

A Theoretical Framework on Customer Satisfaction in an Automotive Lubricant Market

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Abstract: Malaysia was reported to have the highest car ownership ratio in the ASEAN region, with 3.3 people per vehicle. As a result of this rapidly growing automotive sector, Malaysia experienced a rise in the demand for premium lubricants. Recognizing the fact that most automobile users would rather pay a mechanic or workshop to perform an oil change rather than do it themselves, hence, this study seeks to understand the antecedents that influence automotive lubricant consumer satisfaction. A content analysis approach is used in this study to discover potential antecedents of consumers' quality-of-service experiences. The SERVQUAL model is then employed as the theoretical foundation for investigating and synthesizing the antecedents. Five antecedents are addressed during the examination and discussion: tangibility, dependability, responsiveness, assurance, and empathy. In addition, five quality-of-service experience propositions are offered, and the framework developed in this conceptual study highlights the quality-of-service experience instigators. This study's conceptual nature provides preliminary insights into the quality-of-service experience in the automotive lubricant market. This study contributes to the body of knowledge by illuminating the antecedents that promote service quality, resulting in satisfied customers who will in turn stimulate the Malaysian automotive lubricant market, which can lead to a significant increase in the industry's contribution to Malaysia's gross domestic product (GDP) rate. The developed theoretical framework serves as a foundation for future empirical studies of quality-of-service experience.

Keywords: *Automotive Lubricant, SERVQUAL, Automotive Industry, Service Quality, Customer Satisfaction.*

1. Introduction and Background

The Malaysian automobile sector has grown significantly in recent years, owing to the needs of the Malaysian people and a government initiative geared at meeting residents' mobility needs (Fernando et al., 2021). According to Borhan et al. (2019), there has been a significant increase in the use of private vehicles as a preferred method of public transportation in urban areas such as Kuala Lumpur and Putrajaya in recent years, which can be ascribed to the nation's rapid development. In Selangor, the high number of automobiles acquired was associated with the state's high-income economic status, which had been attributed to the influx of visitors who rely heavily on personal transportation due to Malaysia's inadequacy of public transportation (Dahalan et al., 2015). Concurrently, the car ownership ratio in Malaysia was reported to be the highest in the ASEAN area, with a ratio of 3.3 people per vehicle (Anazawa, 2021). This is a favorable trend for Malaysia, as the automotive industry generates significant revenue for both emerging and mature economies (Mattioli et al., 2020).

Inherently, nations' gross domestic product (GDP) is generally considered to be dependent on the automotive industry (Kaitwade, 2021). This may be observed in China's experience, where the automotive sector was seen as the accelerator for economic progress, employment creation, and technological advancement (Petti et al., 2021). Table 1 below summarises newly registered passenger and commercial cars in Malaysia from 2010 to 2022 (Malaysian Automotive Association, 2023). To enhance the competitiveness of the Malaysian automotive industry in the progressively liberalized global market, the Malaysian government has implemented the National Automotive Policy (NAP) 2020. The primary objectives of this policy are to facilitate supply chain integration and foster the transformation and integration of the domestic automotive sector (Iskandar & Ariffin, 2019). The Malaysian government has placed a high priority on connected mobility as its primary purpose by engaging with 27 vehicle providers, including automakers, and over 600 component manufacturers to strengthen the execution of this strategy.

Table 1: Vehicles Registered in Malaysia for the Year 2010 to 2022

YEAR	PASSENGER CARS	COMMERCIAL VEHICLES	TOTAL VEHICLES
2010	543,594	61,562	605,156
2011	535,113	65,010	600,123
2012	552,158	75,575	627,733
2013	576,640	79,104	655,744
2014	588,348	78,139	666,487
2015	591,275	75,402	666,677
2016	514,594	65,491	580,085
2017	514,675	61,950	576,625
2018	533,202	65,512	598,714
2019	550,179	54,108	604,287
2020	480,971	48,543	529,514
2021	452,663	56,248	508,911
2022	641,773	78,885	720,658

