

A STUDY ON QUALITY OF PRODUCTS AND SERVICE IN AUTOMOTIVE INDUSTRY

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ABSTRACT

The introduction of new models to the market has helped the automotive industry grow into a massive global sector. Profitability, expenses, customer satisfaction, and customer retention are all correlated with service quality. Any service sector that doesn't satisfy its clients by offering high-quality service will not be able to thrive in this fiercely competitive climate. The gap between a customer's service expectations and the service they actually receive, or perceive, is the level of service quality. Customers establish their service expectations based on prior interactions, word-of-mouth, and advertising. Customers typically compare the perceived and expected levels of service, and they get dissatisfied if the former is below the latter. Consumer survey data on service quality has evolved into a frequently utilised company performance indicator.

Keywords Customer, Quality, Service, Perception and Expectation

INTRODUCTION

In terms of revenue, the automotive industry ranks among the largest economic sectors in the world. Motor cars, towing vehicles, motorcycles, and mopeds are all products that it creates, develops, produces, markets, and sells. Automobiles transformed civilization during the 20th century, especially in the United States and other industrialized nations. The modern landscape, from the growth of suburbs to the development of intricate road and highway systems, has been irrevocably altered by so-called horseless carriages. Automobile production, sales, and maintenance now account for a sizeable portion of the industrial sector. Automobile accidents are one of the leading causes of death and injury globally, and the automobile has also contributed to noise and air pollution. Along with greater mobility and job growth, this is also true.

OBJECTIVE

To identify the quality of products offered by the Automotive Companies

REVIEW OF LITERATURE

Managing of all automotive tools like bikes, cars is a complex task to be performed within shorter time if the studied demand for certain car models is available, as buyers' requirements for reliability, durability, and comfort are getting higher every year. To cope with these conflicting constraints, it's necessary to apply tools, to simplify the analysis of the data obtained at all stages of the car development. For this purpose, the fourth group of scientists described methods for solving the tasks of modeling of a quality competitive car at the stage of development, manufacture, and planning, as well as of service and maintenance **Aaker, Shanby, (2007) Jahanshahi&Afshar, (2010)**. Also, an interesting analysis is presented by the third group of researches exploring the relationship of customer service and business opportunities for auto sale centers. The authors prove the impact of the service on the purchase and return for repeat purchase **Dean (2007)**. After-sales services (ASS) is mostly used to describe services which are delivered after the delivery of a certain commodity for the purpose of supporting consumers' usage of product throughout its life cycle **Gaiardelli et al., (2007)**. An analysis of the existing methods and approaches to evaluation of customer satisfaction showed that the most interesting are theoretically approaches of. Customer satisfaction was evaluated by the five-point Likert scale, the Gap model, R. Kolman's (2009) scale, the method of complex research of integrated indicators of customer satisfaction. They allowed to form six phases of the evaluation of customer satisfaction, namely: 1 – determination of the survey goal; in particular – detection of critical indicators, entailing a decrease in demand for products; revealing of customers' expectations, essential for keeping market positions, separation of clients by values and so on; 2 – creation and ranking of the main indicators principal both for the manufacturer and for the consumer, and allowing to get answers to the set the survey goal; 3 – preparation of databases of companies-respondents; 4 – development of survey questions, of the rating scale; 5 – distribution of surveys by fax or e-mail to the companies-respondents, while their routing is clearly tracked. 6 – evaluation of the collected survey data of consumers' satisfaction with the product quality and service level. In order to increase the respondents' motivation to fill questionnaires and to arrange feedback from consumers, the results of each survey should be followed by written notices of the events developed and to be executed on the basis of the received survey data **J.J. Lambin (2008)** study on perceiving service quality in the Greek automotive repair industry used SERVPERF as a measurement tool. The study results confirmed that the five SERVQUAL dimensions of service quality do not appear as effective dimensions; instead, the study produced three new dimensions: holistic customer consideration, infrastructure, and empathy There are two main outcomes that can be concluded from the above results. The first outcome is that a customer will be satisfied by a service center if he or she perceives the service center delivers high quality service. The second outcome is there is no standard measurement system, attributes, or dimensions that can be used by all firms to measure their customers' satisfaction levels **Andronikidis's (2009)**

Repeat purchases can be defined as a positive reaction to the brand (i.e. behavioural loyalty) and automatism caused by and associated with a contextual tip (for example, habit). The authors offer diagnostic tools to distinguish between two kinds of repeat

purchases, and examine how they affect the consumers' reaction and sale of automakers' shares. This study deepens understanding of the causes of changes in automakers' share sales, and provides important management ideas for development of effective sales to regular customers **David, (2009) Pitts, Lei 2003 Springdal, (2012); Steinbrecher&Moewes,(2010)**.As mentioned was applied to assess the quality of cars. This multi-criteria method allows to accurately calculate the quality indicators. However, the quality represented in digital form can be only an intermediate stage in the decision-making process, for example, to buy a car. Thus the objective, efficient and versatile methodology should be applied to estimate the car quality that allows to determine the complex quality indicator with values in the range [0;1] based on the weight values of the measured characteristics**Kolman (2009)**.

