

# Measurement of Service Quality of an Automobile Service Centre

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## Abstract

Service quality is an essential aspect for any service provider, and automobile service industry is no exception. Here customers are much concerned about after sales service. This paper aims at measurement of current service quality level of a typical automobile dealership in an Indian city. The study was conducted using a representative survey of respondents, owners of one of the popular brand vehicles. In this paper, satisfaction/dissatisfaction of the customer has been measured using standard statistical tools, and an attempt has been made to find out reason(s) of dissatisfaction by applying root cause analysis. Current performance of the service centre was not found up to the mark. Necessary suggestions have been made and service centre has started executing them for the improvement in current service quality level.

## Keywords

Service industry, service quality, after-sales service, root cause analysis.

## 1. Introduction

### 1.1 Quality in Service Sector

The service sector is going through revolutionary change, which dramatically affects the way in which we live and work. New services are continually being launched to satisfy our existing and potential needs. Service organizations vary widely in size. At one end of the scale are huge international corporations operating in such industries as airlines, banking, insurance, telecommunications, and hotels. At the other end of the scale is a vast array of locally owned and operated small businesses, including restaurants, automobile service centers, laundries, beauty parlors and numerous business-to-business services, to name a few. The size of service sector is increasing in almost all economies around the world. Figure 1 shows how the evolution to a service-dominated economy is likely to take place over time as per capita income rises.<sup>1</sup>

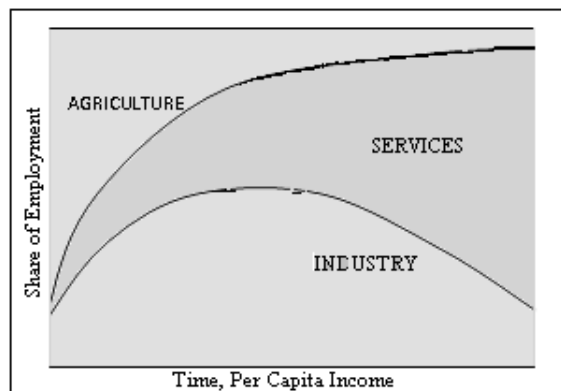


Figure 1: Changing structure of Employment as an economy Develops<sup>1</sup>

There are several reasons why customers must be given quality service. Most important of them are:

- Industry has become so competitive that customers now have variety of alternatives, if the customer is lost, it can be extremely difficult to win back the individual and
- Most customers do not complain when they experience problems. These customers simply opt out and take their business elsewhere<sup>2</sup>.

In services, it is the consumer who defines the quality. Therefore human side of service is key to deliver quality<sup>2</sup>. It can be seen as how well a service satisfies the expectations of customers (Bouman and van der Wiele, 1992). Service quality has an effect on customer satisfaction (Arasli et al., 2005; Zeithaml and Bitner, 2003; Kandampully, 1998) and customer loyalty (Heskett, 2002; Kandampully, 1998). Service quality creates competitive advantage for organizations and is associated with successful organizations (Kandampully, 1998). Service quality affects relationships and relationship marketing, as customers are willing to build relationships with organizations that provide service quality (Zeithaml and Bitner, 2003). Service quality has an effect on profitability and costs (Buttle, 1996)<sup>3</sup>.

Service quality has major influence on customer satisfaction as customers buy products or services and on whether they continue to do so<sup>4</sup>. With the aim of sustaining long term relationships with their customers, many businesses have changed their strategic focus to emphasize customer retention (Peng and Wang 2006). Preserving their long term customer relationships requires that these businesses both measure and appropriately adjust the quality of their customer's service. As a result measurement and improvement in the current service quality level are of interest to companies whose revenues in whole or part from service delivery.<sup>4</sup>

### 1.2 Justification

The research conducted mainly focuses on understanding and measuring customers' expectations and perceptions about the quality of service being provided. This would result in ascertaining the gap between customers' expectation and perception. The obvious next stage is to identify the reasons for this gap and finally the suggestions made for bridging this gap, and a follow up of the effectiveness of the actions taken.

