



Enhancing Customer Satisfaction Through Upselling and Cross-Selling: The Mediating Role of Brand Image in Automotive After-Sales Services

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ABSTRACT

After-sales service plays an important role in maintaining long-term customer relationships and enhancing customer satisfaction. This study aims to analyze the effect of upselling and cross-selling on customer satisfaction with brand image as a mediating variable in Toyota Tabanan after-sales services. This study employs a quantitative approach using Structural Equation Modeling–Partial Least Squares (SEM-PLS). The sample consists of 150 respondents selected using purposive sampling. Data were collected through questionnaires and analyzed using SmartPLS. The results show that upselling and cross-selling have a positive and significant effect on customer satisfaction and brand image. Furthermore, brand image significantly affects customer satisfaction and mediates the relationship between upselling, cross-selling, and customer satisfaction. These findings indicate that implementing appropriate sales strategies supported by a strong brand image can enhance customer satisfaction sustainably.

INTRODUCTION

The automotive industry is one of the global manufacturing sectors that has experienced rapid development due to technological advancements, increased production efficiency, and changes in consumer behavior (Kato, 2021). In Indonesia, the automotive industry plays a strategic role in the national economy because it contributes to the production, sales, and export of motor vehicles. According to Antara News (2025), the production of four-wheeled vehicles in Indonesia in 2024 reached approximately 1.19 million units, with wholesale sales amounting to 865,723 units and exports of completely built-up (CBU) vehicles reaching 472,193 units. Although car sales have experienced stagnation, the potential of the domestic market remains significant because the car ownership rate in Indonesia is relatively low, at around 99 units per 1,000 people.

Increasingly intense competition in the automotive industry does not only occur in vehicle sales but also in the quality of after-sales services, which have become an important factor in maintaining customer relationships and strengthening brand position in the market (Harimurti & Indriani, 2023). Customer satisfaction in the automotive sector refers to the level of customers' feelings after comparing

the performance of the products and services received with their expectations, both at the time of purchase and after the use of the vehicle through after-sales services. Customer satisfaction is an important indicator for companies to maintain customer loyalty and strengthen brand image, and previous studies also confirm that customer satisfaction often acts as a mediating variable that links service quality and pricing strategies to customer loyalty (Setini & Putra, 2025).

To better explain the mechanism underlying these relationships, this study adopts the Stimulus–Organism–Response (S-O-R) framework. According to this model, external stimuli influence internal psychological states, which subsequently shape behavioral responses. In this study, upselling and cross-selling are conceptualized as external stimuli that affect customers' internal evaluations, represented by brand image, which in turn influences customer satisfaction as the behavioral response. The use of the S-O-R framework allows for a deeper understanding of how marketing strategies do not directly influence customer satisfaction, but rather operate through perceptual and cognitive processes. In this context, brand image acts as an important mediating variable that reflects customers' interpretation of the value and quality of the services provided.

The dominance of a brand in the automotive industry is generally measured through wholesale indicators and market share. Data from Gaikindo (2024) shows that Toyota holds a national market share of 33.4%. However, Toyota's market share in Bali Province is recorded at 29.9% and decreases further in Tabanan Regency to 28.6%. This condition indicates that Toyota's national brand strength has not been fully converted optimally at the regional level. Therefore, marketing strategies are needed to strengthen long-term relationships with customers, particularly through improving the quality of after-sales services.

One strategy often used in after-sales services is upselling. Upselling is a sales method carried out by offering products or services that have a higher value compared to the customer's initial choice (Meliarini et al., 2021). When implemented appropriately by considering customer needs and comfort, upselling can increase customer satisfaction because it provides added value and more suitable solutions (Indra et al., 2024; Lee et al., 2024). However, overly aggressive upselling practices can create negative perceptions and may actually reduce customer satisfaction (Nanda, 2022; Chaudhary, 2024; Gao et al., 2025).

In addition to upselling, another commonly used strategy is cross-selling, which is a sales method that offers additional products or services related to the customer's main purchase (Kalkan & Sahin, 2023). This strategy can increase customer satisfaction because it helps customers obtain more complete products or services that are relevant to their needs (Bauer et al., 2022; Adlina et al., 2023; Famoti et al., 2024; Tanjung et al., 2024; Triana et al., 2024). However, inappropriate cross-selling implementation, such as irrelevant or excessive offers, can create discomfort and reduce customer satisfaction (Borgh et al., 2023; Shin et al., 2023).

