

Post-Sales Service Quality and Brand Image as Predictors of Customer Loyalty in Malaysia's Automotive Sector

Wan Afezah Wan Abdul Rahman*, Zainil Hanim Saidin

School of Distance Education, Universiti Sains Malaysia, Gelugor, Malaysia

Email: *afezah@usm.my, zainilhanimsaidin@usm.my

How to cite this paper: Rahman, W. A. W. A., & Saidin, Z. H. (2025). Post-Sales Service Quality and Brand Image as Predictors of Customer Loyalty in Malaysia's Automotive Sector. *Open Journal of Social Sciences*, 13, 302-317.

<https://doi.org/10.4236/jss.2025.138019>

Received: June 29, 2025

Accepted: August 11, 2025

Published: August 14, 2025

Copyright © 2025 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

This study examines the interaction between post-sales service quality and brand image in shaping customer loyalty within Malaysia's national automotive sector. Grounded in SERVQUAL, Expectation-Confirmation Theory, and the Customer-Based Brand Equity (CBBE) framework, we examine an integrated model highlighting the mediating role of brand image between technical and interpersonal service quality and customer loyalty. Based on a survey of 311 customers from Proton and Perodua service centres, findings reveal brand image as a significant mediator, emphasizing its strategic role in sustaining customer relationships in emerging markets. The study contributes a contextualized loyalty framework applicable to high-involvement, post-purchase service settings in developing economies, offering theoretical and managerial insights for brand resilience and competitive differentiation.

Keywords

Customer Loyalty, Service Quality, Brand Image, Post-Sales Service, Automotive, Malaysia

1. Introduction

Customer loyalty is a pivotal strategic resource in the global automotive industry, especially in emerging markets where national brands face mounting pressure from international competitors. In Malaysia, Proton and Perodua, two of the country's flagship automobile brands, have historically benefited from affordability and government policy incentives. However, changing market dynamics, rising consumer expectations, and increasing exposure to international standards have shifted the loyalty landscape. Consumers today are not only influenced by

the initial purchase experience but are increasingly responsive to the quality of post-sales services, including repairs, maintenance, and customer engagement (Rahman, Yusoff, & Ismail, 2021; Bahari Mohamed et al., 2022).

In high-involvement sectors such as the automotive industry, the post-purchase phase, characterized by ongoing service interactions, plays a central role in shaping long-term customer loyalty (Fathulloh & Purnama, 2024). These experiences often act as emotional and cognitive touchpoints that affect customer satisfaction, repurchase intention, and advocacy behaviors. The integration of digital platforms such as real-time service tracking and mobile scheduling has further raised expectations for service quality, responsiveness, and personalization (Lim & Hassan, 2023; Zygiaris et al., 2022).

Despite substantial research on service quality and loyalty, limited scholarly attention has been directed toward the interplay between post-sales service quality, brand image, and loyalty within emerging market contexts. Many studies are product-centric and do not account for the ongoing role of service interactions in reinforcing or weakening brand perceptions over time. Moreover, few models explicitly integrate the dual dimensions of service quality, technical and interpersonal, within a theoretical framework that includes brand image as a mediating mechanism (Alghamdi & Bach, 2023; Nyadzayo & Khajehzadeh, 2016).

This study seeks to address this gap by investigating how post-sales service quality influences customer loyalty through the mediating role of brand image in Malaysia's national automotive sector. The research is grounded in three interrelated frameworks: the SERVQUAL model, which differentiates between the technical and interpersonal components of service delivery (Parasuraman et al., 1988); Expectation-Confirmation Theory, which explains how the alignment between customer expectations and actual service experiences drives satisfaction and loyalty (Oliver, 1980); and the Customer-Based Brand Equity framework, which highlights the role of positive service encounters in shaping brand perception and attachment (Keller, 1993).

The contributions of this study are threefold. First, it extends the applicability of the SERVQUAL and CBBE frameworks into post-sales service contexts within developing countries. Second, it empirically validates a mediation model where brand image serves as a conduit linking service quality dimensions to customer loyalty. Third, it provides practical insights for national automotive brands seeking to compete more effectively by leveraging post-sales services as strategic brand assets. The findings offer broader implications for business sustainability, consumer engagement, and brand development in the context of local industries striving to remain competitive in a globalized marketplace.

2. Literature Review

2.1. Theoretical Foundations

The conceptual framework for this study is grounded in three well-established theories: the SERVQUAL model (Parasuraman et al., 1988), Expectation-Confir-

mation Theory (Oliver, 1980), and the Customer-Based Brand Equity (CBBE) framework (Keller, 1993). Each offers a distinctive perspective on how customer perceptions of service shape brand evaluations and loyalty.

