# A Structural Equation Model for Logistics Service Quality to Measurement Passenger Loyalty at Suvarnabhumi Airport, Thailand

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## Abstract
This research purports to (1) examine the logistics service quality experienced by passengers traveling through Suvarnabhumi international airport, consisting of a component concerning SerScape, transaction process, and the service system; (2) study the satisfaction of the airline passengers; (3) investigate passengers' loyalty using a structural equation model: SEM as a research tool upon analyzing the EFA. Across all 9 aspects of the logistics services, this has been regrouped and can be categorized into 3 main aspect namely the service quality concerning the SerScape, the transaction procedures, and the service system. The subjects of this study are international airline passengers. The data is drawn from a sample group of 514 subjects, using the analysis method of Mean, Percentage, and the SEM. The research findings reveal that the Model contains CMIN/DF = 2.604, RMSEA= 0.052,GFI = 0.860, NFI= 0.902 RFI =0.888, IFI =0.937, TLI =0.928, and CFI = 0.937. In other words, it discovers that the logistic service quality has a direct correlation to the level of satisfaction, with a path coefficient equals to 0.85, the passengers' satisfaction contains a positive correlation to their loyalty, with a path coefficient of 0.21, and the logistic service quality holds a direct influence upon the passengers' loyalty, amounting to a path coefficient of 0.58.
Accordingly, this research amounts to the value of logistic service quality activities so as to measure the satisfaction and the loyalty that are taken into account when choosing different airline services and to create the optimal benefits upon the improvement of SerScape, transaction processes, and service mechanism so that it can be more convenient for the airline passengers traveling through Suvarnabhumi international airport.
**Keywords:** Logistics Service Quality, Satisfaction, Loyalty

## Introduction
Nowadays in the era of information, news, and technology, this has rendered the world to be more connected, leading to higher number of communications and transportations. As a result, international travelings for commerce and travel have been on the rise, whether by land, by sea, or by air. The most popular methods is said to be by air due to its convenience and its nature of time savings, coupling with the fact that there are various service providers, allowing passengers to gain more options thanks to a fierce competition between multiple airliners. Moreover, passengers can also access the information with ease, rendering them with more data to make decisions, compare information provided between different airliners in a matter of minutes e.g. information concerning the number of flights, the time of services, the ticket prices, and other relevant facilities offered to the passengers, which is clearly proved that traveling by air can mean a lot more than just getting oneself from one place to

the desired destination. Ultimately, this has forced the airliners to keep improving themselves as a strategy to make a difference and create a higher sense of loyalty of its passengers.
Consequently, airline operators need to keep improving its quality of services in order to create positive impressions, recalls upon next traveling, as well as building up the airline's standing out point so as to gain an upper hand against its competitors. This can be achieved through a strategy of proving its services different from the others, which will eventually lead to a word or mouth marketing that would make the passengers coming back for the following times. This, in turn, affects the perception of traveling through Suvarnabhumi international airport, which is considered as a centre for travelings within the Asian region, and can be employed to improve the quality of services provided by the airlines, including being able to response to the traveller's needs when passing through international services offered within the Suvarnabhumi international airport, which is aimed to be more convenient, faster, and more vastly available. It also includes the enhancement of the relevant systems relating to airline operators which results in the users' satisfaction, of which is found to be in consistent with the study conducted by Fleury (2000) on the improvement of communications, transportation, and information accessibility in a way for the consumers to have greater choices before making their decision. Provided that the airlines can keep upgrading its services to meet its customers' needs, this would result in the customers' satisfaction and coming back for the services.
Thus, by bring in LSQ to help analyze the ability to transfer logistics effectiveness towards creating the users' satisfaction, it would lead to the making of customer's satisfaction that leads to assist Suvarnabhumi airport in becoming the centre for travel in ASEAN, ensuring the entering status into the AEC and being internationally recognized by Skytrax. Also, it would allow the use of the LSQ study into measuring the airport's logistic service quality and to see what whether it holds any differences, and in what aspects. Ultimately, this has been conducted in a course of employing the findings upon improving the logistic qualities of those relating to airport services.

