SERVICE QUALITY AND CUSTOMER SATISFACTION IN PUBLIC TRANSPORT SECTOR OF HIMACHAL PRADESH: AN EMPIRICAL STUDY

Nidhi Saranta[1], Dr. Kuldeep Kumar Attri[2]

1 Research Scholar, Department of Commerce, Himachal Pradesh University Shimla
2 Professor, Department of Commerce, ICEDOL, Himachal Pradesh University Shimla

Abstract

Public passenger service transport in Himachal Pradesh is a growing sector that urgently needs attention in terms of infrastructure and service quality. This is because the economy is growing and roads are getting overcrowded especially in urban areas. Further, people are now dependent on road transport due to the poor services provided by railway transport and the huge costs and accessible limitation connected with air transport. Keeping this in view, the researcher planned to highlight the current issues of transport sector in Himachal Pradesh, that how service quality effects customer satisfaction. The purpose of this study is to empirically examine the relationship between service quality and customer satisfaction in Himachal Pradesh Road Transport Corporation, This study is to investigate customer satisfaction using SERVQUAL model with regards to public transportation. This model comprised five dimensions namely: Reliability, Assurance, Tangibility, Empathy and Responsiveness. These five dimensions comprise 26 attributes/ Variables. The study used a descriptive study design involving 160 respondents picked randomly. The study found that customers of the case service provider were satisfied with the service and that reliability, assurance and tangibility were the most significant variables leading to customer satisfaction. The empirical analysis proved that there was a positive relationship between service quality and customer satisfaction in the public transport sector of Himachal Pradesh.

Key Words: Service, Quality, Customer -Satisfaction, Public Passenger Service Transport, SERVQUAL.

INTRODUCTION

Road transport plays tremendously an important role in trade liberalization should stimulate growth and development of commerce and industry effecting in acceleration of national economy. It brings in greater mobility within and between the areas of rural and urban; and acts as agitator and integral part in the socio-economic growth and development. Mobility is one of the most fundamental and important characteristics of economic activity as it satisfies the ability to move from one location to the another, to apportion by passengers, freight and information.

Public transportation sector includes shared taxi and buses. A lot of functions were performed to passengers while using the public bus transport system, due

to the opportunity it offers to the traveler to move from one area to another area easily. Public bus transport service plays out plenty of capacities for commuters. It improves the personal satisfaction in societies on condition that it provides safe, proficient and economical transport services. Also, the cost viability and accessibility of public bus transport services are basic to ensuring a versatile economy and enhancing portability. Similarly, associations gain access to public transport services to the extent that decreases traffic jam in streets, saves money and creates and supports jobs within communities.

Bus transportation is a key travelling way for global travelers. It offers linkage between destinations and transports customers for goods and service.[1] Nowadays every kind of people utilize transportation sector to travel anywhere. Bus transportation is a part of the transport sector services available in Himachal Pradesh. Bus transportation plays a vital role as the main transportation for all people, especially for poor and fair income families. It is the assumption of this study, and consistent with the view that customers with highly-perceived service quality and satisfaction also have strong loyalty, which is critical to the overall performance and, consequently, sustainability of the public transport system. Obviously, understanding service quality makes it possible to appreciate the value of the human touch in customer relationships which is often responsible for customer satisfaction.

The Governments of Himachal Pradesh in the time past have been playing active role in providing public transport services. Apart from the growing mobility needs of the locals, there is a heavy tourist inflow of passengers into the state placing additional pressures on the exiting transport infrastructure. In absence of other modes, the onus of providing passenger services falls on the road transport system making buses the most important public transport mode in the state. Public transport system in the state mainly comprises bus transport service offered by the state owned road transport undertaking and the private operators plying their vehicles (including buses, taxis, etc.) under stage carriage permits. Himachal Road Transport Corporation (HRTC) provides mobility services to the passengers within the state and also across interstate borders. The corporation also provides obligatory free, concessional and subsidized transport services to various sections of society. In addition, the corporation provides services to far flung remote areas where the traffic is low making operations infeasible on economic grounds. The total fleet strength of the

corporation has increased from 733 in 1974 to 3086 in 2019 (Department of Transport, HP).Private bus operators also play a dominant role in meeting the mobility needs of the people in HP. In 2014, the total number of private stage carriage buses operational in the state was 3367 which is nearly 1.5 times the number of public buses being run by HRTC.