## 2. Literature Review

Limited published research has been conducted into service quality in the motor industry with respect to the servicing of vehicles. This means that the issue of service quality in the motor vehicle industry is a largely unknown factor (Adele Berndt, 2009)<sup>3</sup>. After the development of SERVQUAL model by PZB (1985), it has been used by many researchers for the measurement of service quality in different fields. Service quality has given extensive importance in the literature. Researchers have done studies regarding service quality measurement in a wide variety of industries such as banking<sup>5</sup>, Information system<sup>6</sup>, higher education<sup>7</sup>, Port service<sup>8</sup>, and Restaurant industry<sup>9</sup>. The importance of service quality is seen in the effect that it has on the organization as a whole. It affects customer satisfaction, customer loyalty, customer – organization relationship, and Profitability and cost. Business organizations are required to improve their service quality for long term customer retention<sup>8</sup>.

Researchers have used various dimensions to define service quality. Gronroos (2001) identifies following components to define it as technical quality, functional quality and reputational quality. Sasser et al. proposed some other dimensions as materials, facilities and personnel (Johnson et al. 1995). Lehtinen and Lehtinen provide two- and three- dimensional approach to the service quality. The two dimensional approach includes process quality and output quality<sup>8</sup>. According to three dimensional approach equipment, image and interaction are the key factors in delivering service (Johnson et al. 1995).

Parasuraman, Zeithaml, and Berry (1988) initially identifies ten dimensions regarding service quality in their SERVQUAL model, however these were reduced to five dimensions namely: Reliability, Assurance, Tangibles, Empathy and Responsiveness. Zanutin et al. use SERVQUAL approach after its customization, here they have added 15 more service quality items relevance to higher education environment. Berndt (2009) explains these five dimensions with respect to automobile service centre as follows:

- **Reliability** (Promised delivery): Dealerships are known to contact the customer promising that the vehicle will be ready for delivery at a specific time. It is the most important dimension of service quality.
- **Assurance** (Confidence and trust): At dealership, the main source of assurance is with the service adviser, their knowledge and manner of interaction with the customer inspires trust in the organization.

- **Tangibles** (Physical cues): Tangible cues that form part of this dimension include the signage, parking and layout of the dealership itself.
- **Empathy** (Importance): In the case of dealership, this can be seen in the interactions between the organization and the customer, and the nature of this interaction.
- **Responsiveness** (Willingness to serve): This refers to the changes that have been observed in service hours from just being weekdays to include weekend and night services, due to the changes in the needs of customers.

### 3. Research Objective

The objective of this research is to measure the current service quality level of an automobile service centre. Service quality level depends on satisfaction /dissatisfaction of the customers. Dissatisfaction may be caused by various reasons. The reason(s) may be on all dimensions of the SERVQUAL model. We have tried to focus on two fold objectives. First, to find out the most influencing factor of dissatisfaction. Second, to suggest best possible solution for the root cause of dissatisfaction.

### 4. Flow Process Chart

Customer satisfaction /dissatisfaction is now the key element in the measurement of the service quality level. Dissatisfaction may occur at any interaction between customer and dealer. At service centre customers come for after-sales service. Servicing of vehicle is carried out through a sequential process. Figure 2 shows flow process chart includes different activities. According to customer's view, whole activities can be categorized as visible actions and invisible actions<sup>5</sup>. In this process service advisor plays important role because he always being in the direct contact with the customer.

