

Optimizing Automobile Maintenance: Enhancing Customer Satisfaction through Efficient Service Layout and Time Management at Maruti Service Center, Bhopal

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Abstract: The Indian Auto Industry is one of the largest in the world. The industry accounts for 7.1 per cent of the country's Gross Domestic Product (GDP). India are also a prominent auto exporter and have strong export growth expectations for the near future. The increment and decrement in the number of customers is totally depend on customer satisfaction. In the present time there is a lot of competition in the market so there is a need to be conscious about customer satisfaction. This paper deals with automobile maintenance with good layout workshop and customer satisfaction. The paper is constituting of three main objectives. To reduce time involve in servicing and delivery. To reduce labor cost. The study was done in Maruti Servicing center, Bhopal. The objective was attained by making a good service advisor track sheet in which with proper time management was done and the servicing time was reduced to 1 hr and 30 min and paid servicing was 2 to 2 and half hours. In new plan lobby executive is added and underbody check is added here in service center layout. Spare part shop, and the machine shop was also maintained inside the service center layout so unnecessary time wastage is prevented. A good layout plan for the workshop was also drawn which can be implemented in future for better service can be given to customers to satisfy them. In future this study can be conducted in different service centers.

Keywords: Automobile, quality, customer satisfaction, cost, time

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I. INTRODUCTION

In today competitive world, service to the customer has become an important business process which influences growth and development, profitability and greater access, and improved customer satisfaction and loyalty. Customer service also influences competitive advantage,

profitable opportunities, product quality through improved scales and income. Thus, in both developed and developing countries, the recognition of the relevance of the service sector has increased with great alacrity. Service providers are therefore basically concerned on providing improved service quality with the aim of increasing the levels of customer satisfaction

and loyalty. According to Kumar and Tour (2003) the duties and functions of the services sector are variegated. These include provision of logistics and spare parts, documentation, startup services improved products, insurance, warranty, call centre services, training and maintenance and repair. Calif (1987) defines maintenance as changing, cleaning, installing and restarting up problematic components. Khasker et al (2011) explain that the motor vehicle services industry presently encompasses leasing, training, innovational services (such as data managing functions) communication, training, discovery services which involves product fault detection and rectification without customer cost (Kruse et al 2010) as well as maintenance and repair. In the motor vehicle industry the provision of maintenance and repair is an indispensable component of customer service product is continuously maintained. In spite of the great importance attached to service quality, customers in the industry do not have the required expertise and experience and therefore have disadvantage bargaining power. Many researchers are of the opinion that customers do not have full capacity to dialogue required needs with service providers due to ignorance in the antecedents of the industry, making them culpable to cheating and loss of money.

II. METHODOLOGY

The research was conducted at Maruti servicing center, Bhopal. Various processes are carried out in the servicing center which is shown in following figures. The customers were asked to indicate their level of satisfaction by using 5 point Scale (from 1= strongly dissatisfied to 5= strongly satisfied). the data collected was analyzed.



Figure 1. Workshop



Figure 2: Car checking



Figure 3: Inside Workshop

The main objective of study was to reduce labor cost these are some of the points through which the labor cost be reduced. Labor costs are often one of the largest line items on your company balance sheet. Therefore, a successful cost reduction strategy must adequately balance resourcing and cost controls. There are a variety of direct and nuanced methods to help improve the methods for reducing labor costs, as well as why reduced production costs add value to the organization. Some points were safety enhancement, provide good training, reduce employee turnover and increase productivity etc. The new work shop layout plan in which lobby executives are there to attend the customers, under body check up system is added, spare part shops and machine shops are added inside the service center to prevent wastage of time.

