Journal of Global Business and Social Entrepreneurship (GBSE)
Vol. 4: No. 10 (January 2018) page 72-86 | www.gbse.com.my | eISSN : 24621714

ASSESSING PASSENGERS' SATISFACTION TOWARDS THE NORTHERN REGION AIRLINES SERVICE QUALITY

Shamsinar Ibrahim
Management Department, Faculty of Business Management
University Teknologi MARA Cawangan Kedah
08400 Merbok, Kedah
Tel: +060197163525
E-mail: shamsinar508@kedah.uitm.edu.my

Hasyimah Razali
Management Department, Faculty of Business Management
University Teknologi MARA Cawangan Kedah
08400 Merbok, Kedah
Tel: +060135365712
E-mail: hasyimah511@kedah.uitm.edu.my

Masilah Mohamad
Management Department, Faculty of Business Management
University Teknologi MARA Cawangan Kedah
Tel: +060193116998
E-mail: masilah@kedah.uitm.edu.my

Siti Fairuza Hassam
Operation Department, Faculty of Business Management
University Teknologi MARA Cawangan Kedah
Tel: +060196425853
E-mail: fairuza@kedah.uitm.edu.my

Kamarul Ariffin Mansor
Mathematical & Science DepartmentFaculty
University Teknologi MARA Cawangan Kedah
Tel: +060124336901
E-mail: ariff118@kedah.uitm.edu.my

Abstract: *Service industries are widely expanding throughout the globe. The changes of environment climates have yet seen to affected certain industries especially airlines service quality. The increase number of airlines passenger keeps skyrocketing year by year for several reasons repeatedly mentioned in several studies. Nevertheless, would the upsurge number indicate the passenger's satisfaction on the service offered by the airlines? This has becoming a hot topic to discuss, especially on the recent tragedy involved local airlines services, are the passenger's view the same? Passenger's satisfaction is one of the major tools in service quality improvement specifically which involved the safety of the passengers throughout the usage of the airlines services. Therefore, it is crucial to documented as well as empowered the passengers to express their satisfaction in a proper manner.*

Keywords*: passenger's satisfaction, SERVQUAL, airlines*

Sub-theme: *operation management, management, quality management*

Introduction

Service sector is escalating worldwide and the activity of measuring the relevancy of service quality continuously increased over the years. The aviation sector is one of the service sectors which provide transportation for the passengers from one place to another, especially when the distance involved are far (Archana & Subha, 2012). Service quality is highly needed for the aviation sector to improve their market share and further enhance their financial performance in domestic and international markets (Abas, Nour, Diana & Issam, 2014; Dutt & Khan, 2005). According to J.D. Power (2015), the airline industry is evolving from merely providing transportation to being hospitality and services business, and the carriers most focused on providing a pleasant experience are being rewarded with higher customer satisfaction and loyalty. Many airlines have lost track of the true needs of their passengers and are sticking to the outdated view of what airline service is all about (Abas et al. 2014).

Delivering a high quality service to passengers is important so that airlines can survive and strengthen their competitiveness (Balcombe, Fraser & Harris, 2009; Brady, Cronin & Hult, 2009). Consequently, research related to service quality and customer satisfaction in the airline industry has been growing significantly (Siam, Koh & Shetty, 2006). Generally, the goal of airlines is to develop services that attract passengers and keep them satisfied and loyal, reflecting their positive experience to others. In reality, keeping existing passengers is much cheaper than acquiring new ones (Abas et al. 2014).

Airports in Malaysia are managed, supervised and developed mainly by Malaysia Airports Holding Berhad (MAHB) which a government is owned company (Oxford Economic, 2011). MAS, Air Asia, Firefly and Malindo Air are collaborating with MAHB. The collaboration between these two services have no doubt where the airline

tickets counter is built in the terminal to ease the process of buying ticket, the counter for registration, the security gate, taxiway, runway, apron, and the aero bridge to load and unload the passengers are provided by MAHB. Based on Malaysia statistic, the number of passengers increased in 2014 with 657,932 passengers compared to 2013 only 534,984 passengers at the north airport (Malaysia Airport, 2014). However, improvement is needed continuously to ensure their expectation and perception is closer. In this study, the researchers were focusing on SERVQUAL dimension by Parasuraman et al. (1988) and add one more element together; catastrophic. Since the issue related to aircraft crash increases especially in Malaysia, whereas we had faced a big lost when MH370 still not found until today followed by MH17 cases. In addition, there is little research done in this industry, Malaysia aircraft service sector. This study focuses on factors influences the passengers' satisfaction regardless of what happened with the countries' airlines.

