

FACTORS INFLUENCING SERVICE QUALITY OF AUTOMOTIVE SPARE PARTS IN CHENNAI DISTRICT

S. Ramesh

Research Scholar, Department of Business Administration, Bharath Institute of Higher Education and Research, Chennai, ssramesh2003@gmail.com

Dr. A.Geetha

Professor and Head, Department of Business Administration, Bharath Institute of Higher Education and Research, Chennai

Abstract

The Automotive Component Manufacturers Association of India (ACMA) reports that the Indian automotive parts industry experienced a notable growth of 32.8% in its turnover during the fiscal year 2023, resulting in a total value of INR 5.6 lakh crore. The potential growth of the automotive component industry in the fiscal year 2023 may be attributed to various factors, such as robust automobile sales, a thriving aftermarket segment, and sustained export endeavors. The significance of service quality is a crucial element inside marketing strategy. The aforementioned factor plays a crucial part in the process of both acquiring and retaining clients. The establishment of a robust reputation and the cultivation of client loyalty are outcomes that organizations can achieve via the regular delivery of high-quality products and services. The primary objective of this study is to gain a comprehensive understanding of the various factors that influence the service quality of automotive spare parts within the Chennai District. The present study is characterized by its descriptive nature and employs a deductive technique. It is conducted within the context of the automotive sector in Chennai. This study is constrained to individuals who utilize automotive spare parts. A sample size of 160 automobile consumers was selected using a convenience sampling method. A meticulously designed questionnaire was developed by modifying an existing study. The validity and reliability of the service quality questionnaire have been established in the present study, as all dimensions have been confirmed and all constructs match the criteria for validity. The questionnaire's reliability and validity were assessed using Gaskins' master validity technique, which yielded affirmative results. The data analysis was performed utilizing the SPSS and AMOS software applications. The study's results indicate that the service quality of automobile firms in the Chennai district is impacted by various factors, including tangibles, reliability, assurance, responsiveness, and empathy. The aforementioned attributes hold considerable significance in shaping the overall consumer experience. Automotive companies should prioritize the following areas in order to enhance their overall customer experience. Through consistent delivery of high-quality products and services, a firm has the ability to establish trust and nurture client loyalty.

Keyword: Service quality, Automotive Industry, Tangibles, Reliability, Responsiveness, Assurance, Empathy

I. INTRODUCTION

According to the Automotive Component Manufacturers Association of India (ACMA), the turnover of the Indian auto parts sector in the fiscal year 2023 has witnessed a significant increase of 32.8%, reaching a total of INR 5.6 lakh crore. The expansion of the automotive component business in the fiscal year 2023 can be due to several causes, including strong car sales, a flourishing aftermarket sector, and consistent export activities. **(ACMA Report, 2022)**

Despite encountering economic downturns in key export markets such as Europe and the United States, India's automotive component exports had a notable increase of 5.2%, amounting to INR 1.61 lakh crore (USD 20.1 billion) for the fiscal year. The continents of North America, Europe, and Asia collectively constituted the predominant share of exports, with North America exhibiting a noteworthy growth rate of 8%. The research additionally emphasizes the consequences of heightened vehicular activity and the surge in demand for pre-owned automobiles following the pandemic, resulting in a positive trend in the aftermarket across all sectors **Haque, I. U., et al (2021)**. The turnover of the aftermarket in the fiscal year 2022-23 amounted to INR 85,333 crore (USD 10.6 billion), representing a substantial increase compared to the previous year's figure of INR 74,203 crore (USD 10.0 billion). **Miglani, S. (2019)**.

Service quality is an important component of marketing strategy. It plays a crucial role in attracting and retaining customers. When businesses consistently deliver high-quality products and services, they build a strong reputation and customer loyalty. This not only leads to repeat business but also generates positive word-of-mouth recommendations, which can significantly impact a company's bottom line **Ramya, N., (2019)**. Therefore, investing in service quality is essential for businesses to gain a competitive edge in the market and achieve long-term success. Service quality is critical in today's highly competitive market. Customers have more options than ever before, and they are willing to switch to a competitor if they are dissatisfied with the service they receive. Therefore, companies must prioritize delivering exceptional service to retain their customers and stay ahead of the competition. Whether it is providing prompt and efficient assistance, resolving issues in a timely manner, or going the extra mile to exceed expectations, a focus on service quality is essential for long-term success. **Seth, N., et al (2005)**.

