

IMPROVEMENT OF SERVICE QUALITY IN THE INDIAN AUTOMOBILE SERVICE SECTOR – AN EMPIRICAL STUDY

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ABSTRACT:

In the post liberalized industrial scenario due to the fierce competition in the global market, Indian service organizations have started implementing quality management programmes in their organizations to improve their systems and procedures. In this context, Indian service firms are interested to know about their improvement in service quality delivery after implementing the quality management programmes in their organizations. After a careful analysis of various research studies so far it seems that there is an insufficiency of literature in developing economies than developed economies especially in automobile service sector in India. Hence the present study attempts to fill the void by studying the previous level of service quality delivery and current level of service quality delivery in the Indian automobile service stations. The present study found that Indian automobile service stations have improved their service quality delivery level with respect to all service quality factors.

KEY WORDS: Service quality, Developing economy, analysis.

1. Introduction

In the last few decades business and academia have started to concentrate on service quality due to its close relationship with cost, customer satisfaction, loyalty, and customer retention. Due to stiff competition in the global market the organizations are making a review of the processes and the ways through which services are delivered. Further, foreign direct investment in service sector, increased customer knowledge and awareness about quality made the service firms to deliver the services better than their competitors. Researchers and service managers are eager to know the market demands on service quality in order to improve the business performance and customer satisfaction.

Hence the service organizations have started to pay much attention into the customer perceptions of service quality. Consumers are able to judge the quality of service delivered in all aspects of life such as hospitals, hotels, banks, insurance, etc. Further, Rust et al. (1995) quoted that service is important to both manufacturing and service sectors. Oliver et al. (1997) observed that each and every organization has to deliver services appropriately. Among the terms (quality, cost, and productivity) for effective corporate management, cost and productivity have a major impact on manufacturers whereas quality alone has a major impact on both manufacturers and consumers (Kondo, 2000). From the points discussed above, it is evident that service is vital for all

organizations and hence researchers have paid much attention to evaluate the service quality and delivery from the customers' perspective.

Customer perceived service quality has been given more importance due to its close relationships to costs, financial performance, customer satisfaction, and customer retention. Kellogg et al. (1997) analyzed its relationships to costs; and Rust and Zahorik (1993) and Rust et al. (1999) analyzed its impact on financial performance of the organization. Hackl and Westlund (2000), Behararavi et al. (2002), Harris and Goode (2004) studied the various ways for retaining the customers with the organization. Ahire et al. (1995) noted that even though sufficient conceptual and case studies were available about TQM implementation there is an insufficiency of empirical studies. Firoz and Maghrabi, 1994; Yavas et al., 1997; Kassem, 1998 noted that research works in service quality issues are inadequate in developing economies than those in developed economies. Sufficient research studies have not been conducted in service sector when compared to that of manufacturing sector (Chen and Ting, 2002). Hence it is understood that there is an insufficiency of literature in service industry management especially in developing economies like India.

Against this background exploring the service quality issues of the Indian automobile service sector from the customer's perspective is the need of the hour for the service managers to improve the customer satisfaction. After a critical review of literature it seems that, still, no research work has analyzed the improvement in service quality delivery of the Indian automobile service sector. Hence the present study attempts to fill the void by studying the previous level of service quality delivery and current level of service quality delivery in the Indian automobile service stations (from the view point of the customers). Data collected from 444 customers have been used in this study. Statistical analysis has been carried out using the SPSS version 10.0 statistical package. The subsequent sections deal with the critical factors of service quality and their operating measures for investigating the improvement in the level of service quality delivered in the Indian automobile service stations.

2. Critical factors of service quality

In order to measure the level of service quality delivered after extensive literature survey this research work has identified six factors of service quality as critical from the customer's perspective. These factors are:

1. Human Aspects of Service Delivery;
2. Core Service;
3. Social Responsibility;
4. Systematization of Service Delivery: Non-human aspects;
5. Tangibles of Service – Servicescapes and
6. Service Marketing.

Table 1 summarizes the different factors of service quality.

Table 1. The critical factors of customer-perceived service quality.

Sl. No.	Critical factors	Explanation of the critical factors
1.	Human aspects of service delivery	Activities like reliability, responsiveness, etc. associated with human touch in the service delivery.
2.	Core service	Different types of service facilities and schemes offered to the customers by the service provider.
3.	Social responsibility	Uplifting the society surrounding the organization like providing free drinking water facilities, health care, education, etc.
4.	Systematization of service delivery – non-human aspects	Hassle free service delivery to customers through systematic and standardized procedures in the organization.
5.	Tangibles of service – servicescapes	Man-made environment like dress of employee, colour of machine, organization layout, etc.
6.	Service marketing	Marketing techniques like door to door campaign, offering special price discounts during festival time, providing loyalty bonus to long term customers etc.

