component indicators of Vietnamese logistics

| Indicator | 2010 | | 2012 | | 2014 | |
|-------------------------|-------|--------|-------|--------|-------|--------|
| | Score | Rating | Score | Rating | Score | Rating |
| LPI | 2.96 | 53 | 3.00 | 53 | 3.15 | 48 |
| Customs | 2.68 | 53 | 2.65 | 63 | 2.81 | 61 |
| Infrastructure | 2.56 | 66 | 2.68 | 72 | 3.11 | 44 |
| Shipments International | 3.04 | 58 | 3.14 | 39 | 3.22 | 42 |
| Competence Logistics | 2.89 | 51 | 2.68 | 82 | 3.09 | 49 |
| Tracking & tracing | 3.10 | 55 | 3.16 | 47 | 3.19 | 48 |
| Timeliness | 3.44 | 76 | 3.64 | 38 | 3.49 | 56 |

Source: World Bank: "Connecting to compete: Trade logistics in the global".

Among the leading logistics countries in economy with low-income such as Malaysia, South Africa, China, Thailand and India, Vietnam is considered as one of countries with efforts to improve logistics services quality. In 2014, the index of infrastructure and logistics capability index improved markedly from position 72 (in 2012) to position 44 (in 2014) and from position 82 (2012) to position 49 (in 2014). However, indicators of service performance time was going backward from position 38 (in 2012) to position 56 (in 2014).

Capacity index dropped from position 56 (in 2007) to position 82 (in 2012) showing the decline of the power of logistics service providers. However, the index rose to 49 position after two years (in 2014). This is a positive signal showing the more efficient the solution are continued, the better Vietnamese logistics capability will certainly be. In addition, while there are not many countries in the region changing positions, Vietnam remains one of the countries with the LPI index boomed from position 53/155 (in 2012) to position 48/166 (in 2014). However, there are several indicators of serious decline such as the index of goods delivery falling from position 38 (in 2012) to position 56 (in 2014), and capacity in customs clearance reduced to position 63 (in 2012).

Table 3: LPI index and component indicators assessing logistics services quality of some countries in the region (2007, 2010, 2012 and 2014)

| Nations | LPI | Custom | Infrastructure | Shipments international | Competence Logistics | Tracking & tracing |
|-----------|-------------|-------------|----------------|-------------------------|----------------------|--------------------|
| Indonesia | 43/75/59/53 | 44/72/75/55 | 45/69/85/56 | 44/80/57/74 | 50/92/62/41 | 33/80/52/58 |
| HongKong | -/13/2/15 | -/8/3/17 | -/13/7/14 | -/6/1/14 | -/14/5/13 | -/17/5/13 |
| Malaysia | 27/29/29/25 | 23/36/29/27 | 28/28/27/26 | 26/13/26/10 | 26/31/30/32 | 28/41/28/23 |
| Singapore | 1/2/1/5 | 3/2/1/3 | 2/4/2/2 | 2/1/2/6 | 2/6/6/8 | 1/6/6/11 |
| Viet Nam | 53/53/53/48 | 37/53/63/61 | 60/66/72/44 | 47/58/39/42 | 50/51/82/49 | 53/55/47/48 |

Source: World Bank, "Connecting to compete: Trade logistics in the global"

Notes: Each criterion provided 4 index of 4 years (for example: Vietnam - Customs index: 37/53/63/61 means 37 (in 2007), 53 (in 2010), 63 (in 2012), and 61 (in 2014); blank "-": not rated.

Through the above World Bank's indicators, it was found that the overall of Vietnamese logistics services Vietnam had not improved much. Therefore, this would be a big challenge for Vietnam logistics enterprises in the context of increasingly fierce competition in the sector among domestic companies and foreign companies as well as more and more overseas companies were ready to enter Vietnamese logistics market after 100% foreign capital barriers was opened in 2014 as committed by Vietnam in the process of WTO accession.

The results of this study were similar to the results of research by Le Thu Sao (2015) on Vietnamese logistics human resources quality. The number of nearly 1.5 million employees were working in the

logistics business, although it is a huge number, it only met about 35% of the sector labor demand, the ratio of logistics human resources trained still accounted for relatively low, only 5-7%. Information from Vietnamese Logistic Research & Development Institute said in the next three years businesses needed more than 18,000 logistics services employees. And manufacturing enterprises, trades, services need over one million workers with logistics expertise. Currently, thousands of businesses are very embarrassing and difficult when searching for employees in this sector.

