

Logistic Service Quality among Courier Services in Malaysia

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Abstract. In the courier services industry, service quality is among the most crucial determinant for customer satisfaction. This paper applies the Logistic Service Quality (LSQ) model, using variables which include ‘timeliness’, ‘condition/accuracy of order’, ‘quality of information’, and ‘availability/quality of personnel’ in determining the most effective dimension in providing sound service quality to achieve customers’ satisfaction in the current market condition. The rationale is to observe whether there are any changes in the market behavior towards the key variables of service quality. Multiple regression analysis based on 200 respondents indicated that ‘timeliness’ has been replaced by ‘condition/accuracy of order’ as the courier services customers’ priority. The impact of the shift from ‘timeliness’ to ‘condition/accuracy of order’ and areas to cover in the future are also discussed.

Keywords: Logistic Service Quality (LSQ), Customer Satisfaction, Courier Services

1. Introduction

In past decades, logistics has always been a supporting function for production and consumption. For the traditional courier service companies, functions are only considered as a cost. However, since the 1990s, this perception started to change in the marketing principle to determine the capacity of courier service leading to greater customer satisfaction and loyalty [1]. Courier services industry in Malaysia is beginning to experience mounting competition since the entry of the first foreign courier service provider into the country, DHL in 1970s [2]. Unfortunately, little information is available to pinpoint country specific areas of customer satisfaction concerns amongst courier services providers. Hence, this paper aim to determine the service quality dimensions that influence customers’ satisfaction in courier service industry focusing on quality: (1) timeliness; (2) condition/accuracy of order; (3) quality of information; and (4) availability/quality of information.

2. Theoretical Background and Hypotheses

In the service industry, customer satisfaction is a vital element which contributes heavily to customer loyalty [3, 4]. Customer satisfaction that increases customer loyalty eventually leads to business profitability. Customer satisfaction is a “result” of the “comparison between predicted service and perceived service while service quality refers to the “comparison between desired service and perceived service” [5]. Instruments applicable in measuring service quality namely the SERVQUAL model, is considered as an effective ‘analytic instrument in evaluating and monitoring service quality’ [1]. This paper employs the Logistic Service Quality (LSQ) which has gone through modification in the development of logistic traits which fit into prior consumer-based scopes and identifying applicable potential improvements [1]. Mentzer et al. [1], also suggested that firms are required to pay ample attention to their own marketing efforts as well as the physical distribution service (PDS) as these elements are key to achieving customers’ satisfaction and put forward an unified framework of customer service.

Based on the customer value theory, timeliness is among the essential elements in the relationship between logistic provider and customers [6]. Timeliness refers to whether orders placed are delivered on

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time as promised [4]. It is essential as it helps in reducing the overall operation process in terms of times between service stops [7]. It is found that customer satisfaction can be further enhanced given the availability of flexible timeliness based on demand [8]. Based on the above rationale, the following hypothesis is derived:

H1: Timeliness has a significant influence on customer satisfaction for courier services.

According to Xu and Cao [9], this variable measures the average effectiveness and success of a courier provider when they received customers' orders. It also involves the accuracy of billing, accuracy of record keeping and the completion of service at designated time [5]. Furthermore, it is important for firms to meet the demands stated in a particular order in terms of quantity and quality upon arrival, in terms of whether or not the package sustained any sort of damages [1, 4]. Should any complaints were to be brought forward and mismanaged, it would lead to customer dissatisfaction and further prompt a switch to the other competitors in the industry [1]. Based on the above rationale, the following hypothesis is derived:

H2: Condition/Accuracy of order has a significant influence on customer satisfaction for courier services.

Sound interaction between personnel and the customers had been discussed being a factor contributing to customer satisfaction [9]. The ability of the personnel to distinguish regular clients is equally important to learn different preferences, problem solving and improve knowledge on the products as well as providing customised attentions that will increase satisfaction in return encouraging future repurchases [10]. Lu, Tu & Jen [10] brought forward the idea of switching barriers in addition to personnel competence as a pair in a model in examining behavioural intentions to address the possibility of customer switching to a competitor as mentioned above. Based on the above rationale, the following hypothesis is derived:

H3: Quality of information has a significant influence on customer satisfaction for courier services.

The ability of courier provider to include relevant product information is essential to attract customers' attention to their specific service and promotions which meet their needs [4, 6]. The overall customers' satisfaction can be affected by the information provided, in terms of trustworthiness and quality of information which would help customers in making better decisions [1]. Parasumaran [5] suggested that firms should consider including multiple languages in the information provided, which is relevant to the area of study for this paper, Malaysia, where there consist three main races (Malays, Chinese and Indians). Based on the above rationale, the following hypothesis is derived:

H4: Availability/Quality of personnel has a significant influence on customer satisfaction for courier services.