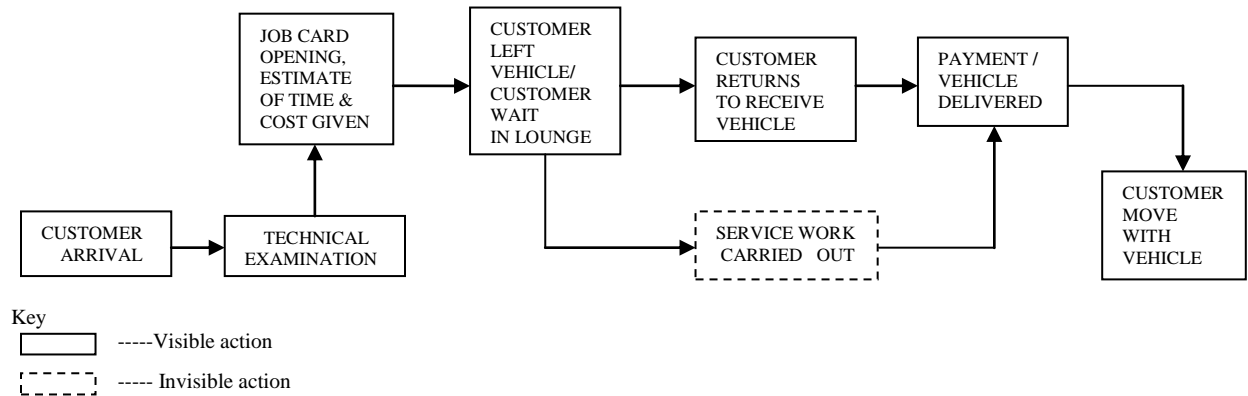


Figure 2: Flow process chart

### 5. Methodology

Researchers have suggested so many ways for measuring service quality, such as SERVQUAL instrument, SERVPERF, Topsis (Technique for order preference by similarity to ideal solution), Service quality loss method (or loss function), PPEQ (Picker patient Experience Questionnaire). Out of these methods SERVQUAL is the most popular one<sup>3</sup>.

#### 5.1 Data Collection

It has been proposed that different service dimensions are important in different industries. Initially authors did not have idea about important dimension for automobile service centre under study. Each dimension contains so many factors. Each factor affects service quality as because expectation of customers varies from customer to customer. In this study selection of major influencing factor was made by conducting a survey. Different opinions were received from questionnaires presented to sample respondents. Following factors were found to be prominent from survey report:

- Behavior of the Service Advisor.
- Response at billing counter.
- Delay of vehicle.
- Commitment of sales person.
- Hospitability.

- Technical work.
- Improper Washing and Cleaning of the vehicle.
- Others.

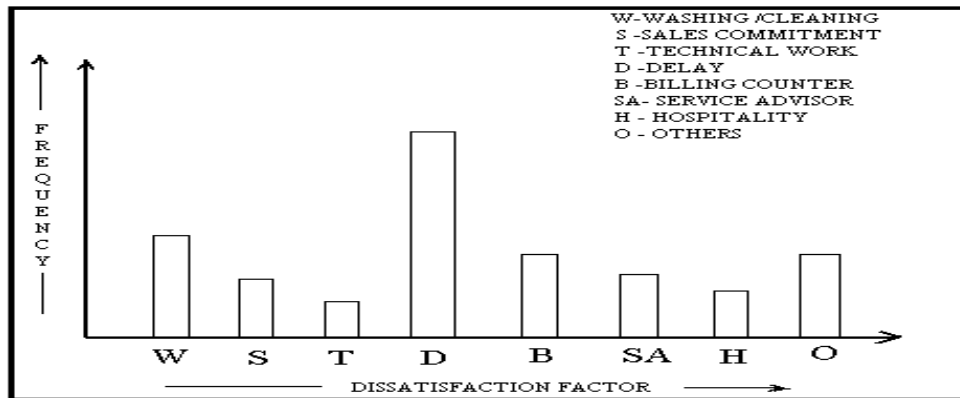


Figure 3: Bar chart

### 5.2 Outcome of Analysis

Bar chart (Figure 3) shows that majority of the customers were dissatisfied due to delay in delivery. It comes under reliability dimension of the SERVQUAL model. For confirmation we took data from 100 free service vehicles randomly for a period of one month. Figure 5 delay chart shows that 54% vehicles were not delivered on time. Hence only 46% customers were satisfied and 54% customers were dissatisfied by the performance of service centre. It is very big figure for an organization. It shows very poor performance of the service centre. Hence service quality level of the service centre is found to be very poor (46%). Although other factors are also responsible for dissatisfaction of customer but, to improve service quality level it is must, to first resolve problem of delay. So we concluded that delay is the most influencing factor of dissatisfaction and is adversely affecting the reliability of the dealership. Further research was concentrated for finding out the reasons of delay. A root cause analysis was carried out. Fishbone diagram for delay is shown in Figure 4. Data taken for free service vehicles were again analyzed.