The SERVQUAL model, widely utilized in service research, proposes five core dimensions of service quality: tangibility, reliability, responsiveness, assurance, and empathy. These dimensions are often categorized into two domains, technical quality (e.g., accuracy and efficiency of repairs) and interpersonal quality (e.g., employee behaviour, communication, and empathy) (Grönroos, 2000). In automotive post-sales service settings, this distinction is particularly relevant, as both the mechanical outcome and customer experience influence satisfaction. Recent studies reaffirm its relevance in evaluating both mechanical precision and human interaction during service delivery (Mehmood & Shafique, 2023).

Expectation-Confirmation Theory (Oliver, 1980) offers a psychological framework explaining satisfaction as a function of the gap between pre-service expectations and perceived service performance. When service experiences meet or exceed expectations, customers experience confirmation, which reinforces satisfaction and loyalty intentions. This theory is particularly useful in post-sales service contexts, where expectations are informed by previous experiences, word-of-mouth, and brand communications (Hazari, 2024).

The CBBE framework (Keller, 1993) posits that strong brand equity arises from favourable brand knowledge in the customer's mind, encompassing both brand awareness and brand image. Positive service encounters strengthen brand associations, trust, and emotional bonds. In competitive markets, brand equity becomes a differentiating factor, especially when functional product attributes are similar. For service-intensive sectors like automotive maintenance, each service touch-point becomes an opportunity to reinforce or erode brand equity.

When integrated, these theories provide a comprehensive understanding of how service quality dimensions influence customer loyalty through brand image. While SERVQUAL identifies service delivery elements, ECT explains the customer's evaluative process, and CBBE situates these outcomes in a brand-driven framework.

2.2. Service Quality and Loyalty in Automotive Markets

Customer loyalty in the automotive sector is a complex, long-term process. Unlike fast-moving consumer goods, vehicle purchases occur infrequently, making post-sales engagement a more accurate indicator of loyalty. Loyalty in this context includes repeat visits for servicing, the purchase of genuine parts, brand advocacy, and continued preference over time (Dick & Basu, 1994; Rahman et al., 2021).

Empirical studies from developed markets reveal a strong link between service quality and customer loyalty. For instance, Lim and Hassan (2023) found that both cognitive evaluations of service performance and affective responses predict loyalty behaviours. Cronin and Taylor (1992) emphasized the importance of both technical accuracy and customer-facing service interactions in determining satis-

faction.

In Malaysia, local studies show that consumers often switch to third-party service providers due to perceived deficiencies in post-sales service offered by national brands (Subaebasni et al., 2019). While initial vehicle purchase decisions may be driven by affordability and nationalism (Che Wel et al., 2018), long-term loyalty is frequently undermined by inconsistent service experiences. Reliability, empathy, and responsiveness are repeatedly cited as critical determinants of customer satisfaction in local automotive service centres (Bahari Mohamed et al., 2022).

Moreover, younger consumers in Malaysia are increasingly digital-savvy and expect seamless, tech-enabled service. Service providers that fail to deliver on these expectations risk losing relevance among this cohort. Integrating CRM systems, mobile booking, and personalized follow-ups are becoming essential to sustaining engagement.

2.3. Brand Image as a Strategic Mediator

Brand image encompasses the beliefs and perceptions that customers hold about a brand, based on cumulative experiences and marketing communications (Keller, 1993). In service contexts, brand image plays a pivotal role by acting as a lens through which service quality is interpreted. A positive brand image can mitigate the negative impact of isolated service failures, while a weak image can amplify minor issues.

Several studies have identified brand image as a mediator in the relationship between service quality and loyalty (Nyadzayo & Khajehzadeh, 2016; Riyadi, 2019; Wong et al., 2022; Zhang et al., 2022). For example, strong perceptions of brand professionalism and reliability enhance the effect of service quality on repeat behaviour. Conversely, inconsistent brand communication or service execution can weaken customer trust.

In the Malaysian automotive sector, national brands like Proton and Perodua face challenges in maintaining a competitive image against global entrants. Initiatives such as digital service platforms, transparent pricing, and loyalty rewards are increasingly used to enhance image. However, without consistent delivery across touchpoints, these strategies risk appearing superficial.

Importantly, brand image also ties into broader socio-economic narratives. Supporting local brands contributes to national industrial resilience and reduces reliance on imports. Thus, investing in brand image is not only a commercial strategy but also a socio-political one, especially in emerging markets seeking to bolster domestic industries.

2.4. Research Gap and Contribution

Despite abundant literature on service quality and brand management, empirical studies integrating these constructs in post-sales automotive contexts, especially in emerging markets, remain limited. Existing work often neglects the dynamic interplay between service delivery, brand perception, and customer loyalty.

This study contributes to the literature by introducing an integrated framework that positions brand image as a mediating mechanism between technical and interpersonal service quality and customer loyalty. It also responds to recent calls for more contextualized models that reflect the realities of emerging markets (Tang et al., 2023). The Malaysian automotive sector, with its unique mix of national identity, market competition, and evolving consumer expectations, presents an ideal setting for testing this framework.

In doing so, this study provides theoretical insights for marketing and service scholars while offering practical recommendations for automotive managers aiming to enhance post-sales service strategy, strengthen brand equity, and improve customer retention in competitive environments.