In the automotive industry, service quality plays a crucial role in customer satisfaction and loyalty. With numerous options available, customers expect their vehicles to be serviced with precision and expertise. A dealership that consistently delivers high-quality service not only retains customers but also earns positive word-of-mouth recommendations, attracting new customers. Additionally, service quality is directly linked to a customer's perception of the brand, influencing their decision to purchase future vehicles from the same **manufacturer Rita, P., et al (2019)**. Therefore, in the competitive automotive industry, prioritizing service quality is vital for maintaining a strong customer base and staying ahead of the competition. By focusing on service quality, automotive manufacturers can build a loyal customer base that becomes advocates for their brand. These satisfied customers are more likely to share their positive experiences with friends, family, and colleagues, generating valuable word-of-mouth recommendations. Moreover,

in an industry where customer loyalty is crucial, providing exceptional service can differentiate a brand from its competitors and increase the likelihood of repeat purchases. Therefore, investing in service quality not only ensures customer satisfaction but also strengthens the brand's reputation and market position. **Javaid, M., et al (2021).**

With this background, the current study aims to understand the Factors Influencing Service Quality of Automotive Spare Parts in Chennai District. The first section gives a brief explanation to automotive Industry and importance of service quality. The second section explains the significance of service quality and its factors in light of the previous literature and a conceptual framework is drafted based on the identified gap. The Research methodology is discussed in the third section of the article, which explains the research strategy, the data collection tool and the sample design. The results of the study are presented in the fourth section of the article and the fifth section is the conclusion, which includes the limitations and scope for further research

II. REVIEW OF LITERATURE

The research utilized a systematic literature review approach to assess background reviews and independent studies related to service quality. A comprehensive selection process was conducted to identify and include articles in the review. The inclusion criteria for these studies were limited to those published in English within the past fifteen years. A detailed evaluation of the quality of literature was conducted by selecting literature. The whole texts of the respective study works were acquired for this purpose.

- **J. R. Balinado et al. (2021).** Service quality assessment is common in after-sales service, notably in the car industry. Using SERVQUAL, the study examined customer satisfaction at Toyota Dasmarias-Cavite Philippines' automotive after-sales service. SERVQUAL aspects including tangibles, reliability, responsiveness, assurance, and empathy were examined with customer satisfaction. In the five SERVQUAL characteristics, reliability and empathy were significantly related to customer satisfaction at Toyota Dasmarias-Cavite Philippines, according to SEM. Interestingly, tangibles, responsiveness, and assurance did not affect satisfaction. Customer satisfaction and trust in the organization are built when the servicing dealer provides high-quality service. With these, the company may retain and gain consumer loyalty, increasing profits and competitiveness
- **Shokouhyar, Shokoohyar, & Safari (2020).** Determining customer happiness aspects in retailing after-sales services has been thoroughly studied, but increasing competition requires investigating their actual impact on customer satisfaction. We propose a framework for analyzing after-sales service effectiveness on customer satisfaction in this study. Kano model and SERVQUAL framework categorized consumer satisfaction. RFM clustering was used to analyze 243,180 vehicle after-sales customers to address behavioral differences. Dissatisfaction decrement and satisfaction increase indices were measured for each cluster independently. We identified 21 quality components and showed their impact on customer satisfaction. We used RFM clustering

to handle consumer dissimilarities and showed each cluster's customer preferences and wishes. Some articles have identified the impact of after-sales services on customer satisfaction, but this is the first to identify their instrumentality. This study shows how after-sales service quality affects customer happiness. So, this study can help organizations manage resources more efficiently.