Public transportation in Himachal Pradesh especially intercity bus transport has witnessed a growing preference for good buses as the sector continues to offer more options to passengers in terms of type of vehicle used. There is over increase in the number of these buses operating on Himachal Pradesh intercity routes.[2]

The study aims to evaluate the main factors affecting the bus service quality and customer satisfaction in bus services to travelling interstate in Himachal Pradesh. It examines and explores the customer expectation on service quality of bus transport through the SERVQUAL's 5 dimensions such as Tangible, Reliability, Assurances, Empathy and Responsiveness.

DIMENSIONS OF SERVICE QUALITY

There are five dimensions of quality: Tangibles, Reliability, Responsiveness, Assurance and Empathy. This scale has been developed for the service sector and has five generic dimensions or factors:

- **Tangibles:** Physical facilities, equipment an and appearances of personnel;

- **Reliability:** Ability to perform the promised service dependably and accurately;

- **Responsiveness:** Willingness to help customers and provide prompt service;

- **Assurance:** (including competence, courtesy, credibility and security):

  - Knowledge and courtesy of employees and their ability to inspire

  - trust and confidence;

- **Empathy:** (including access, communication, understanding the customers): Caring and individualized attention that the firm provides its customers.

Allen (2008)[3] summarized the dimensions of quality in the book 'Quality Management'; the dimensions were summarized as shown below:

Responsiveness	Empathy	Assurance	Reliability	Tangibl
Appearance of tangible/physical elements	Dependable and accurate performance	Security, courtesy, credibility, security	Easy access, good communications, understanding of customers	Promptness, helpfulness

Figure: Summary of dimensions of service quality

PREVIOUS STUDY

A lot of studies have been conducted in the field of Service Quality and customer satisfaction. Very few studies have been conducted on HRTC, however; there is no study in the field of Service Quality and Customer satisfaction in HRTC. The area of service quality and customer satisfaction has remained neglected from the research point of view. HRTC is a well-established public sector, which must prove its strength and weakness continuously concentrating on improving service quality which are considered to be a vital asset for any organization and the progress of any organization depends on the better services and customer satisfaction. The present study has analysed the service quality of HRTC.

In this section, a brief overview of service quality, customer satisfaction and service quality in customer relationship is presented. In recent times all organization has progressively come to understand the importance of customer satisfaction. It is broadly understood that it is far less expensive to keep existing customers than it is to gain new ones. For numerous organizations in the public sector, client fulfillment will itself be the measure of success.

SERVICE QUALITY AND CUSTOMER SATISFACTION

Eugene and Vikas (2000)[4], indicated that the item and service quality traits when were enhanced, the customer's satisfaction would extend as the expanding number of customer satisfaction dependably prompt more noteworthy greater customer retention and loyalty. These would lead the association to increment more prominent gainfulness.

Profit → Customer Satisfaction → Customer loyalty and Customer retention → Customer loyalty and Customer retention
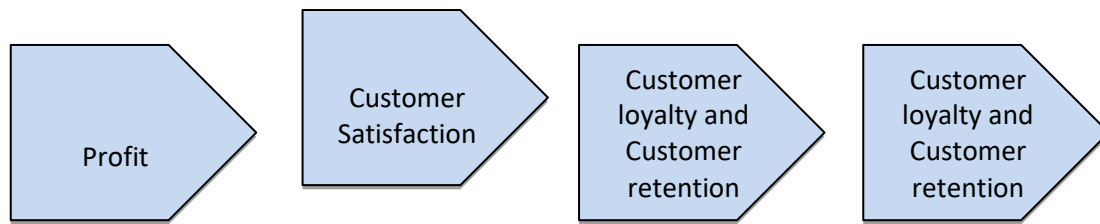
Figure: The chain reaction model of customer

The SERVQUAL scale which is otherwise called the service to demonstrate by **Parasuraman, et.al. (1988)** [5] has appeared to be one of the most ideal approaches to gauge the quality of services gave to customers.
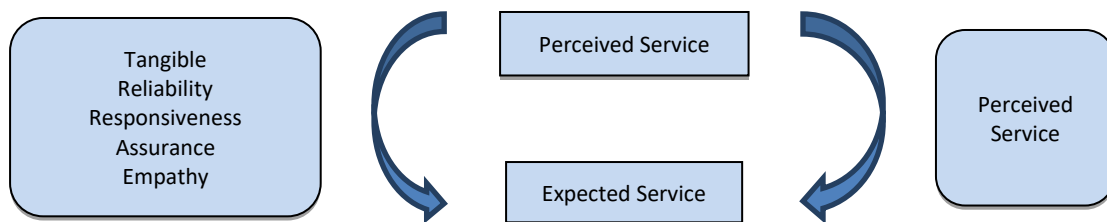
Tangible Reliability Responsiveness Assurance Empathy

Perceived Service

Expected Service

Perceived Service

Figure: The Model of SERVQUAL

This figure is to show on account of when it is expressed "perceived" and "expected" service; it is certain this goes to individual, who is going to or is devouring the service, who unquestionably is the consumer/ customer.