## Research Objectives

1) To examine the logistics service quality experienced by passengers traveling through Suvarnabhumi international airport, consisting of a component concerning SerScape, transaction process, and the service system;
2) To study the level of satisfaction of the airline passengers;
3) To investigate the level of loyalty of the airline passengers.

## Literature Review

**Logistics Service Quality:** The Logistics Service Quality or also known as LSQ is a theory developed by Menzter Flint and Kent (1999). This is a model that has been called after its discoverer, namely, the MFK's LSQ model (the LSQ model). Such model is used to measure the quality of the logistic service activities relating to relevant work and services. It also utilized to measure the perceptions of those users of different logistic service activities (Mentzer, 2001). The model comprises of 9 elements, respectively, (1) Information quality, which refers to the data accuracy provided to the users and the availability of information which affects the user's services; (2) Ordering procedure-an effectiveness and the ease of use towards the ordering process and the relevant transactions; (3) Ordering release quantity-to maintain and make sure of the availability of the services and the managing of purchasing orders or the needs demanded by the customers; (4) Timeliness-this refers to the short lead time for the order and back order and also, the order can be responded within the promised time period; (5) Order accuracy-the accuracy during ordering process, including the accuracy

of numbers of transactions and the correct quantity that needs to be delivered; (6) Order quality, this concerns the supplying of quality goods and services, or the event where difficulties occurred but still being able to amend the situation and provide for the appropriate goods or services in time; (7) Order condition-the notion that means the goods have arrived safely to its designated destination or the event where the users receive satisfaction; (8) Problem management that allows users to be able to fix the mistakes themselves so as to elevate certain mistakes including reporting any obstacles faced during the process, allowing greater customer's satisfaction; (9) Personnel contact quality, which refers to having a qualified service providers with adequate ability to deliver the services.

As the LSQ is being used to measure the quality of logistic service activities, which are the customized activities carried out for certain processes, this renders the LSQ model not so widely known because it can only be used with specific activities when comparing to the Service Quality, invented by Parasuraman Zeithaml and Berry et al. (1985). With this model, it develops its measurement using 10 dimensional technique. Later, Parasuraman, Zeithamal, and Berry (1990) made certain adjustment eliminating any repetitions and grouped them all into 5 main similar aspects. The tool is called SERVQUAL Dimensions (RATER), comprising of 5 dimensions, namely, (1) Tangibles-physical characteristics visible to others including marks representing quality, of which the customer can then used to evaluate the services; (2) Reliability-the ability to provide continuous services with reliability from the very first impression; (3) Responsiveness-the willingness to assist customers with swift services; (4) Assurance-the ability to make customers feel trusts towards the service given e.g. for the personnel to be knowledgeable and friendly; (5) Empathy-to pay extra care and attention to specific individual needs so as to make the customers feel special. Moreover, Bienstock Menzter and Bird also developed a quality measurement technique and formed it as a tool that can be used to measure the study of tangible qualities, which is called the Conceptualize physical distribution services quality (PDSQ). The PDSQ can be employed to measure the quality of the goods distribution using 3 dimensions, respectively, (1) Timeless; (2) Availability; and (3) Condition. On prima facie, this would start with the measurement of logistic activities within the Business to Business model in order to look into the transfer to the activities to other places or to examine the relevant personnel working in relationship such logistic activities. The model also later uses to conduct a study upon the Customer's Perception of LSQ, which is different from the SERVQUAL measure, employed by physicians and marketing, in which the users are final and no other relevant prior activities are involved.

Particularly with the Menzter's LSQ method, it has been applied to the logistic activities in the aspect of the user's perspective with reference to post transportation (Rafiq and Jaafar, 2007). It is also developed so as to make use in the study of the logistic services performance, which is to study the gap between the services received from logistic service performance occurring between the service users and the service providers. Within the process of logistic services quality that leads to the success upon making a difference in the competitiveness (Gronroos, 1990), especially for the airline business that contain similar goods and services. Such event effectively leads to fierce competition, and therefore become the reason why the researcher opts to employ the LSQ method created by Menzter, Flint and Kent (1999) upon the study of the LSQ that affects the user's satisfaction, using the Structural equation modelling (SEM). After the analysis, it is discovered that there are 3 dimensions that are consistent with the model proposed by Brady and Cronin (2001) which study the logistic service quality.

