



Assessing Customer Satisfaction Level of Transport Services Using Servqual: A Case Of Daewoo Express, Pakistan

¹Raja Irfan Sabir, ²Sara Javed, ³Wasim Ahmad, ⁴Nabila Noor, ⁵Hafiza Mubeen Munir

¹Assistant Professor, Department of Management Sciences, COMSATS Institute of Information Technology, Sahiwal, Pakistan

^{2, 3, 4, 5}MS Scholar, Department of Management Sciences, COMSATS Institute of Information Technology, Sahiwal, Pakistan

Received: August 2 2013
Accepted: September 6 2013

ABSTRACT

The aim of this study is twofold; first, to find out the impact of SERVQUAL model dimensions on customer satisfaction, and secondly, to measure the satisfaction level of customers using transport services in Pakistan. Responses were accumulated from two hundred subjects by a mean of questionnaire. The study used descriptive statistics, regression and correlation analyses. Findings of the study depict that all the dimensions of the SERVQUAL were positively correlated with customer satisfaction. "Empathy" was most strongly correlated with customer satisfaction as compared to other dimensions. As far as regression analysis is concerned; adjusted R² showed that 66.2% customer satisfaction was affected due to independent variables. Descriptive analysis highlighted the overall satisfaction of customers with Daewoo bus service with a mean value of 3.008 which reveals that customers are satisfied with Daewoo service, yet, not pleased. There is a need to improve Daewoo's fare strategies, and, to further improve its services to make their customers feel valued. This study is important for Daewoo Express to work out on the dimension that is most preferred by the customers.

KEYWORDS: Customer satisfaction, Empathy, Service quality

1. INTRODUCTION

Customer satisfaction is crucial for the success and survival of any business. It is one of the important determinants of loyalty. That's why; it is a key aspect of companies' strategic planning. Customer satisfaction is a sense of pleasure and bliss as one feels after purchase or usage. Before making a purchase, customers have some expectations about the performance of product and services. If the products meet or exceed their expectations then it can be said that customers are satisfied and delighted. On the other hand, when actual performance does not meet or falls below their expectations it can be said that they are dissatisfied. Organizations know that one satisfied customer tells his/her feelings regarding products and services to five other people while on the other hand one dissatisfied customer tells his/her experience to ten other people that creates a bad impression among existing as well as new customers (James, 2010). And customers with the passage of time measure how much service providers add value in their service that influences their satisfaction level. Therefore, it is vital for the companies to measure the satisfaction level of their customers from time to time. SERVQUAL is a best and widely known scale that helps the companies to assess the customers' perception about the service quality.

By using SERVQUAL model, this study aims to measure the overall satisfaction of the customers using Daewoo bus service. How SERVQUAL dimensions influence the customer satisfaction? As previous studies indicated a significant relationship exists between service quality dimensions and customer satisfaction (Sachdev and Verma, 2004). The five dimensions tangibility, reliability, assurance, empathy and responsiveness are positively correlated with satisfaction of customers and they contribute a lot to customer satisfaction (Parasuraman et al., 1988; Arokiasamy and Abdullah, 2013). This study is quantitative in nature for which, primary data were collected by using non probability sampling with the help of a self administered questionnaire survey.

2. Research Problem and Objectives

The basis of this study is that "people of Pakistan are dissatisfied with transport services at large" (Imran and Low, 2005). The aim of present study is to assess the satisfaction level of customers regarding transport services in Pakistan. Daewoo Express, a bus transport service company, has been selected for this purpose.

The objectives of study are:

- To find out the impact of SERVQUAL dimensions on customer satisfaction.
- To measure the satisfaction level of customer regarding Daewoo bus service.

*Corresponding Author: Raja Irfan Sabir, Assistant Professor, Department of Management Sciences, COMSATS Institute of Information Technology, Sahiwal, Pakistan

3. LITERATURE REVIEW

Different authors have defined customer satisfaction in different ways. Oliver (1980) stated that customer satisfaction is based on disconfirmation point of view. Customers have positive confirmation when they find that actual performance is somewhat equal or falls above their expected performance of products and services. But when actual performance falls below the expectation, then customers have negative confirmation which leads to dissatisfaction. Conversely, satisfied customers have positive confirmation resulting in their positive feedback from products and services. Most of the studies have been found on customer satisfaction in services industry. A study on internet banking indicated that customers put more emphasize on the quality of service in case of choosing a specific bank (Nandan and Ashwani, 2008). Another study found that factors like conventional facilities, attitude of employees, convenience and atmosphere affect the customer satisfaction level (Jham and Khan, 2008).