Measured the quality in the range and asserted that among unlimited possibilities of the choice of any number for variations in the reference quality state, 1 is best matching as allows interpreting the limit final value of a degree of quality perfection. Service Quality is the term associated with the customer satisfaction. Service quality is defined as the quality of services provided by the industry. The service quality for any industry generally measured with the help of the SERVQUAL model. The SERVQUAL model is developed by Parasuraman, Zeithaml **R. Kolman (2009)** examines the four major variables of Perceived Quality (PQ), Service Quality (SQ), Customer Satisfaction (CS), and Customer loyalty (CL). For assessment of SQ, the five SERVQUAL dimensions of reliability, responsiveness, assurance, empathy, and tangibles are adopted as the evaluation criteria. In the assessment of CS in the automobile industry, after-sales service plays a crucial role, as an automobile is a tangible and durable product purchased for long-term use **Peng-Chan (2009)**.Studied the customer satisfaction level for Hyundai motors and for Hyundai they have selected the model of the car is i10.A sample size of 150 respondents is taken for the survey. A structured questionnaire is prepared and it is filled by the customer of Hyundai i10 car users. The collected data is then analyzed with the help of statistical tools such as percentage analysis, regression analysis and chi square test. In this study they also identify the post purchase behaviour of a customer. It is concluded in this study that the customers of i10 users are completely satisfy with the car performance and service quality also and they feel that this is the luxury status of their lifestyle and it is the car which is most stylish car in the segment **Ganesh et al (2010)**. The quality perception can be considered as a multifactorial phenomenon, which can be divided into three stages: — before purchase; — during purchase and sale; — after purchase, after-sale service at network of dealerships and unincorporated service stations. All the points of intersection of these stages can affect the customer satisfaction level - to increase or decrease it. It is therefore important so that the "customer focus" would be one of the priorities at the automobile enterprises and known, obvious and applied by all employees. Opinion of different researchers and scientists on customer satisfaction and service quality has been studied by the authors **W. Schneider (2014)**,In order to address this gap, we proposed a general framework which can be applied to different contexts. We used this framework to assess how each element of quality contributes to overall customer satisfaction in automobile after sales services sector. Fot this purpose, we integrated the existing metrics of service quality (SERVQUAL) with Fuzzy Kano model in order classify service quality elements, and assess the contribution of

each element to satisfaction of customers. Moreover, recognizing attitudinal dissimilarities among individuals, we studied similar customers separately, taking advantage of RFM model for clustering. This approach helps us considering the desires of more customers, while maintaining the calculations feasible. In order to address differences in store formats **Koschmann and Isaac, (2018)**.

Analysis

Mean and Standard Deviation analysis for measuring variables

Quality of Services

Table – 1

The spare parts sales and service center has a high level of automation

Scales	Respondents (n)	Percentage (%)	Mean Value	Std Deviation
Highly Dissatisfied	32	4.7	3.39	0.974
Dissatisfied	88	12.9		
Neutral	200	29.3		
Satisfied	305	44.7		
Highly Satisfied	58	8.5		
Total	683	100.0		

Source – Field Survey (SPSS Output)

Discussion:

According to table 4.13, out of 683 respondents, nearly half of them, that is, 305 respondents (44.7%) accepted that the spare parts sales and service center has a high level of automation. About 200 people (29.3%) said they neither agreed nor disagreed with the statement. The mean value is 3.39, which is marginally higher than the midpoint 3, meaning that the respondents answered the question relevantly to test the construct, and so the overall answer is unanimously favourable.

Table – 2

This sales and service center gives me individual attention

Scales	Respondents (n)	Percentage (%)	Mean Value	Std Deviation
Highly Dissatisfied	8	1.2	3.34	0.864
Dissatisfied	98	14.3		
Neutral	284	41.6		
Satisfied	237	34.7		
Highly Satisfied	56	8.2		
Total	683	100.0		

Source – Field Survey (SPSS Output)

Discussion:

Respondents who had visited the automotive spare parts company were asked if they were given individual attention at the sales and service center. The result was

moderate as 284 respondents (41.6%) were neither satisfied nor dissatisfied while 237 respondents (34.7%) were satisfied with the individual attention given to them at the center. The mean value is found to be 3.34, which is more than the significant value 3. Also, the standard deviation is 0.864, which indicates that the response is accepted as favorable without any dissent, however the overall result is considered neutral.