3. Methodology

3.1. Research Design

This study employed a quantitative, cross-sectional survey design to test the hypothesized relationships between post-sales service quality, brand image, and customer loyalty. The survey method is appropriate for collecting standardized data from a large population, enabling statistical analysis of relationships between variables (Creswell & Creswell, 2018). The study aimed to identify the extent to which service quality dimensions (technical and interpersonal) affect customer loyalty, both directly and indirectly through brand image (Hair, Howard, & Nitzl, 2021).

3.2. Sampling and Population

The target population for this study consisted of customers who had received post-sales services from Proton and Perodua service centres across various regions in Malaysia. A purposive sampling strategy was adopted to ensure that only individuals with recent experience at these centres were included. The rationale for this approach was to capture accurate and relevant evaluations of service quality and its impact on brand perception (Iqbal, Rasheed, & Nawaz, 2021). The respondents were owners of Proton and Perodua vehicles who were also working students enrolled in several classes at the School of Distance Education, Universiti Sains Malaysia. These individuals volunteered to participate in the survey using purposive sampling based on their regular experience at authorized service centers across Malaysia. This approach ensured that all participants had firsthand, recent interactions with post-sales service environments, thereby enhancing the relevance and validity of the data collected. A total of 385 structured questionnaires were distributed, out of which 311 valid responses were obtained, resulting in a response rate of 80.78%. This sample size exceeds the minimum threshold for multiple regression analysis as recommended by Tabachnick and Fidell (2019), which enhances the robustness of the findings.

3.3. Instrumentation

The survey instrument was a structured questionnaire developed from established

scales. The constructs measured were:

- 1) Customer Loyalty (7 items; adapted from Nyadzayo & Khajehzadeh, 2016).
- 2) Brand Image (7 items; adapted from Keller, 1993; Saleem & Raja, 2014).
- 3) Technical Quality (5 items; adapted from Parasuraman et al., 1988).
- 4) Interpersonal Service Quality (17 items; adapted from SERVQUAL dimensions).

All items were measured on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). A pilot test involving 30 respondents was conducted to assess clarity and instrument reliability. Feedback from the pilot led to minor adjustments in language and formatting. Specifically, Technical Quality was measured using items adapted from the reliability and tangibility dimensions of SERVQUAL, focusing on mechanical and procedural service elements. Interpersonal Service Quality was derived from responsiveness, assurance, and empathy dimensions, capturing the quality of human interaction and attentiveness during the service process.

3.4. Validity and Reliability

Construct validity was established through exploratory factor analysis (EFA), confirming that the items loaded appropriately onto their respective factors. Cronbach's alpha values exceeded 0.90 for all constructs, indicating excellent internal consistency (Nunnally & Bernstein, 1994; Hair et al., 2021). Common method variance was assessed using Harman's single-factor test, which revealed no dominant factor, suggesting that common method bias was not a significant concern.

3.5. Ethical Considerations

The study adhered to ethical guidelines for research involving human participants. Informed consent was obtained from all respondents, who were assured of confidentiality, anonymity, and the voluntary nature of their participation. Data were collected and analysed in compliance with research ethics protocols established by the researchers' institution.

3.6. Data Analysis Procedures

Data were analysed using SPSS v26 and AMOS for structural equation modelling. Descriptive statistics provided insights into the demographic characteristics of respondents. Pearson correlation analysis was conducted to assess linear relationships among variables. Multiple regression analysis was used to evaluate the direct effects of service quality on loyalty. To assess the mediating effect of brand image, the study followed Baron and Kenny's (1986) procedure and used bootstrapping in AMOS with 5000 resamples.

4. Results

4.1. Demographic Profile

The respondents were primarily aged 26 - 35 (62.7%), with females representing

57.6% of the sample. Most held a diploma qualification (62.1%) and reported a monthly income between RM1001 and RM3000 (66.9%). The average service bill was between RM201 and RM300 (47.9%). This demographic composition reflects a typical middle-income consumer segment in Malaysia's urban and suburban markets, relevant for evaluating national car brand service centres. The result of the respondents' profile is presented in **Table 1**, **Figure 1** and **Figure 2**.

Table 1. Profile of the respondents.

Demographic Variables	Categories	No. of Respondents	Valid Percentage (%)
Age	17 - 25 years old	47	15.1
	26 - 35 years old	195	62.7
	36 - 45 years old	64	20.6
	46 - 55 years old	5	1.6
Gender	Male	132	42.4
	Female	179	57.6
Level of Education	SPM/STPM	98	31.5
	Diploma	193	62.1
	Degree	20	6.4
Monthly income	Below than RM1000	1	0.3
	RM1001 - RM3000	208	66.9
	RM3001 - RM5000	77	24.8
	More than RM5000	21	6.8
	No income	4	1.3
Average total bill charged for the service maintenance or repair	Below than RM200	42	13.5
	RM201 - RM300	149	47.9
	RM301 - RM400	92	29.6
	More than RM400	28	9.0

4.2. Descriptive Analysis

All constructs recorded high mean values, indicating generally favourable customer perceptions: Brand Image: $M = 5.40$, $SD = 1.06$, Technical Quality: $M = 5.34$, $SD = 1.09$, Interpersonal Service Quality: $M = 5.18$, $SD = .98$, Customer Loyalty: $M = 5.25$, $SD = 1.12$.