Ribiere *et al.* (1999) found customer satisfaction with hospital services included accuracy, timeliness and completeness. Another study conducted by Andaleeb (1998) determined the customer satisfaction with hospital services and incorporated quality of the facilities, staff competence, conversation with patients, staff behavior, and perceived cost. Full-service moving companies assessed the customer satisfaction by considering seven factors: estimate process, packing service, loading service, unloading service, optional coverage, transportation belongings and damage claims (J. D. Power and Associates Reports, 2007). As implied from previous studies in the service industry, customers' major concern is quality of service that has great impact on their satisfaction level.

Service quality has been defined in different ways. Czepiel (1990) defined service quality as "customers' perception about how well a particular service meets or exceeds their expectation." Sachdev and Verma (2004) stated that service quality can be assessed in terms of customer perception, customer expectation, customer satisfaction, and customer attitude. Parasuraman *et al.* (1985, 1988) and Gronroos (1984) defined service quality as feelings of one's relation to the results by making comparisons between actual and expected performance. Both of them (Parasuraman *et al.*, 1988) conducted a research in order to further elucidate the notion of quality and hence they reported five dimensions of service quality; tangibles, reliability, assurance, empathy and responsiveness.

Extensive work has been done on measuring the customer satisfaction by using SERVQUAL model in different contexts across different sectors. Naik *et al.* (2010) conducted a study in order to determine service quality (SERVQUAL) and its effects on customer satisfaction in retail sector of India. The study found that service quality have significant impact on customer satisfaction in retail sector of India and these dimensions plays a vital role in customer satisfaction. Arokiasamy and Abdullah (2013) conducted a study in Malaysia attempted to examine the influence of SERVQUAL model dimensions on customer satisfaction in telecom sector. In order to determine the deviation between perceived and actual satisfaction level, the gap analysis was used. They found that all the dimensions of SERVQUAL have positive and significant impact on customer satisfaction in terms of preferences and loyalty. Furthermore, he found that there is a significant gap existing between customer perceived quality and expected quality.

Yee and Daud (2011) conducted a study in Kuala Lumpur in order to measure the satisfaction level of customers in parcel delivery service through questionnaire based survey. His study found three dimensions of SERVQUAL such as reliability, assurance and tangibility having significant impact on customer satisfaction while other two dimensions, i.e. empathy and responsiveness have no impact on customer satisfaction. Munusamy *et al.* (2010) examined in their study conducted on banking sector of Malaysia for the sake of assessing customer satisfaction through delivery of service quality by using SERVQUAL model. The research found that assurance, responsiveness and empathy have no significant effect on customer satisfaction but all these three dimensions have positive relationship. Whereas, reliability has negative relationship but it has no significant effect on customer satisfaction. In contrast, tangible has positive relationship and have significant impact on customer satisfaction.

Some studies have been found on assessing the customer perception and expectation on service quality in airlines industry in different contexts. Archana and Subha (2012) conducted a study in India in order to measure the passenger satisfaction and service quality of airlines. They found comfortable seat, safety and Cuisines provided to customers were played a vital role on flying decisions. Moreover, study found that personal entertainment, online seat booking, call centre facilities and reservation/cancellation all these factors have significant impact on flying decisions of the passengers. On the other hand, Chikwendu *et al.* (2012) used a SERVQUAL model for their study conducted in Nigeria in order to measure the service quality of Nigerian airlines with aim of determining how satisfied the passengers are with airlines services using SERVQUAL. Their study revealed that airlines have good service quality in terms of empathy and responsiveness, but, airlines need to improve their services to make their passengers more satisfied regarding other dimensions.