Alan et al. (2012)[6], In relating customer satisfaction and service quality, scientists have been more exact about the significance and estimates of satisfaction and service quality. Satisfaction and service quality have certain things in like manner; however satisfaction by and large is a more extensive idea, though service quality concentrates particularly on measurements of service.
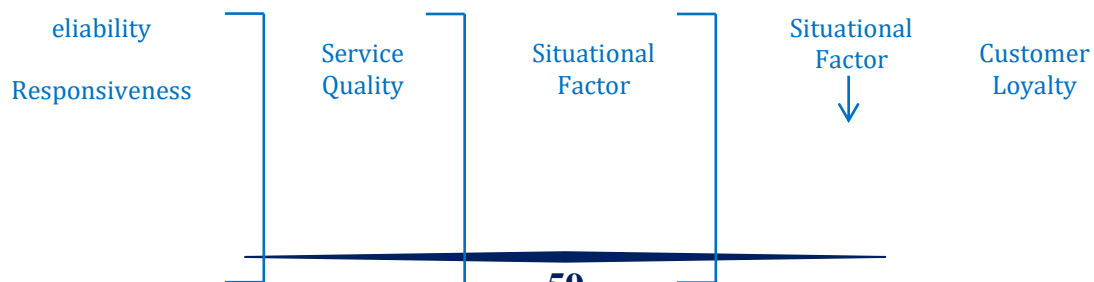
eliability

Responsiveness   Service Quality   Situational Factor   Situational Factor   Customer Loyalty

Assurance

Empathy

Tangible

Product Quality

Price

Customer Satisfaction

Personal Factor

Customer Satisfaction

Personal Factor

Figure 3: customer perceptions of quality and customer satisfaction

Irfan et. al. (2012)[7] 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.

Arokiasamy and Abdullah (2013)[8] 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.

Kumar, Anand and Srivastava (2016)[9] studied customer satisfaction in passenger service in Ethiopia and found that most passengers in the data collection sites were complaining about the lack of basic facilities in the bus stations. In addition, they stressed that even if the basic facilities were present, they are charged for using them (especially toilets). Passengers claim that buses do not depart on time from stations. The worst case all passengers in the bus stations stated was that buses carry beyond the specified capacity and also tariff set by the government is not usually put in place. On the other hand, some drivers and assistants lack professional ethics in serving customers.

OBJECTIVES OF THE STUDY

Following are the objectives of study: -

- To study the impact of service quality in public transport sector in Himachal Pradesh;

- To study the level of customer satisfaction in the same area;

METHODOLOGY

RESEARCH FRAMEWORK

The present study is mainly explorative and analytical in nature with the use of both primary data and secondary data. The secondary data was obtained from different libraries, books, journals, and magazines. Apart from this various memo graphs and project reports were consulted. The secondary data needed for this study have been collected from the Head office of the HRTC. Various publications of government of India and government of Himachal Pradesh are consulted. The primary data was collected from the trusted questionnaire/schedules.

This study suggests a theoretical research framework which is developed on the basis of literature review. The figure: 4 shows the conceptual framework of this research study, has 1 independent variables includes customer satisfaction and 5 dependent variables i.e. SERVQUAL model.
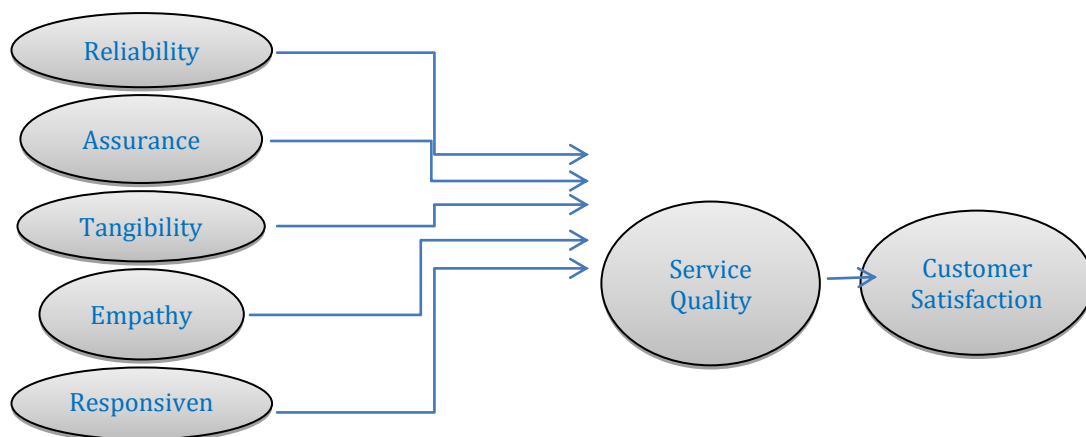