Respondents agreed most strongly with statements about recommending the service provider and speaking positively about their experience, reflecting positive attitudinal loyalty.

4.3. Reliability Analysis

Reliability analysis was carried out to ensure that the instrument used in this study

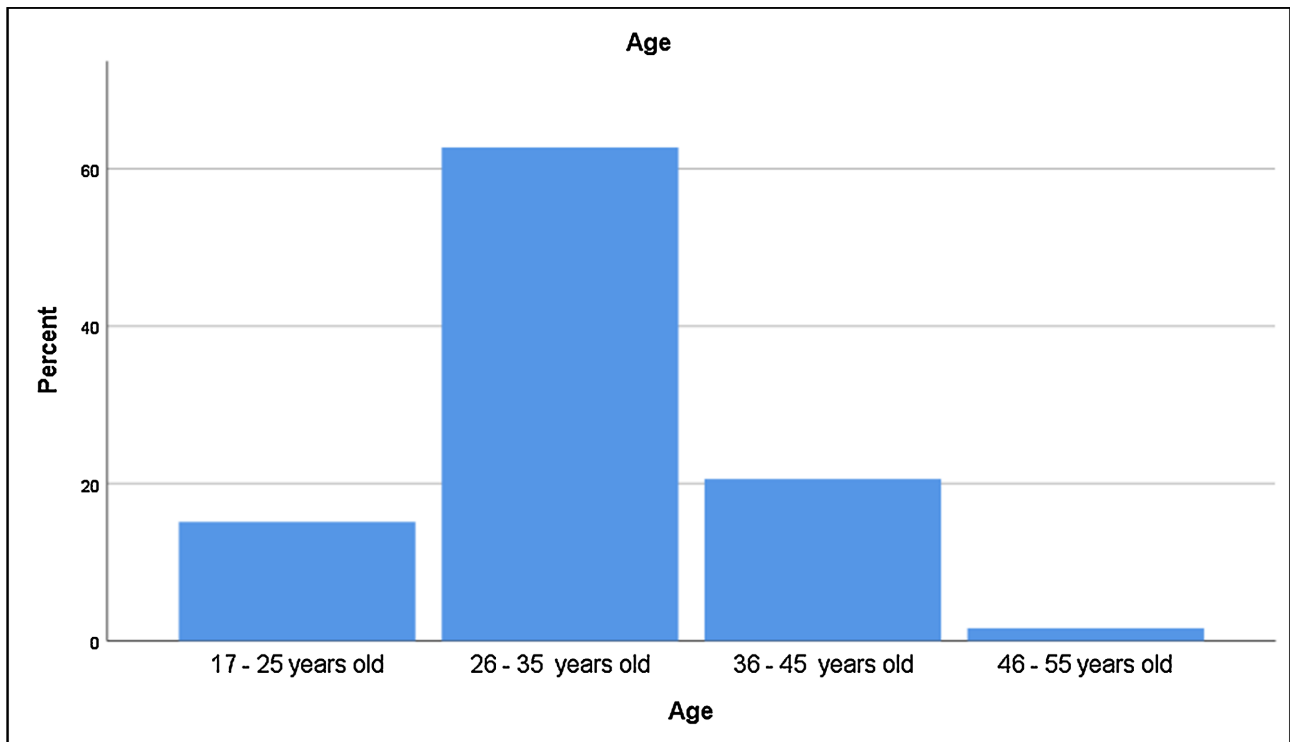


Figure 1. Age.