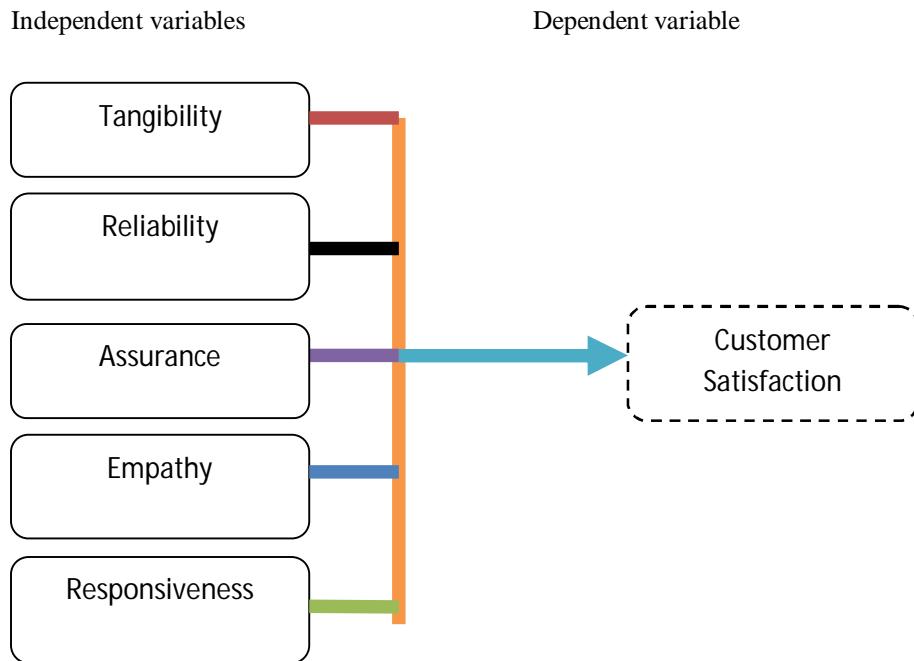
Few studies have been found in transport services measuring the satisfaction level of customers. Nandan (2010) found in his study that there are various factors effecting the customer satisfaction in Indian railways but two

of them have got a great importance, i.e. behavioral status and refreshment. But, Randheer et al. (2011) used a modified SERVQUAL model in his study conducted in India with an aim of examining the customer perception on service quality offered by the public transport services. Along with five dimensions of service quality an additional construct “culture” was added in the model and found that culture has significant impact on customer perception. Moreover, they found that the service quality delivery meets the perception of commuters. Irfan et al. (2012) conducted a study in Pakistan with the aim of investigating the passengers’ perception regarding service quality of rail transport by using a modified SERVQUAL model. They used eight constructs in their study, i.e. tangibles, reliability, responsiveness, information system, food, assurance, empathy and security in their study. They found Pakistani customers were dissatisfied with current service quality of railway.

No distinctive study was found on measuring the satisfaction level of customers in transport services of Pakistan. The SERVQUAL model is very useful for the assessment of customer perception about service quality and it also measure the gap between customers’ perceived satisfaction and expected satisfaction. In order to measure how satisfied customers are with Daewoo bus service, this study used SERVQUAL model.

4. Theoretical Framework and Hypotheses

Figure 1. Research Model



In the research model, dimensions of SERVQUAL have been taken as independent variable, whereas, customer satisfaction is taken as dependent variable. On the bases of literature review, following hypotheses have been developed:

- H1:* Tangibility has positive association with customer satisfaction regarding Daewoo bus service of Pakistan.
- H2:* Reliability has positive association with customer satisfaction regarding Daewoo bus service of Pakistan.
- H3:* Assurance has positive association with customer satisfaction regarding Daewoo bus service of Pakistan.
- H4:* Empathy has positive association with customer satisfaction regarding Daewoo bus service of Pakistan.
- H5:* Responsiveness has positive association with customer satisfaction regarding Daewoo bus service of Pakistan.

5. Methodological Design

5.1 Data Collection and Analysis

The study focused on assessing the satisfaction level of customer using SERVQUAL model in transport service of Pakistan. Customers using Daewoo Express Pakistan bus service were targeted for this study. A total of Two Hundred valid responses were received through a self administered questionnaire survey from Sahiwal by using non-probability sampling technique on convenient basis. A questionnaire was adapted from previous studies based on five-point Likert scale that varied from strongly disagree to strongly agree. It contained two sections; first

section was about demographics of respondents while section second was based on the dimensions of SERVQUAL, the section 2 covered twenty two questions. Number of items in scale were as follows: tangibility (4), reliability (4), assurance (5), empathy (5) and responsiveness (4).