Under the NAP 2020 initiative, as projected by the Ministry of International Trade and Industry (2020), Malaysia is expected to enhance its manufacturing capacity, resulting in the ability to produce around 500,000 vehicles annually. This development is anticipated to establish Malaysia as the third-largest vehicle producer in Southeast Asia and the 23rd-largest globally. The aforementioned development is expected to have a substantial impact on the progression of the automotive market in Malaysia (Alid et al., 2021). According to Anazawa (2021) and Suffian (2020), it is anticipated that the automotive sector in Malaysia will provide a significant contribution of four percent to the nation's Gross Domestic Product (GDP) and generate job possibilities for about 700,000 workers within the whole automotive ecosystem. With this progression, it is anticipated that the Malaysian automotive lubricant industry will witness corresponding growth alongside the rise of the automotive sector, as depicted in Table 1. The observed positive association between the projected growth in automobile manufacturing and the corresponding surge in the market demand for automotive lubricants can be ascribed to the essential function these lubricants fulfil in facilitating effective maintenance practices. This is because the need for routine maintenance at certain times is ascribed to every motor vehicle (Gilles, 2019).

Thus, automotive lubricants are of paramount importance in ensuring the efficient functioning of a vehicle's mechanical elements. The mechanical elements comprise the propulsion system, transmission, braking mechanism, and steering apparatus. The utilization of automotive lubricants serves the objective of improving the efficiency and longevity of different components within a vehicle (Balinado et al., 2021). This objective is accomplished through the implementation of measures aimed at reducing the impact of wear and tear, while also protecting against potential damage resulting from friction and heat. As per Tan's (2022) findings, it is observed that Malaysian consumers exhibit a preference for delegating the task of lubricant changes to workshops, rather than undertaking the process themselves. Therefore, the primary objective of this study is to address the aforementioned knowledge gap by focusing on the primary adopters of automotive lubricants in the sector, namely workshop owners and mechanics. This study aims to analyze and ascertain the factors that impact the purchasing decisions of workshops or mechanics regarding lubricating oils, as well as the rationale behind the exclusive recommendation of certain lubrication oils to clients. Henceforth, it is crucial to comprehend the correlation between consumer satisfaction and the supply of automotive lubricants to formulate efficient market and commercial strategies (Bamutire, 2021).

The assessment of customer satisfaction is commonly recognized as a reliable method for gathering feedback, as it provides valuable information on the preferences and experiences of customers in a straightforward, significant, and unbiased way. Customer satisfaction is widely recognized as a vital measure of performance and a possible indicator of excellence for businesses. The assessment of client relationships can yield benefits for organizations, specifically for suppliers of automotive lubricants, in light of the swift expansion of the Malaysian automotive sector. Therefore, in the rapidly evolving lubricant industry, the critical role of service and logistic quality in shaping customer satisfaction and fostering brand loyalty remains a pivotal concern. Shahabudin and Cahyandito (2020) highlighted that it is of utmost importance to establish a strong correlation between service quality and customer satisfaction within the automotive lubricant business, as

this plays a pivotal role in fostering customer loyalty and driving sales growth. Unfortunately, despite the industry's heightened emphasis on these dimensions, a comprehensive understanding of how service and logistic quality interplay to influence customer perceptions and loyalty is lacking. This knowledge gap hinders the formulation of effective strategies for lubricant companies to optimize their service offerings and ultimately cultivate enduring brand loyalty (Afezah Wan Abdul Rahman & Hanim Saidin, 2021). By understanding and enhancing service quality in the context of automotive lubricants, businesses can improve customer experiences and strengthen brand loyalty, contributing to their overall success in the industry.

Automotive Lubricant: Lubricants serve a multitude of functions, with their primary significance lying in the mitigation of wear and heat dissipation arising from the interaction between mobile surfaces. Additionally, they are employed to diminish the coefficient of friction between two contacting surfaces, avert rust formation, minimize oxidation, and function as insulating agents within transformers (Verma et al., 2023). Moreover, it functions as a protective obstruction against the infiltration of water, debris, and dust (Bamutire, 2021). Hence, the utilization of lubricant in an internal combustion engine is vital due to its role in providing lubrication and safeguarding various components, thereby enhancing the engine's longevity (Rossegger et al., 2021). According to the report published by Aizarani (2023) in Statista, the global demand for lubricants is projected to reach 37.4 million metric tonnes by 2023, with a subsequent increase to 38.1 million metric tonnes by 2028. This is coherent with the findings reported by Mordor Intelligence (2020), whereby the Malaysian automotive industry was found to hold a significant share of 70 percent in the overall lubricant consumption within Malaysia. The report also indicated that PETRONAS, British Petroleum (BP), Shell, and Chevron are identified as the prominent lubricant makers in Malaysia (Mordor Intelligence, 2020).