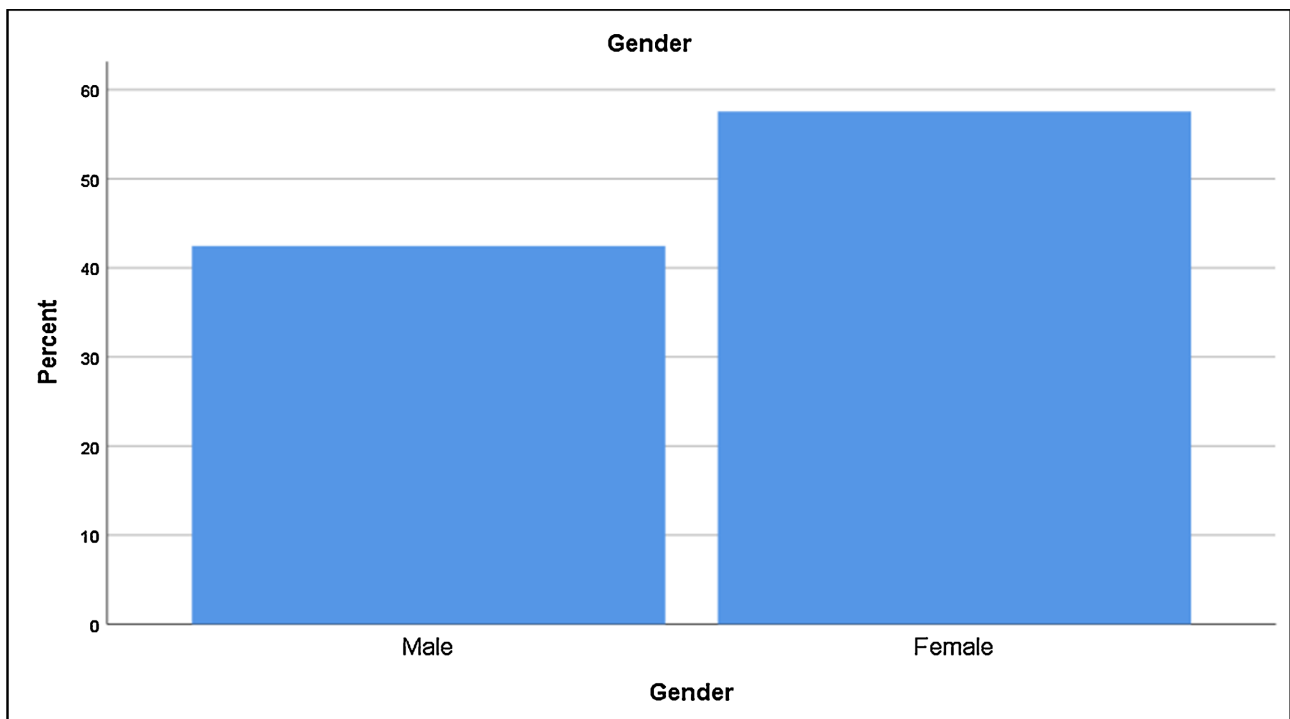


Figure 2. Gender.

is stable and consistent. This study has four variables as the independent variables (Brand Image, Technical Quality and Customer Service) and one variable as the dependent variable (Customer Loyalty). **Table 2** presents the Cronbach's alpha

values, all exceeding the threshold of 0.70, confirming excellent reliability: Customer Loyalty: $\alpha = .949$, Brand Image: $\alpha = .957$, Technical Quality: $\alpha = .939$, Interpersonal Service Quality: $\alpha = .969$.

Table 2. Reliability analysis.

Variable	Cronbach's Alpha	No. Of Items
Customer Loyalty	.949	7
Brand Image	.957	7
Technical Quality	.939	5
Customer Service	.969	17

4.4. Means Scores

All the study variables were constructed on a 7-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree). The result of mean scores for all the variables were perceived as high by the respondents, as shown in **Table 3**. The result clearly shows that the mean score for brand image was statistically higher than other variables, which indicates there is a strong relationship between customer loyalty and brand image.

Table 3. Mean scores and standard deviation for the study variables.

Variables	Mean	Standard Deviation	Results
Customer Loyalty	5.25	1.117	High
Brand Image	5.40	1.063	High
Technical Quality	5.34	1.089	High
Customer Service	5.18	0.983	High

4.5. Customer Loyalty

To gather the respondents' response toward Customer Loyalty, descriptive analysis was conducted. The result in **Table 4** shows that the three highest items scored by the respondents are 1) I say positive things about the service provider to other people (Mean = 5.47; SD = 1.228), 2) I recommend the service provider to someone who seeks my advice (Mean = 5.47; SD = 1.166) and 3) I encourage friends and relatives to service and repair their car at this service centre (Mean = 5.37; SD = 1.214).

4.6. Brand Image

The respondents' responses toward the brand image were also gathered through descriptive analysis. **Table 5** shows that the three highest items scored by the respondents are 1) This organization and their brand are familiar to me (Mean = 5.61; SD = 1.199), 2) The product/brand is well established (Mean = 5.59; SD = 1.109) and 3) This organization has a luxurious image (Mean = 5.43; SD = 1.147).

Table 4. Respondents' response on customer loyalty.

	Items	Minimum	Maximum	Mean	Std. Deviation
Loyalty1	I say positive things about the service provider to other people	1	7	5.47	1.228
Loyalty2	I recommend the service provider to someone who seeks my advice	1	7	5.47	1.166
Loyalty3	I encourage friends and relatives to service and repair their car at this service centre	1	7	5.37	1.214
Loyalty4	I consider this service centre as my first choice in the next visit	1	7	5.37	1.235
Loyalty5	I have a very strong relationship with this service provider	1	7	5.23	1.236
Loyalty6	The chances for me to stay in this relationship are very good	1	7	5.29	1.237
Loyalty7	I do not mind paying more in exchange for a good relationship with this company	1	7	4.54	1.573

Table 5. Respondents' response on brand image.