**Customer Satisfaction:** Satisfaction stems from an expectation prior to the receiving of services, in which the service users would compare the actual services to the expected one. Provided that the services received are much better than expected, this would surely create

satisfaction. Satisfaction can also come from an impulsed behavior so as to show certain emotions, expressions, thoughts, and perspectives that compare the likes of such enticement once the service is received according to one's expectation. Furthermore, Kotler (1997) introduces the satisfaction comparison test basing on the level of feelings projected during the utilization or the performance of the products. After the service, if dissatisfaction arises, provided that the results nevertheless match the user's needs, this would eventually lead to satisfaction none the less. On the other hand, Parasuraman, Zeithaml, and Berry (1985) compare the level of satisfaction using the results occurred from Perception and Expectation prior to the service. For the Process of Services Delivery, users can evaluate the Perceived Services Quality by comparing the Process of Services Delivery and the user's prior expectation.

**Customer Loyalty:** Thanks to a fierce competition, marketing strategies are taken into account so as to draw customer's attention. In the meantime, various businesses have attempted to keep its customers as by retaining its customer base, this can help decrease the capital input regarding the cost of searching for new customers, which in turn lead to an increase in revenues and profits. Kotler proposed a theory claiming that if a business can keep 20% of its customers, this would result in the reduction of capital input, resulting in the additional 85% rise of revenue. Moreover, it is stated that (Bruhn and Grung 2000) for a business to search for its new clients and to improve its services so as to keep its customer loyalty, this has been considered as a key strategy that requires all actors within the demand and supply sides to cooperate in order to achieve customer's loyalty (Elizaberth, 2006: 116). The reason for businesses having to get better is due to that fact that all activities are interconnected. Also, Dick and Basu (1994) argued that customer loyalty refers to a tight relationship between the customer's projection towards such brands and the re-purchasing of such products or services.

Relational Logistics Service Quality-Albert Caruanan (2002) speaks of the loyalty for service quality as a level of behavior of the service users to come back again for another services. The result from a positive satisfaction would lead to customer loyalty upon his/her next purchase. Albert Carunan (2002: 36) also mentions that the service loyalty is the final impact that arisen from customer's behavior to re-purchase. This is a factor concerning marketing because if the customer holds strong loyalty, for any given new release of the product or service, the customer would surely seek to make a purchase, which is considered a major goal for all business. In addition, Zeithaml et al. (1996) also finds that the loyalty behavior in a way affects the re-purchasing tendency and this is deemed highly essential for all courses of businesses.

With reference to the studied literature review, it is discovered that the service quality significantly contributes to the building of customer satisfaction. It also plays an important role upon creating a sense of loyalty to all businesses. This is because transporting activities are considered a major part of Logistics and therefore it should contain relevant measurements with regards to the logistic system in order to assess the effectiveness produced by all relevant parties, of which can be done through the user's perception. This research accordingly has applied a theory proposed by John T Menzer on the study of the LSQ, which is considered as a medium and a centre for all communications between the users and the suppliers. The purpose is to measure the perception of the airline's passengers when receiving different services along different processes and to take the results to improve as well as develop the service quality and effectiveness, including eliminating unnecessary protocols in order to create optimal satisfaction for those traveling through the Suvarnabhumi international airport.

## Research Hypothesis

H1: The logistic service quality has a direct influence over the customer's satisfaction.
H2: The customer's satisfaction has a direct influence upon the customer loyalty.
H3: The logistic service quality has a direct influence over the customer's loyalty.