In practice, the success of upselling and cross-selling strategies is also influenced by the company's brand image. Brand image refers to consumers' perceptions of a brand formed through experiences, information, and interactions that customers receive from the company's products and services (Kotler & Keller, 2019). Properly implemented upselling can create a positive perception of the brand because customers perceive that the company provides more valuable and professional services (Nanda, 2022; Abdullah et al., 2024; Indra et al., 2024; Lee et al., 2024; Zainuddin & Ridzwan, 2024). Similarly, relevant and informative cross-selling can strengthen brand image because customers feel that the company understands their needs (Torih & Amin, 2021; Basten & Juelsrud, 2023; Hardyansyah et al., 2024; Indra et al., 2024; Zainuddin & Ridzwan, 2024).

A positive brand image has also been proven to influence customer satisfaction, and research in the automotive sector further shows that brand image plays a significant role in shaping consumer purchase intentions and perceptions (Surlimna et al., 2025). Customers who have positive perceptions of a brand tend to feel more satisfied with the products and services they receive (Araujo et al., 2023). Several studies indicate that brand image can act as a mediating variable that bridges the influence of upselling

and cross-selling on customer satisfaction (Torih & Amin, 2021; Abdullah et al., 2024; Indra et al., 2024; Lee et al., 2024; Basten & Juelsrud, 2023).

Toyota Tabanan, as one of the official Toyota dealers in Bali, has the responsibility to maintain the quality of after-sales services in order to sustain customer satisfaction. Based on preliminary interviews with 15 customers who visited PT. Agung Toyota Tabanan in December 2024, 11 customers stated that they were satisfied with the after-sales services, particularly regarding additional offers through upselling and cross-selling strategies that were considered relevant. However, 4 customers stated that excessive or irrelevant additional offers could create discomfort and potentially reduce customer satisfaction. These findings indicate that the effectiveness of upselling and cross-selling strategies greatly depends on the relevance of the offers as well as customers' perceptions of the brand.

Based on this phenomenon and previous research findings showing relationships between upselling, cross-selling, brand image, and customer satisfaction, further research is needed regarding the role of brand image in mediating the influence of upselling and cross-selling on customer satisfaction in the after-sales services of Toyota Tabanan.

LITERATURE REVIEW

Stimulus–Organism–Response (S-O-R) Framework

This study is grounded in the Stimulus–Organism–Response (S-O-R) framework and Relationship Marketing Theory. The S-O-R model explains that external stimuli (upselling and cross-selling strategies) influence internal evaluations (brand image), which subsequently lead to behavioural responses (customer satisfaction). In this context, upselling and cross-selling act as stimuli that shape customers' perceptions of the brand (organism), which ultimately affects their satisfaction (response).

Additionally, Relationship Marketing Theory emphasizes the importance of long-term relationships between companies and customers. Effective upselling and cross-selling strategies, when delivered appropriately and based on customer needs, can strengthen trust and enhance customer relationships, thereby improving customer satisfaction and reinforcing brand image.

Customer Satisfaction

Customer satisfaction is one of the important indicators in evaluating a company's success in creating value and positive experiences for customers (Janoskova et al., 2021). Customer satisfaction is defined as the feeling of pleasure or disappointment that arises after customers compare the performance of the product or service they receive with their prior expectations (Kotler & Keller, 2019:139). If the performance of the product or service meets or exceeds customer expectations, customers will feel satisfied. Conversely, if the performance falls below expectations, customers tend to feel dissatisfied. Customer satisfaction can also be understood as the overall evaluation made by customers regarding their experience in using a company's products or services (Sunyoto, 2018:35). This evaluation reflects the extent to which a company is able to fulfill customer needs, desires, and expectations. Customers who feel satisfied tend to demonstrate positive behaviors such as making repeat purchases, developing loyalty, and recommending the company to others, which is consistent with findings showing that customer satisfaction acts as a bridge between company strategies and customer loyalty outcomes (Wiratama et al., 2025; Indra et al., 2024; Tanjung et al., 2024). The measurement of customer satisfaction in this study refers to Eckert et al. (2022) and Basten & Juelsrud (2023), which includes:

1. Satisfaction with product or service quality, referring to the level of customer satisfaction with the quality, features, performance, and suitability of the product or service to their needs.
2. Satisfaction with responsiveness, referring to the speed and accuracy of the company in responding to customer requests, questions, or complaints.
3. Satisfaction with communication, referring to the clarity and effectiveness of communication between the company and customers regarding product or service information.