The current study checked the reliability and validity of the scale. The reliability of the items was assessed by Cronbach alpha and validity of the instrument was measured by course supervisor. The study used descriptive statistics as well as performed regression and correlation for data analysis.

5.2 Reliability Scale

The table below is showing the reliability of the scale used. Reliability of the items was tested, and all the variables had a Cronbach Alpha value greater than .7 which showed that the scale was reliable and there was consistency in the responses.

Table 1. Reliability Analysis

Sr.no	Variables	Cronbach Alpha
1	Tangibility	.734
2	Reliability	.776
3	Assurance	.740
4	Empathy	.801
5	Responsiveness	.737
6	Customer Satisfaction	.824

Table 2. Demographic Data

	Variables	Frequency
Gender	MALE	81
	FEMALE	119
Age	21-30	181
	31-40	12
	41-50	7
Occupation	SERVICE	40
	STUDENT	142
	BUSINESS	6
	OTHERS	12

5.3 Descriptive Statistics

Table 3 indicates the mean score as well as standard deviation. The table depicts that mean value (3.0008) of customer satisfaction is adequate or satisfactory but not good enough, and it shows the overall satisfaction of the customer with Daewoo bus service. Meanwhile, the mean score of SERVQUAL dimensions showed that customers are satisfied with them. Assurance, with mean score 4.0013, was highest among all dimensions with lowest standard deviation .51240. Tangibility was on second number with a mean score of 3.9340 and standard deviation of .61240. Empathy and responsiveness were on third and fourth number with a mean score of 3.8950 and 3.8150, while, standard deviation of .72695 and .78394 respectively.

Table 3. Descriptive Statistics

	Mean	Std. Deviation	N
Customer Satisfaction	3.3008	.77760	200
Tangibility	3.9340	.61240	200
Reliability	3.7767	.77673	200
Assurance	4.0013	.51240	200
Empathy	3.8950	.72695	200
Responsiveness	3.8150	.78394	200

5.4 Regression Analysis

Table 4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Model Summary					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.715 ^a	.678	.662	.60193	.378	23.562	5	194	.000	1.761

a. Predictors: (Constant), responsiveness, reliability, tangibility, empathy, assurance

b. Dependent Variable: customer satisfaction

The adjusted R-square in the table shows that the dependent variable, (Satisfaction) is affected by 66.2% due to independent variables (Tangibility, reliability, assurance, empathy and responsiveness). It shows that tangibility, assurance, reliability, empathy and responsiveness are responsible for satisfying customers and found association with satisfaction level of customers. Durbin-Watson value = 1.76 indicates that there is no auto correlation between variables. Moreover, the overall model was also significant, tested with the help of ANOVA. The results are given in table 5.

Table 5. ANOVA Statistics

ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.685	5	8.537	23.562
	Residual	70.290	194	.362	
	Total	112.975	199		

a. Predictors: (Constant), responsiveness, reliability, tangibility, empathy, assurance

b. Dependent Variable: customer satisfaction

Results of ANOVA showed in table 5, depict overall fitness of the model with F value =23.562. All the predictors in the study truly relate to customer satisfaction with Daewoo bus service in Pakistan having a p-value of .000

Table 6. Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	.460	.413		.007
	Tangibility	.492	.021	.502	.004
	Reliability	.507	.087	.534	.000
	Assurance	.722	.127	.686	.000
	Empathy	.591	.091	.747	.002
	Responsiveness	.416	.085	.596	.005

a. Dependent Variable: customer satisfaction

The table 6 indicates the standardized coefficient; how much change occurs in dependent variable due to change in predictor variable. If other factors remain constant 1 unit change in tangibility leads to .502 change in customer satisfaction with p<0.01. If 1 unit increases in reliability it leads to .534 or 53.4% increase in customer satisfaction.