## Conceptual Framework

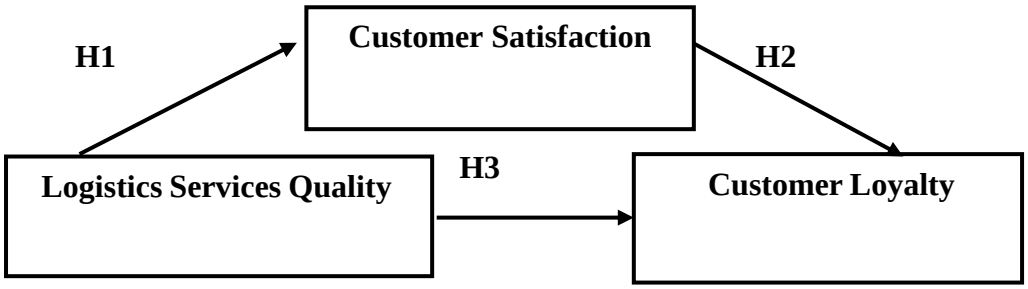


**Figure 1** Research's Conceptual Framework

## Research Methodology

**Research Subject and Sampling Group:** The research subject within this study are drawn from the airline passengers traveling through the Suvarnabhumi international airport aging between 15-50 years old, Thai and foreigners. The sampling group used for the data analysis is determined using the reconstruction of the Hair model, of which it proposes that a certain sampling group should be the size of more than 200 subjects and the sample size should be 10, 15 times of the variables that needed to be estimated. Hence, the researcher had opted to estimate the sample size of 10 times, with 37 parameter variables. Accordingly, the minimum size of the subject group is casted upon 370 subjects. The researcher also collects the needed information using questionaries as a quantitative tools, collecting 514 samples by employing the non-probability sampling, opting for a Convenience sampling of the arrival passengers who have already experienced the services while traveling through the Suvarnabhumi international airport, including those who come to pick up their relatives or waiting for taxi services during the month of April and October 2016.

**Data Collection:** Due to the fact that this study is a quantitative research, questionaries are being used as a research tool for the study. From conducting relevant literature review, a few changes have been made to the existing list of questions so as to ensure the consistency of the study. The questionnaire can be categorized into 3 main parts, namely, the logistic service quality, customer satisfaction, and customer loyalty. For the logistic service quality, a theory developed by Menzter et al (2001) is used upon the study of all 9 digestions of the LSQ, giving rise to 27 variables, with certain applications from a theory presented by Parasuraman, Zeithaml & Berry (1988), Parasuraman, Zeithaml, and Berry (1985) and Carol C. Bienstock (1997) and Mohammed Rafiq (2007) Daniel J. Flint (2001) and Thomas J. Goldsby (2010) including Theodore P. Stank (2003). The second part is the customer's satisfaction from traveling through the Suvarnabhumi international airport, literature reviews are also conducted basing on the work of Theodore P. Stank (2010) and Albert Carauna (2002) and Jari Juga and Jouni Juntunen, with 5 variables at play. The third part concerns the customer's loyalty with a literature reviews used basing on the work of Albert Carauna (2002) and Oliver.,R.L. (1999), containing 5 variables which lead to 37 parameter variables. Noted that the variables taken into considerations within this study will be applied to the 7 levels of the

Likert scale in order to differentiate the level of satisfaction produced from the quality assessment, 1 being the least satisfaction and 7 as the most satisfaction.

**Data Analysis:** Upon this study, the researcher lays out a framework with a purpose to present and analyze the data to be as much accurate and exemplary as possible. Relevant rechecks have been conducted upon the reliability of the questionaries through the use of validity measurement and the reliability test. 50 sets of pre-test have been employed so as to collect 464 data sets, and it is discovered that all questions contained on the list pass the established criteria, with Cronbach's Alpha (CR) over 0.70, Overall Reliability of the questionnaire at 0.965, Reliability of the logistic service quality equals to 0.975, Customer satisfaction at 0.927, and Customer loyalty at 0.864.