In the context of Malaysia, clients rely on the guidance provided by mechanics or staff members employed at automotive workshops to make informed decisions regarding the acquisition of automobile lubricants. According to Hamzah (2021), findings from the PFC Energy Malaysia Report performed in 2012 revealed that a majority of consumers, specifically 75 percent, expressed trust in mechanic advice provided at workshops. Conversely, a minority of customers, comprising 25 percent, opted to make their own decisions about automotive services. Hence, in the face of escalating rivalry and increasing customer expectations, the automobile industry must prioritize the provision of superior services to its clientele. To attract clients, service centers, workshops, dealerships, or repair facilities must prioritize the quality of their services to boost their reputation. The significance of this matter lies in the fact that increased levels of customer satisfaction have been found to positively correlate with better rates of client retention (Ali, Gardi, et al., 2021). Consequently, the inquiry regarding the intended service quality standards of Malaysian automotive lubricant consumers and the consequential impact on customer satisfaction remains ambiguous. This study aimed to investigate the quality requirements of automotive lubricant users and propose practices that can enhance service quality experiences, hence leading to increased customer satisfaction.

2. Antecedents of Automotive Lubricant and Customer Satisfaction

The primary objective of this study is to address the notable knowledge deficit in the automotive lubricant sector by investigating the level of customer satisfaction with the quality of services provided. The implementation of strategies that prioritize the preservation of good service quality is a viable and advantageous option that can bolster the adaptability and competitiveness of service providers. It is a strategy that has been extensively practiced by the hospitality and service sectors aimed at achieving comprehensive customer satisfaction by providing superior service quality (Ali, Saleh, et al., 2021). Thus, this study aims to establish a connection between customer happiness and service quality, particularly, concerning the many dimensions of service quality. Subsequently, this study aims to resolve the lack of scholarly investigation examining this association within the domain of the automobile lubricant industry. Parasuraman et al. (1991) highlighted that the term "service tangibles" refers to the observable aspects of service facilities, the personnel who are responsible for providing the service, the communication materials, and any other observable aspects that are present in the service environment. Other examples of service tangibles include the equipment and instruments used to provide the service, the equipment and instruments used to provide the service, and the personnel who are accountable for providing the service.

Hence, the phrase "quality of service" refers to the degree to which a customer's opinion of their experience

with a particular service indicates that the service satisfies the customer's expectations and makes the customer happy. Coherently, the level of satisfaction that a guest feels is influenced by the quality of the service that is provided as well as the performance of the business (Nunkoo et al.'s, 2020). The SERVQUAL model is used in this study as the multidimensional research instrument that aims to evaluate the quality-of-service experience that the client experienced. It is in tandem with the purpose of this study, which is to better understand how to improve customer satisfaction. According to Koc (2019), the SERVQUAL model is considered a better and more comprehensive model when studying service quality due to its multidimensional scope in understanding the factors that affect quality. SERVQUAL measures and improves customer satisfaction, and it evaluates customer satisfaction by comparing pre and post-service expectations (Parasuraman et al., 1994) and the SERVQUAL scores predict customer happiness and loyalty (Koc, 2019). During the early stages of its creation, the SERVQUAL model encompassed a total of ten dimensions which were Tangibles, Reliability, Responsiveness, Competence, Courtesy, Credibility, Security, Access, Communication, and Understanding (Zeithaml et al., 1988). The concept was then restructured into five distinct categories, namely Tangibles, Reliability, Responsiveness, Assurance, and Empathy (Zeithaml et al., 1990).