4. Satisfaction with reliability, referring to the company's ability to consistently deliver services as promised.
5. Satisfaction with company personality, referring to the friendliness, professionalism, and behavior of company staff when providing services to customers.
6. Satisfaction with price, referring to the suitability between the price paid and the benefits or value received by customers.

Upselling

Upselling is a sales method conducted by offering products or services with higher value than the customer's initial choice. This strategy aims to increase transaction value and maximize revenue from each customer by offering products or services that provide additional benefits (Meliarini et al., 2021). Customer satisfaction is an important indicator for companies to maintain customer loyalty and strengthen brand image. Upselling that is implemented by understanding customer needs and delivered clearly and relevantly can improve service experiences and strengthen relationships between companies and customers (Pandya & Dholakia, 2021; Lee et al., 2024). In after-sales services, informative, transparent, and customer-relevant upselling offers can create positive perceptions of the services provided. The measurement indicators of upselling refer to Indra et al. (2024) and Lee et al. (2024), including:

1. Service comfort, referring to the level of customer comfort during interactions with service staff when upselling offers are delivered.
2. Personalization level, referring to the degree to which upselling offers match the specific needs or preferences of customers.
3. Clarity of information, referring to the clarity and ease of understanding the information provided regarding additional products or services offered.
4. Emotional engagement, referring to the level of emotional connection experienced by customers during the upselling interaction process.
5. Timing appropriateness, referring to the suitability of the timing when the upselling offer is delivered during the service process.

Upselling conducted by considering customer comfort, personalization, and relevance to customer needs can increase customer satisfaction. Customers who receive valuable additional product or service offers tend to have more positive service experiences (Pandya & Dholakia, 2021). Research by Meliarini et al. (2021), Pandya & Dholakia (2021), Abdullah et al. (2024), Lee et al. (2024), and Tanjung et al. (2024) shows that upselling influences customer satisfaction. Upselling functions not only to increase transaction value but also to influence consumer perceptions of a brand. Relevant upselling offers that provide added value to customers can create positive brand perceptions and strengthen brand image (Lee et al., 2024). Research by Nanda (2022), Abdullah et al. (2024), Indra et al. (2024), Lee et al. (2024), and Zainuddin & Ridzwan (2024) found that upselling influences brand image.

H1: Upselling has a positive effect on customer satisfaction in after-sales services.

H3: Upselling has a positive effect on brand image in after-sales services.

Cross-Selling

Cross-selling is a sales method conducted by offering additional products or services that are relevant and complementary to the main product purchased by customers (Bauer et al., 2022). This strategy aims to increase transaction value while providing more comprehensive solutions to customers through complementary product offers that match their needs. Proper implementation of cross-selling can strengthen long-term relationships with customers and enhance the service experience perceived by customers (Kalkan & Sahin, 2023). Besides providing financial benefits to companies through increased sales, cross-selling can also improve customer satisfaction if the additional product offers provided are relevant and beneficial to customers (Tanjung et al., 2024). The measurement indicators of cross-selling refer to Torieh & Amin (2021) and Kalkan & Sahin (2023), including:

1. Offer relevance, referring to the degree of suitability between the additional products or services offered and the needs or preferences of customers.

2. Offer presentation, referring to the clarity and ease of understanding the information delivered regarding additional products or services offered.
3. Customer acceptance, referring to the level of comfort and interest of customers in accepting cross-selling offers provided by the company.
4. Perceived added value, referring to customers' perceptions regarding the additional benefits obtained from products or services offered through cross-selling.

Cross-selling can increase customer satisfaction by providing more complete and relevant solutions to customer needs. Appropriate complementary product offers make customers feel more valued and facilitated in the purchasing process, thereby creating a more positive service experience (Adlina et al., 2023). Research by Bauer et al. (2022), Adlina et al. (2023), Famoti et al. (2024), Tanjung et al. (2024), and Triana et al. (2024) shows that cross-selling influences customer satisfaction. Furthermore, cross-selling can also influence consumer perceptions of brands. Relevant additional product offers that match customer needs can create a more personalized experience, forming positive perceptions of the brand and strengthening brand image (Basten & Juelsrud, 2023). Research by Torieh & Amin (2021), Basten & Juelsrud (2023), Hardyansyah et al. (2024), Indra et al. (2024), and Zainuddin & Ridzwan (2024) found that cross-selling influences brand image.

H2: Cross-selling has a positive effect on customer satisfaction in after-sales services.