Literature Review

Airline industry is complex and differs from other industry; therefore, it is crucial to access on the service quality (Feng and Jeng, 2005). Ostrowski et al. (1993), Curry and Gao (2012), Chen and Hu (2013), and Namukasa (2013); Jiang & Zhang, 2016), to name a few; have conducted a study which focusing on the relationship between service quality and customer satisfaction and loyalty in the airline industry context. Most of industry had acknowledge the importance of having a good service quality as it can enrich profit, satisfy and retain customers as well. Buttle (1996) concluded that firm can achieve competitive advantage if they can provide excellent service quality. Hu & Ho (2016) provide that, currently the competition between airlines has recently become more severe with the service quality of airlines receiving more attention than ever before. This surely proved that high-quality service has become a de facto requirement for this industry (Park et al., 2004), as it helps companies gain and maintain customer loyalty, satisfaction, and retention (Hu et al., 2009). Therefore, it is necessary to understand what consumers really want in defining and delivering high-quality service (Zeithaml et al., 1990). Service quality is important for industry which prone to improve the business performance, strengthen core competencies and position themselves more strategically in the market place (Cronin & Taylor 1992, Jain & Gupta 2004).

In discussing the definition of service quality, Liou et al. (2011) argued that there is no universal definition of service quality, which may take on a different meaning in different industries. On the conceptualize concept, service quality can be based from the physical goods and customer satisfaction literature (Brady & Taylor, 2001). Service quality is defined as customers' expectations from the service received and their perception of the service process that they have experienced (Carman, 1990; Caruana, 2002; Grönroos, 2007; Parasuraman et al., 1985, 1988; Chiu, Liu, & Tu, 2016; Ueltschy & Krampf, 2001; Zeithaml & Parasuraman, 2003). Lewis (1993) shared the important dimensions of service quality are from customer perspectives and perception. Service quality denotes to consumers' subjective impressions towards the efficiency and effectiveness of the service delivery process which provided by the service provider (Chen and Chang, 2005; Park et al., 2004). In the context airline industry service quality may be viewed as a driver of

passenger satisfaction, loyalty, and airline selection (Park et al., 2006). Bateson and Hoffman (2011) provide that service quality is an action performed by a long-term, overall evaluation of performance. It clarifies the service delivery, as well as the outcomes, affects the perceptions of customers about the quality.

Zeithaml (1988) defined service quality as the customer's judgment towards the overall excellence or superiority of the service. The term service has been defined differently in-service quality literature. Du Plessis and Rousseau (2003) define services as "those separately identifiable, essentially intangible activities which provide want satisfaction and which are not necessarily tied to the sale of a product or another service". While Payne-Palacio and Theis (2001) define services as "the intangible (untouchable or inconsumable) aspect of the dining out experience".

Firm need to improve the service quality from time to time as it can increase both profits and client base through new and repeat purchases from loyal customers (Gilbert and Wong, 2002). In the view of airline industry, service quality is measured based on passenger perception on the operational performance measurement and benchmarking purposes. Besides, regulators and governments consistently monitor the service quality to assure that the interests of airport users are not being compromised (Francis et al., 2002; Bezerra & Gomes, 2016).

SERVQUAL is used to measure the service quality using the gap theory model. It contained five service quality dimensions included reliability, assurance, tangibility, empathy and responsiveness, with 22 attributes that define service quality as the degree of discrepancy between customer expectation and customer perception of the service performance they received (Gronross, 1982; Parasuraman et al., 1988; Wongrukmita and Thawesaengskulthai, 2014; Jeeradist et al., 2016).

Kang and James (2004) contended that in order for an organization to be remembered by the customer, they must show a positive and memorable image in order to enhance good customer perceptions of service quality. Thus, perceived service quality is actually the outcome based on the assessment of customers' expectations and perceptions, taking into account the effect of the company image. To add; Kenyon and Sen (2015) have listed that physical aspects of the service (e.g., equipment, facilities), and the firm's brand image is the factors that bring an effect on customer perceptions about quality.

However, regardless of general acknowledgement towards the significant of service quality', academics have yet to agree on how it should be measured in terms of instruments, dimensions and methods (Brady & Cronin, 2001). Studies have not only discovered the service quality measurements but also investigated the consequences of service quality especially the emotional aspect such as customer satisfaction (Bloemer, De Ruyter, & Peeters, 1998; Howat & Assaker, 2013; Oliver, 2010). Despite the large number of studies, their findings are considered implausible (Brady & Cronin, 2001).

