

To cite this article: Nguyen Manh Hung and Nguyen Ngoc Son (2023). Factors Affecting Decision on Choosing Logistics Supplier in Hanoi. International Journal of Education, Business and Economics Research (IJEER) 3 (1): 39-45

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**FACTORS AFFECTING DECISION ON CHOOSING LOGISTICS SUPPLIER IN HANOI**

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**ABSTRACT**

The article analyzes the impact of factors affecting the decision to choose a logistics service provider: The case of a food and beverage business. The research method uses a questionnaire survey of businesses in the food and beverage industry, the survey results obtained 216 questionnaires, after eliminating invalid questionnaires due to many blank cells, the author chose to use 208 questionnaires. Quantitative research was carried out with SPSS 25 software. Research results show that brand trust, responsiveness, supplier image, technical facilities, pricing policy, debt policy has a positive relationship to the decision to choose a logistics service provider in Hanoi, in which responsiveness is the factor that has the greatest impact on the decision to choose a logistics service provider in Hanoi. Based on the research results, the author has proposed recommendations to help logistics service providers build appropriate business development strategies and meet the needs of enterprises supply, logistics services in Hanoi.

**KEYWORDS:** Decision, Choosing logistics supplier, Hanoi.

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Published Online: Jan 2023

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**1. INTRODUCTION**

In the past few years, logistics is an important service industry in the overall structure of the economy. Operations of the logistics chain throughout all stages of the production process. From the stage of goods production to the time the goods are delivered to the recipient, there is the appearance of the Logistics industry. Logistics is not only a separate industry, but it is directly related to many different industries such as: transportation, warehouse leasing, export and import services, customs services, taxes, insurance, sales retail... Currently, Vietnam is considered as a potential market for the development of the logistics industry. In recent years, Vietnam has focused on investing in the infrastructure system of roads, airways, railways, and seaways, along with a system of warehouses, trade centers, etc., which has been continuously expanded. Accompanied by the development of accompanying services, import and export procedures are also simplified to improve the quality of services. In the first months of 2022, the global logistics market continued to

recover and entered a new phase with the expectation of bringing significant growth for both 2022 and the following period. However, before the risks from the Russia-Ukraine war tension, the outbreak of the disease in China ... is raising the risk of disruption to the global supply chain, affecting logistics activities. Facing the current complicated developments on a global scale shows that there are still many difficulties in the short term, requiring logistics businesses and shippers to continue to adjust supply chain and logistics models.

This study aims to examine the influence of factors on the decision to choose a logistics service provider: The case of a food and beverage business, thereby making some recommendations to improve the ability of logistics service providers. Competitiveness of logistics service providers.

## **2. LITERATURE REVIEW**

Logistic service is a commercial activity consisting of one or more stages including receipt of goods, transportation, storage, warehousing, customs clearance, other paperwork, and customer consultation. Goods, packaging, marking, delivery or other services related to goods as agreed with the customer (Xiu& Chen, 2012; Farahani et al., 2011).

The process of choosing a logistics service provider consists of 5 main steps: determining the need to outsource logistics services, evaluating solutions by comparing between self-implementation and outsourced logistics services, implementing service performance, service evaluation after use (Bottani&Rizzi, 2006).

The decision-making process to choose a logistics service provider was developed from the model of Web & Wind (1972). According to this model, the decision-making process includes the following steps: awareness, information search, evaluation of alternatives, purchase decision, and post-purchase behavior.

According to Phillip Kotler's behavioral model, the supplier selection decision consists of the following basic stages: Determining the need for supplier selection, determining the need for supplier selection, and criteria suppliers, deciding on a selection strategy, identifying potential suppliers, limiting the number of suppliers for selection, decide on the final selection method.

## **3. RESEARCH METHODS AND MODELS**

### **3.1. Research Methods**

Research method uses a customer questionnaire survey to evaluate the decision to choose a logistics service provider in Hanoi. Brand trust, Supply adaptation, Supplier's brand, Material facilities, Price policy, Debt policy, and Supplier decision are measured on a five-level Likert scale Very good, good, average, not very good, and poor. The 5-level Likert scale is familiarly used in many studies, so the author also quantifies each factor according to five levels. Quantitative research is carried out with SPSS 25 software.