	Items	Minimum	Maximum	Mean	Std. Deviation
Image1	This organization has a long history	1	7	5.34	1.185
Image2	This organization and their brand are familiar to me	1	7	5.61	1.199
Image3	This organization has a differentiated image from other car manufacturer brands	1	7	5.35	1.170
Image4	I feel special when visiting this company	1	7	5.33	1.237
Image5	Service is sometimes excessive to me	1	7	5.14	1.280
Image6	This organization has a luxurious image	1	7	5.43	1.147
Image7	The product/brand is well established	2	7	5.59	1.109

4.7. Pearson Correlation Analysis

Pearson correlation analysis is carried out to determine the linear relationship between variables that used an ordinal scale such as the Likert type scale (Chua, 2012). Pearson correlation coefficients demonstrated significant positive relationships between all variables ($p < .01$). Customer loyalty was most strongly correlated with brand image ($r = .921$), followed by interpersonal service quality ($r = .844$) and technical quality ($r = .826$). These results support the hypothesis that service quality influences loyalty, with brand image playing a central role. A significant relationship between the variables identified by the p value were obtained from the analysis while the r value determines the degree of relationship between these variables. The relationship between the variables is significant if the p value is less than .05. The degree of the relationship between the variables is determined by the r value as shown in Table 6. The results of the Pearson Correlation analysis for this study are presented in Table 7. The results showed that the dependent variable Customer Loyalty correlated significantly with all the independent variables (Brand Image, Technical Quality, Customer Service and Quality

Table 6. The degree of the relationship.

<i>r</i> value	Degree of the Relationship
.91 to 1.00 or –.91 to –1.00	Very strong
.71 to .90 or –.71 to –.90	Strong
.51 to .70 or –.51 to –.70	Moderate
.31 to .50 or –.31 to –.50	Weak
.01 to .30 or –.01 to –.30	Very weak
0.00	No correlation

Table 7. Pearson correlation analysis.

		Customer Loyalty	Brand Image	Technical Quality	Customer Service	Quality Service
Customer Loyalty	Correlation Coefficient	1	.921**	.826**	.844**	.860**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	311	311	311	311	311
Brand Image	Correlation Coefficient	.921**	1	.818**	.838**	.853**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	311	311	311	311	311
Technical Quality	Correlation Coefficient	.826**	.818**	1	.877**	.928**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	311	311	311	311	311
Customer Service	Correlation Coefficient	.844**	.838**	.877**	1	.993**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	311	311	311	311	311
Quality Service	Correlation Coefficient	.860**	.853**	.928**	.993**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	311	311	311	311	311

**Correlation is significant at the .01 level (2-tailed).

Service ($p = .00$). The results also show that the relationship between the dependent variable and all the independent variables is strong and very strong ($r = .921$, $r = .826$, $r = .844$, and $r = .860$, respectively). Quality Service is a composite index formed by combining Technical Quality and Interpersonal Service Quality scores to reflect overall service quality in a single metric for correlation analysis.

4.8. Multiple Regression Analysis

Multiple regression is a statistical method used to identify the relationships between two or more variables by showing that the changes in the independent var-

able contribute to the change in the dependent variable. Based on the results of multiple regression in **Table 8**, it is shown that there is a significant relationship between the independent variables (Customer Service, Technical Quality, and Brand Image) and the dependent variable (Customer Loyalty) ($p < 0.01$). The model explained 87% of the variance in customer loyalty ($R^2 = .870$), indicating strong predictive power.

Table 8. Multiple regression analysis.

Variable	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	t	Sig.
	B	Std. Error	Beta (β)		
Customer Service	.077	.022	.164	3.442	.001
Technical Quality	.177	.065	.123	2.734	.007
Brand Image	.718	.042	.683	17.173	.000
R = .933					
$R^2 = .870$					
Adjusted $R^2 = .869$					

Dependent Variable: Customer Loyalty.

In the descriptive statistics, respondents generally showed positive perceptions across all variables, with brand image scoring the highest ($M = 5.40$), followed by technical quality ($M = 5.34$). In the correlation and regression analyses, all variables were strongly correlated with customer loyalty. Brand image had the highest regression coefficient ($\beta = .683$), followed by customer service ($\beta = .164$) and technical quality ($\beta = .123$), with an overall model R^2 of .870. In the mediation analysis, bootstrapped results confirmed that brand image significantly mediated the relationship between both service quality dimensions and customer loyalty.

4.9. Mediation Analysis

Using bootstrapping methods in AMOS, the indirect effects of both technical and interpersonal service quality on customer loyalty through brand image were significant ($p < .01$). The standardized indirect effect of technical quality on loyalty through brand image was .421, and for interpersonal quality, it was .488. The total effect of technical quality on customer loyalty was .598 ($p < .01$), and the direct effect was .177 ($p < .01$), indicating partial mediation by brand image. Similarly, the total effect of interpersonal quality was .652 ($p < .01$), and the direct effect was .164 ($p < .01$), also indicating partial mediation. These results confirm that brand image plays a substantial but not exclusive mediating role between post-sales service quality and customer loyalty. These findings validate brand image as a mediating mechanism in the relationship between service quality and loyalty.