3. Development and validation of the instrument

After extensive literature review, a survey instrument with 42 items has been developed for validating the identified critical factors of service quality. Further, SERVQUAL of Parasuraman et al. (1988) and the instrument of Suresh Chandar et al. (2002a) have also been considered and modified according to the requirements of automobile service sector. A pilot study has been conducted and opinions from various academicians, researchers, practitioners and customers were received about the instrument. The instrument was refined further by incorporating the suggestions given by them. The details of the instrument with the six critical factors and their corresponding items are given in the appendix.

The development of the instrument has been discussed in detail by Saravanan and Rao (2007b) in another research work. The items have been framed to suit any type of industry in the service sector. But due to practical difficulties and other constraints, the study has been limited to automobile service sector only. The automobile service stations have been chosen because service quality and customer satisfaction have been playing main roles in these industries. All the critical factors of service quality are practiced by the automobile service stations and hence the customers of the automobile service stations might be able to measure the level of service quality delivered. Hence the results and findings of this study can be used as a reference while studying other service organizations.

Data have been collected from the customers of different automobile service stations in India. Customers have been randomly selected from each group of service stations and the questionnaires were distributed to them. 1000 customers dealing with various automobile service stations have been approached. 725 customers expressed interest in participating in this study and correctly completed questionnaires have been received from 444 customers resulting around 60% response rate.

In other research works, Saravanan and Rao (2007a&b) empirically validated the proposed instrument for measuring the current level of service quality and change in

performance using tests of unidimensionality, reliability, content, convergent, and criterion-related validities by following a confirmatory factor analysis (CFA) approach. This implies that the data of Service Quality scales are valid and reliable and hence they are used for further analysis of the gap between current level of Service Quality and previous level of Service Quality.

4. Methodology

In order to analyze the gap between the current level of service quality and the previous level of service quality in the Indian automobile service sector, the customers were asked to rate the current level of service quality delivered by the automobile service stations with respect to 42 items on a seven-point Likert scale (ranging from 1 indicating very poor to 7 indicating 7 very good). Additionally, the same customers were asked to rate the level of change-in-performance of the automobile service stations (from the time customers started transacting to the present time) with respect to the same 42 items on a different seven-point Likert scale (ranging from -3=Very High Deterioration to +3=Very High Improvement). It may be noted that the survey for measuring the current level of service quality and the change-in-performance level of service quality in the Indian automobile service sector was conducted simultaneously.

The current level of service quality is computed based upon the service quality indices. Service Quality Indices (SQI) has been computed for the Indian automobile service sector on an overall basis i.e. all respondents together and the values are summarized in Table 2. The SQI for a specified dimension is the mean value of the ratings given by the customers for the items in that dimension. Similarly change-in-performance level of service quality is computed based upon the change-in-performance index (CPI) and the results have been presented in Table 2. The previous level of service quality has been arrived by subtracting the change-in-performance level of service quality from the current level of service quality.

5. Results and Discussions

From the Table 2 it has been inferred that the Indian automobile service stations have been improving their performance level as their experience increases. Therefore it has been concluded that there is a definite improvement from the previous level of service quality to the current level of service quality in the Indian automobile service sector.

Table 2. Gap analysis between the current level of Service Quality and the previous level of Service Quality

Sl. No.	Factor	Current level of Service Quality (On a 1 to 7 Likert scale) (A)	Change-in-performance level of Service Quality (On a -3 to +3 Likert scale) (B)	Previous level of Service Quality (On a 1 to 7 Likert scale) (C)=(A)-(B)
1.	Human Aspects of Service Delivery	5.12	0.36	4.76
2.	Core Service	5.22	0.32	4.90
3.	Social Responsibility	4.60	0.48	4.12
4.	Systematization of Service Delivery: Non-Human Aspects	5.38	0.47	4.91
5.	Tangibles of Service	5.18	0.57	4.61
6.	Service Marketing	5.05	0.42	4.63

Further a paired samples “T” test has been conducted to find out the statistical significance of the differences between the current level of service quality and the previous level of service quality and the results are summarized in Table 3. The results have indicated that the current level of service quality and the previous level of service quality differ significantly at the 0.01 level with respect to all the six service quality factors. But the current level of service quality delivery in Indian automobile service stations can be improved further to achieve the highest level of 7 on a 1-7 Likert scale in order to take the organization to greater heights.