The data analysis can be categorized using narrative statistic analysis, namely, Frequency Value, Mean, and Percentage, using the SEM model upon the Exploratory Factor Analysis, rendering 3 dimensions of the airline logistic service quality. This is found to be in consistent with the work by Brady and Cronin (2001) in which it mentions the 3 dimensions of the airline logistic service quality, which are, the SerScape service quality, SerOrder, and SerProcess service quality. Later, the use of Confirmatory Factor Analysis is taken into consideration and it reveals that there are also 3 factors regarding the matter. The SEM model basing on the EFA, points that for the Standardized factor loading, this holds the value between 0.52-0.85, of which ever figures must be higher than 0.4 (Nullally and Berstein,1994). Also, it discovers that the research also contains AVE more than 0.5, in which the Convergent Valid (Fornell and Larcker, 1981) and CR value are listed below in Table 1.

**Table 1** Composite reliability: CR of the Average Variance Extracted: AVE within the SEM model for logistic quality

| **Variable** | **CR** | **AVE** |
|---|---|---|
| **Logistic Service Quality** | | |
| 1.SerScape | 0.912 | 0.534 |
| 2.SerOrder | 0.868 | 0.425 |
| 3.SerProcess | 0.923 | 0.571 |
| **Customer Satisfaction** | 0.924 | 0.722 |
| **Customer Loyalty** | 0.919 | 0.696 |

## Data Analysis Findings

**Demographic Factor:** From the overall data analysis, of all the 514 subjects, it is revealed that the majority of the subjects are male (44.9%) aging between26-35 years old (57.8%), received an undergraduate education (61.5%), working in private sector (42.8%), containing a monthly income around 15,000-30,000 THB (45.3%), having an experience in receiving international airline services approx. 1-2 times (55.4%), with the main purposes of traveling (57.3%).

**Correlation Factor, Logistic Service Quality, Customer Satisfaction, and Customer Loyalty:** Results from the analysis with respect to the satisfaction of international passengers reveal that logistic service factors contain high average Mean, this includes factors relating to customer satisfaction and customer loyalty. On this regards, the logistic service quality can be categorized into 3 main factors, namely, SerScape factor of 5.40 Average Mean, ranking as

Good, of which are comprised of several perception Average Mean value as follow: Information availability for customer at 5.402; Ordering Process at 5.389; the Readiness to provide services at 5.410. For the second dimension regarding the SerOrder quality, the total average mean amounts to 5.424, of which is higher than its SerScpae counterpart and can be grouped in to perceptive average mean value as follow: Timeliness at 5.526; Order Accuracy at 5.468; and Quality Order at 5.279. Lastly, with respect to the final dimension concerning the SerProcess quality, the figures for the total average mean is at 5.294, which can be regarded as Good. Individual average mean can be listed as follow: the status of the order at 5.245; the conflicts arising from the average mean at 5.157; the personnel quality affecting the average mean at 5.480, with perspective level placing as Good. Vis-a-vis the customer satisfaction, this is marked at 5.362 and the customer loyalty at 5.111. Consequently, this help us come to the conclusion that the airline passengers can mostly perceive the logistic service quality in the SerOrder aspect, followed by the SerScape and the SerProcess respectively. All of which, nevertheless, is deemed as Good.

Upon considering the standardized factor loading, this holds the value between 0.52-0.89. It is found that with regards to the satisfaction factor, this is placed as highest with figures ranged between 0.847-0.831, followed by Customer Loyalty, SerScape logistic service quality, SerOrder logistic service quality, and last but not least SerProcess logistic service quality. This represents that the service users contain the least perception towards the SerOrder dimension and therefore such matter should be improved so that it can create higher customer satisfaction. Also, it could also assist with the direct problem solving that can lead to a decrease in capital input together with increasing the logistic service quality as a whole.

## Research Findings

**The Analysis Findings of the Structural Model:** From the SEM model analysis, it is found that with regards to the relationship management, customer satisfaction and customer loyalty are al consistent with the empirical evidence, with the following statistic values: CMIN/DF = 2.604, RMSEA= 0.052,GFI = 0.860, NFI= 0.902 RFI =0.888, IFI =0.937, TLI =0.928, CFI = 0.937. All of which can be identified and found to be inconsistent with the statical values presented in the aforementioned Table 1.