H4: Cross-selling has a positive effect on brand image in after-sales services.

Brand Image

Brand image refers to the perceptions and impressions formed in consumers' minds about a brand based on information, experiences, and interactions obtained by consumers regarding the company's products or services, and recent studies highlight how modern branding strategies—including AI-driven approaches—strengthen brand perception in competitive markets (Kotler & Keller, 2019:219; Setini & Juliasa, 2026). Brand image reflects consumers' beliefs and associations toward a brand stored in memory, which shape consumer attitudes and preferences toward that brand (Tjiptono & Diana, 2020:49). A strong brand image can provide competitive advantages for companies because it builds trust, differentiates products from competitors, and strengthens consumer loyalty (Torieh & Amin, 2021; Eckert et al., 2022). In the context of the automotive industry, brand image is also formed through customer experiences with after-sales services that influence consumers' perceptions and evaluations of the brand as a whole (Kato, 2021). The measurement indicators of brand image refer to Sukoco (2019:82) and Diputra & Yasa (2021), including:

1. Brand identity, referring to the physical identity related to the brand such as logo, color, packaging, slogan, and corporate identity that help consumers recognize and differentiate the brand from others.
2. Brand personality, referring to the distinctive characteristics or personality of a brand that create a certain image in the minds of consumers.
3. Brand association, referring to various aspects consistently associated by consumers with a brand, such as reputation, company activities, and values attached to the brand.
4. Brand attitude and behavior, referring to the attitude and behavior of the brand in interacting and communicating with consumers, including employee behavior when providing services.
5. Brand benefit and competence, referring to the value and advantages offered by the brand so that consumers perceive benefits and trust the brand's ability to meet their needs.

Brand image reflects customer perceptions regarding the reputation, credibility, and value of a brand. Customers who have a positive image of a brand tend to feel more trust, comfort, and satisfaction toward the products and services provided (Araujo et al., 2023). Research by Diputra & Yasa (2021), Janoskova et al. (2021), Eckert et al. (2022), Araujo et al. (2023), and Harimurti & Indriani (2023) shows that brand image influences customer satisfaction. Furthermore, properly implemented upselling and cross-selling strategies can also shape a positive brand image. Customers who perceive that additional product offers are relevant and provide added value tend to develop better perceptions of the brand, which indirectly increases customer satisfaction through brand image (Abdullah et al., 2024; Torieh & Amin,

2021). Research by Abdullah et al. (2024), Indra et al. (2024), and Lee et al. (2024) shows that brand image can mediate the effect of upselling on customer satisfaction, while research by Torich & Amin (2021), Basten & Juelsrud (2023), and Indra et al. (2024) shows that brand image can mediate the effect of cross-selling on customer satisfaction.

H5: Brand image has a positive effect on customer satisfaction in after-sales services.

H6: Upselling influences customer satisfaction through brand image in after-sales services.

H7: Cross-selling influences customer satisfaction through brand image in after-sales services.

The conceptual framework of the research is illustrated as follows:

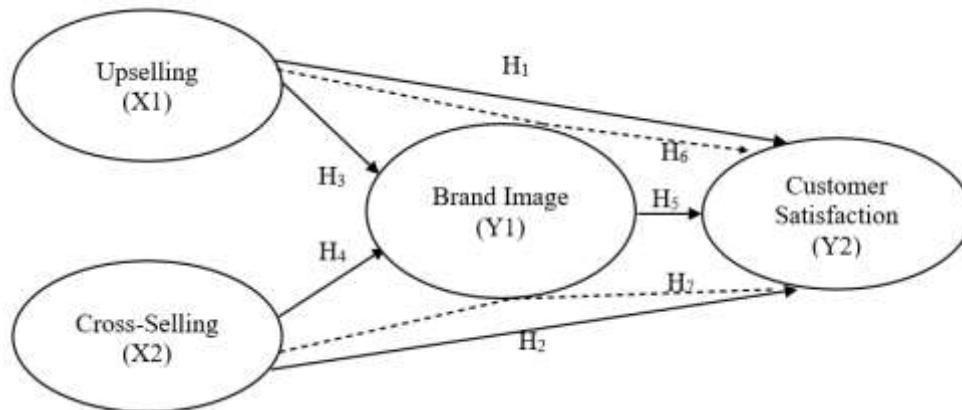


Figure 1. Conceptual Framework of the Research

METHOD

This study employed a quantitative approach with an associative research design aimed at analyzing the relationships among variables. The research was conducted in the after-sales service unit of Toyota Tabanan during the period from November 2025 to March 2026.