Table 3. Results of Paired Samples “T” test to check for the difference in means between Current level of Service Quality and Previous Level of Service Quality

Sl. No.	Factor	Paired Differences		“t” value
		Mean	Standard Deviation	
1.	Human Aspects of Service Delivery	0.36	0.67	11.30 **
2.	Core Service	0.32	0.83	8.09 **
3.	Social Responsibility	0.48	0.77	13.07 **
4.	Systematization of Service Delivery: Non-Human Aspects	0.47	0.51	19.30 **
5.	Tangibles of Service	0.57	0.57	21.07 **
6.	Service Marketing	0.42	0.83	10.63 **

** Statistically significant at the 0.01 level.

6. Conclusion

The study critically examined the service quality issues in the Indian automobile service industry from the perspective of the customers. The results indicated that Indian automobile service stations have improved their performance in a positive manner as their experience increases in the implementation of quality management programmes. The study suggests that business performance and customer satisfaction can be improved further by adopting rigorous approaches while practicing the critical factors of service quality. The results and findings of this study would help the practitioners to identify their shortfalls and rectify them.

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Appendix

instrument to measure the CURRENT level of service quality delivered AND CHANGE IN PERFORMANCE (from the customer's perspective) in automobile service sector

The respondents were asked to rate the current level of service quality of the automobile service station for the following 42 items on a 7-point Likert scale with 1 = Very Poor, 2 = Poor, 3 = Slightly Poor, 4 = Average, 5 = Slightly Good, 6 = Good, 7 = Very Good and rate the change in performance of the automobile service station (from the time customers started transacting to the present time) for the same 42 items on a different 7-point Likert scale with -3 = Very High Deterioration, -2= High Deterioration, -1=Slight Deterioration, 0= Neither Deteriorated/ Nor Improved, 1= Slight Improvement, 2= High Improvement, 3= Very High Improvement.

The six service quality factors and their operating measures are presented herewith.

1. Human Aspects of Service Delivery

1. Level of providing services as per the promised delivery schedule.*
2. Level of technical capability of the staff to identify the critical problems in the vehicle and take corrective actions.
3. Level of reliability of the service station in handling customers' grievances and redressing them.
4. Degree of interest shown in handling the customers' requirements.
5. Extent of giving caring and giving the best attention to the customer by keeping customer delight in mind.
6. Level of effectiveness of employees to understand the needs and expectations of the customers and delivering prompt service to them.*
7. Level of goodness of employees who are consistently courteous and well behaved with the customers.
8. Extent of undertaking the services as promised.

9. Degree of doing services correctly at the first instance itself.
10. Extent of periodically updating the customers about the operations schedule.
11. Level of employees with sufficient technical knowledge to clarify customers' doubts after servicing the vehicles, thereby instilling confidence in them.
12. Level of making customers to feel safe and secure in their business transactions.

2. Core Service

1. Degree of availability of various service schemes (e.g. pre-paid service, post-paid service, availability of loans, etc.).
2. Extent of service delivery, based on service charge (e.g. quicker delivery of vehicle by paying higher service charge, normal delivery of vehicle by paying lower service charge, etc.).
3. Degree of availability of all types of facilities in all service locations.
4. Extent to which service station's working hours and days are convenient to the customers.

3. Social Responsibility

1. Extent of equal treatment to all customers irrespective of their status in society.*
2. Extent of doing service at a reasonable cost without compromising on quality.*
3. Level of practice of value-added services in the service station.
4. Emphasis on establishing service station at all locations, viz. urban, semi-urban and rural areas.
5. Level of conducting free pollution control checkup of exhaust gases.
6. Extent to which customers are informed/apprised about the safety precautions to be followed while driving.

4. Systematization of Service Delivery: Non-Human Aspects

1. Level of simplification and standardization of processes to ensure prompt service delivery without any delay.
2. Level of upgradation of available technology in the service station for better accuracy in the service operations.*

3. Extent of fool-proofing the service delivery processes.
4. Level of establishing necessary machineries in the service station to achieve enhanced customer satisfaction.
5. Extent of easy retrieval of documents through computerization.

5. Tangibles of Service - Servicescapes

1. Extent to which customers lounge and other furniture are comfortable for discussion with employees by the customers.
2. Extent of suitability of the environmental factors like temperature, ventilation, noise and odour to the employees and customers of the service station.
3. Level of appearance of employees who have a neat and professional look.
4. Extent of display of safety precautions in the service station.*
5. Extent of display of product advertisement boards in the service station.*
6. Extent to which service delivery status is displayed in the service station.*
7. Extent to which service station layout and other facilities are visually appealing.
8. Extent to which materials and colours used in the service operations are visually appealing.
9. Degree of priority given to housekeeping practices in the service station.

6. Service Marketing

1. Level of providing extended warranty to vehicles.*
2. Extent of sending reminder letters to customers for routine service and maintenance of the vehicles.
3. Level of informing the customers of next due-date of service by telephone or emails.
4. Level of indication of next due-date for service by means of coupons.
5. Extent of undertaking quick repair service in the service station.
6. Level of providing free checkup/service to vehicles by conducting service mela.*

* Items dropped for improving reliability values.