The term 'service quality' has been used to evaluating service quality through customer satisfaction. The outcomes of offering superior service quality include increasing an airline's market share. The efforts to improve the adherence towards the aviation safety should be prioritized to improve airline image (Jeeradist, Thawesaengskulthai, & Sangsuwan, 2016). Since the perceived level of quality is an predecessor for customer satisfaction with the service performance, measuring service quality using customer-based variables; it may guide the organization's efforts to better deal with customer needs (Cronin et al., 2000; Falk et al., 2010; Wilson et al., 2012; Bezerra & Gomes, 2016). As a result, the organizations that provide excellent service quality do experience higher economic returns and also have a more satisfied customer base (Aaker & Jacobson, 1994; Gilbert et al., 2004; Gilbert & Veloutsou, 2006). Szwarc (2005) contended that service quality increases customer satisfaction, which enforces customer loyalty and in turn leads to increased corporate profits. Satisfaction has been defined as the feeling of pleasure or disappointment when a customer compares a product's perceived performance with his or her prior expectations (Oliver, 1981; Tse and Wilton, 1988).

Many researchers had provided variety definition from a distinct perspective about satisfaction. Zeithaml and Bitner (2003) define satisfaction as a judgment that a product or service feature (or the product) or service itself) provides a pleasurable level of consumption-related fulfillment while Choi and Chu (2001) consider satisfaction as an evaluation by customers that the food or service they have received is at least as good as it is supposed to be. Oliver (2015) has defined customer satisfaction as "the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provide a pleasurable level of consumption-related fulfillment. Customer satisfaction also identified as a crucial factor affecting customers' retention rates (Cronin et al., 2000a; Jin, Lee, & Huffman, 2012). Therefore, Holbrook (1994) suggests that customer satisfaction is one of the goals of marketing activity.

Clearly customer satisfaction is a post-decision experience. Service quality and customer satisfaction are closely related but not interchangeable, although both concepts involve a comparison of expectations of quality and the actual service received (Jiang & Zhang, 2016). Customer satisfaction is critically significant as it reflects subjective customer evaluations of the attribute performance associated with the consumption experience (Cronin & Taylor, 1992). Zeithaml (1988) said that perceived value is important in the consumer purchase decision making, in suggesting the behavioral intentions of the consequences of the perceived value. As the customers perceiving high levels of value from consumption experiences, they will likely positively express positive behavioral intentions. Customers who have previous experiences that they perceive as highly valuable in terms of efficient and economical aspects will be more likely to have revisit intentions (Swinyard, 1993). Therefore, it has become ubiquitous for service providers especially in the airline industry to seek out competitive advantages in providing superior service (Lee at al., 2004).

Method

Participants. This study attempts to assess the satisfaction among airlines users in Sultan Abdul Halim Airport in the state of Kedah, Malaysia. It involved 331 passengers in the departure hall participated in the study. However, 12 questionnaires were incomplete make it only 319 responses were analyzed. SERVQUAL adopted from Chilembwe J.M (2014) was used and passenger's satisfaction and catastrophe questionnaires were adopted from online survey form. This study employed cross sectional research method using self-administered questionnaire that was distributed to the respondents. The questionnaire consists of questions on respondent profile as well as items on the main factors under study. The respondents' profile was divided into two areas, the socio-demographic variables (age and gender) and respondents' socio-economic indicators (education, traveling purposes, traveling frequency, and income). **Measurement**. In addition, there are 25 items measured using a 5-point Likert scale ranging from 1 = Strongly Disagree until 5 = Strongly Agree was used to capture the information on the six (6) independent factors (Reliability, Assurance, Tangible, Empathy, Responsiveness, and Catastrophe) and one dependent factor (Customer Satisfaction). A convenient sampling technique was employed to specifically select the respondents to participate in this study. 319 completed questionnaires were collected from the survey. A brief information on the completed response obtained, about 51.7% (165 respondents) were male and the remaining were female respondents. In addition, majority of the respondents aged between 21 years old until 30 years (38,9%) and majority of the respondents hold a Bachelor's degree (35.7%). In addition, majority of the respondents also has income more than RM4,000 (36.4%).