The survey results of Ho Chi Minh City Development Institute of logistics human resources quality showed that up to 53.3% of businesses lack staff with logistics profession and knowledge, 30% businesses must retrain employees and only 6.7% businesses are satisfied with professional of their employees. And according to a survey of Economic Development Institute of University of National Economics, currently, 80.26% employees in logistics enterprise trained through daily works, 23.6 % employees participated in training courses in the country, 6.9% employees are trained by foreign professionals, only 3.9% are participating in training courses abroad. The study data showed that Vietnamese logistics human resources is not only poor in quantity but also weak in quality which is very unreasonable for a service industry scale up to 22 billion US dollars, accounting 20.9% of GDP, annual growth rate of 20-25% (data from the World Bank, 2014).

Table 4: Testing the results of reliability

| Model | Code | Factors | Cronbach's Alpha |
|-------|------|--------------------------------------|------------------|
| IDV | CLNS | Human Resources Quality | 0.871 |
| | CSVC | Facilities – Infrastructure | 0.767 |
| | CLDV | Service Quality | 0.840 |
| | CLPT | Development Strategy | 0.779 |
| | CCCS | Policy Mechanism | 0.851 |
| DV | GT | The sustainable development strategy | 0,822 |

Source: The researcher's collecting data and SPSS

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

Table 5. Exploratory Factor Analysis (EFA)

Total Variance Explained

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 5,484 | 18,684 | 18,684 | 5,484 | 18,684 | 18,684 | 3,194 | 21,308 | 21,308 |
| 2 | 4,682 | 15,342 | 34,026 | 4,682 | 15,342 | 34,026 | 3,128 | 13,034 | 32,349 |
| 3 | 6,706 | 11,276 | 45,302 | 6,706 | 11,276 | 45,302 | 2,941 | 12,253 | 38,596 |
| 4 | 3,320 | 9,666 | 54,968 | 3,320 | 9,666 | 54,968 | 2,871 | 11,964 | 50,560 |
| 5 | 5,038 | 8,490 | 65,423 | 5,038 | 8,490 | 65,423 | 5,279 | 9,497 | 65,423 |

Extraction Method: Principal Component Analysis.

Source: The researcher's collecting data and SPSS

Inspection results having KMO index = 0.735 > 0.5 shows the level of significance of the data entering EFA is high and sig = 0.00 < 0.05. Thus, there is sufficient basis to conclude that among 27 variables included in the analysis correlated with each other. With 27 variables survey results of Total Variance Explained shows there are 5 factors with eigenvalues > 1, in other words, 5 basic groups were entered

testing and writing appropriate regression equation. From Rotated Component Matrix extracted table, normalized factors were found.

The results of EFA (Exploratory Factor Analysis) show the total variance extracted is 65.423% greater than 50%. This means that the withdrawing factors would explain 65.423% for model, 34.577% is explained by other factors. Extraction ratio factor (Eigenvalue) is greater than 01 that is kept. The analysis results in Rotated Component Matrixa Table showed all observed variables can be divided into 5 groups of factors and variables have Loading Factor coefficient > 0.5. This showed that the analytical data are consistent and qualified to conduct multiple regression analysis with four independent variables respectively: Service Quality, Human Resources Quality, Facilities – Infrastructure, Development Strategy, and Policy Mechanism. Cronbach's Alpha coefficients of the overall scales of independent factors are > 0.7; therefore, the scale meets standard and statistical significance.

Table 6. Analysis of multiple linear regression.

| Model Summary | | | | |
|-------------------|----------|-----------------|---|----------------------------|
| R | R Square | Adjusted Square | R | Std. Error of the Estimate |
| ,884 ^a | ,791 | ,789 | | ,17553 |

a. Predictors: (Constant), X4, X2, X3, X1, X5

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

The study results showed that adjusted R2 is smaller and used to assess the relevance of the model which will be safer because it does not exaggerate the relevance of the model. Thus, the compatibility of models with observations is great and dependent variable (Y) is explained by five independent variables in the model.