Figure 4: Conceptual Framework

Source: adapted from Parasuraman et al., (1988)[10] ; Kian et al ., (2012)[11] ; Ojo et al., (2014)[12] Methodology

SAMPLING

In order to administer the Service Quality Attributes Affecting Passenger's Satisfaction, the state was divided in-to four divisional offices (namely Shimla, Mandi, Dharamshala, Hamirpur), the areas based on the location of the major terminals/stops. The entire area covered by each bus terminal is considered as strata, and from these, 29 routes were randomly selected. Furthermore, systematic random sampling technique (every 5th passenger) was applied to select the respondents from selected routes. In this way, a total of 160 respondents were contacted personally by the researcher while travelling on identified routes from 8:00 AM to 5:00 PM (Monday to Saturday), for about four weeks. Structured questionnaire (developed on the approach of SERVQUAL and modified to state bus transport service with 26 items) was used to obtain relevant data from the respondents. The survey questions measured each attribute on a 5-point Likert's type scale (ascribing quantitative value to qualitative data for statistical analysis and interpretation) ranging from 1-'strongly disagree' to 5-'strongly agree, neutral, agree, and disagree). Additionally, the questionnaire maintained items to measure overall service quality and customer satisfaction together with a section on demographic profile. The questionnaire was originally developed in English and translated into the local language (Hindi) in consideration of a better understanding by respondents.

Consequently, 26 questions were found as feasible and maintained in the final instrument (Table 1) under the dimensions of Tangibility, Reliability, , Responsiveness, Assurance, Empathy and Service Quality Attributes Affecting Passenger's Satisfaction Additionally, to check the internal consistency of the measures of determined dimensions, Cronbach coefficients (alphas) were computed.

STUDY AREA

Himachal Pradesh literally means a 'region of snowy mountains'. It is also known as 'Dev Bhumi' meaning 'Abode of Gods'. The State is located in North – West India. In the year 1971 it emerged as the 18th state of India. Himachal Pradesh is bordering Jammu and Kashmir to the North and North-West, Punjab to the south west, Haryana and Uttar Pradesh to the south, and Uttarakhand to the south – east. It shares an international border with China. Himachal Pradesh is among those states in India, which has very high per capital income. The economy of

Himachal Pradesh mainly depends on tourism, hydroelectric power and horticulture, agriculture. Himachal Pradesh is famous for its natural beauty, hill stations and temples. Many perennial rivers flow in the state, and numerous hydroelectricity projects are set up. The altitude ranges from 350 meters to 6975 meters above mean sea level. It is located between latitude 300 22'40' N to 330 12'20'N and Longitude 750 45'55' E to 790 04'20' E. Himachal Pradesh extends over an area of 55,673 sq. kms.[13] The population density of the state is around 110 persons per sq km, which is extremely low in comparison to the national average of 382 persons per sq km. Nearly two thirds of its geographical area is classified as forests which is also a major reason for low population density in the state. Apart from the geographical constraints, certain parts of the state experience 112 extreme weather conditions limiting the working season and accessibility of these regions especially in winters. At present HRTC has 29 operational units functioning in the Pradesh. The operation of the corporation is being controlled by four divisional offices functioning at Shimla, Mandi, Dharamshala, and Hamirpur.