**Table 2** Goodness of freedom standard and value of this model

| **Criteria** | **Standard Deviation** | **Statistics Value** |
|---|---|---|
| CMIN/DF | <5.00: Loo and Thorpe (2000) | 2.604 |
| Root Mean Square Error of Approximation (RMSEA) | <0.08: Hair el at. (1998) | 0.052 |
| Goodness of Fit Index (GFI) | > 0.8: Doll et al. (1994) | 0.860 |
| Normalised Fit Index (NFI) | ≥0.9: Bentler (1999), Hair el at. (2006) | 0.902 |
| Relative Fit Index (RFI) | ≥0.9: Bentler (1999), Hair el at. (2006) | 0.888 |
| Incremental Fit Index (IFI) | ≥0.9: Bentler (1999), Hair el at. (2006) | 0.933 |
| Tucker Lewis Index (TLI) | ≥0.9: Bentler (1999), Hair el at. (2006) 0.900 | 0.937 |
| Comparative Fit Index (CFI) | ≥0.9: Bentler (1999), Hair el at. (2006) | 0.937 |

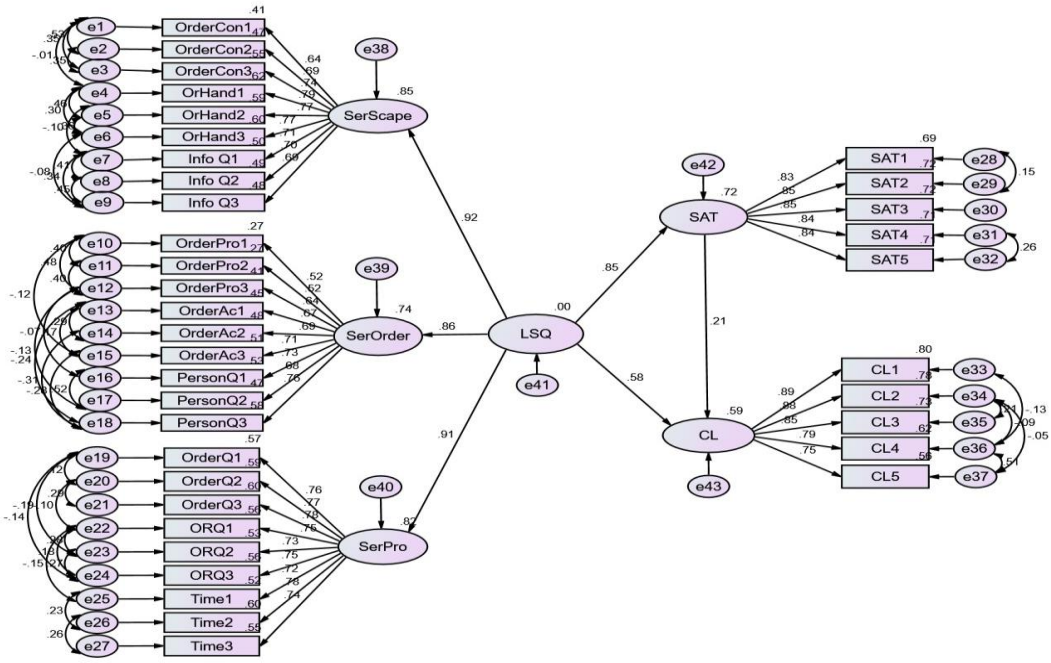


**Figure 2** SEM Model on Customer Loyalty Study
Note: ** Significant level at 0.01, CMIN/DF = 2.604, RMSEA= 0.052,GFI = 0.860, NFI= 0.902 RFI =0.888, IFI =0.937, TLI =0.928, CFI = 0.937

From Diagram 2, it reveals that the SEM model, either by survey or by confirmation within the study towards the logistic services quality, customer perceptions are placed as Highly Satisfactory. All 3 aspects of the logistic service quality have an impact upon the customer satisfaction. Airline passengers can also perceive and recognize the logistic service quality, respectively from highest to lowest, SerScape, SerOrder, and SerProcess. All 3 dimensions are placed as Good, of which relevant improvements amongst them can lead to higher satisfaction.