All collected responses were then recorded and keyed in statistical software for analysis. This study uses IBM SPSS Statistics version 21 and open source R package *lavaan* (Rosseel, 2012 & R Core Team, 2014) to analyze the responses and testing the proposed hypothesis. The analysis started with a preliminary evaluation on the validity and reliability of the instruments used through confirmatory factor analysis (CFA) using R package *lavaan* and internal consistency check using Cronbach's alpha reliability measures. Prior to the hypothesis testing procedure, the data set was first check for any violation of the analysis assumptions which include univariate normality assumption and univariate outlier detection. Correlation analysis was presented first prior to multiple regression analysis to check on possible relationship between the independent and dependent variables as well as preliminary check on any muticolinearity problem. Finally, hierarchical multiple linear regression procedure was employed to test the hypothesis proposed earlier.

Findings and Discussion

CFA procedure was carried out using R package *lavaan* to ensure that the data fit the theoretical framework set earlier. Fit measures were used to validate the model. Based on the CFA result, the data fits well with the proposed theoretical model for its main construct. The Normed Chi-Square (χ^2/df) is 1.837 which is within the range of value

from 1 till 3 as suggested by Bagozzi and Yi (1988). In addition, the Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI) were both above the recommended value of 0.9 as suggested by Bentler and Bonett (1980) and Bentler (1990) respectively. Both measures reported a value of 0.939 and 0.948 respectively. Other measures used to evaluate the model validity from the CFA procedure are the Root Mean Square Error of Approximation (RMSEA) which recommended to be lower than 0.80 and Standardized Root Mean Square Residuals (SRMR) which is suggested to be below 0.1. The CFA procedure reported both values fulfill the minimum criteria such that the values obtained were 0.052 and 0.040 respectively. By examining the CFA result, it indicates that the data collected fit well with the proposed theoretical model and further analysis could be carried out to test the hypothesis set earlier in this study. The items used in the questionnaire were also check for its internal consistency based on its Cronbach's alpha reliability value. It is recommended to have a Cronbach's alpha value greater than 0.7, while any value less than 0.7 but greater than 0.6 is acceptable for certain studies, any values between 0.5 to 0.6 is poor and should be handle with caution, and any value less than 0.5 is unacceptable (Sekaran and Bougie, 2013). In this study, only the factor Catastrophe (Cronbach's alpha value 0.544) do not meet the minimum recommended value of 0.7. All other factors (Tangible, Empathy, Assurance, Responsiveness, Reliability, and Customer Satisfaction) are well above recommended value of 0.7. The reliability analysis for these factors reported a Cronbach's alpha value of 0.751, 0.872, 0.802, 0.780, 0.783, and 0.855 respectively.

Once the validity and reliability has been established, the main constructs were created using the mean score approach based on the CFA and Reliability test results. No items for all the constructs was deleted in this study. Table 1 represent the descriptive summary of the main construct under study. The mean score for each construct ranges from as low as 0.736 up to as high as 4.164 which indicate that on average the respondent's responses somewhat agree on the items stated in the questionnaire. In addition, the standard deviation is all above 0.5 which imply that there exists variability in the mean score value and can be considered for further analysis. The skewness and kurtosis statistics also lie within the value of -1 and 1, which imply univariate normality.

Table 1
Summary of the descriptive measures for the main construct (N = 319).

Construct	**Mean**	**Std. Deviation**	**Skewness**	**Kurtosis**
Tangible	3.899	0.732	-0.693	0.003
Empathy	3.956	0.729	-0.716	-0.351
Assurance	3.962	0.615	-0.663	-0.182
Responsiveness	4.067	0.657	-0.824	0.664
Reliability	4.036	0.632	-0.779	0.525
Catastrophe	3.736	0.574	-0.391	0.076
Customer Satisfaction	4.164	0.564	-0.999	0.818

Prior to hypothesis testing through hierarchical regression analysis, correlation analysis on the main construct were employed to investigate any significant association between the independent and dependent variables. Table 2 provides the summary of such analysis.

Table 2
Summary of correlation analysis between the independent and dependent variables (N = 319).

	[1]	**[2]**	**[3]**	**[4]**	**[5]**	**[6]**	**[7]**
[1] Tangible	-						
[2] Empathy	.689**	-					
[3] Assurance	.677**	.795**	-				
[4] Responsiveness	.515**	.671**	.668**	-			
[5] Reliability	.627**	.674**	.673**	.598**	-		
[6] Catastrophe	.388**	.500**	.507**	.463**	.492**	-	
[7] Customer Satisfaction	.585**	.708**	.673**	.609**	.704**	.533**	-

** $p < .01$

Result reported showed that exist moderate to strong significant association of the independent variables with the dependent variable. The strength of association ranges from 0.533 to 0.708 which indicates total variance explained approximately between 28% to 51%. Further examination on the intercorrelation between the independent variables imply that no issue of multicollinearity exist since all the intercorrelation statistics were below 0.85.

