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Investigating Relationship Between Service Quality and Customers Satisfaction on Courier Services in Malaysia

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Abstract: In the courier services industry, one of the important factors contributing to customer satisfaction is the quality of services provided. Customers become more alert and demanding, thus causing courier companies to focus more on the best service quality they can offer. Therefore, this study aims to determine the service quality factors that have the most significant influence on customer satisfaction in the courier services industry. This study was conducted through a questionnaire with 949 respondents in Selangor. The dependent and independent variables were measured with the 5-point Likert scale. The Logistics Service Quality Model (LSQ) is used to measure customer satisfaction. The independent variables used in determining the most relevant aspects in delivering service quality to achieve customer satisfaction is the LSQ model which consists of Timeliness, Accuracy/condition of orders, Quality of information, Availability of services, and Quality of contact personnel. Data were analyzed by using correlation and multiple linear regression analyses. As a result, multiple regression analyses revealed that the Timeliness variable had a significant impact on the level of customer satisfaction. Correlation analysis showed that there was strong positive and significant relationships between all dimensions of Logistics Service Quality (LSQ) and customers satisfaction. The findings of this study can be used by courier companies to improve their services especially in terms of Timeliness.

Keywords: Customer Satisfaction, Courier Service, Logistics Service Quality, Service Quality

1. Introduction

Malaysia's e-commerce sector is rapidly growing and will continue to grow. The Covid-19 problem has hastened the transformation of consumer buying patterns, and it is expected that it will become a new habit for the majority of Malaysians. The fast rise of this e-commerce sector has offered significant potential for supply chain companies, such as courier service companies that provide parcel delivery services. However, due to the pace of online shopping, courier companies must deal with an increase in parcel demand and deal with increasing consumer expectations since customers want excellent parcel delivery services.

Although courier services are somewhere between coordination and postal administration, they have distinctive features, such as delivery times determined on time, money-back guarantee, delivery receipts, delivery to recipients in a door-to-door, and the ability to track deliveries in tracking system detection. Therefore, this specialization of courier services has become very attractive for many exchanges, design ventures, and individual clients.

Customer satisfaction is a critical success element for courier companies. Knowing current satisfaction levels and more specifically, key satisfaction factors enable courier firms to focus and grow on crucial areas that lead to pleased clients. Customer satisfaction reflects a customer's good thoughts regarding their experience after utilising a service, regardless of whether each service matched their expectations (Sultana, Islam & Das, 2016).

Customers satisfaction has emerged as one of the most crucial goals for any organisation seeking a long-term engagement with clients (Minh & Huu, 2016). Consequently, it is regarded as a high priority in a business. According to Alghwery and Bach (2014), customer satisfaction has been identified as a problem impacting various organisations that necessitate a quick assessment of client demand. As a result, service quality has been viewed as a multidimensional term in which significant features must be examined (Vera & Trujillo, 2013).

Courier service companies must recognise and comprehend the numerous antecedents of client loyalty because customer loyalty provides better profit through increased revenues and lower costs to attract consumers (Abkar, 2013). Courier companies may remain effective as long as their consumers are pleased and loyal. Therefore, maintaining long-term connections with consumers and ensuring customer satisfaction have become critical for survival in the competitive courier services business (Cheng, Yang, & Teng, 2013).

Customer satisfaction is used to identify and minimise the causes that drive consumers to leave. Information on customer satisfaction aids in the identification of future market possibilities and gives a competitive advantage. Customer satisfaction offers several benefits for the courier industry, including more enormous profits, outstanding corporate profile and image, improving the number of complaints, reducing marketing expenses, lower price, and decreasing company risk. Given this beneficial consequence, making customers satisfaction the primary objective of a courier service provider is comprehensible (Otsetova & Enimanev, 2014).

Agreeing to Sharma et al. (1995), client fulfillment happens when a company gives a calculated benefit that meets or outperforms the customer's desires. Mentzer et al. (2001) stated that Logistic Service Quality (LSQ) can impact client fulfilment. Meiduté-Kavaliausjeiné et al. (2014) expressed that LSQ moves forward the benefit provider's competitive advantage by expanding client dependability, which decreases the number of rivals and makes positive conditions for the advancement of economies of scale. When choosing a coordinations benefit supplier, customers consider not as it were the quality of the benefit, but too the taken a toll of the benefit, specialized arrangements, and the set of administrations given by the supplier.