Table 7: Anova
ANOVA^a

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1 | Regression | 220,784 | 6 | 8,472 | 73,552 | ,000 ^b |
| | Residual | 6,421 | 132 | ,029 | | |
| | Total | 227,405 | 139 | | | |

a. Dependent Variable: DGC

b. Predictors: (Constant), X4, X2, X3, X1, X5

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

Accreditation ANOVA is to assess the relevance of the theoretical regression model. The test results F = 73.552 value and Sig. = 0.000 < 0.05 shows the building model is consistent with the data set and the variables included in the model are related to the dependent variable. Generally, regression analysis is 99% reliability, corresponding to the selected variables with statistically significant at the p < 0.01; the results also show that all variables satisfy the demand. Verification of conformity of the model show that multicollinearity phenomenon does not violate (VIF < 10).

Table 8. The factors affecting the sustainable development strategy of Vietnamese Logistics Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|----------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| (Constant) | ,903 | ,003 | | ,721 | ,402 | | |
| 1 X1 | ,274 | ,023 | ,565 | 13,601 | ,000 | ,611 | 1,022 |
| X2 | ,594 | ,038 | ,433 | 9,998 | ,000 | ,272 | 1,002 |
| X3 | ,260 | ,035 | ,509 | 11,978 | ,000 | ,625 | 1,011 |
| X4 | ,178 | ,046 | ,448 | 9,807 | ,000 | ,576 | 1,008 |
| X5 | ,164 | ,047 | ,272 | 7,313 | ,000 | ,378 | 1,003 |

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

The study results of standardized Beta coefficients are > 0 showing that the independent variables have positive effect on the sustainable development strategy of Vietnamese Logistics and expressed the following priorities: (1) Facilities - Infrastructure: $\beta = 0.565$; (2) Human Resources Quality: $\beta = 0.509$; (3) Service Quality: $\beta = 0.448$; (4) Policy Mechanisms: $\beta = 0.433$ and (4) Development Strategy: $\beta = 0.272$. The regression equation is: $Y = 0.565 * X1 + 0.433 * X2 + 0.509 * X3 + 0.448 * X4 + 0.272 * X5$. This result also confirms the hypothesis raised in the research model approved and accredited accordingly.

Thus, it can be concluded as follows:

When we increase investing in factor groups "Facilities - Infrastructure" to 1 unit, the sustainable development of Vietnamese Logistics also increased 0,565 unit

When we increase investing in factor groups "Human Resources Quality" to 1 unit, the sustainable development of Vietnamese Logistics also increased 0,509 unit. .

When we increase investing factor groups "Service Quality" to 1 unit, the sustainable development of Vietnam Logistics also increased 0,448 unit.

When we increase investing factor groups "Development strategy" to 1 unit, the sustainable development of Vietnam Logistics also increased 0,433 unit.

When we increase investing factor groups "Policy Mechanism" to 1 unit, the sustainable development of Vietnam Logistics also increased 0,272 unit.

5. Conclusions And Recommendations

Thus, the findings concluded that sustainable development strategy for Vietnamese Logistics in regional and international integration is affected by the following 05 factors: service quality, human resources quality, facilities - infrastructure, development strategy, and policy mechanisms. This result is similar to the secondary findings of the authors. The research results are the basis for Vietnamese Logistics to build a sustainable Logistics development strategy for the upcoming time. Based on the results of this study, measures are proposed to improve competitiveness for vietnamese Logistics in the coming time.

For Vietnamese Logistics to develop and operate hamoniously, synchronizedly with other economic sectors, Vietnamese government should establish Committee of National Logistics Management as "a leader" for logistics operations; To complete the legal framework for the logistics industry with break thought move such as piloting customs procedures "one-stop" through customs agents and "electronic customs" to reduce costs, improve business competitiveness of Vietnamese Imex; Popularize and implement guidelines for logistics services business the rules in international treaties that Vietnam has taken part in or signed related to logistics activities; There are solutions for Vietnamese Logistics sector

within the law rules or international treaty allowed. To promote the dissemination and propagation to the agencies and organizations as well as state management among businesses to aware of the role and position of Logistics sector in the economy and in every enterprise.

Vietnamese logistics industry should strengthen deeply and greatly into regional and international logistics industry such as participating, associating and signing many international agreements; plans for Vietnamese Logistics development need considering, especially plans for infrastructure development (over the nation and region, area) and logistics human resource development. Policies and specific measures (tax, land use ...), are encouraged and supported Vietnamese Logistics development.