The final analysis procedure employed in this study is by using hierarchical multiple linear regression analysis. In this study, hierarchical regression analysis was used to identify if inclusion of catastrophe factor makes any significance influence towards customer satisfaction while controlling the socio-demography and socio-economy influence on customer satisfaction. In this analysis, four models were evaluated to test the significant influences of the independent variables on the dependent variable. The analysis was run several times for preliminary check on the assumption of multivariate normality, homoscedasticity, linearity and outlier detection before the result was established. No violation of multivariate normality, linearity and homoscedasticity were found, however there are some issues on the existence of outliers based on the standardized residuals and Mahalanobis scores. Thus, 6 cases were removed due to this issue.

In Step 1, socio-demography factors (Gender and Age) were entered for the first model. Age factor were recoded as dummy variables based on the category presented in the questionnaire. The first model explained approximately 8.4% of the total variance in Customer Satisfaction, F (5,307) = 5.818, $p < .001$.

In Step 2, socio-economic factors (Education, Travel Purpose, Travel Frequency, and Income Level) were added to the model which resulted in total variance explained on Customer Satisfaction increases to 15.9%, F (11,301) = 5.177, $p < .001$. This is a significant increase of 7.3% total variance explained in Customer Satisfaction by the socio-economic factors, R^2 change = 0.073, F stat change (6,301) = 4.329, $p < .001$.

In Step 3, the service quality dimensions (Tangible, Empathy, Assurance, Responsiveness, and Reliability) were added to the model resulted in a total variance explained jumped to 66.8%, F (16,296) = 37.239, $p < .001$. Inclusion of the service quality dimension has significantly contributed about 50.9% of the total variance explained on Customer Satisfaction, R^2 change = 0.509, F stat change (5,296) = 90.787, $p < .001$.

Finally, in step 4 the Catastrophe factor was added to the model that shows the total variance explained to on the whole model increase to 67,6%, F (17,295) = 36.231, $p < .001$. The final inclusion of Catastrophe factor has added a significant increase of 0.8% of the total variance explained in Customer Satisfaction, R^2 change = 0.008, F stat change (1,295) = 90.787, p =.007. Examining the final model coefficient summary indicates that, for socio-demography factor, only those who age below 21 years old, between 21 and 30 years old, and between 41 to 50 years old has a significant contribution on Customer Satisfaction. Meanwhile, no factors under the socio-economic factors have a significant contribution in predicting the Customer Satisfaction level.

Further examination on the main constructs under study, indicate there is enough evidence to support the hypothesis that Tangible, Empathy, Responsiveness, Reliability, and Catastrophe have a positive influence on Customer Satisfaction level.

This study indicates some similarities of end results with other studies in which tangibility, empathy, responsiveness and reliability do influence the variability of air services users. These findings further justifying the important and critical effort to ensure the best services conveyed to the passengers as the main users of the airlines services.

Our airlines were shocked by the disappearance of two aircraft a few years ago, and this scenario expected to affect the view of airlines users whether it is safe for them to ride in one because of working purposes.

Table 3
Summary result hypothesis test on final hierarchical regression model (N = 313)

Factors	**Beta**	**SE**	***t***	***p***	**Decision**
Gender	.044	.038	1.267	.206	Not Supported
AgeDummy1 Below 21	-.113	.095	**-2.121***	.035	**Supported**
AgeDummy2 21 - 30	-.158	.080	**-2.230***	.027	**Supported**
AgeDummy3 31 - 40	-.078	.076	-1.221	.223	Not Supported
AgeDummy4 41 - 50	-.162	.085	**-3.322****	.001	**Supported**
Education	.004	.060	.096	.923	Not Supported
Travel Purpose	.022	.045	.540	.589	Not Supported
Travel Frequency	-.028	.012	-.710	.479	Not Supported
IncomeDummy1 800 - 1500	.038	.072	.713	.476	Not Supported
IncomeDummy2 1501 - 3000	.052	.062	1.124	.262	Not Supported
IncomeDummy3 3001 - 4000	.003	.058	.069	.945	Not Supported
Tangible	.110	.041	**2.110***	.036	**Supported**
Empathy	.238	.049	**3.670*****	.000	**Supported**
Assurance	.030	.057	.472	.637	Not Supported
Responsiveness	.102	.043	**1.989***	.048	**Supported**
Reliability	.360	.049	**6.815*****	.000	**Supported**
Catastrophe	.113	.040	**2.709****	.007	**Supported**