Our study will be based on the SERVQUAL model [5] because the model fits that area of interest, which is the service quality that the industry provides and the model also separates the difference between the perceived and expected quality. However, for this paper, some modifications were needed on the model to help in having a more comprehensive research. Thus, the Logistic Service Quality (LSQ) model [11] which includes the extra 4 dimensions that are represented by our independent variables was adapted. The LSQ model has also been utilised by other researchers [4] in which we reference our questionnaire upon. Recent studies show that timeliness is the most important dimension in this model and is recognised as "reception of the order placed by the customer at the agreed moment" [4]. There has been very limited incorporation of the LSQ in studies conducted in Malaysia, thus this paper will further test whether the model is applicable or not (see Figure 1).

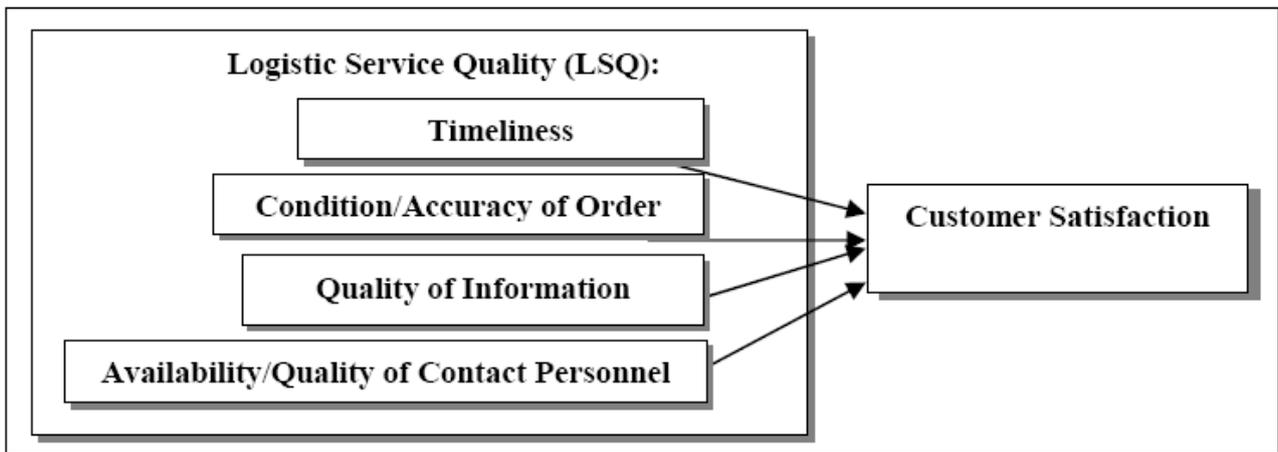


Fig 1: Research Framework

3. Methodology

The 35 item questionnaire adapted for this study [4] employs a four-point Likert scale with anchors ranging from ‘strongly disagree’ to ‘strongly agree’ was chosen as it helps in eliminating the ‘neither/nor’ position where it was found that without such position, respondents have the tendency in choosing a negative scale which helps in getting a more accurate set of responses [12]. The unit of analysis for this study are individuals pursuing their studies in higher educational institutions in Malaysia. Online medium including personal emails and online survey platform ‘Survey Monkey’ was also used in obtaining data. Snowball sampling is chosen in conducting our sampling method as it allows us in identifying respondents who has the specific range of characteristics that is useful to the research [13]. To qualify as respondent for this study, respondents must have used any courier services in the recent 1 year. Through this method, a total of 200 usable questionnaires were obtained out of 203 questionnaires collected.

Respondents for this study are comprised of 51% female and 49% male. Majority, the respondent came from students (71%), where the rest are employed (29%). As the study focuses on courier services provided in Malaysia, there are more Malaysian respondents (64.5%) compare to non-Malaysian who live in Malaysia (35.5%). A good number of respondents are at undergraduate level (77.5%), alongside with respondents that are at Diploma level (12%), Postgraduate (8.5%), and others level of education such as Pre-University and A-levels (2.5%).

4. Results

4.1. Analysis and Results

In terms of preferences and satisfaction of the respondents specified courier services provider, out of 200 respondents, 41 percent of the respondents chose Pos Laju as their preferred provider in courier services (see Table 1). Even though Pos Laju was the most popular choice but it only stands at 2.95 out of 4 in Likert Scale in terms of customer satisfaction, which is lower than the satisfaction level towards FedEx and DHL, which stands at 3.204 and 3.13 out of 4 respectively. This indicates that customers that experienced the service by FedEx have the highest level of satisfaction in comparison with other providers.