Table – 3
The technicians have a good amount of experience

Scales	Respondents (n)	Percentage (%)	Mean Value	Std Deviation
Highly Dissatisfied	18	2.6	3.69	0.948
Dissatisfied	50	7.3		
Neutral	183	26.8		
Satisfied	301	44.1		
Highly Satisfied	131	19.2		
Total	683	100.0		

Source – Field Survey (SPSS Output)

Discussion:

The researcher put forth the question if the technicians have a good amount of experience in sales and service of automotive spare parts. It was evaluated that about 301 respondents (44.1%) were satisfied followed by 183 respondents (26.8%) being neutral. The mean value was estimated to be 3.69, which is higher than the midpoint value 3 and standard deviation is 0.948, indicating that the level of agreement lies on agreement state. Therefore, the response to this question is positive.

Table – 4
They maintain a consistency in the quality of products

Scales	Respondents (n)	Percentage (%)	Mean Value	Std Deviation
Highly Dissatisfied	18	2.6	3.37	0.992
Dissatisfied	112	16.4		
Neutral	240	35.1		
Satisfied	223	32.7		
Highly Satisfied	90	13.2		
Total	683	100.0		

Source – Field Survey (SPSS Output)

Discussion:

The above table illustrates the output of the response given by the survey participants when asked about the organization maintaining a consistency in the quality of products. The result was that a maximum number of respondents stayed unbiased towards the question resulting in 240 of them (35.1%) being neutral. 223 respondents (32.7%) said they are satisfied with the maintenance of product quality consistently. The mean value derived for this output is 3.37 and standard deviation is 0.992, meaning that the response to this question is acceptable and that the automotive spare parts organization maintain quality of products on a moderate basis.

Table – 5

Services provided by the sales and service center are highly effective

Scales	Respondents (n)	Percentage (%)	Mean Value	Std Deviation
Highly Dissatisfied	16	2.3	3.74	0.880
Dissatisfied	37	5.4		
Neutral	169	24.7		
Satisfied	347	50.8		
Highly Satisfied	114	16.7		
Total	683	100.0		

Source – Field Survey (SPSS Output)

Discussion:

When asked whether the services provided by the sales and service center are highly effective, the outcome was that half of them counting to 347 respondents (50.8%) replied saying they are satisfied with the services and 114 (16.7%) said they are highly satisfied. While 169 of them (24.7%) stated that they are neither satisfied nor dissatisfied. Therefore, it is clear that the services offered by the selected organizations are very effective. The mean and standard deviation calculated for this table is 3.74 and 0.880 respectively, which means the outcome is favourable to the construct.

Findings

1. According to table 4.13, out of 683 respondents, nearly half of them, that is, 305 respondents (44.7%) accepted that the spare parts sales and service center has a high level of automation.
2. Respondents who had visited the automotive spare parts company were asked if they were given individual attention at the sales and service center. The result was moderate as 284 respondents (41.6%) were neither satisfied nor dissatisfied while 237 respondents (34.7%) were satisfied with the individual attention given to them at the center.
3. The researcher put forth the question if the technicians have a good amount of experience in sales and service of automotive spare parts. It was evaluated that about 301 respondents (44.1%) were satisfied followed by 183 respondents (26.8%) being neutral.
4. The result was that a maximum number of respondents stayed unbiased towards the question resulting in 240 of them (35.1%) being neutral. 223 respondents (32.7%) said they are satisfied with the maintenance of product quality consistently.
5. When asked whether the services provided by the sales and service center are highly effective, the outcome was that half of them counting to 347 respondents (50.8%) replied saying they are satisfied with the services and 114 (16.7%) said they are highly satisfied. While 169 of them (24.7%) stated that they are neither satisfied nor dissatisfied. Therefore, it is clear that the services offered by the selected organizations are very effective.

Suggestions:

According to the survey, the most important determinants of customer service satisfaction in the automotive maintenance and repair market are reliability and responsiveness.

Conclusion:

The conclusion of customer service satisfaction is positively correlated with perceived service fairness, perceived service convenience, and service quality dimensions (reliability, responsiveness, and empathy), and that both service satisfaction and trust have a positive impact on word-of-mouth. The data are consistent with the idea that service satisfaction can mediate the link between responsiveness and word-of-mouth (WOM) and reliability.

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