The scope of the research is Logistic enterprises and enterprises using Logistic services in Hanoi. Research data is collected in the form of face-to-face interviews, email, Google forms of Logistic

employees and enterprises using Logistic services in Hanoi. The survey results collected 216 questionnaires. After eliminating the invalid questionnaires due to many empty cells, the author chose to use 208 questionnaires.

### 3.2. Research model and research hypothesis

From the research overview, the proposed research model is as follows:

$$SD = \beta_1 + \beta_2 \times BT + \beta_3 \times SA + \beta_4 \times SB + \beta_5 \times MF + \beta_6 \times PP + \beta_7 \times DP + E$$

To assess the impact of factors affecting the decision to choose a logistics service provider in Hanoi, the study uses 6 detailed hypotheses as follows:

**Hypothesis 1:** Brand trust has a positive relationship with the decision on choosing Logistics Supplier in Hanoi.

**Hypothesis 2:** Supply adaptation has a positive relationship with the decision on choosing Logistics Supplier in Hanoi.

**Hypothesis 3:** Supplier's brand has a positive relationship with the decision on choosing Logistics Supplier in Hanoi.

**Hypothesis 4:** Material facilities have a positive relationship with the decision on choosing Logistics Supplier in Hanoi.

**Hypothesis 5:** Price policy has a positive relationship with the decision on choosing Logistics Supplier in Hanoi.

**Hypothesis 6:** Debt policy has a positive relationship with the decision on choosing Logistics Supplier in Hanoi.

## 4. RESEARCH RESULTS

### 4.1. Testing the scale

The results of evaluating the reliability of the scale by Cronbach's Alpha show that the scales have reliability greater than 0.6 and the correlation coefficient of the total variable is greater than 0.3. All scales satisfy the conditions for EFA exploratory factor analysis. The reliability of the scales is summed up in the table below.

**Table 1: Scale test results**

Variable name	Symbol	Number of observed variables	Cronbach's Alpha coefficient Cronbach's Alpha	Coefficient of correlation of the smallest variable
Brand trust	BT	5	.816	.538
Supply adaptation	SA	5	.837	.594
Supplier's brand	SB	4	.779	.498
Material facilities	MF	4	.862	.628
Price policy	PP	4	.700	.390
Debt policy	DP	4	.823	.598
Supplier decision	SD	3	.760	.489

(Source: Research data analysis results)

#### 4.2. EFA exploratory factor analysis

Factor analysis was performed with Principle Component extraction, Varimax rotation for the dependent observed variable. The results show that the coefficient KMO = 0.816 (condition > 0.5); Significance level and Barlett test = 0.000 (condition < 0.05) shows that EFA analysis is appropriate. The total variance extracted is 63.525% > 50%; and factor loading factors are all greater than 0.5, so they are satisfactory. The official scale after EFA processing includes 6 independent variables with 26 observed variables as proposed.

**Table 2: Result of EFA exploratory factor analysis**

	Component					
	1	2	3	4	5	6
SA3	.826					
SA2	.754					
SA1	.732					
SA4	.622					
SA5	.599					
BT2		.821				
BT3		.742				
BT4		.731				
BT5		.697				
BT1		.627				
MF1			.865			
MF2			.765			
MF4			.755			
MF3			.649			
DP3				.823		
DP4				.821		
DP1				.794		
DP2				.724		
SB2					.774	
SB3					.751	
SB4					.710	
SB1					.641	
PP3						.737
PP4						.701
PP2						.697
PP1						.673

(Source: Research data analysis results)

### 4.3. Regression analysis

**Table 3. Statistical value results of factors**

Mô hình	Tóm tắt mô hình				
	R	R bình phương	R bình phương đã hiệu chỉnh	Sai số ước tính của độ lệch chuẩn	Hệ số Durbin - Watso
1	.845 <sup>a</sup>	.714	.698	.44913	1.723
a. Predictors: (Constant), DP, SA, PP, BT, SB, MF					
b. Dependent Variable: SD					