**Table 3** Correlation Matrix

| | **Logistic Service Quality** | **Customer Satisfaction** | **Customer Loyalty** |
|---|---|---|---|
| Logistic Service Quality | 1 | | |
| Customer Satisfaction | 0.818 | 1 | |
| Customer Loyalty | 0.716 | 0.708 | 1 |

Table 3 reveals that the correlations of all 3 variables, namely, logistic service quality, customer satisfaction, and customer loyalty, the correlation between the logistic service quality and the customer satisfaction is valued at 0.818, while the logistic service quality and the customer loyalty is placed at 0.716 and the correlation between the customer satisfaction and customer loyalty is pointed out at 0.708.

**Table 4** Direct, Indirect, and the Overall Impacts

| | **Indirect** | **Direct** | **Total** |
|---|---|---|---|
| 1. Impact from Logistic Service Quality on Customer Satisfaction | - | 0.85 | 0.85 |
| 2. Impact from the Customer Satisfaction on Customer Loyalty | - | 0.21 | 0.21 |
| 3. Impact from Logistic Service Quality on Customer Loyalty | 0.18 | 0.58 | 0.76 |

Table 4 represents the impact, both direct and indirect, from the logistic service quality. The study finds that the direct impact from Logistic Service Quality on Customer Satisfaction is valued at 0.85, while the impact from the Customer Satisfaction on Customer Loyalty is placed at 0.58, and the indirect impact from the Customer Satisfaction on Customer Loyalty also at 0.18, rendering a total of average impact at 0.76. The direct impact from the Customer Satisfaction on Customer Loyalty is also valued at 0.21, this allow us to make a conclusion that upon developing customer loyalty, a focus should be firstly placed on the improvement of logistic service quality in order to achieve customer satisfaction and leading later onto the customer loyalty when choosing airline operators.
Table 4 represents the impact, both direct and indirect, from the logistic service quality. The study finds that the direct impact from Logistic Service Quality on Customer Satisfaction is valued at 0.85, while the impact from the Customer Satisfaction on Customer Loyalty is placed at 0.58, and the indirect.

**Table 5** Results of the Hypothesis Experiment

| **Hypothesis** | **Standardized path coefficients** | **P-Value** | **Results** |
|---|---|---|---|
| H1: The logistic service quality has a direct influence over the customer's satisfaction. | 0.85 | 0.00 | Accepted |
| H2: The customer's satisfaction has a direct influence upon the customer loyalty. | 0.21 | 0.00 | Accepted |
| H3: The logistic service quality has a direct influence over the customer's loyalty. | 0.58 | 0.00 | Accepted |

Results from the hypothesis test indicates that when the statistic results which are used to analyze the consistence of the SEM model, all figures have passed the criteria on the consistency with respect to the empirical data and the consistent SEM model, as a result, when taking such tools into account so as to fine a common influencing factor, it is found that Hypothesis 1 (H1) holds the standardized path coefficient at 0.85, with P-Value = 0.000, having a statistic significance at 0.001. The study also points out that P-Value = 0.000, which is lower than the significance at 0.001. Acceptance is agreed upon for H1 under the assumption that there is a significant correlation of the direct impact from logistic service quality on customer satisfaction, with 0.85 coefficient. When tested, H2 regarding customer satisfaction (SAT) holds a direct influence over customer loyalty (CL). From the hypothesis test, it is found that P-Value = 0.000, lower than the statistic significance at 0.05, this implies that customer satisfaction (SAT) contains a direct impact over customer loyalty (CL), with

statistic significance value of 0.05. This indeed is consistent with he established hypothesis, in which the value of path analysis placed at 0.21. It also discovers that LSQ contains an impact over customer loyalty (CL). From the hypothesis test, it is found that P-Value = 0.000, lower than the statistic significant value placed at 0.05. This shows that relationship ordering (RO) contains a direct impact upon customer loyalty (CL), with statistic significant value of 0.05, which is consistent with the established hypothesis, holding the value of the path coefficient at 0.58