- **H. Amineh, N. Kosach (2016).** The article is relevant because customer pleasure drives carmakers' market competitiveness. The document addresses automaker product quality assessment. The assessment uses generally applicable complicated quality parameters. The quality index with price criterion can be utilized throughout automobile manufacturing and in the price-quality ratio, which completes car purchasing decisions. Automakers can employ study findings to improve product quality.
- **E. K. Yarimoglu (2014).** Over the past few decades, marketing literature has focused on assessing service quality and its dimensions. Scholars and practitioners have focused on service quality as services become more important. This study examined service quality models. This study chronologically reviewed service quality models. In the discussion, model dimensions were analyzed and three service quality dimension groups were found. They related to the 7Ps of services marketing mix: physical environment, people, and process. Practitioners should focus on services marketing tools and 7P to improve service quality. This study's weakness was that it analyzed service quality models produced before the 2000s, when e-service practices began to proliferate and models began to adapt.
- **M. S. Rahman, A. H. Khan, and M. M. Haque (2012).** This conceptual paper examines how SERVQUAL and Gronroos service quality models affect customer satisfaction. The model examines how functional quality, technical quality, internal, external influences mediated via corporate image, and service quality affect customer satisfaction. The approach also attempts to link customer pleasure to perceived prices when service quality mediates. Managers receive advice on adopting model concepts.
- **Shahin, M. Samea (2010).** Service industry competitiveness requires high service quality. Researching service quality models is essential for high-quality service. Many service quality models help managers and practitioners discover quality issues and boost performance efficiency and profitability. The service quality gaps paradigm is prominent in service quality literature. To improve the service quality gap model, this research critically reviews and expands it. A 16-expert survey verified the model. The proposed model has five more parts and eight more gaps than previous models.
- **W. Urban (2010).** This article examines if earlier customers' intensive experiences with the same and other suppliers affect service quality. Empirical research was done in auto service. Customer experiences, as measured by length of service provider connections and frequency of service use, do not affect service quality, according to empirical studies. Longitudinal client experiences affect service assurance expectations, dependability and responsiveness perceptions, and the assurance quality gap. The results also affect service managers.
- **Kang, G. D., & James, J. (2004)**Service quality scholars have paid little attention to service quality parameters. Early research relied on SERVQUAL material. The study examines

the European perspective (Groönroos' model) and proposes that service quality has three dimensions: technical, functional, and image, with image serving as a filter in perception. Results from a cell phone service sample suggest Groönroos' model better represents service quality than the American perspective, which focuses solely on functional excellence.

Research Gap

There is a limited amount of study available on the elements that impact service quality in the automotive sector, particularly in recent literature. This emphasizes the necessity for additional exploration in this particular field. Gaining insight into the various determinants that influence service quality within the Automotive industry is of paramount importance for both enterprises and consumers alike. Nevertheless, some studies have identified certain pivotal characteristics that are expected to exert an influence on service quality within the Automotive business. The factors encompassed in this category consist of customer happiness, employee training and expertise, service efficiency, and communication effectiveness. Additional investigation is warranted to delve into these issues more comprehensively and ascertain their impact within the sector. Hence, the present study aims to ascertain the determinants that impact service quality within the automotive business in Chennai. The research will center on conducting a survey among customers in order to collect their viewpoints on the quality of service.

RESEARCH METHODOLOGY

The current study is descriptive in nature and is based on deductive approach, the study is carried out across Automotive industry in Chennai. The study is limited to the users of automotive spare parts. A convenience sample of 160 automotive customers was selected. A well structured questionnaire was prepared by adapting to the study of **Nyadzayo, M. W., & Khajehzadeh, S. (2016). George and Mallery (2003)** provide the following rules of thumb: “_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and _ < .5 – Unacceptable”. The scores for reliability for all constructs in the service quality research instrument were above .9 and below .95 indicating excellent reliability. The inter item correlations between the constructs is tested using the confirmatory factor analysis. Convergent validity is the assessment of the degree of correlation among various concept indicators that show agreement. The indicator's factor loading, composite reliability (CR), and average variance extracted (AVE) must all be considered in order to determine convergent validity (**Hair Jr & et al., 2017**). The values are between 0 and 1. It is important for the AVE value to exceed the cutoff point of 0.50 in order to guarantee convergent validity. MaxR(H) - Maximum reliability > than MSV; CR - Composite reliability > than 0.70 (0.872); AVE - Average Variance explained > than 0.50 (0.655); MSV - Maximum shared square variance > than AVE. The service quality questionnaire was deemed valid and reliable in the current model since all dimensions have been verified and all constructs meet the validity criteria. The reliability and validity of the questionnaire was tested using the master validity tool by Gaskins and was affirmed. The data analysis was conducted using the SPSS and AMOS softwares. **Sarstedt, M. (2019)**.