Tangibles: Tangibles are commonly employed by service providers as a means to bolster their reputation, ensure uniformity, and convey a sense of quality to their customer base. According to Afroz (2019), the majority of organizations incorporate tangible aspects to develop a service quality strategy for their organization. Tangibility refers to the level of cleanliness observed in different sections of an establishment, such as rooms and restaurants. It also encompasses elements like the suitability of personnel attire, the use of disposable gloves, and other relevant considerations (Mahmood et al., 2017). Service providers often utilize tangible features to enhance their reputation, maintain consistency, and communicate quality to clients. To formulate a service quality strategy, numerous organizations integrate multiple tangible components (Bayad Jamal et al., 2021).

Reliability: Parasuraman et al. (1985) defined reliability as the capacity to deliver the promised service in a manner that is both consistent and accurate. Eventually, customer satisfaction is an outcome that is attained by the combined processes of perceiving, evaluating, and psychologically responding to the level of service rendered. Hence, the establishment of trust within the automotive lubricant sector is of paramount importance, as it serves as a guarantee that the company possesses the necessary dependability to fulfil its obligations. This, in turn, can lead to an augmented level of credibility and foster loyalty towards the company's products (Cha & Seo, 2020). This is because the perception of consistency and credibility among customers will be significantly influenced by the reliability attributes exhibited by a provider or organization. Thus, the aforementioned characteristics are integral elements of service quality that a company should strive to fulfil according to their commitments and prioritize outcomes (Pakurár et al., 2019).

Responsiveness: Responsiveness is a dimension that can be measured to determine service quality (Parasuraman et al., 1985). Responsiveness relates to an organization's readiness to solve current challenges and capacity to give timely assistance and it is analogous to demonstrating a passion for assisting (Anwar & Shukur, 2015). The automotive lubricant industry, in particular, has experienced significant growth in recent times, necessitating timely and efficient responsiveness to remain competitive in the market. This aligns with the observation that the automotive sector constitutes more than 50% of the worldwide demand for lubricants, and it is projected that the market value of lubricants will reach USD 182.6 billion by 2025 owing to the increasing global need for this essential resource (Hamzah, 2021). Thus, "responsiveness" refers to the proclivity to assist consumers and provide timely service to clients to acquire customer happiness and ensure the finest service quality supplied. The simple error of selecting the wrong product has the potential to cause a major disaster. It is critical to respond to all client inquiries since failure to do so may result in a complaint about the quality of service offered (Um & Lau, 2018). For service providers who serve a large number of consumers, quick service delivery is a key component of service quality (Nguyen et al., 2018).

Assurance: The demonstration of knowledge, civility, and the capacity to inspire trust and confidence by staff is indicative of competency and reliability. Thus, the lubricant supplier must substantiate the excellence of their product and its value proposition to justify consumer expenditure. The presence of assurance is demonstrated by the employees' possession of knowledge, civility, and experience, as well as their ability to

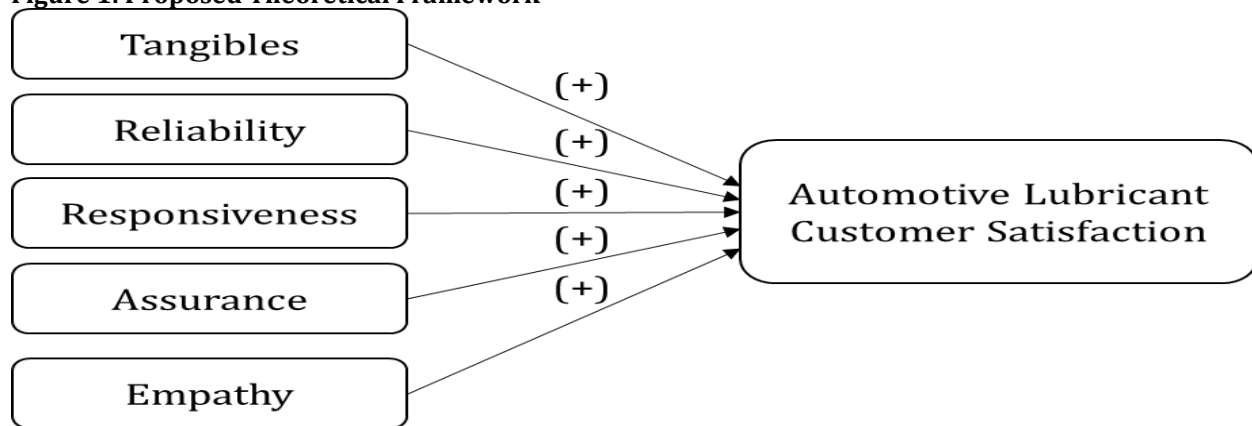
communicate with confidence to establish trust with customers (Parasuraman et al., 1994). Instead of the increased pricing and service competition brought about by the expanding demand for automotive lubricants induced by the proliferation of automobiles, it had a considerable impact on customer decision-making, notably in the sphere of logistics (Fernandes et al., 2018). Consequently, it is crucial to offer confidence to fulfil this requirement. The significance of this component is particularly notable in the context of services that are perceived by consumers as having a high level of risk or when the outcome for the client is unknown (Bayad Jamal et al., 2021).