Therefore, this study employed five dimensions from the Logistic Service Quality (LSQ) as independent variables to quantify customer satisfaction and customers satisfaction as a dependent variable. The paper of Ho et al. (2012) utilized the application of the Logistic Service Quality (LSQ) demonstrate to decide the foremost vital figure that impacts client satisfaction on dispatch administrations. The model includes the following variables: timeliness, order condition/accuracy, information quality and staff availability/quality. Thus, the objective of this study is to explain the mechanism of customer satisfaction formation and determine the factors influencing customer satisfaction.

In order to attain this goal, the following objectives have been set:

(1) To examine the correlation between five components of Logistic service quality and customers satisfaction.

(2) To identify the dimensions of Logistic Service Quality (LSQ) that significantly affect the level of customer satisfaction in the courier services industry.

(3) To propose a model to study the relationship between the Logistics Service Quality (LSQ) dimensions towards the level of customer satisfaction.

2. Methodology

To conduct this study, statistical methods such as multiple linear regressions will be applied to the courier service data. The study carried out by Sulastri et al. (2019) used linear regression to look at the relationship between Logistic Service Quality (LSQ) and customers satisfaction. A comparable study conducted by Choi, (2018) also used linear regression to examine the impact between logistics services quality and trust. The higher the trust, the better the seller's evaluation and the more positive the evaluation of the same experience (Singh & Sirdeshmukh, 2000).

This study was conducted through a questionnaire with 949 respondents in Selangor. The dependent and explanatory variables were measured with the 5-point Likert scale. There was also an open-ended question in the questionnaire in order to provide an opportunity for the courier user to make a comment based on the service.

The conceptual framework was developed from the variables were shown in Fig 1. In the research framework, the independent or explanatory variables (IVs) are LSQ (Timeliness, Condition / Accuracy of order, Quality of information, Availability of service and Quality of contact personnel), while the dependent or response variable (DV) is customer satisfaction. The conceptual framework is employed to determine the direct effect of the relationship between Logistic Service Quality (LSQ) towards service customers satisfaction. Analysis of the data includes Correlation, Multiple Regression Analysis, and ANOVA F-statistic for model adequacy testing.

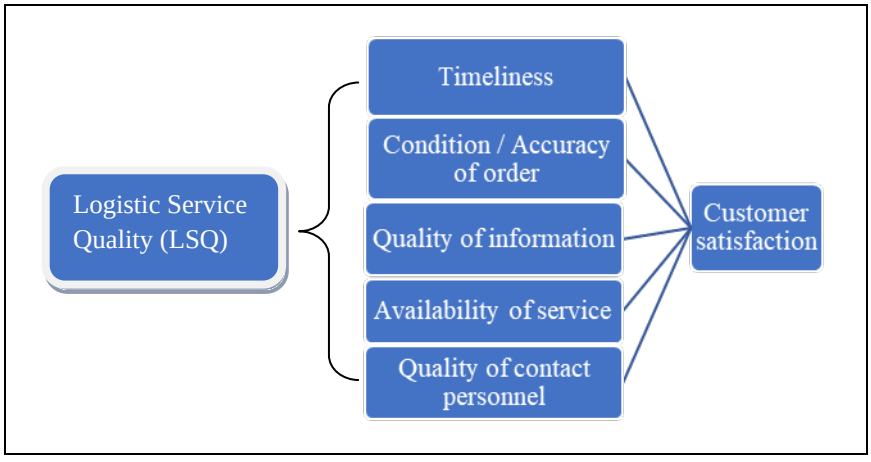

Figure 1. Conceptual research framework with hypothesized relationships

According to the Logistic Service Quality (LSQ) model, service quality is separated into four dimensions: Timeliness, Order condition/accuracy, Information quality and Contact personnel quality (Novack et al., 1994; Rutner & Langley, 2000; Stank et al., 2003; Shet et al., 2006; Rafid & Jaafar, 2007). Many writers (Mentzer et al., 2001; Xu & Cao, 2008; Ho et al., 2012) understand the significance of Logistic Service Quality (LSQ) and its influence on customer satisfaction in the courier services business. Many empirical types of research support these findings, demonstrating that Logistic Service Quality (LSQ) has a significant influence on levels of customer satisfaction and loyalty (Daugherty et al., 1998; Mentzer et al., 2001; Stank et al., 2003).