RESULTS AND DISCUSSION

Demographic Profile of the Customers

The demographic profile of the customers shows that a majority of 86% are male and 14% female. Most of the customers in the study who account to 67% are in the age group of 30-45 years. 34% respondents are self-employed and 43% are employed in private sector. The respondents in the study own cars and require automotive spare part services. Types of cars include sedans 19%, SUVs 21%, coupes 11%, convertibles 13 %, hatchbacks 21%, and minivans 14%. Each type of car has its own unique features and is designed to cater to different needs and preferences. Spare parts for cars include items such as engines, transmissions, brake pads, filters, and tires. These spare parts are necessary for the maintenance and repair of vehicles. Without access to these spare parts, car owners would have difficulty keeping their vehicles running smoothly and safely. Additionally, spare parts can also include smaller components like spark plugs, belts, and hoses, which are essential for the proper functioning of a car's engine and other systems. Overall, spare parts play a vital role in ensuring the longevity and performance of cars. The respondents of the study are users of the automotive components.

Item analysis for Factors influencing service quality of automotive companies

Table 1 – Item analysis for Factors influencing service quality of Automotive companies

	Mean	Std. Deviation	Skewness	Kurtosis
Tangible_1 The dealership has up-to-date equipment	3.38	0.733	-0.333	-0.536
Tangible_2 The physical facilities such as signage and grounds of the dealership are visually appealing	3.68	0.821	-0.715	0.018
Tangible_3 The invoices and promotional material of the dealership are neat and distinctive	3.60	0.863	-1.028	2.082
Reliability_1 When the dealership promises to perform a service by a certain time, it does so	3.68	0.723	-0.227	-0.092
Reliability_2 The dealership is dependable	3.78	0.793	-0.495	0.026
Reliability_3 The dealership keeps its records accurately	3.20	0.751	-0.347	-1.151
Responsive_1 Employees of the dealership are never too busy to respond to customer's requests	3.43	0.773	-0.241	-0.474
Responsive_2 The dealership manages complaints in a fast and efficient manner	3.75	0.769	-0.210	-0.271

Responsive_3	Employees provide personal attention to customers	3.80	0.602	0.112	-0.420
Assurance_1	Customers feels safe doing transactions with the dealership	3.98	0.691	-0.894	1.731
Assurance_2	Employees in the dealership are consistently friendly and courteous	3.83	0.705	-0.610	0.684
Assurance_3	The dealership focuses on solving customer complaints	3.68	0.851	-0.313	-0.441
Empathy_1	Employees in the dealership pay attention to each customer individually	3.55	0.923	-0.731	0.194
Empathy_2	The dealership provides individual attention to its customers	3.45	1.002	-0.089	-1.082
Empathy_3	The dealership has customers' best interests at heart	3.55	0.807	-0.455	-0.351

Through extensive review of literature, 15 items were identified to measure the service quality provided by the automotive companies. These items were carefully selected based on their relevance and ability to capture various dimensions of service quality such as reliability, responsiveness, assurance, empathy, and tangibles. The chosen items were then further validated through pilot testing and expert opinions to ensure their reliability and validity. The final list of 15 items will serve as a comprehensive tool for evaluating and comparing the service quality of automotive companies, providing valuable insights for both researchers and industry practitioners. The mean score ranged between 3.20 and 3.98 indicating moderate agreement towards the service quality rendered. These findings suggest that while there is room for improvement, overall, customers perceive the service quality provided by automotive companies to be satisfactory. The high mean score indicates that customers generally agree that these companies are meeting their expectations in terms of assurance, empathy, and tangibles. This comprehensive tool will allow researchers and industry practitioners to identify specific areas for improvement and make informed decisions to enhance the service quality provided by automotive companies. The standard deviation is below 1.500 indicating less variation in responses, the skewness and kurtosis are within the acceptable range of (-3 to +3) indicating normal distribution of responses. Overall, the results of this tool demonstrate that automotive companies have been successful in meeting their customers' expectations in terms of assurance, empathy, and tangibles. The low standard deviation suggests that there is little variation in the responses, indicating a consistent level of service quality across the industry. Additionally, the normal distribution of responses indicated by the skewness and kurtosis values within the acceptable range further supports the reliability of the findings. With this valuable information, companies can now confidently make data-driven decisions to further improve their service quality and ensure customer satisfaction.

Factors influencing Service quality of automotive companies

Step 1- Exploratory factor analysis

*KMO statistics**Table 2 - KMO Bartlett's Statistics for factors influencing service quality*

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.916
Bartlett's Test of Sphericity	Approx. Chi-Square	6723.991
	df	121
	Sig.	0.000

The Kaiser-Meyer-Olkin sampling adequacy test and Bartlett's sphericity test are two statistical tests that are frequently employed in the domain of data analysis. The KMO statistic demonstrates a notable degree of heterogeneity. The factor analysis conducted in SPSS produces values that fall within the range of 0 to 1. The examined data demonstrates a noteworthy value of 0.916, signifying a substantial degree of quality. Therefore, it can be firmly inferred that factor analysis is a viable and adequate technique for assessing the data.