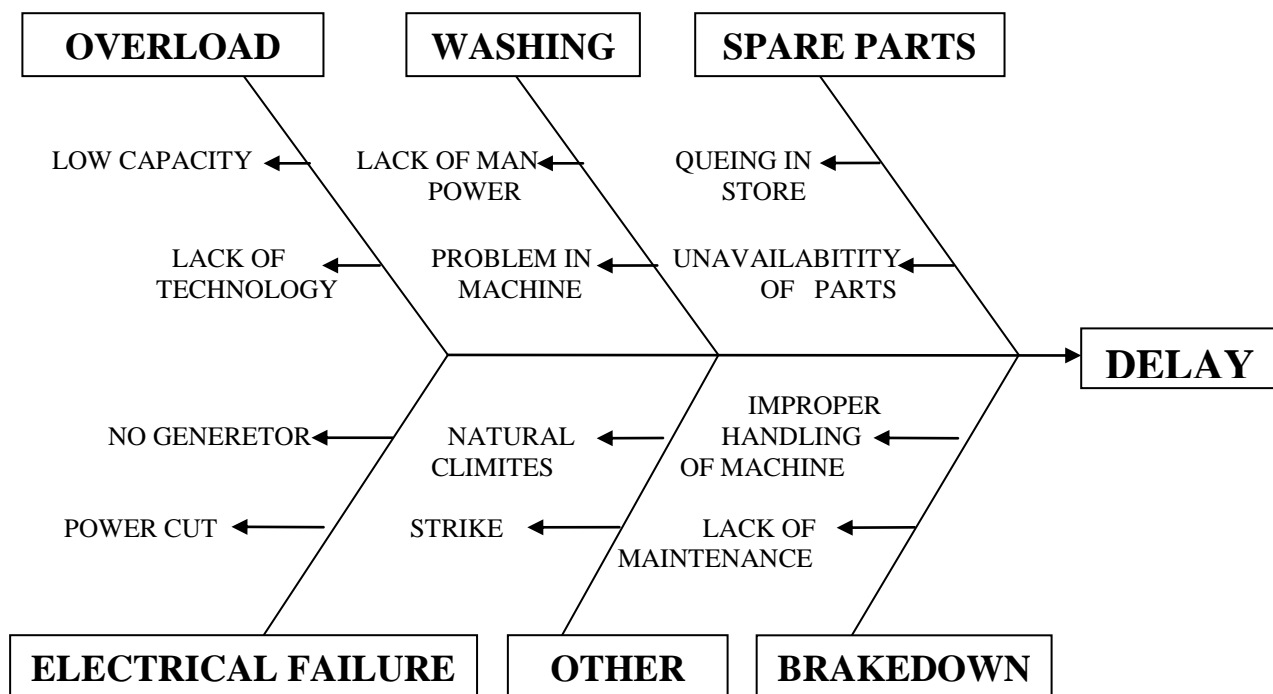


Figure 4: Fishbone Diagram for Delay

Result of analysis is shown in reason chart Figure 6. According to reason chart 50% vehicles were delay due to overload of the service centre. Hence it is the most critical reason responsible for dissatisfaction or poor service quality level. To improve service quality level of service centre problem of overloading has to be solved. It will also solve some consequential reasons associated with overloading.

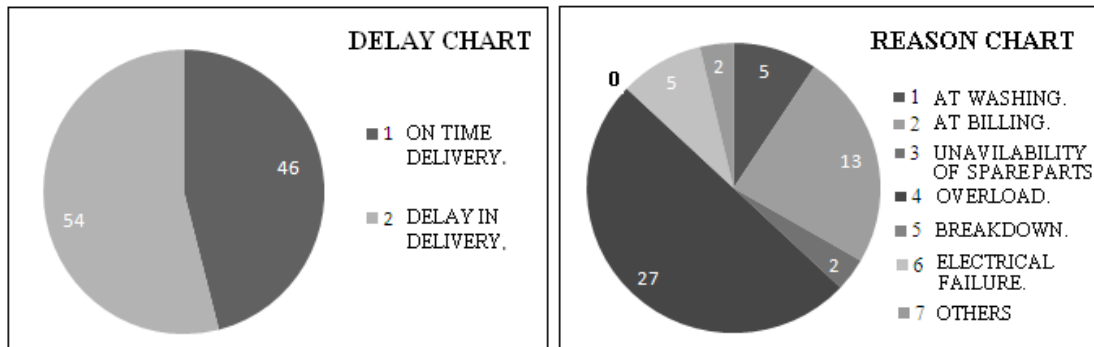


Figure 5: Delay chart

Figure 6: Reason chart

## 6. Conceptual Model of Service

Service quality is a function of the difference (i.e. Zone of tolerance) between perceived service and expected service. The extent to which customers are willing to accept variation in service quality is known as zone of tolerance. Zone of tolerance is a function of four internal gaps related to service provider. People tend to evaluate service quality primarily based on experience characteristics<sup>10</sup>. Customer is having high degree of expectations based on several situational factors such as authorized dealership, past experience, personal needs, and alternate source. In the model (Figure 7), only reliability is shown as service dimension because the most influencing factor as resulted from the research was found to be delay.