Timeliness

Timeliness of delivery fulfils a commitment by the courier company about compliance with the agreed delivery terms. These variable measures courier providers' average effectiveness and success after they receive a customer order (Xu & Cao, 2008).

Condition/accuracy of order

The Condition/accuracy of arrange measurement covers a few key angles, to be specific the contract with respect to the put, particular conditions of conveyance, and time that have to be be met. Order conditions also reflect the ability to change courier services to meet the needs and requirements of each customer. Delivery security is also part of the order dimension requirements.

Quality of information

As a dimension in the Logistics Services Quality model (LSQ), Information quality includes availability and ease of access to information; accuracy, clarity, suitable language, and various formats of information delivered; the rate at which information is sent; the capacity to communicate effectively with consumers throughout the service delivery process.

Quality of contact personnel

Quality of contact personnel includes efficiency and speed of service, responsiveness, the readiness of contact staff to help customers.

Availability of service

Available of service is the ability of service to be accessible as needed, whenever and wherever they are required.

Based on the above explanation, the taking hypotheses were derived:

H_1: Timeliness has a positive impact on customer satisfaction of courier services.
H_2: Condition/accuracy of an order has a positive impact on customer satisfaction with the courier services.
H_3: Quality of information has a positive impact on customer satisfaction with courier services.
H_4: Quality of contact personnel has a positive impact on customer satisfaction with the

courier services.

H_5: Available of service has a positive impact on customer satisfaction of courier services.

3. Analysis and Results

In this part, correlation analysis and multiple linear regressions were used to test the association and to investigate the effect of all dimensions of Logistic Service Quality (LSQ) towards customer satisfaction. In this study, a questionnaire was developed to gather data from 949 respondents in Selangor.

3.1 Reliability Test

The reliability test was used to check the reliability of the statements in the five dimensions of Logistic Service Quality (LSQ). Table 1 reveals that the Cronbach's Alpha values computed were 0.890, 0.873, 0.899, 0.769, 0.916, and 0.918, indicating that the items for the study were reliable.

Table 1: Reliability test of Logistic Service Quality

Variable	Cronbach Alpha	Reliability
Timeliness	0.890	Reliable
Condition/ Accuracy of order	0.873	Reliable
Quality of Information	0.899	Reliable
Availability of Service	0.769	Reliable
Quality of Contact Personnel	0.916	Reliable
Customer Satisfaction	0.918	Reliable

3.2 Correlation

To assess the relationship between all the variables, all hypotheses were tested using correlation coefficients as presented in Table 2.

Table 2: Correlation

	Customer Satisfaction	Timeliness	Condition/ Accuracy of order	Quality of information	Availability of service	Quality of contact personnel
Customer satisfaction	1.000					
Timeliness	0.705**	1.000				
Condition / Accuracy of order	0.700**	0.762**	1.000			
Quality of information	0.677**	0.716**	0.760**	1.000		
Availability of service	0.685**	0.673**	0.715**	0.681**	1.000	
Quality of contact personnel	0.699**	0.629**	0.665**	0.676**	0.685**	1.000

*Correlation is significant at the 1% level.

It can been seen that all factors have a strong positive and significant relationship between all dimensions of Logistics Service Quality (LSQ) and customers satisfaction. This conclusion is supported by earlier studies (Ho, Teik, Tiffany, Kok, & Tah, 2012; Otsetova, 2016) that also show a positive association between customers satisfaction and all Logistics Service Quality dimensions (LSQ) in the courier services in Malaysia and Bulgaria.

3.3 Regression Analysis

A multiple regression model was developed to study the five-dimensional effect of Logistics Service Quality (LSQ) on customer satisfaction. The explanatory or independent variables (IV) used in this study was the LSQ dimension, namely Condition/Order Accuracy, Timeliness, Quality of contact personnel, Quality of information, and Service availability. The dependent variable (DV) used was customer satisfaction. The following equation can be used to express the multiple regression models:

$$\text{Customer satisfaction} = b_0 + b_1\text{Timeliness} + b_2\text{Condition/Accuracy of order} + b_3\text{Quality of information} + b_4\text{Availability of service} + b_5\text{Quality of contact personnel}$$