The Bartlett's test revealed a statistically significant outcome ($p = 0.000$) with a chi-square value of 6723.991 and 121 degrees of freedom, indicating that factor analysis is appropriate in the context of the present investigation.

Communalities

Communality, in a broad sense, can be conceptualized as the relative amount of shared variation present in a specific variable. The communality of a variable that lacks unique variance, meaning its explained variance is entirely attributed to other variables, is equal to 1. *In the current principal component analysis pertaining to factors influencing adaptive capability the extractions range between 0.639 and 0.961 which affirms the degree of communalities.*

Total variance explained

Based on specific guidelines, it is recommended that the total variation accounted for by all components falls within the range of 70% to 80%. However, some researchers have expressed concerns regarding the feasibility of achieving this range in social science studies, as the variables typically employed in such studies tend to only account for approximately 50% to 60% of the variance. *The present PCA demonstrates a high level of variation, with all components accounting for 86.984% of the total variation, indicating a favorable outcome.*

Table 3– Rotated component matrix for factors influencing service quality

Rotated Component Matrix^a	Component				
	1	2	3	4	5
Empathy_3	0.901				
Empathy_1	0.897				
Empathy_2	0.75				

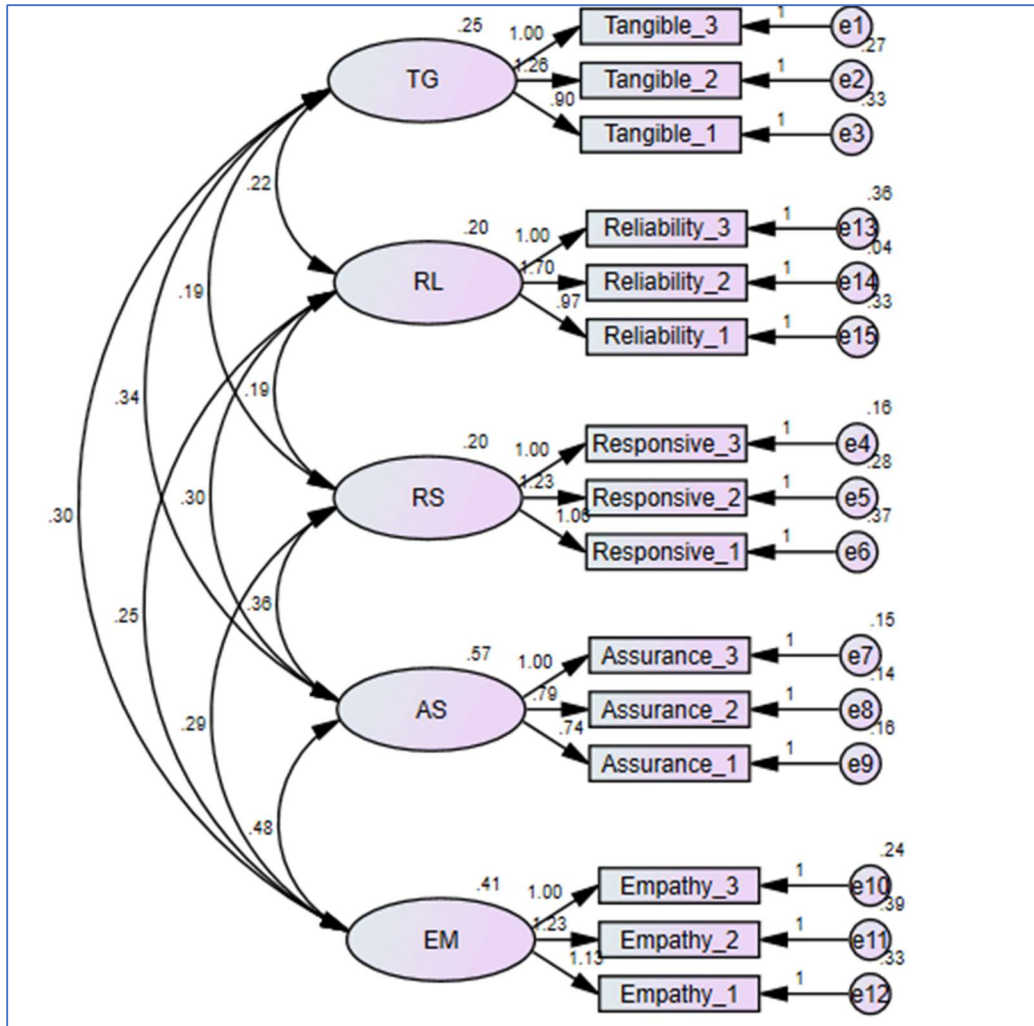
Tangible_3	0.935
Tangible_1	0.932
Tangible_2	0.916
Reliability_3	0.947
Reliability_1	0.937
Reliability_2	0.775
Assurance_2	0.903
Assurance_1	0.886
Assurance_3	0.863
Responsive_2	0.863
Responsive_1	0.806
Responsive_3	0.583