5. Summary of Findings

The results support the integrated model proposed in this study. Both service

quality dimensions significantly influence customer loyalty, and brand image mediates these effects. These findings emphasize the importance of maintaining not only operational excellence but also strong brand communication and consistency in customer experience.

6. Discussion

Findings validate that brand image is a central mechanism through which service quality translates into loyalty. This supports Keller's theory that customer experience drives equity. The results demonstrate that the SERVQUAL framework remains valid in post-sales contexts within emerging markets, but also suggest modifications may be necessary. Specifically, interpersonal quality appears to carry greater influence than technical aspects, which may reflect cultural expectations of personalized care and hospitality in Malaysian service interactions. This reinforces the notion that SERVQUAL's dimensional emphasis can be context sensitive. Additionally, the study confirms that brand image is not merely an outcome but functions as a strategic mediator in emerging market settings, extending the CBBE framework into the post-purchase phase where operational touchpoints reinforce or erode brand equity. Compared to earlier studies in Western contexts, the Malaysian case shows a stronger influence of interpersonal service, likely due to local expectations of hospitality and relationship-based interactions.

The study contributes to theory by validating SERVQUAL and brand equity models in a post-sale, developing country context. Practically, it reinforces the need for Proton and Perodua to invest in CRM systems, personalized service delivery, and training programs for service advisors. Managers should prioritize ongoing training in interpersonal communication skills, as customers appear highly responsive to staff politeness and attentiveness. Implementing post-service feedback loops and personalized thank-you messages can further enhance emotional loyalty. Additionally, integrating service appointment tracking with branded mobile apps can modernize customer experience while reinforcing digital brand identity. Managers may also benefit from segmenting customers based on loyalty data to personalize follow-ups, offer loyalty tiers, or introduce value-added services like mobile servicing or express check-in for high-loyalty customers. This is also a sustainability issue. Customer retention reduces resource use in marketing and acquisition, while promoting local brands contributes to national industrial resilience.

7. Conclusion

The study discovered that brand image and customer loyalty were determined by the customers' perception of the service quality provided by the automotive service centres in terms of technical quality and customer service. The study discovered that most of the customers agreed that the companies and their brands are familiar to them, the products/brands are well established, and they said positive things about the service centres to other people. Most of the customers believed

that the spare parts from the service centres are original and of good quality and that the good service work provided by the service centres has helped to raise the company's image.

Overall, this study contributes to a deeper understanding of how service quality shapes customer loyalty through brand image in Malaysia's national automotive sector. By validating an integrated model in a real-world, post-purchase setting, the findings underscore the strategic value of brand image as not just a marketing construct, but a critical outcome of operational excellence and interpersonal care. This reinforces the view that brand equity is built long after the initial purchase, through consistent and meaningful service interactions that reflect the values and reliability of a brand.

The service centres always provide accurate information (e.g., itemized invoices) to the customers. The customers also shared their good experiences, such as how the service centres use appropriate tools and documents when providing services to customers. The service centres provide a clean and comfortable space for the customers. The staff are consistently courteous with them, respectful, and polite. The attitudes and skills of the staff at the service centres make the customers feel confident in doing business with the brand.

The study found a strong correlation between customer loyalty, brand image, and service quality, which includes two elements such as technical quality and customer service. Most of the customers are satisfied with their experience at service centres in Malaysia. In conclusion, the study discovered that customers are satisfied with their post-sale experience at the service centres.

Statements and Declarations

The authors declare that this article is their original work and has not been published elsewhere.

Ethical Considerations

This study was conducted in accordance with ethical standards for research involving human participants. Participation in the survey was voluntary, and all respondents were verbally informed of the purpose of the study, their right to decline or withdraw at any time, and the confidentiality of their responses. Verbal consent to participate was obtained prior to data collection.

Consent to Participate

All participants provided verbal consent to participate in this research after being informed about the study objectives, data handling procedures, and their rights as respondents. Participation was entirely voluntary.

Consent for Publication

No personally identifiable information was collected during the study. As such, consent for publication is not applicable. All responses were anonymized and used