Table 1: Courier Service Providers Usage vs Mean of Customer Satisfaction

Courier Service Providers	Usage Frequency		Customer Satisfaction	
	Frequency (n)	Percentage (%)	Mean	Stdev
Pos Laju (Pos Malaysia)	81	40.5	2.9460	0.4593
DHL	57	28.5	3.1491	0.4861
FedEx	45	22.5	3.1250	0.5119
Others	17	8.5	2.9044	0.5331

Note: N = 200

All independent variables have substantial relationship and moderately correlated with dependent variable (Pearson r ranges from 0.530 to 0.672, p value 0.000<0.01). Table 2 shows the result obtained from running

the multiple linear regression and it shows the relationship between the dependent variable and independent variables. The F-value of 55.076 (p-value 0.000<0.01) implies that at least one of the variables of the study is significant. Thus, it confirms the fitness of the model [14]. The adjusted R square is 0.521, indicated that the model represents 52.1% of the total variance. The size of the effect as 52.1% can be considered to be around the range of large to very large effect [15].

Table 2: Regression Result

Variables	Beta Value	Significance	Tolerance	VIF
(Constant)	.425	.019*		
Timeliness	.201	.008*	.467	2.141
Condition/Accuracy of Order	.321	.000*	.395	2.529
Quality of Information	.229	.002*	.442	2.260
Availability/Quality of Personnel	.081	.151	.562	1.780
Multiple R	.728			
R ²	.530			
Adjusted R ²	.521			
F change= 55.076, Sig. F= 0.000				

Note: N=200; *p<0.01 (2-tailed); Dependent variable: Customer Satisfaction; Independent Variables: Timeliness, Condition/Accuracy of Order, Quality of Information, Availability/Quality of Personnel

Based on the findings, H1 (timeliness), H2 (condition/accuracy of order) and H3 (quality of information) are supported with respected p-value of 0.008<0.01 (H1), p-value of 0.000<0.01 (H2) and p-value of 0.002<0.01. However, H4 (availability/quality of personnel) is rejected with p-value 0.151>0.01, thus deeming it to have no influence on customers' satisfaction. In summary, the relationship between the dependent variable (Customer satisfaction) and independent variables (timeliness, condition/accuracy of order, and quality of information) are as follows:

$$Y = 0.425 + 0.201 \text{ Timeliness} + 0.321 \text{ Condition/Accuracy of Order} + 0.229 \text{ Quality of Information}$$

The absolute figure shown in Table 3 represents the beta coefficient of each variable. The result indicates that the independent variables: Timeliness, Condition/Accuracy of Order and Quality of Information has a positive relationship with the dependent variable: Customer Satisfaction. Furthermore, it can be seen that Condition/Accuracy of Order has the highest beta at 0.326, which suggests that this variable is the strongest factor in influencing customer satisfaction.

5. Discussion and Conclusion

This study aims to examine the aspects in service quality that contribute to customers' satisfaction in the logistic service industry of Malaysia. Overall, the results from this study have endorsed previous researches except for the variable of availability/quality of personnel. The main difference of the findings of this paper is that the most significant variable in achieving satisfaction among customers in the courier service industry is the condition/accuracy of order, and this shows a contrast to the previous findings [5, 16, 17] where timeliness was regarded as having the highest level of influence on customer satisfaction. The implication from these two hypotheses (H1 and H2) suggests that there is a shift in the trend and companies should start to recognise this. One feasible explanation for such a shift can be due to the customer's trust in their respective choice in courier service providers and such trust can be achieved through matching the timeliness aspect in providing the service [11]. Furthermore, due to the increasing expectation from customers, timeliness is seen as an entry-level requirement for every company in the logistic industry [18]. The quality of information was also found to have a strong influence on customer satisfaction for courier services providers (H3). This is in tandem with the results obtained from the study by [19] who discussed that "good product information helps to create a more effective market place for both consumers and marketers".

Unlike previous studies, the availability/quality of personnel was not indicated as factors influencing customer satisfaction for the courier service providers (H4). Based on the perspective of customer value theory, the availability/quality of personnel may have been viewed as insignificant across the industry in Malaysia thus customers are unable to differentiate companies based on this criteria. This is detrimental to the industry in Malaysia as findings have shown that contact personnel plays a crucial attribute in customers' satisfaction and upon recognising this factor, companies can provide the training needed for their staff in

providing better service quality to customer in each branch [4]. Upon the effort of upgrading, the industry in Malaysia would also improve as a whole and can also be compared in the global level.

This study is confined under several limitations which suggest the avenues for future research. Firstly, due to time and budget constraints, snowball sampling that is convenient in nature was chosen. Future research using a more random method would provide a better representation of samples. Secondly, using university students as unit of analysis of the study limits the generalizability of this study. Sampling respondents from various groups of respondents including working adults and business organizations might provide a different scope of service quality expectations among logistic service providers.

6. References

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