Table 7. Pearson Correlation Coefficient

	Tangibility	reliability	assurance	empathy	responsiveness	Customer satisfaction
Tangibility	Pearson Correlation	1	.565**	.691**	.784**	.654**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	200	200	200	200	200
Reliability	Pearson Correlation	.565**	1	.729**	.645**	.567**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	200	200	200	200	200
Assurance	Pearson Correlation	.691**	.729**	1	.688**	.600**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	200	200	200	200	200
Empathy	Pearson Correlation	.784**	.645**	.688**	1	.775**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	200	200	200	200	200
Responsiveness	Pearson Correlation	.654**	.567**	.600**	.775**	1
	Sig. (2-tailed)	.000	.000	.000		.000
	N	200	200	200	200	200
Customer satisfaction	Pearson Correlation	.408**	.745**	.783**	.876**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	200	200	200	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

5.5 Hypotheses Results

Hypothesis 1

The correlation results reveal the association between tangibility and customer satisfaction with ($r = .408$) with a significant value ($p = .000$). It means that tangibility is associated with customer satisfaction of Daewoo Express in Pakistan. Seats comfort-ability, facility appealing, staff dress up, quality oriented food, and in-

side bus environment; all these factors are positively associated with customer satisfaction regarding Daewoo bus service which supported H1.

Hypothesis 2

The correlation results reveal a positive association between reliability and customer satisfaction with ($r = .745$) having a significant value of ($p = .000$). It indicates that reliability is linked with customer satisfaction with Daewoo Express in Pakistan. But it is less associated with customer satisfaction from Daewoo bus as compared to tangibility. Therefore H2 is accepted and concluded that reliability contributes to customer satisfaction regarding Daewoo bus service in Pakistan.

Hypothesis 3

The correlation results indicate that assurance was positively associated with customer satisfaction ($r = .783$) with a significant value ($p = .000$). Therefore, it validates acceptability of H3 based on that there is an association between assurance and customer satisfaction with Daewoo bus service in Pakistan.

Hypothesis 4

Association between empathy and customer satisfaction was also found positive with correlation value ($r = .876$) and with a significance value ($p = .000$). Therefore, H4 is accepted.

Hypothesis 5

The correlation results show that association between responsiveness and customer satisfaction is positive with ($r = .773$) and with having a significant value of ($p = .000$). Therefore, we accept H5 because it contributes or relates to customer satisfaction with Daewoo bus service in Pakistan.

5.5.1 Summary of Hypotheses

According to correlation results, customer satisfaction are strongly correlated with empathy ($r = .876$) i.e. R^2 is 87.6% & p -value $< .01$. Meanwhile, reliability ($r = .745, p < .01$), assurance ($r = .783, p < .01$) and responsiveness ($r = .773, p < .01$) have moderate positive association with customer satisfaction. On the other hand, tangibility has a weak correlation ($r = .408$) with customer satisfaction.

6. CONCLUSION AND DISCUSSION

As we know customer satisfaction is the survival of any business. From time to time, there is a need to measure the satisfaction level of customers. The present study has tried to find the impact of SERVQUAL model dimensions on customer satisfaction with respect to Daewoo bus service, Pakistan. Results obtained from different tests proved that all the dimensions of SERVQUAL are positively correlated with customer satisfaction. Among all these dimensions, empathy had the strongest correlation with customer satisfaction and it was perceived as the dominant dimension of service quality. So, improvements in the service quality were significant. In order to keep customers satisfied and better fulfill the expectations of the customer, service providers should assess the satisfaction level of their customers by using a SERVQUAL model. In this way, companies can assess; to what extent customers are satisfied with the services that companies are providing to them. In the case of Daewoo Express, the study identified customers are satisfied but not pleased with its services. In order to please their customers, Daewoo should revise its strategy of Transport Charges and improve its service quality.

7. Practical Implications and Limitations

This study is important for future research and also important from stockholders' perspectives. This research has given valuable insights to Daewoo Express about the satisfaction level of its customers and how to further improve its services in order to satisfy the customers. This study is also important for Daewoo Express to work out on the dimension that is most preferred by the customers.

This study used non probability sampling technique and data were gathered from a single city Sahiwal on convenient basis. Sample size is not adequate to generalize the findings to entire population. Study was limited to a single bus service that does not cover the entire public transport services. This study chose five variables of SERVQUAL model for measuring the service quality of Daewoo Bus Service, whereas, the future studies can also use other items of SERVQUAL model that could give a better insight about the satisfaction level of customers.