## Discussion

From the study of LSQ which impacts customer satisfaction and customer loyalty, it is revealed that all factors are depended upon one another. The LSQ casts the highest impact upon the customer satisfaction, whilst it also extends its influences upon the customer loyalty towards airline operators. From such hypothesis test, it allows us to grasp that if we wish to improve the airline services, efforts should be put into the improvement of the LSQ. This is consistent with the study conducted by Mentzer, Flint & Hult (2001) where it examines an empirical data concerning the LSQ which affects the customer satisfaction. The result is also found to be consistent with the work carried out by Mohammed Rafiq (2007), in which the author studies the LSQ perception towards the service providers and concludes that LSQ significantly affects the overall customer satisfaction. For the overall performance, if the manager can trulls understand its customers, either within or outside the LSQ, this would lead to a true customer satisfaction being achieved. This is also consistent with the work written by Parasuraman Zeithaml et.al, of which the research purports to examine the service quality of different 4 businesses and finds that service quality is a key success factor towards customer satisfaction. Other similar researches include the work conducted by Photis M Panayides (2005) which mentions that the use of logistic activities confers the same result as those produced in the hypothesis test i.e. the LSQ holds an impact upon the building of customer satisfaction and those relevant to the services in question.

With regards to the customer satisfaction which impacts an aspect of customer loyalty to certain airline, it is suggested that airline operators should adjust and amend some of their service processes in order to respond the customer's needs, while decreasing the capital input, increase competitiveness, and retain their loyal customers.

Regarding the satisfaction that affects customer loyalty, it is found that there is a direct influence casted upon the matter i.e. if the customer feel satisfied to the service, this will lead to the customer loyalty inevitably. This is coherent with the work carried out by Albert Caruana (2000) who studies on customer loyalty in order to examine upon the issue, investigate the service quality which is believed to the an intervening variable affecting the customer satisfaction, leading to re-purchasing. Also, the research presented by John E. Spillan (2013) and Theodore P. Stank (2003) contain similar results. The studies are conducted by looking into the LSQ effectiveness that impacts the market share. It is found that customer satisfaction contains significant direct influence provided that it can make its customers feel satisfied and therefore wish to return to the services given. This can lead to a conclusion that within the LSQ study, service users contain similar perceptions, all ranked as Good. The airline services known as being good for providing customer satisfaction all possess the following factors: timeliness-the amount of time spent on checking in and baggage claim, followed by; the knowledge and expertise of the service providers-airline personnel are informative and perform their duties with reliability, friendly onboard staff, sufficient number of checking in counters; the accuracy of the service quality-ordering and processing which give highest weight to the customers, ranging from highest to lowest, respectively, the details of the boarding passes showing clear boarding gate and boarding time, traveling to the gate in time as stated on the boarding passes, the accuracy and precision

when loading the luggages, and last but not least the problem management aspect or the service providers. This problematic situations may include the informing of details regain the emergency exit and the demonstration of handbooks. Services provided along each processes should be swift in order to foster the customer loyalty. It is apparent that LSQ improvement should be the first strategic move upon creating customer satisfaction, which will eventually lead to their loyalty towards the airline operators.

## Recommendations

The research findings indicate that nowadays there are more and more airline passengers as well as higher number of airline operators, this results in a fierce competitive environment. Also, there are changes with regards to the passenger all the time, therefore, the research upon the issue should draw a sampling group basing on occupation in order to whether each occupation would pay different attention to the logistic service quality, which would lead to an increase in the ticket prices or an improvement upon relevant service management so as to respond to the needs of the customers. What is more, the mixed research methodology between quantitative and qualitative, using questionaries in order to study any possible factors that could effect the perspectives casted upon the logistic service quality as viewed by the customers, and use this as a study variables that could be employed upon the relevant quantitative analysis. In addition, it can be used to analyze airports in other countries so as to compare the research findings, examine different service strategies employed by others, evaluate the differences arising out of the studies whether they are similar or different to one another, improve other relevant service qualities by seeing which aspects should be improved and how much monetary support might need to be spent upon the matter in order that the industry can respond more effectively to the customer's needs and demands.

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