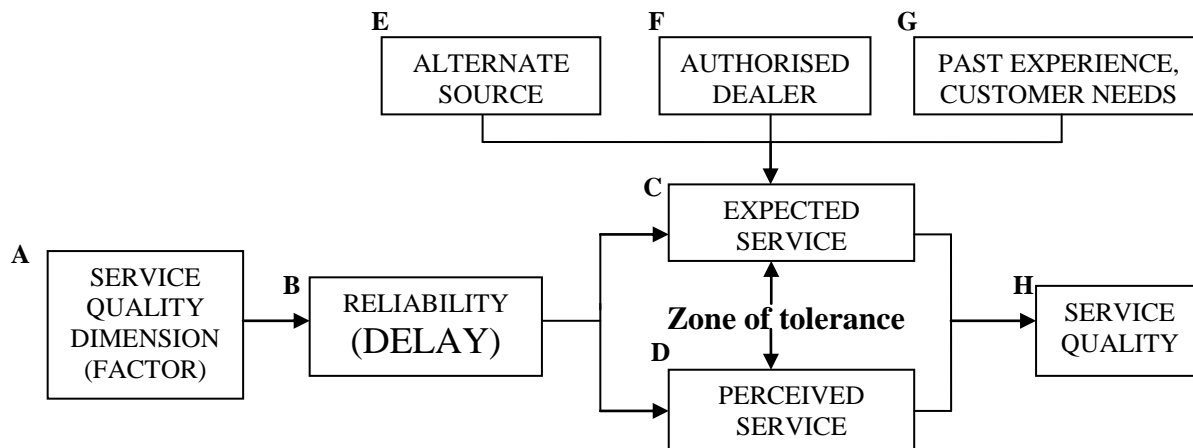


Figure 7: Conceptual Model of Service

In order to understand this conceptual model of service let us take the example of case study under consideration. Following may be the interpretation of different blocks appearing in Figure 7.

- A – Service quality dimensions such as Reliability, Assurance, Tangibles, Empathy, and Responsiveness.
- B – In this case Reliability (Delay/in-time delivery) is found to be the most influencing dimension of service quality.
- C – Customer’s expectations about the service which is the function of E, F and G.
- D – Customer’s perceptions about the service received from the service centre.
- E – Expectations as a consequence of the competitive environment in the industry.
- F – Higher expectations from the service centre of an authorized dealership.
- G – Expectations based on customer’s needs and past experience.
- H – Service quality received by the customer which is the function of zone of tolerance.

## 7. Suggestion

Overloading could be avoided in two ways. One is by capacity adjustment, another is by technology change. Capacity adjustment can be done by resource expansion i.e. by increasing workforce and tools/equipment. But due to space constraint at service centre, no further resource expansion is possible. Hence, the only alternative left was to increase the number of working hours (shifts). It has been suggested to check the feasibility of adding one more shift to ensure smooth loading and better quality.

Considering the load v/s capacity situation, service centre also needs to acquire latest technology, e.g. presently at service centre washing and cleaning of vehicles is done manually, it can be replaced by automated washing plant. By doing so, it will have the advantage of time and quality both.

## 8. Conclusion

The main aim of this research was to measure current service quality level of an automobile dealership in an Indian city. The research was focused on only one factor of dissatisfaction i.e. delays in delivery. As other factors have not been considered, the results of this study are limited. Similar kind of study could be conducted for other factors also. However, it has been observed that most of other factors will be automatically taken care of once the suggestions mentioned above are implemented. Service center has already executed the first suggestion, i.e., working in double shift, and apparently, seem to have attained good improvement. Further analysis will be carried out to assess the quantum of improvement in service quality level.

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