** p < .05, ** p < .01, *** p < .001*

References

Archana, R., and Subha, M. V. (2012). "A Study on Service Quality and Passenger Satisfaction on Indian Airlines", *International Journal of Multidisciplinary Research*, Vol. 2 No. 2, pp. 50 – 63

Aaker, D. A., & Jacobson, R. (1994). The financial information content of perceived quality. *Journal of Marketing Research*, 31 (2), 191-201.7

Al-Refaie, A., Bata, N., Eteiwi, D., & Jalham, I. (2014). Examining factors that affect passenger's overall satisfaction and loyalty: Evidence from Jordan airport. *Jordan Journal of Mechanical and Industrial Engineering*, *8*(2), 94–101.

Bagozzi, R. P. & Yi, Y. (1988). On the evaluation of structural equation models. Journal of the Academy of Marketing Science (16), 74-94.

Baker, D. M. A. (2013). Service Quality and Customer Satisfaction in the Airline Industry: A Comparison between Legacy Airlines and Low-Cost Airlines. *American Journal of Tourism Research*, *2*(1), 67–77. http://doi.org/10.11634/216837861302317

Balcombe, K., Fraser, I. and Harris, L. (2009) Consumer willingness to pay for in-flight service and comfort levels: A choice experiment. *Journal of Air Transport Management*, 15 (5). pp. 221-226. ISSN 0969-6997

Bartolata, I., Basmayor, L. M., Guia, M. G. V. De, Hwang, J. Y. H., Imatong, F. A., & Loyola, J. C. (2016). Assessing the Service Quality of An International Airport Terminal as Perceived by Tourist travelers : The Caseof NAIA Terminal-3 in Manila , Philippines, *3*(2), 761–782.

Bateson, J. E. G., & Hoffman, K. D. (2011). *Services Marketing (4th ed.).* United States: South-Western College.

Bentler, P.M. & Bonnet, D.C. (1980), "Significance Tests and Goodness of Fit in the Analysis of Covariance Structures," Psychological Bulletin, 88 (3), 588-606.

Bentler, P.M. (1990), "Comparative Fit Indexes in Structural Models," Psychological Bulletin, 107 (2), 238-46.

Berry, L.L., (1985). A conceptual model of service quality and its implications for future research. J. Mark. 41e50. Parasuraman, A., Zeithaml, V.A., Berry, L.L., 1988. Servqual. J. Retail. 64 (1), 12e40.

Bezerra, G. C. L., & Gomes, C. F. (2016). Measuring airport service quality: A multidimensional approach. *Journal of Air Transport Management*, *53*, 85–93. https://doi.org/10.1016/j.jairtraman.2016.02.001

Bloemer, J., De Ruyter, K., Peeters, P., (1998). Investigating drivers of bank loyalty: the complex relationship between image, service quality and satisfaction. *International Journal of Bank Marketing*, 16(7), 276-286.

Brady, M. K., Cronin, J. J., (2001). Some new thoughts on conceptualizing perceived service quality: a hierarchical approach. *The Journal of Marketing*, 34-49.

Buttle, F., (1996). SERVQUAL: review, critique, research agenda. *European Journal of Marketing*, 30(1), 8-32.

Carman, J.M., (1990). Consumer perceptions of service quality: an assessment of the SERVQUAL dimensions. J. Retail. 66 (1), 33e55.

Caruana, A., (2002). Service loyalty: the effects of service quality and the mediating role of customer satisfaction. Eur. J. Mark. 36 (7/8), 811e828.

Chen F-Y, Chang Y-H. (2005). Examining airline service quality from a process perspective. *Journal of Air Transport Management*.;11(2):79-87. doi: 10.1016/ j.jairtraman.2004.09.002

Chiu, S. C., Liu, C. H., & Tu, J. H. (2016). The influence of tourists' expectations on purchase intention: Linking marketing strategy for low-cost airlines. *Journal of Air Transport Management, 53*, 226–234. http://doi.org/10.1016/j.jairtraman.2016.03.010

Choi, T. Y., & Chu, R. (2001). Determinants of hotel guests' satisfaction and repeat patronage sin the Hong Kong hotel industry. *International Journal of Hospitality Management*, 3 (20) , 277-297.