The population of this study consisted of all customers who had used Toyota Tabanan's after-sales services within the last three years (2024–2026). Although the exact population size is not precisely known, it includes all service users who have experienced upselling and cross-selling offers during the service process.

The sampling technique used was non-probability sampling with a purposive sampling method. The selection of respondents was based on specific criteria, namely: (1) customers who had used after-sales services at least once, and (2) customers who had received upselling or cross-selling offers. This approach ensures that respondents have relevant experience related to the research variables.

The sample size in this study was 150 respondents. The determination of the sample size refers to the rule of thumb in SEM-PLS analysis, which suggests that the minimum sample size should be 5–10 times the number of indicators used in the model. This study uses 15 indicators; therefore, the minimum required sample size ranges from 75 to 150 respondents. Thus, the use of 150 respondents is considered adequate and meets the requirements for SEM-PLS analysis. The data used in this study consisted of primary and secondary data. Primary data were collected through the distribution of questionnaires using a Likert scale, while secondary data were obtained from literature studies and relevant publications.

Data collection methods included questionnaires, observation, and literature review. The questionnaire items were developed based on previous studies and adapted to the context of automotive after-sales services. To ensure the validity of the data and minimize potential bias due to the use of self-reported questionnaires, this study conducted a Common Method Bias (CMB) test using Harman's Single Factor Test. The results show that a single factor does not account for more than 50% of the total variance, indicating that common method bias is not a serious issue in this study.

The data analysis technique used to test the hypotheses was Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with the assistance of SmartPLS software. The analysis procedure included evaluation of the measurement model (outer model) and the structural model (inner model). The outer model evaluation was conducted through tests of convergent validity, discriminant validity, and construct reliability using composite reliability and Cronbach's alpha. Meanwhile, the inner model evaluation was carried out using R-Square (R^2) and Q-Square (Q^2) to assess the predictive relevance of the model. In addition, hypothesis testing was performed using the bootstrapping method to examine the significance of the relationships between variables, including direct and indirect (mediating) effects.

RESULT

Structural Model Evaluation (Inner Model)

The evaluation of the measurement model (outer model) was conducted to test the validity and reliability of the constructs in the research model. In SEM-PLS analysis, the outer model represents the relationship between latent variables and their indicators. In this study, all indicators were reflective, therefore the evaluation of the measurement model was carried out through tests of convergent validity, discriminant validity, and construct reliability, which were measured using composite reliability and Cronbach's alpha. The results of the outer model evaluation were used to ensure that each indicator was able to represent the research constructs validly and reliably.

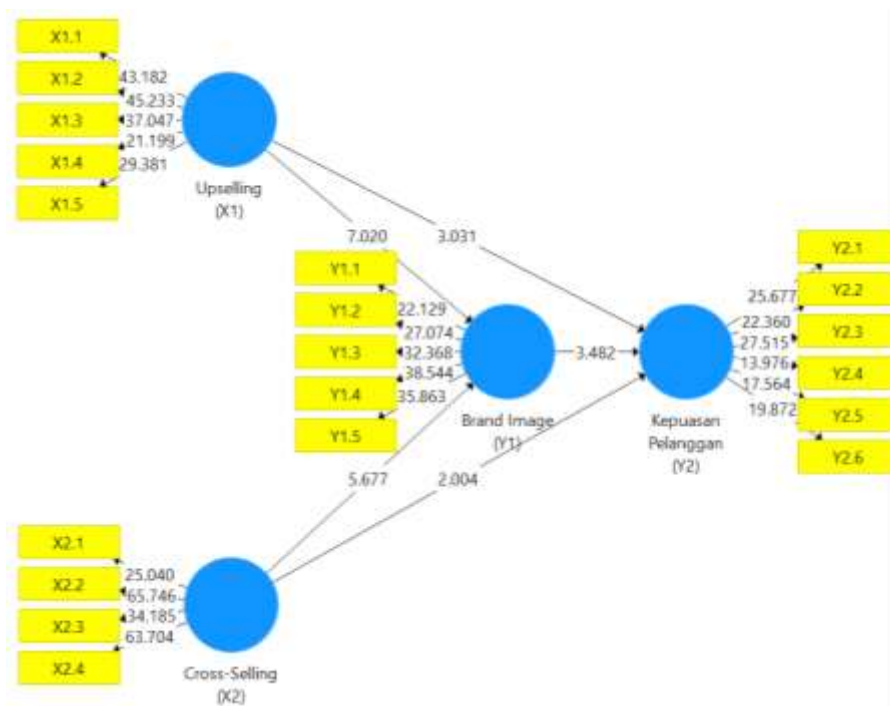


Figure 2. Outer Model Evaluation Path Diagram

Convergent Validity

Convergent validity with reflective indicators can be assessed by examining the correlation between indicator scores and their corresponding variable scores. Individual indicators are considered valid when the outer loading coefficient is within the range of 0.60 to 0.70 or higher (Ghozali, 2018:78).