REFERENCES

- Andaleeb, S. S., 1998. Determinants of customer satisfaction with hospitals: A managerial model. *International Journal of Health Care Quality Assurance* 11(6): 181-187.
- Archana., R. and M.V. Subha, 2012. A Study on Service Quality and Passenger Satisfaction on Indian Airlines. *Zenith International Journal of Multidisciplinary Research* 2(2): 50-63.
- Arokiasamy. A.R.A. and A.G.K. Abdullah, 2013. Service Quality and Customer Satisfaction in the Cellular Telecommunication Service Provider in Malaysia. *Journal of Arts, Science & Commerce* 4(2): 1-9.
- Czepiel, J. A., 1990. Service encounters and service relationships: Implications for research. *Journal of Business Research* 20: 13-21.
- Chikwendu. D., Ejem. E. and A. Ezenwa, 2012. Evaluation of service quality of Nigerian airline using servqual model. *Journal of Hospitality Management and Tourism* 3(6): 117-125.
- Gronroos, C., 1984. A Service Quality Model and its Marketing Implications. *European Journal of Marketing* 18(4): 36-44.
- Imran M. and N. Low, 2005. Sustainable urban transport in Pakistan: threats and opportunities. *Management of Environmental Quality: An International Journal* 16 (5): 505-529.
- Irfan. S.M., Kee. D.M.H. and S. Shahbaz, 2012. Service Quality and Rail Transport in Pakistan: A Passenger Perspective. *World Applied Sciences Journal* 18(3): 361-369.
- James, D., 2010. 50 Facts about Customer Experience. *Return on Behaviour Magazine*. <http://returnonbehavior.com/2010/10/50-facts-about-customer-experience-for-2011/>. (Accessed on 05/11/13)
- J. D. Power and Associates Reports. 2007. Global Van Lines, Mayflower Transit and Two Men and a Truck rank highest in customer satisfaction with full-service moving companies: 1-2.
- Jham. V. and K.M. Khan, 2008. Determinants of performance in retail banking: Perspectives of customer satisfaction and relationship marketing. *Singapore Management Review* 18(3): 361-369.
- Munusamy. J., Chelliah. S. and H. Wai Mun, 2010. Service Quality and Rail Transport in Pakistan: A Passenger Perspective. *International Journal of Innovation, Management and Technology* 1(4): 398-404.
- Naik. C.N.K., Gantasala. S.B. and G.V. Prabhakar, 2010. Service Quality (Servqual) and its Effect on Customer Satisfaction in Retailing. *European Journal of Social Sciences* 16(2): 231-243.
- Nandan. G.T. and K.U. Ashwani, 2008. Internet Banking in India: Issues and Prospects. *The IUP Journal of Bank Management* 7(2): 47-61.
- Nandan, G.S., 2010. Determinants of Customer Satisfaction on Service quality; A study of Railway Platforms in India. *Journal of Public Transportation* 13(1): 97-113.
- Oliver, R.A., 1980. Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research* 17(4): 460-469.
- Parasuraman. A., Zeithaml. V. A. and L. L. Berry, 1985. A conceptual model of service quality and its implications for future research. *Journal of Marketing* 49(Fall): 41-50.
- Parasuraman. A., Zeithaml. V. A. and L. L. Berry, 1988. SERVQUAL: A multiple-item scale for measuring customer perceptions of service quality. *Journal of Retailing* 64: 12-40.
- Randheer. K., AL-Motawa. A.A. and V. Prince, 2011. Measuring Commuters, Perception on Service Quality Using SURVQUAL in Public Transportation. *International Journal of Marketing Studies* 3(1): 21-34.
- Ribière.V., LaSalle. A.J., Khorramshahgol. R. and Y. Gousty, 1999. Hospital information systems quality: A customer satisfaction assessment tool. *Thirty-Second Annual Hawaii International Conference on System Sciences* 4: 4011.
- Sachdev. S. B. and H. V. Verma, 2004. Relative importance of service quality. *Journal of Services Research* 4(1): 93-116.
- Yee. H.L. and D. Daud, 2011. Measuring Customer Satisfaction in the Parcel Service Delivery: A Pilot Study in Malaysia. *Business and Economic Research* 1(1): 1-10.