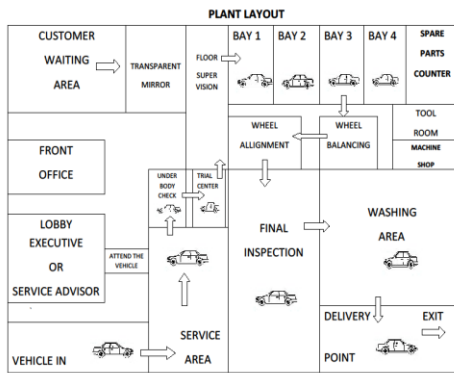


Figure 4: work shop layout plan

The new layout plan. In this lobby executive is added and underbody check is added here in service center layout this thing is not there. Spare part shop, and the machine shop was also maintained inside the service center layout so unnecessary time wastage is prevented in this way time is managed here in new layout plan

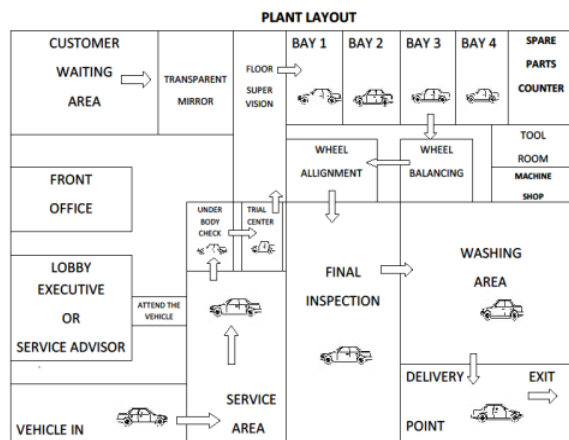


Figure 5: Workshop Layout Plan

The figure 5 shows the new work shop layout plan in which lobby executives are there to attend the customers, under body checkup system is added, spare part shops and machine shops are added inside the service center to prevent wastage of time

The company layout plan in which there is no lobby executive entertaining the client and no underbody checkup is done for the vehicle, and also there is no spare part and machine shop inside the service center so if any parts for machine is required the mechanic has to go outside the service center and take the spare parts from

the godown and then come back, this cause a lot of time wastage. The next objective was to satisfy customer. In the automotive industry it always depended on innovation to develop today's super advanced vehicles. These four innovations are revolutionizing the automotive customers' experience. More than ever, today's vehicle industry is looking beyond the creation of faster and more efficient cars. While these characteristics remain important, automotive companies are trying to find ways to improve the customer experience, making sure that their clients remain loyal to their brands, coming back when it's time to change their cars with newer models. Customer satisfaction is defined as the percentage of total customers who are using the product and experience the quality of service of their service centre and they feel happy or satisfy.