Table 1. Convergent Validity

<i>No.</i>	<i>Construct</i>	<i>Indicator</i>	<i>Outer Loading</i>
1	Upselling (X1)	Service Comfort (X1.1)	0.899
		Personalization Level (X1.2)	0.896
		Clarity of Information (X1.3)	0.879
		Emotional Engagement (X1.4)	0.852
		Timing Appropriateness (X1.5)	0.837
2	Cross-selling (X2)	Offer Relevance (X2.1)	0.841
		Offer Presentation (X2.2)	0.921
		Customer Acceptance (X2.3)	0.871
		Perceived Added Value (X2.4)	0.905
3	Brand Image (Y1)	Brand Identity (Y1.1)	0.781
		Brand Personality (Y1.2)	0.841
		Brand Association (Y1.3)	0.858
		Brand Attitude and Behavior (Y1.4)	0.875
		Brand Benefit and Competence (Y1.5)	0.879
4	Customer Satisfaction (Y2)	Satisfaction with Product or Service Quality (Y2.1)	0.822
		Satisfaction with Responsiveness (Y2.2)	0.819
		Satisfaction with Communication (Y2.3)	0.823
		Satisfaction with Reliability (Y2.4)	0.743
		Satisfaction with Company Personality (Y2.5)	0.776
		Satisfaction with Price (Y2.6)	0.797

Source: SEM-PLS Data Results (2026)

Discriminant Validity

Discriminant validity of reflective measurement models, where indicators are assessed based on cross loading measurements with constructs. If the cross-loading value of each indicator of the variable in question is greater than the cross loading of other variables, then the indicator is said to be valid. A discriminant validity value greater than 0.70 indicates that the latent variable is already a good comparator for the model (Ghozali, 2018:79).

Table 2. Discriminant Validity

<i>Indicator</i>	<i>Brand Image (Y1)</i>	<i>Cross-Selling (X2)</i>	<i>Customer Satisfaction (Y2)</i>	<i>Upselling (X1)</i>
<i>X1.1</i>	0,828	0,831	0,811	0,899
<i>X1.2</i>	0,82	0,762	0,722	0,896
<i>X1.3</i>	0,804	0,767	0,751	0,879
<i>X1.4</i>	0,764	0,753	0,748	0,852
<i>X1.5</i>	0,710	0,713	0,707	0,837
<i>X2.1</i>	0,748	0,841	0,724	0,687
<i>X2.2</i>	0,812	0,921	0,768	0,822
<i>X2.3</i>	0,763	0,871	0,709	0,775
<i>X2.4</i>	0,824	0,905	0,761	0,820
<i>Y1.1</i>	0,781	0,665	0,689	0,712
<i>Y1.2</i>	0,841	0,840	0,760	0,790
<i>Y1.3</i>	0,858	0,769	0,744	0,795
<i>Y1.4</i>	0,875	0,726	0,703	0,751
<i>Y1.5</i>	0,879	0,758	0,731	0,764
<i>Y2.1</i>	0,692	0,634	0,822	0,705
<i>Y2.2</i>	0,726	0,772	0,819	0,676

Y2.3	0,688	0,68	0,823	0,693
Y2.4	0,616	0,566	0,743	0,614
Y2.5	0,686	0,656	0,776	0,707
Y2.6	0,685	0,683	0,797	0,701

Source: SEM-PLS Data Results (2026)

Table 2 shows that the discriminant validity based on the cross-loading values indicates that each indicator has a higher loading on its respective variable compared to the cross-loading values on other variables, with values greater than 0.70. These results indicate that the discriminant validity using the cross-loading method in this study is considered valid.

Composite Reliability and Cronbach Alpha

Construct reliability, or the reliability test of constructs, is measured using two criteria: composite reliability and Cronbach's alpha of the indicators measuring the construct. A construct is considered reliable if both the composite reliability and Cronbach's alpha values are greater than 0.70 (Ghozali, 2018:80).