Table 3: Regression results for LSQ towards customer satisfaction

Variables	Beta	T-test	Std. Beta	Sig.	Tol.	VIF
Constant	0.511	5.984		0.000		
Timeliness	0.255	9.082	0.270	0.000	0.431	2.318
Condition / Accuracy of order	0.128	3.804	0.137	0.000	0.292	3.423
Quality of information	0.099	2.928	0.098	0.003	0.338	2.960
Availability of service	0.156	5.371	0.169	0.000	0.385	2.595
Quality of contact personnel	0.251	7.549	0.247	0.000	0.356	2.811
Adjusted R squared	0.639			Durbin-Watson	1.765	
F value	336.678					
Significance	0.000					

Dependent variable: Customer satisfaction

Because the explanatory variables must be independent of each other, several assumptions must be satisfied to identify whether the explanatory variables in the regression are associated. In this study, the variance inflation factor (VIF) determines the percentage of multicollinearity. According to Table 3, the VIF for all explanatory variables is less than 10, indicating no multicollinearity issues in this model. Simultaneously, none of the tolerance limits is less than 0.01. Then, the autocorrelation was tested by using Durbin Watson's (DW) statistics. The value is always between 0 and 4. The DW of less than 1.5 indicates positive autocorrelation, while the DW of more than 2.5 indicates negative autocorrelation. From the result, the DW statistic yields a value of 1.765, which is outside of the Durbin Watson analysis range of 1.5 to 2.5. As a result, the explanatory variables in this model did not have any indication of multicollinearity or autocorrelation.

The result of the F-value in Table 3 reveals that there is a statistically significant relationship between customer satisfaction and Logistic Service Quality (LSQ) dimensions since the p-value is less than the significance level (0.000 < 0.05).

R^2 is the coefficient of determination represents the percentage of variation of the dependent variable explained by the explanatory variables, included in the model. The value of R^2 is 0.639, which means that about 63.9% of the variation in customer satisfaction is explained by Logistic Service Quality dimensions.

The next phase is to apply the model to describe the mechanisms of the processes under study. Based on the findings, H_1 (Timeliness), H_2 (Condition/accuracy of order), H_3(Quality of information), H_4 (Quality of contact personnel) and H_5 (Available of service) are supported with a significance of 0.000<0.05 for Timeliness, the significance of 0.000<0.05 for Condition/accuracy of order, the significance of 0.003<0.05 for quality of information, the significance of 0.000<0.05 for Availability of service and significance of 0.000<0.05 for Quality of contact personnel. These findings suggest that all dimensions of Logistic Service Quality (LSQ) have a positive association with customer satisfaction. The relationship between the response and explanatory variables are statistically significant.

Timeliness has the highest beta at 0.270, indicating that this dimension has the most influence on customers satisfaction with courier service. This finding is consistent with earlier studies (Xu & Cao, 2008; Rahman, 2008; Mansor & Razali, 2010), in which timeliness was found to have the greatest effect on customer satisfaction. In summary, the following is the link between customer satisfaction and all of the Logistic Service Quality (LSQ) dimensions in the courier service industry:

Customer satisfaction = 0.511+0.255 Timeliness+0.128 Condition/Accuracy of order
+0.099 Quality of information+0.156 Availability of service
+0.251 Quality of contact personnel

4. Conclusion

This study targets to examine the dimensions of Logistic Service Quality that contributes to customer fulfilment in the Malaysian courier service industry. A total of 949 respondents from Selangor was involved in this research. According to the findings, there are strong positive and significant relationships between all dimensions of Logistics Service Quality (LSQ) and customers satisfaction. All factors influence customer satisfaction, with Timeliness being the most important, followed by Quality of contact personnel, Availability of service, Condition/Accuracy of order and Quality of information. The applicability of the Logistic Service Quality (LSQ) model in this industry was confirmed using multiple linear regression analysis.

The findings of this study can help courier companies improve their services, particularly in terms of Timeliness and Customer contact personnel. Companies should accommodate their employees with training and courses so that they can be more competent and productive in their operations, thus boosting customer service and increasing customer satisfaction, which leads to loyalty.

This study has some limitations because the selected respondents are from the state of Selangor only because the government has implemented the Movement Control Order to prevent Covid-19. As for the recommendation for future studies, more states in Malaysia can

be included in the study, subsequently increasing the number of respondents and these will reduce the error of analysis and increase the accuracy of the results.

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