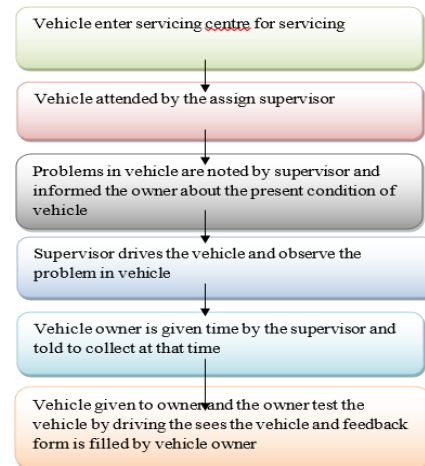


Figure 6: Service Flowchart

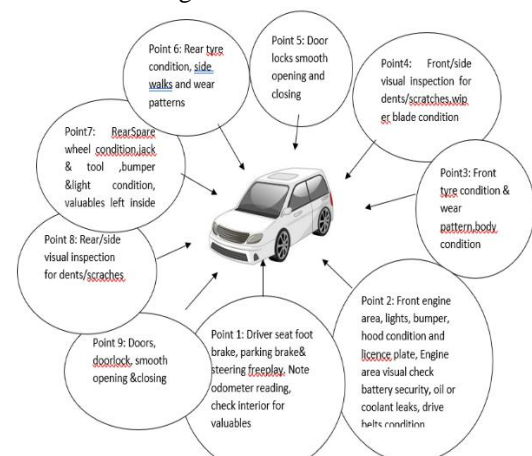


Figure 7: Parts of Car

III. RESULTS

Time management is the most important objective in this study. The objectives was achieved by making good tracking sheet and a good layout plan. vehicle tracking sheet shows how the time is reduced in all the activities of servicing of vehicle whether it is first, second or third servicing. The service adviser has to do the trial of vehicle when he is receiving within 2 min, next thing is to be focused that the job card is opened with in 8mins, the complete servicing time for vehicle is 90min that is 1hr 30min and the paid service takes 2 to 2 and half hours. In this service advisor and lobby executive do their job properly to attain the objectives. The tracking sheet of service center there is no lobby executive. The vehicle job card opening is taking 20 – 30 mins. And the delivery time is taking 3 hrs because of lack of proper supervisors. The new layout plan. In this lobby executive is added and underbody check is added here in service center layout this thing is not there. Spare part shop, and the machine shop was also maintained inside the service center layout so unnecessary time wastage is prevented in this way time is managed here in new layout plan. The overall satisfactory index was very good as given by customers.

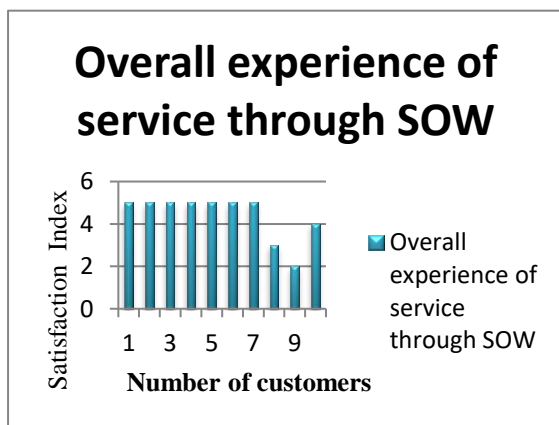


Figure 8: shows overall experience at service through SOW

Figure 8 explains about the overall experience of service through SOW. Out of 10 customers 7 customers have rated as 5 and others have rating as 4.

1. Sanket Kale, Customer Satisfaction Analysis in four wheeler service centre: A review, International Journal of Innovations in Engineering and science, Vol 2, No.12,2017pg no.19

2. K. Aboltins, B. Rivza, The Car Aftersales Market Development Trends in the New Economy, Procedia - Social and Behavioral Sciences, 110 (2014), pp. 341-352.

3.T.B. Alejandro etc, The outcome of company and account manager relationship quality on loyalty, relationship value and performance, Industrial Marketing Management, 40 (1) (2011), pp. 36-43.

4.W.L. Alexander, etc, The secret life of factory service centres, The McKinsey Quarterly, 3 (2002), pp. 106-115.

5.G. Anand, P. T., Role of explicit and tacit knowledge in Six Sigma projects: An empirical examination of differential project success, Journal of Operations Management, 28 (4) (2010), pp. 303-315.

6.T.W. Andreassen, From Disgust to Delight: Do Customers Hold a Grudge? Journal of Service Research, 34 (39) (2001), pp. 156-175.

7. M. Atalaya, F. The relationship between innovation and firm performance An empirical evidence from Turkish automotive supplier industry, Procedia Social and Behavioral Sciences, 75 (2013), pp. 226-235.

8. W. Boulding, A.A dynamic process model of service quality: From expectation, Journal of Marketing Research, 30 (1) (1993), pp. 7-27.

9. R.G. Bundschuh, T.M. Dezvane, How to make after-sales services pay off, McKinsey Quarterly, 4 (2003), pp. 116-127

10R. Chougule, Dnyanesh An integrated framework for effective service and repair in the automotive domain: An application of association mining and case-based-reasoning, Computers in Industry, 62 (2011), pp. 742-754

REFERENCES



11.R. Chougule, A fuzzy logic based approach for modeling quality and reliability related customer satisfaction in the automotive domain, Expert Systems with Applications, 40 (2) (2013), pp. 800-810

12.R. Delbridge, The process of benchmarking: A study from the automotive industry, International Journal of Operations & Production Management, 15 (4) (1995), pp. 50-62