The divisional workshop at Taradevi, Mandi, Hamirpur as well at Dharamshala are functioning and a denomination ticket cell at Taradevi is providing tickets and stationary to the different units in the corporation. The corporation has two body fabrication units at Parwanoo and second one at Jassur (Kangra Distt.). These bus body fabrication units, preparing the body of the buses, reconditioning of old bus bodies, retreading of Tyres and impact training to the employees of the corporation, while divisional workshops doing the job of engine rebuild and responsible for the supply of the engines, fuel pumps etc. to the unit falling in their operational authority. The objective of the corporation is to provide better transport services to the people and the corporation is to doing its best to achieve this objective. Free travelling facilities are being provided in HRTC buses to Padamshree awardees, Ex MLA's/MP's , Freedom fighters and their spouses, war widows and handicapped persons. Concessional travelling is available in the buses of the corporation to government employees, students and police personnel.[14] The rationale of the study was explained to the passengers and only those who were willing were served the questionnaires. The sampling procedure was a mixture of systematic and purposive.

RESULTS AND DISCUSSIONS

The study used Cronbach's alpha on the independent variables to determine the reliability of the instrument used Pallant (2005)[15] has suggested 0.70 as the acceptable level for reliability measure. The Alpha values in table range from .903 to .907 thus indicating acceptable level of reliability.

GAP ANALYSIS

Comparison of Expectations and Perceptions on Service Quality The assumption is that when the Expected Service (ES) is greater than the Perceived Service (PS) quality will be perceived as being less and less than satisfactory, the greater the difference between ES and PS is, when ES=PS quality is satisfactory, when ES < PS, quality will be more and more satisfactory as the difference between PS and ES grows.

Table 1: Reliability analysis of the 26 SERVQUAL attributes

SERVQUAL Dimensions/ Variables	Expectation	Cronbach's Alpha perception
Reliability 1.Bus always arrives on time 2. Bus never breaks down on the road 3. Passengers can book tickets easily 4. Staff satisfy passengers' request right the first time 5. There is a schedule timetable for buses	.905	.903
Assurance 1. Passengers feel safe in their transactions with staff 2. Passengers luggage are safe 3. Staff are always polite 4. Staff have in-depth occupational knowledge of their jobs 5. Behavior of staff instills confidence in the passengers	.905	.905
Tangible 1. Staffs attire is neat and smart 2. The Corporation have a professional appearance 3. HRTC have adequate shed for passengers 4. HRTC have spacious seats for passengers on board 5. The ticket office is attractive and neat 6. Buses are well maintained and neat 7. Buses have ample legroom and foot space	.904	.902
Empathy 1.HRTC has passengers interest at heart 2. HRTC has convenient operating hours 3. Easy accessibility of information about services 4. Easy to find and access the ticket office/station	.906	.905
Responsiveness 1. Staff provide individualized attention to help customers 2. HRTC always inform people of availability of services and changes in prices in advance 3. HRTC provide timely and efficient services 4. Communication with staff is clear and helpful 5. Staff are always willing to help passengers	.904	.902

Reliability: As shown in Table, total gap score (-.02) indicates that mean difference between expectations (2.05) is higher than the mean perception (2.01). The least gap score was on the attribute "bus never breaks down" (-0.06) and the highest was on "staff satisfy passengers' request right the first time" (0.03). Assurance: the overall gap score (0.12) shows that mean difference between perception is higher than the mean expectation. The least mean gap score recorded by passengers feeling safe in their transactions with staff and passengers being safe (.02).

Table 2: Gap scores representing customer satisfaction

Dimensions/ Variables	Expectation				Perception			
	N	% that agree	Mean	S.D	% that agree	Mean	S.D	Gap (P-E)
Tangible	160	32.0	2.10	0.358	33.0	1.98	0.640	0.11
Reliability	160	32.4	2.04	0.455	34.5	2.01	0.494	0.3
Assurance	160	32.1	2.07	0.489	48.0	2.17	0.587	0.13
Empathy	160	25.4	1.91	0.483	30.1	2.07	0.542	0.15
Responsiveness	160	24.1	1.83	0.519	34.2	2.09	0.513	0.25

Tangibles: The total gap score (-0.11) indicates that mean difference between expectation is greater than the mean expectations. The least gap score was recorded by attribute "HRTC has professional appearance" (-0.12) and the highest gap score was "buses have ample legroom and foot space" (0.17). All the other six attributes had gap scores indicating mean expectations being higher than the mean expectations.

Empathy: The total gap score (0.15) indicates that mean difference between perception is greater than the mean expectations. The highest gap score (0.31) was on the attribute "The corporation has passengers interest at heart" and the least gap score (-0.10) was "easy to find and access the ticket office/station".