Using the results of rotated components, it was concluded that some of the items were deleted from the current PCA model. The 15 items were loaded under five factors based on the results of principal component analysis.

STEP 2- Check the Inter item correlations

The examination of inter-item correlations is a fundamental aspect of performing an item analysis on a set of test items.

Figure 1– Inter item correlations for factors influencing service quality



The figure shown depicts the outcomes of the inter-item correlations that were computed through the application of confirmatory factor analysis. The inter-item correlations among the items fall under the previously indicated threshold, indicating a satisfactory level of association. Moreover, the elements that exert an influence on strategic management are deemed suitable for subsequent study.

Confirmatory factor analysis is utilized in order to establish the validity of the model, as indicated by the lack of item correlations that are in close proximity to zero. The results of confirmatory factor analysis, which included standardized regression estimates and correlations between constructs, were entered into the Stats Tool software in order to calculate the overall validity.

STEP -3 Check the master validity of the model

Figure 2– Master validity for factors influencing service quality

	A	B	C	D	E	F	G	H	I	J
1		CR	AVE	MSV	MaxR(H)	EM	TG	RS	AS	RL
2	EM	0.829	0.618	0.233	0.829	0.786				
3	TG	0.794	0.566	0.291	0.718	0.928	0.659			
4	RS	0.743	0.592	0.345	0.752	1.020	0.858	0.701		
5	AS	0.884	0.718	0.433	0.890	0.992	0.894	1.059	0.847	
6	RL	0.779	0.554	0.453	0.940	0.869	0.994	0.924	0.872	0.744
7										
8	VALIDITY CONCERNS									
9	Wahoo!! No validity concerns									
10										

Convergent validity refers to the evaluation of the degree of correlation among different indicators of a certain construct that demonstrate agreement. In order to ascertain convergent validity, it is crucial to take into account the factor loading of the indicator, composite reliability (CR), and the average variance extracted (AVE) (Hair Jr & et al., 2017). The range of values spans the numerical interval between 0 and 1. In order to assure the formation of convergent validity, it is crucial that the average variance extracted (AVE) value surpasses the preset threshold of 0.50.

The composite reliability (CR) criterion necessitates a value greater than 0.70. Likewise, it is expected that the average variance explained (AVE) should exceed a threshold of 0.50. Furthermore, it is recommended that the maximum shared square variance (MSV) exhibit a higher value than the average variance extracted (AVE). Finally, it is imperative that the highest dependability (MaxR(H)) surpasses the minimum significant value (MSV).

The evaluation of discriminant validity is conducted using the Fornell-Lacker criterion, as proposed by Fornell, Cha, and Bagozzi (1994). The present methodology involves assessing the square root of the average variance extracted (AVE) in relation to the correlation of latent components, as described by Hair Jr. et al. (2017). It is expected that the explanatory power of a latent construct will be stronger when accounting for the variability observed in its own indicators, compared to the variability observed in indicators of other latent constructs. According to Hair Jr. et al. (2017), it is suggested that the square root of the average variance extracted (AVE) of a construct should be greater than the correlations with other latent constructs.

In the current framework, a comprehensive analysis was conducted on all dimensions, and it was determined that all constructs satisfied the predefined requirements for validity. Therefore, it was determined that the adaptive capability model exhibits both validity and reliability.