Cronin, J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing, 76*(2), 193–218. http://doi.org/10.1016/S0022-4359(00)00028-2

Cronin, J., & Taylor, S. A. (1992). Measuring Service Quality: A Reexamination and Extension. Journal of Marketing, 56 , 55-67. Devellis, R. F. (1991). Scale Development: *Theory and Applications. Newbury Park: SAGE Publications*

Curry, Neil and Gao, Yuhui (2012) Low cost airlines - a new customer relationship? an analysis of service quality, service satisfaction and customer loyalty in a low cost setting. S*ervices Marketing Quarterly*, 33 (2). pp. 104-118

DuPlessis, P. J., & Rousseau, G. G. (2003). Buyer behaviour: A multi-cultural approach (3rd ed.). *Cape Town: Oxford University Press Southern Africa*

Feng, Cheng-Min, Jeng, Kung-Yeun, (2005) Analyzing airline service improvement strategy through importance and performance analysis. J. East. Asia Soc. Transp. Stud. 6, 782e797

Francis, G., Humphreys, I., Fry, J., (2002). The benchmarking of airport performance. *J. Air Transp. Manag*. 8 (4), 239e247. http://dx.doi.org/10.1016/S0969-6997(02) 00003-0

Gilbert, D., Wong, R.K.C., (2002). Passenger Expectations and Airlines Services: a Hong Kong Based Study. Elsevier. http://dx.doi.org/10.1016/S0261-5177(03) 00002-5.

Gilbert, G. R. & Veloutsou, C. (2006). A cross-industry comparison of customer satisfaction. *The Journal of Services Marketing*, 20 (5), 298-308.

Gilbert, G. R., Veloutsou, C., Goode, M. M. H. & Moutinho, L. (2004), Measuring customer satisfaction in the fast food industry: A crossnational approach. *The Journal of Services Marketing*, 18 (5), 371-83.

Gronroos, C., (2007). Service Management and Marketing: Customer Management in € Service Competition. *John Wiley & Sons*.

Gronross, Christian, (1982). *An applied service marketing theory*. Eur. J. Mark. 16 (7), 30e41.

Holbrook, M. B., (1994). The nature of customer value: An axiology of services in the consumption experience. In R. T. Rust & R. L. Oliver (Eds.), Service quality: *New direction on theory and practice: Sage Publication*

Howat, G., Assaker, G., (2013). The hierarchical effects of perceived quality on perceived value, satisfaction, and loyalty: empirical results from public, outdoor aquatic centers in Australia. *Sport Management Review*, 16(3), 268-284.

Hu, H.H., Kandampully, J., Juwaheer, T.D., (2009). Relationships and impacts of service quality, perceived value, customer satisfaction, and image: an empirical study. *Serv. Ind. J*. 29, 111e125.

Hu, J. L., & Ho, C. W. (2016). Service quality and non-salary mechanism for airline companies in Taiwan. *Journal of Air Transport Management*, *55*, 61–66. https://doi.org/10.1016/j.jairtraman.2016.02.016

James Malitoni Chilembwe. (2014). Evaluation Of Service Quality, Value And Satisfaction Of Air Transportation In Malawi: Case Study Of Air Malawi, *1*(11), 1–30.

Jeeradist, T., Thawesaengskulthai, N., & Sangsuwan, T. (2016). Using TRIZ to enhance passengers' perceptions of an airline's image through service quality and safety. *Journal of Air Transport Management*, *53*, 131–139. https://doi.org/10.1016/j.jairtraman.2016.02.011

J.D. Power. (2015). Airlines: A Transportation or Hospitality Business?, (May 2015).

Jiang, H., & Zhang, Y. (2016). An investigation of service quality, customer satisfaction and loyalty in China's airline market. *Journal of Air Transport Management*, *57*, 80–88. https://doi.org/10.1016/j.jairtraman.2016.07.008

Jin, N., Lee, S., Huffman, L., (2012). Impact of Restaurant Experience on Brand Image and Customer Loyalty: Moderating Role of Dining Motivation. *Journal of Travel & Tourism Marketing*, 29(6), 532-551.

Journal of Air Transport Management, *53*, 131–139. http://doi.org/10.1016/j.jairtraman.2016.02.011

Kang, G.-D., & James, J. (2004). Service quality dimensions: an examination of Grönroos's service quality model. Managing Service Quality, 14(4), 266–277. http://doi.org/10.1108/09604520410546806

Kenyon, G. N., & Sen, K. C. (2015). The Perception of Quality Mapping Product and Service Quality to Consumer Perceptions. *London: Springer London*. http://doi.org/10.1007/978-1-4471-6627-6

Lee, S., Y. Kim, N. Hemminglon & D. Yun. (2004). Competitive service quality improvement (CSQI): A case study in the fast food industry. *Food Serv. Tech*., 4, 75-84

Lewis, Barbara R., (1993). Service quality measurement. *Mark. Intell. Plan*. 11 (4), 4e12

Liou, J.J.H., Hsu, C.C., Yeh, W.C., Lin, R.H., (2011). Using a modified grey relation method for improving airline service quality. *Tour. Manag*. 32 (6), 1381e1388.