Responsiveness: The total gap score (0.25) indicates that mean difference between perceptions of the five attributes is higher the expectations. The least gap score (-0.08) was on the attribute "HRTC always inform people of availability of services and changes in prices in advance" and the highest gap score (0.60) "HRTC staff provide individualized attention to help customers/ passengers".

From the foregoing as in Nutsogbodo (2013)[16], attributes with negative gap scores revealed that passengers were not satisfied. This invariably means that passengers were not satisfied with half of the attributes. The current study revealed that respondents were not satisfied with 15 attributes.

CONCLUSION AND RECOMMENDATIONS

It is explained in the study that, 15 variables in the SERVQUAL scale figure poor concept of service quality. This means that respondents were not satisfied with more than half of the variables, staff satisfy passengers' request right the first time, there is a schedule timetable for buses in HRTC, passengers feel safe in their activity with staff, passengers luggage are safe, HRTC staff are always polite, staff have general occupational knowledge of their jobs, behavior of staff introduce confidence in the passengers, buses have ample legroom and foot space, HRTC has passengers interest at heart, HRTC has convenient operating hours, easy accessibility of information about services, staff provide personalized attention to help customers, HRTC provide timely and efficient services, communication with staff is clear and helpful and staff are always voluntary to help passengers. This indicates the respondents had to first respond to the expectations questions before the perceptions questions. Therefore, this may have explained the number of variables that contributed to satisfactory service. This does not exclude the fact that the service providers have a couple of variables which have to be carried out to have exceptional service.

REFERENCES

Eden, S (2005),"Rethinking the role of transportation in tourism", Proceedings of the Eastern Asia Society for Transportation Studies, 5, 1767-1777.

Green Growth and Transport in Himachal Pradesh ,Department of Environment, Science and Technology, Government of Himachal Pradesh ,Global Green Growth Institute (TERI), 2015

Allen, M.(2008)," Quality Control Handbook, (4th ed.), New York; McGraw Hill.

Eugene, W.A and Vikas, M. (2000),"Strengthening the Satisfaction-Profit Chain", Journal of Service research, 3(2), 107-120. http://doi.org/10.1177/109467050032001

Parasuraman, A., Valarie A., Z., and Leonard L., B. (1988)," SERVQUAL: A multiple- item Scale for Measuring consumer Perceptions of Service Quality", journal of Retailing and Marketing studies, 64(1), 12-40.

Alan, W., Valarie A., Z., Mary Jo, B., and Dwayne D., G (2012), "Services Marketing: Integrating Customer Focus Across the Firm (2nd). Europe: MGraw- Hill Education

Irfan, S., Kee, D., and Shahbaz S., (2012),"Service Quality and Rail Transport iun Pakistan: A Passenger Perspective", World Applied sciences journal 18(30: 361-369.

Arokiasamy, A., and Abdullah A. (2013),"Service Quality and Passenger Satisfaction in the cellular telecommunication service provider in Malaysia", Journal of Arts, Science and Commerce 4(2): 1-9.

Kumar M., Anand V. and Srivastava A. (2016)," Public Transport service Quality and passenger Satisfaction: A case of UPSRTC, Agra, India, Pacific Business Review International, 8(11).

Parasuraman, A., Valarie, A., Zeithmal, V., & Berry, L. L. (1988). SERVQUAL: A multiple item scale for measuring consumer perceptions of service quality. Journal of Retailing, 64(1), 12-40.

Kian, T. P., Latiff, K. B. & Fong, S. W. L. (2012). The impact of 'SERVQUAL' towardscustomersatisfaction in public transportation. 2nd International Conference onmanagement proceeding 11th - 12th June 2012. Holiday Villa Beach Resort & Spa, Langkawi Kedah, Malaysia.

GoHP (Government of Himachal Pradesh). Draft 12th FYP (2012-17) & Annual Plan 2013-14. Planning Department, 2013

Balokhra Jag Mohan, the wonderland Himachal Pradesh, P. 1419-1421. 2014.

Ojo, T.K., Nutsogbodo, R.Y. & Appiah-Mintah, R. (2014). Passenger's perspective of quality of intercity bus transport service on Accra-Cape Coast route, Ghana. GE-International Journal of Management Research, 267- 287.

Pallant, J. (2005), SPSS survival manual (2nd edition), Berkshire: Open University Press.

Nutsugbodo, N. (2013),"Tourists' perceptions of the quality of public transportation services in the Accra Metropolis: A SERVQUAL approach". African Journal of Hospitality, Tourism and Leisure, 2(4), 1-7.