Vietnamese Logistics service businesses should make good use of opportunities to promote cooperation, strengthen cohesion enterprises, especially export enterprises to expand markets, diversify and improve service quality, reduce transit times, reduce costs, contribute to the production and businesses of enterprises both production and import-export businesses and logistics businesses. It is necessary to have new solutions for Vietnamese goods reaching key markets such as North American market

6. References

- Anderson, E.J., Coltman, T., Timothy, M., Devinney, M.T., & Byron, K. (2011). *What Drives the choice of a Third-Party Logistics Provider?*, The Journal of Supply Chain Management. Vol. 4. No.1. pp. 89-108.
- Benjamin, Thomas, Hazen, and Terry, B.A., (2008). *Logistics Information Technology Adoption. The Effect of a Positive Buyer-Supplier Relationship on Performance outcomes.* Vol. 17. No.1. pp. 167-208.
- Bowersox, Donald, J. & Daugherty, J. P. (1995). *Logistics paradigms: The impact of information Technology*, Journal of Business logistics, vol. 16, No.1.pp.8-21
- Cooper, M.C., Lambert, D. M., & Pagh, J. D. (1998). *What should be the transportation Provider's role in supply chain management proceedings of the 8th World conference of transport* Research Journal.Vol.1. No.4. pp. 12-17.
- Daugherty, J. p., Sabbath, E. R., & Roger, D. S. (1992). *Competitive Advantages through Customer responsiveness.* Logistics and Transportation Review Journal.vol.28 , No.3. pp.57-72.
- Kathawala, Zhang, Shao (2005): *Global outsourcing and its impact on organisations: Problems and issues*, International Journal of Services Operations Management, Vol 1 No. 2, 2005
- Kotabe, Masaaki, Mol, Michael J., Murray, Janet Y. and Parente, Ronaldo. (2012) *Outsourcing and its implications for market success: negative curvilinearity, firm resources, and competition.* Academy of Marketing Science Journal, Vol.40 (No.2). pp. 329-346. ISSN 0092-0703
- Lai, F., Dahui, L., Qiang, W., & Zhao. X. (2008): *The Information Technology Capability of Third-Party Logistics Providers: A Resource Based View and Empirical Evidence from China.*Vol.3. No.1.pp.8-21
- Lalonde, B.J. & Masters, J.M., (1994). *Emerging Logistics Strategies. Blue prints for the next Century.* International journal of physical distribution and Logistics movement. Vol.24, No.3. pp. 35-47
- Lewis, I., & Talalayevsky, A. (2002), *Third party logistics: Leveraging Information Technology*, Journal of Business logistics, Vol.21, No.2, pp. 173-85
- Mclvor, R., (2000), "A practical framework for understanding the outsourcing process", Supply Chain Management: An International Journal, 5, 1, 22-36
- Mclvor,R (2005). *A practical Framework for understanding the outsourcing process.* Supply Chain Management, An international Journal, 5(1), 22-36
- Norek, C.D., & Langley, J. (2007). *Leveraging Technology: a strategy to help Third party Logistics add value.* Logistics Quarterly Nournal. Vol.1. No.2. pp.28-9
- Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1985), *a conceptual model of service quality and Its implications for future research*, Journal of marketing, Vol.49, No.3. pp. 41, 45
- Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1988), *SERVQUAL: A multiple item scale for Measuring consumer perception of service quality*, Journal of retailing, vol.64, No.1, pp. 12-40
- Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1991), *Refinement and reassessment of the SERVQUAL Scale*, Journal of Retailing, vol.67. No.4. pp. 420-50
- Pieto, E., Riccardo, M., Alessandro, P., Raspagliesi, A., & Sweeney, E. (2012), *A survey based Analysis of IT adoption and 3PLs' performance*, Supply ChainManagement: An International Journal, Vol. 17, pp. No.4.172 – 186.

Piplani, R., Pokharel, S., & Tan, A. (2004), *Perspectives on the use of information technology at Third party logistics service providers in Singapore*, Asia Pacific Journal of Marketing and Logistics, Vol. No.2. 16, pp. 27 – 4.
Rahman, S., & Selen, W. (2010), *Shippers Providers Perception of Third-Party Logistics Services – An Importance Performance Matrix Analysis*. Proceedings of the 2010 International Conference on Industrial Engineering and Operations Management, Dhaka, Bangladesh./.