solely for academic and research purposes.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Alghamdi, A., & Bach, C. (2023). Service Quality Dimensions and Customer Loyalty in the Automotive Service Industry: Evidence from Emerging Markets. *International Journal of Business Excellence*, 29, 47-63.
- Bahari Mohamed, S., Ali, H. M., & Hasbullah, F. N. (2022). Service Quality in the Automotive Maintenance and Repair Industry: A SERVQUAL Approach. *International Journal of Islamic Business*, 7, 20-31.
- Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Che Wel, C. A., Alam, S. S., Khalid, N. R., & Mokhtaruddin, S. A. (2018). Effect of Ethnocentrism and Patriotism on the Buying Intention of Malaysian National Car. *Jurnal Pengurusan*, 52, 169-179. <https://doi.org/10.17576/pengurusan-2018-52-14>
- Chua, Y. P. (2012). *Mastering Research Statistics* (2nd ed.). McGraw-Hill Education (Malaysia).
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed.). SAGE Publications.
- Cronin, J. J., & Taylor, S. A. (1992). Measuring Service Quality: A Reexamination and Extension. *Journal of Marketing*, 56, 55-68. <https://doi.org/10.1177/002224299205600304>
- Dick, A. S., & Basu, K. (1994). Customer Loyalty: Toward an Integrated Conceptual Framework. *Journal of the Academy of Marketing Science*, 22, 99-113. <https://doi.org/10.1177/0092070394222001>
- Fathulloh, A., & Purnama, B. (2024). Investigating the Effect of After-Sales Service Quality on Brand Trust and Customer Retention in Emerging Markets. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 37, 45-61.
- Grönroos, C. (2000). *Service Management and Marketing: A Customer Relationship Management Approach* (2nd ed.). Wiley.
- Hair, J. F., Howard, M. C., & Nitzl, C. (2021). Assessing Measurement Model Quality in PLS-SEM Using Confirmatory Composite Analysis. *Journal of Business Research*, 109, 101-110. <https://doi.org/10.1016/j.jbusres.2019.11.069>
- Hazari, S. (2024). Applying Expectation-Confirmation Theory to Examine User Engagement and Loyalty toward Facebook. *International Journal of Electronic Marketing and Retailing*, 15, 54-72.
- Iqbal, A., Rasheed, S., & Nawaz, M. (2021). Impact of Service Quality on Brand Image and Customer Loyalty: Evidence from Automotive After-Sales Service in Pakistan. *Asia Pacific Journal of Marketing and Logistics*, 33, 1389-1410.
- Keller, K. L. (1993). Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing*, 57, 1-22. <https://doi.org/10.1177/002224299305700101>
- Lim, L. H., & Hassan, R. (2023). Post-Purchase Service Experience and Customer Retention

- in the Malaysian Car Market: The Mediating Role of Emotional Engagement. *Malaysian Journal of Consumer Behaviour*, 7, 22-39.
- Mehmood, T., & Shafique, M. (2023). Revisiting SERVQUAL and CBBE: A Comprehensive Model for Customer Loyalty in Auto Services. *Global Journal of Management and Business Research*, 23, 14-26.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). McGraw-Hill.
- Nyadzayo, M. W., & Khajehzadeh, S. (2016). The Antecedents of Customer Loyalty: A Moderated Mediation Model of Customer Relationship Management Quality and Brand Image. *Journal of Retailing and Consumer Services*, 30, 262-270.
<https://doi.org/10.1016/j.jretconser.2016.02.002>
- Oliver, R. L. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, 17, 460-469.
<https://doi.org/10.1177/002224378001700405>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64, 12-40.
- Rahman, M. R., Yusoff, R. B. M., & Ismail, F. B. (2021). Enhancing Customer Loyalty Through Integrated Service Quality Dimensions: A Malaysian Automotive Perspective. *International Journal of Productivity and Performance Management*, 70, 2040-2062.
- Riyadi, S. (2019). Influence between Banking Service Quality and Brand Image against Customer Relationship and Loyalty in Sharia Bank. *European Research Studies Journal*, 22, 322-342. <https://doi.org/10.35808/ersj/1475>
- Saleem, H., & Raja, N. S. (2014). The Impact of Service Quality on Customers' Satisfaction and Loyalty: Evidence from Hotel Industry in Pakistan. *Middle-East Journal of Scientific Research*, 19, 706-711.
- Subaebasni, S., Risnawaty, H., & Wicaksono, A. R. A. (2019). Effect of Brand Image, Quality and Price on Customer Satisfaction and Implications for Customer Loyalty. *International Review of Management and Marketing*, 9, 90-97.
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using Multivariate Statistics* (7th ed.). Pearson Education.
- Tang, L. C., Rahman, N. H. A., & Abdul Hamid, M. (2023). An Integrated Model of Perceived Value, Satisfaction, and Brand Equity in Malaysian Retail Banking. *Journal of Business, Society and Emerging Economies*, 5, 15-27.
- Wong, A. L., Tan, W. K., & Teh, P. L. (2022). Post-Service Engagement and Its Influence on Customer Loyalty in the Automotive Sector. *Journal of Retailing and Consumer Services*, 66, Article 102901.
- Zhang, Y., Zhou, M., & Wei, Y. (2022). Examining Brand Image and Service Recovery as Drivers of Loyalty in Automotive After-Sales: A Customer-Centric Approach. *European Journal of Marketing*, 56, 379-401.
- Zygiaris, S., Papathanasiou, J., & Fragidis, L. (2022). Digital Transformation in Post-Sale Automotive Services: Enhancing Customer Experience through Mobile Technologies. *Technology Innovation Management Review*, 12, 18-28.