STEP -4 Model fit

The observed significance value is lower than the predetermined significance level of 0.05. The chi-square value obtained in this study is 665.901, with 187 degrees of freedom. The CMIN/DF ratio should ideally be around 3.000. However, the current model has a value of 3.556, which is little higher but still significant. The observed goodness of fit statistic is 0.818, indicating a high level of agreement between the observed data and the hypothesized model. Additionally, the root mean square error of approximation (RMSEA) is 0.045, falling within an acceptable range. The model demonstrates a significant level of recognition within the academic discipline and exhibits a relatively decent level of congruence

STEP -5 Structural equation Model for factors influencing service quality

The Structural Equation Modeling (SEM) Model is employed in situations where there are several variables and a desire to comprehend the influence of observed factors on unobserved variables. The seen variables in this study consist of 15 items, whereas the unobserved or latent variables pertain to the five aspects associated with service quality

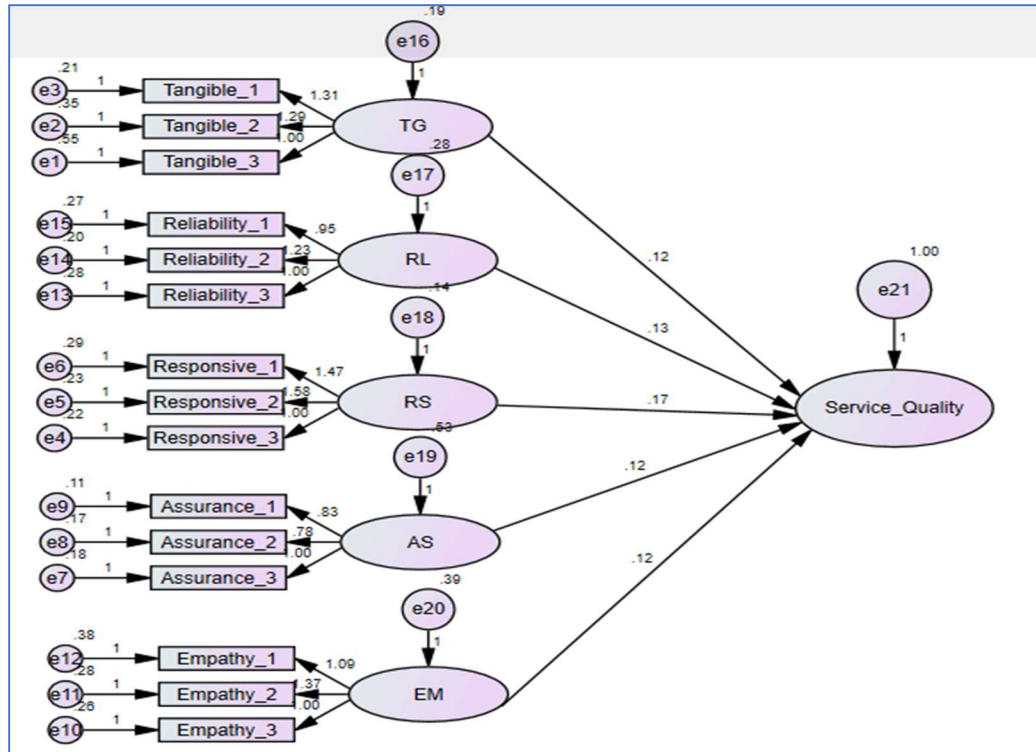
Table 4 – Estimates for factors influencing service quality

			UnStandardised Estimate	Std Estimate	C.R.
Service_Quality	<---	TG	0.116	0.05	***
Service_Quality	<---	RL	0.134	0.07	***
Service_Quality	<---	RS	0.167	0.062	***
Service_Quality	<---	AS	0.118	0.085	***
Service_Quality	<---	EM	0.124	0.076	***

The results specify that

- 1 unit increase in mean scores of Tangible will contribute to 12% positive increase in Service quality of companies and this is significant at $p = 0.000$
- 1 unit increase in mean scores of Reliability will contribute to 13% positive increase in Service quality of companies and this is significant at $p = 0.000$
- 1 unit increase in mean scores of responsiveness will contribute to 17% positive increase in Service quality of companies and this is significant at $p = 0.000$
- 1 unit increase in mean scores of Assurance will contribute to 12% positive increase in Service quality of companies and this is significant at $p = 0.000$
- 1 unit increase in mean scores of empathy will contribute to 12% positive increase in Service quality of companies and this is significant at $p = 0.000$