(Source: Research data analysis results)

R squared adjusted reflects the degree of influence of the independent variables on the variation of the dependent variable, in this case 6 factors (Patience) Brand information, responsiveness, supplier image, technical facilities, pricing policy, debt policy) influence 71.4% on the decision to choose a logistics service provider in the city. Hanoi Street. The Durbin-Watson coefficient is 1.723, in the range from 1.5 to 2.5, so there is no first-order sequence autocorrelation.

In order to check whether this regression model is suitable for the collected data set and has application significance, the author continues to test the model's fit through ANOVA test as follows

**Table: 4: Testing the fit of the model (ANOVA model)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	80.311	6	10.052	23.855	.000 <sup>b</sup>
	Residual	54.695	201	.421		
	Total	145.006	207			

(Source: Research data analysis results)

Sig test  $F = 0.000 < 0.05$  so the regression model evaluates the influence of 6 factors (brand trust, responsiveness, supplier image, technical facilities, pricing policy, debt policy) to the decision to choose a logistics service provider in the city. Hanoi Street.

The model's F-statistic has a Sig value. = 0.000 < 0.05 shows that the model fits the data set and can be generalized to the population. VIF coefficients are all less than 2, so there is no multicollinearity between components that do not appear in the research model.

Regression results showing the influence of 6 factors determining the choice of Logistic service providers in Hanoi are shown in the table below:

**Table 5: Multiple regression results**

		Coefficients <sup>a</sup>						
		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.723	.211		4.190	.000		
	BT	.320	.181	.216	6.248	.000	.742	1.348
	SA	.324	.188	.283	2.533	.002	.558	1.793
	SB	.238	.057	.142	5.656	.000	.701	1.426
	MF	.105	.064	.112	1.645	.001	.631	1.586
	PP	.129	.076	.123	3.388	.000	.850	1.176
	DP	.222	.158	.123	2.676	.000	.853	1.172

Sig test value for each independent variable < 0.05: all variables are significant in the model.  
 Positive Beta coefficient: all variables have a positive effect on the dependent variable.

The regression model is written as follows:

$$SD = \beta_1 + 0.216x BT + 0.283x SA + 0.142x SB + 0.112x MF + 0.123x PP + 0.123x DP + E$$

## 5. DISCUSSION AND RECOMMENDATIONS

Based on the results of quantitative research on influencing factors, the following conclusions can be drawn:

The multiple linear regression equation is extracted by Beta coefficient. Normalization shows that responsiveness factor has higher standardized Beta coefficient (0.283) than all other factors. The standardized beta coefficients of the remaining factors are: Brand trust (0.216), Supplier image (0.142), Technical facilities (0.112), Price policy (0.123), and Policy liabilities (0.123)

From the results of research on factors affecting the decision to choose a logistics service provider in Hanoi, the author makes some recommendations to help enterprises providing logistics services. Logistic services develop appropriate business development strategies and meet the needs of businesses. The research results show that the responsiveness factor is the factor that affects in the same direction and has the greatest impact on the decision to choose a logistics service provider in Hanoi. As such, logistics service providers need to improve their responsiveness to attract more customers to choose their business's Logistic services, besides building brand, supplier image, and base building. Technical materials, formulating pricing policy and debt policy. Logistics service providers need to improve service quality by following ISO standards, increasing the diversity and availability of logistics services.

## REFERENCES

- Bottani, E., & Rizzi, A. (2006). Strategic management of logistics service: A fuzzy QFD approach. *International journal of production economics*, 103(2), 585-599.
- Farahani Zanjirani, R., Rezapour, S., & Kardar, L. (2011). *Logistics Operations and Management*. Edition Elsevier, 44-53.

Xiu, G., & Chen, X. (2012). The Third Party Logistics Supplier Selection and Evaluation. *J. Softw.*, 7(8), 1783-1790.