Empathy: Empathy is defined as the capacity of a service provider to offer personalized attention and genuine concern for individuals who utilize their services. Empathy is intricately linked to an employee's capacity to comprehend the perspective and cognitive processes of the client in the context of service provision. Consequently, this engenders positive perceptions of the company's service quality among consumers (Bahadur et al., 2018). Empathy is a service attribute that encompasses the utilization of effective communication, the provision of personalized attention, and the cultivation of a comprehensive understanding of the consumer (Sinclair et al., 2017). Hence, it is imperative to comprehend the customer's requisites in the automobile lubricant sector before proceeding with their requests. This is because issues with customer service and a lack of commitment on the part of businesses or organizations were reported to correlate with the causes of customer dissatisfaction (Mahapatra, 2014). As a result, the absence of individualized attention provided by the staff members is likely to lead to adverse consequences in terms of customer satisfaction (Ali & Ratwani, 2017).

3. Theoretical Framework and Propositions

The literature review serves as a guide and offers insights into the construction of the theoretical framework in this study. The study utilized the SERVQUAL model, which was established by Parasuraman et al. (1985), to investigate the association between service quality and customer satisfaction within the Malaysian automotive lubricant business. The SERVQUAL model delineates five core dimensions that play a pivotal role in ascertaining the degree of service quality. The framework below illustrates the characteristics that are deemed significant in boosting service quality, including tangibles, reliability, responsiveness, assurance, and empathic aspects of service.

Figure 1: Proposed Theoretical Framework



Given the implications of SERVQUAL's model and the traits that have been observed, further research is needed to analyze and understand the impact of service quality on Malaysian automotive lubricant customer satisfaction. Figure 1 illustrates the theoretical framework developed to have a better understanding of the relationship between service quality and customer satisfaction. Tentatively, the following five propositions are proposed based on the theoretical framework:

- Tangibles have a significant positive effect on automotive lubricant customer satisfaction.
- Reliability has a significant positive effect on automotive lubricant customer satisfaction.
- Responsiveness has a significant positive effect on automotive lubricant customer satisfaction.

- Assurance has a significant positive effect on automotive lubricant customer satisfaction.
- Empathy has a significant positive effect on automotive lubricant customer satisfaction.

4. Conclusion

The primary objective of the present study is to establish a conceptual framework that can be utilized to identify the factors that precede consumer satisfaction in the context of automotive lubricants. While there have been several prior studies that have examined customer satisfaction, the aspect of vehicle lubricant usage has not been extensively investigated, despite its significance as a constituent of customer satisfaction factors. This study fulfilled the existing theoretical gap and mitigated the disparity in research coverage by examining the factors that influence customer satisfaction in the automotive lubricant industry, utilizing the theoretical lens of the SERVQUAL model. In this study, the SERVQUAL model was employed to establish the foundational basis for the proposed theoretical framework.

This study also serves as a basis for future research and stimulates further intellectual discussions to refine and scrutinize the suggested hypotheses. Given the utilization of a theoretical framework in this study, the subsequent phase entails conducting comprehensive literature reviews and substantiating the hypothesis through the examination of case studies or practical research. Additional research is required to verify and enhance the proposed theoretical framework. Therefore, it is recommended that future research endeavors should prioritize the utilization of both qualitative and quantitative research methodologies to investigate the correlation between the factors that influence consumer satisfaction with automotive lubricants. To validate the proposed theoretical framework, it is highly recommended to incorporate viewpoints from both practitioners and academia.

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