Malaysia Airport, (2014).

M.V.Subha & R.Archana. (2012). a Study on Service Quality and Passenger Satisfaction on Indian Airlines. *International Journal of Multidisciplinary Research*, *2*(2), 50–63.

Namukasa, Juliet (2013) "The influence of airline service quality on passenger satisfaction and loyalty: The case of Uganda airline industry", *The TQM Journal*, Vol. 25 Issue: 5, pp.520-532.

Oliver, R. L. (2015). Satisfaction A Behavioral Perspective on the Consumer (2nd ed.). New York, NY: Routledge.

Oliver, R. L., (2010). Satisfaction. A Behavioural Perspective on the Consumer (Second Edition ed.). *New York: M.E. Sharpe.*

Oliver, R.L., (1981). Measurement and evaluation of satisfaction processes in retail Settings. *J. Retail*. 57, 25e48.

Ostrowski, P.L., O'Brien, T., Gordon, G., (1993). Service quality and customer loyalty in the commercial airline industry. *J. Travel Res*. 32, 16e24.

Oxford Economics. (2010). Economic Benefits from Air Transport in the Russia, 1–26. Retrieved from http://www.oxfordeconomics.com/my-oxford/projects/281929

Parasuraman, A., Berry, L.L., Zeithaml, V.A., (1991). Refinement and reassessment of the SERVQUAL scale. *J. Retail*. 67 (4), 420e450. Parasuraman, A., Zeithaml, V.A.,

Parasuraman, A., Zeithaml, V.A., Berry, L.L., (1988). SERVQUAL: a Multiple-item Scale for Measuring Consumer Perceptions of Aervive Qualitu. Elsevier. http:// dx.doi.org/10.1016/j.technovation.2009.04.006

Park, J.W., Robertson, R., Wu, C.L., (2004). The effect of airline service quality on passenger's behavioural intentions: a Korean case study. *J. Air Transp. Manag*.10, 435e439.

Park & , Jin-Woo & , Robertson & Rodger, Wu & , Cheng-Lung. (2006). Modelling the Impact of Airline Service Quality and Marketing Variables on Passengers' Future Behavioural Intentions. Transportation Planning and Technology. 29. 359-. 10.1080/03081060600917686.

Payne-Palacio, J., & Theis, M. (2005). *Introduction to foodservice. Prentice Hall*.

R Core Team (2014). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL http://www.R-project.org/

Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. Journal of Statistical Software, 48(2):1–36.

Sekaran, U., & Bougie, R. (2013). Research Methods for Business. United Kingdom: Library of Congress Cataloging.

Siam, K.L., Koh, H.C. and Shetty, S. (2006) Some potential issues of service quality reporting for airlines. *Journal of Air Transport Management*, 12, 293-299.

Swinyard, W. R. (1993). The effects of mood, involvement, and quality of store experience on shopping intentions. *Journal of Consumer Research*, 20, 271–281.

Szwarc, P., (2005). Researching Customer Satisfaction and Loyalty: How to Find Out what People Really Think. *Kogan Page, London*.

Tse, D.K., Wilton, P.C., (1988). Models of consumer satisfaction formation: an extension. *J. Mark. Res*. 25 (2), 204e212.

Ueltschy, L. C., Krampf, R. F., (2001). Cultural sensitivity to satisfaction and service quality measures. *Journal of Marketing Theory and Practice*, 14-31.

Wang, Y., & Lo, H.-P. (2002). Service quality, customer satisfaction and behavior intentions: Evidence from China's telecommunication industry. *Info*, *4*(6), 50–60. https://doi.org/10.1108/14636690210453406

Wongrukmit, Thawesaengskulthai, (2014). Hospital service quality preferences among culture diversity. *Total Quality Manag. Bus. Excell*. 25 (7e8), 1e15

Zeithaml, V. A., Parasuraman, A., (2003). Service Quality. Massachusetts: *Marketing Science Institute*.

Zeithaml, V.A., Parasuraman, A., Berry, L.L., (1990). Delivering quality service: balancing customer perceptions and expectations. *The Free Press, New York*