Figure 3 – Structural model - factors influencing service quality



The service quality of automobile enterprises in the Chennai district is influenced by elements such as tangibles, reliability, assurance, responsiveness, and empathy. These characteristics are of significant importance in influencing the total consumer experience. Tangibles encompass the material aspects, such as physical buildings, equipment, and appearance, that are associated with service providers. Reliability refers to the capacity of automobile firms to consistently and accurately provide their services. Assurance encompasses the establishment of trust and confidence among consumers, achieved via the cultivation of expertise and civility among personnel. Responsiveness is indicative of the companies' inclination to promptly offer assistance and solutions to meet consumer requirements. Empathy pertains to the capacity of automobile organizations to comprehend and effectively respond to the unique requirements and apprehensions of their clients with compassion.

Automotive companies ought to prioritize the following areas in order to augment their entire client experience. By regularly providing products and services of superior quality, an organization can cultivate trust and foster client loyalty. Furthermore, providing comprehensive training to employees in order to enhance their knowledge and cultivate courteous behavior can effectively contribute to customers' perception of being esteemed and treated with respect. In addition, via the practice of responsiveness and timely resolution of client requirements, automotive firms can effectively showcase their dedication to ensuring customer happiness. Finally, demonstrating empathy towards the unique requirements and worries of consumers will contribute to the establishment of a favorable and customized encounter, ultimately resulting in the development of client loyalty and advocacy.

The results of SEM Analysis shows that Tangibles, reliability, responsiveness, assurance and empathy are significant factors influencing the service quality at automotive companies in Chennai.

CONCLUSION

The significance of assessing customer perception about service quality cannot be overemphasized. By gaining an understanding of customers' perceptions of the level of service they receive, businesses can make well-informed decisions regarding the enhancement of their services. This information facilitates the identification of areas for improvement within enterprises, enables the resolution of client issues, and eventually contributes to the enhancement of customer happiness. Furthermore, the assessment of customer impression of service quality enables firms to establish a comparative analysis with their competitors and maintain a competitive advantage in the market. The present study demonstrates that Tangibles, reliability, responsiveness, assurance, and empathy are influential elements that have a substantial impact on service quality within automotive enterprises located in Chennai. The service quality of automobile companies in Chennai is influenced by several major variables, namely tangibles, reliability, responsiveness, assurance, and empathy. Hence, it is imperative for automobile companies to prioritize the enhancement of these variables in order to augment their service quality and get a competitive advantage inside the market. Automotive companies in Chennai can enhance their competitive advantage and attract a larger customer base by consistently delivering tangible and visually appealing services, ensuring reliable and efficient performance, promptly addressing customer needs, fostering trust and confidence, and exhibiting empathy towards customers. This will ultimately result in heightened levels of consumer satisfaction and loyalty, so ultimately contributing to the long-term success and expansion of the companies. Moreover, with the allocation of resources towards research and development endeavors, automotive enterprises have the capacity to foster innovation and provide novel technologies and features that align with the ever-changing preferences of consumers. This will not only improve the overall client experience but also demonstrate the company's dedication to maintaining a competitive edge. In addition, the establishment of robust partnerships with suppliers and dealerships may effectively optimize the supply chain and enhance product availability, thereby making a significant contribution to customer happiness. In order to position themselves as market leaders and cultivate a loyal client base, automotive companies in Chennai can strategically focus on continually surpassing consumer expectations and providing excellent value.

The present investigation is constrained in its geographic scope to the Chennai district, and subsequent scholars may consider expanding the study to encompass additional geographical areas. The present investigation is characterized as a quantitative study, but subsequent researchers may opt to undertake a qualitative study. It is imperative to take into account the perceptions of automobile companies, and a combination of qualitative and quantitative research methods can be employed. In order to gain a more comprehensive grasp of the experiences and perspectives of automotive companies, future researchers may choose to utilize qualitative research methodologies. This study entails conducting interviews or focus groups with key stakeholders in

order to delve further into their perceptions. In addition, a methodology approach that integrates both quantitative and qualitative methodologies might provide a more comprehensive understanding of the topic. This process may entail the acquisition of quantitative data via surveys or questionnaires, followed by the utilization of qualitative methodologies to explore the underlying rationales and motivations that drive the obtained responses. Ultimately, broadening the scope of the investigation to include additional geographic regions would augment the generalizability of the results and offer a more comprehensive outlook on the subject matter.

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