Table 3. Construct Reliability

<i>Construct</i>	<i>Composite Reliability</i>	<i>Cronbach's Alpha</i>
<i>Upselling (X1)</i>	0,927	0,901
<i>Cross-selling (X2)</i>	0,935	0,907
<i>Brand image (Y1)</i>	0,913	0,885
<i>Customer Satisfaction (Y2)</i>	0,941	0,922

Source: SEM-PLS Data Results (2026)

Table 3 shows that the construct reliability test for the variables upselling (X1), cross-selling (X2), brand image (Y1), and customer satisfaction (Y2) has composite reliability and Cronbach's alpha values greater than 0.70. These results indicate that all constructs in this study are considered reliable.

Structural Model Evaluation (Structural Model / Inner Model)

The evaluation of the structural model (inner model) involves measurements to assess the overall accuracy of the research model formed by several variables along with their indicators. This evaluation is important to ensure that the developed model fits the observed data and is capable of producing accurate predictions. The evaluation is conducted through two tests, namely R-Square (R^2) and Q-Square Predictive Relevance (Q^2).

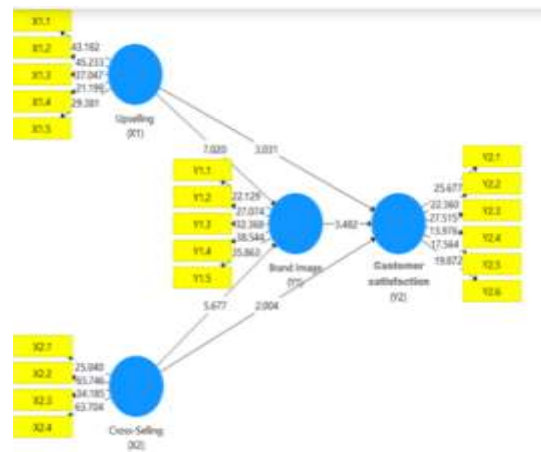


Figure 3. Inner Model Evaluation Path Diagram

Structural Model Evaluation Using R-Square (R²)

The R-Square value is used to determine the percentage of influence of exogenous variables on their endogenous variables. The R-Square value ranges from 0 to 1. If the R-Square value is close to zero, the influence of exogenous variables on endogenous variables is weaker. Conversely, if the value approaches one, the influence of exogenous variables on endogenous variables becomes stronger (Ghozali, 2018:84).

Table 4. R-Square

Construct	R-Square
Brand Image (Y1)	0,854
Customer Satisfaction (Y2)	0,782

Source: SEM-PLS Data Results (2026)

Table 4 shows that the R-Square value for the brand image construct (Y1) is 0.854, which means that 85.43% of the variation in brand image is influenced by upselling and cross-selling, while the remaining 14.6% is influenced by other variables outside the model. The R-Square value for the customer satisfaction construct (Y2) is 0.782, which indicates that 78.2% of the variation in customer satisfaction is influenced by upselling, cross-selling, and brand image, while the remaining 21.8% is influenced by variables outside the model.

Structural Model Evaluation Using Q-Square Predictive Relevance (Q²)

The evaluation of the structural model in PLS can also be measured using the Q-Square value for each endogenous latent variable as an indicator of predictive power in the structural model. If the calculation results show a Q-square value greater than zero, the model is considered to have predictive relevance. The Q-Square calculation is conducted using the formula:

$$Q^2 = 1 - [(1 - R^2) (1 - R^2)]$$

Thus, the calculation requires the R-square values to determine the contribution of exogenous variables to endogenous variables (Ghozali, 2018:87). The calculation of the Q-Square value in this study is as follows:

$$Q^2 = 1 - [(1 - R^2) (1 - R^2)]$$

$$Q^2 = 1 - [(1 - 0.854) (1 - 0.782)]$$

$$Q^2 = 1 - (0.146) (0.218)$$

$$Q^2 = 1 - 0.0318$$

$$Q^2 = 0.968$$

The Q^2 value ranges between $0 < Q^2 < 1$, where values closer to 1 indicate a better model. The results of the Q-Square calculation show that the Q^2 value is 0.968, which indicates that the model has good predictive relevance. A Q^2 value of 0.968 can be interpreted as meaning that 96.8% of the variation in endogenous constructs can be predicted by the variation in exogenous constructs.

Path Analysis and Hypothesis Testing

Path analysis in the SEM-PLS model provides information regarding the relationships among the research variables. Hypothesis testing uses the values obtained from the path coefficients as the basis for decision-making.

Table 5. Path Analysis of Direct Effects

<i>Construct Model</i>	<i>Original Sample (O)</i>	<i>Sample Mean (M)</i>	<i>Standard Deviation (STDEV)</i>	<i>T Statistics (O/STDEV)</i>	<i>P Values</i>
<i>Upselling (X1) → Customer Satisfaction (Y2)</i>	0.361	0.354	0.119	3.031	0.003
<i>Cross-Selling (X2) → Customer Satisfaction (Y2)</i>	0.226	0.234	0.113	2.004	0.046
<i>Upselling (X1) → Brand Image (Y1)</i>	0.523	0.520	0.075	7.020	0.000
<i>Cross-Selling (X2) → Brand Image (Y1)</i>	0.430	0.433	0.076	5.677	0.000
<i>Brand Image (Y1) → Customer Satisfaction (Y2)</i>	0.330	0.328	0.095	3.482	0.001

Source: SEM-PLS Data Results (2026)

Hypothesis testing using the Partial Least Squares (PLS) method is conducted by performing simulations for each hypothesized relationship using the bootstrapping method. The bootstrapping method aims to examine the significance values among variables. A hypothesis can be accepted if the bootstrapping test value lies between ± 1.96 . If the t-statistic value < 1.96 or $= 1.96$, the hypothesis will be rejected. Based on the results of the path analysis in Table 5, the following findings were obtained:

- a. The effect of upselling (X1) on customer satisfaction (Y2) produced a t-statistic value of 3.031, which is greater than 1.96 ($3.031 > 1.96$), indicating a significant effect. The path coefficient value shows that the relationship is positive. These results indicate that H1 is accepted, meaning that upselling has a positive effect on customer satisfaction in after-sales services.
- b. The effect of cross-selling (X2) on customer satisfaction (Y2) produced a t-statistic value of 2.004, which is greater than 1.96 ($2.004 > 1.96$), indicating a significant effect. The path coefficient value shows that the relationship is positive. These results indicate that H2 is accepted, meaning that cross-selling has a positive effect on customer satisfaction in after-sales services.
- c. The effect of upselling (X1) on brand image (Y1) produced a t-statistic value of 7.020, which is greater than 1.96 ($7.020 > 1.96$), indicating a significant effect. The path coefficient value shows that the relationship is positive. These results indicate that H3 is accepted, meaning that upselling has a positive effect on brand image in after-sales services.

d. The effect of cross-selling (X2) on brand image (Y1) produced a t-statistic value of 5.677, which is greater than 1.96 ($5.677 > 1.96$), indicating a significant effect. The path coefficient value shows that the relationship is positive. These results indicate that H4 is accepted, meaning that cross-selling has a positive effect on brand image in after-sales services.

e. The effect of brand image (Y1) on customer satisfaction (Y2) produced a t-statistic value of 3.482, which is greater than 1.96 ($3.482 > 1.96$), indicating a significant effect. The path coefficient value shows that the relationship is positive. These results indicate that H5 is accepted, meaning that brand image has a positive effect on customer satisfaction in after-sales services.

Mediation Effect Test

Table 6. Path Analysis of Indirect Effects

Construct Model	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Upselling (X1) → Brand Image (Y1) → Customer Satisfaction (Y2)	0,173	0,17	0,054	3,191	0,002
Cross-Selling (X2) → Brand Image (Y1) → Customer Satisfaction (Y2)	0,142	0,143	0,05	2,821	0,005

Source: SEM-PLS Data Results (2026)

The hypothesis of indirect effects through mediating (intervening) variables can be accepted if the bootstrapping test value lies between ± 1.96 . If the t-statistic value < 1.96 or $= 1.96$, the hypothesis is rejected. Conversely, if the t-statistic value > 1.96 , the hypothesis is accepted.

Based on Table 6, the indirect effect of upselling (X1) on customer satisfaction (Y2) through brand image (Y1) obtained a t-statistic value of 3.191, which is greater than 1.96 ($3.191 > 1.96$), indicating a significant mediating effect. The results indicate that H6 is accepted, meaning that upselling influences customer satisfaction through brand image in after-sales services.

The indirect effect of cross-selling (X2) on customer satisfaction (Y2) through brand image (Y1) obtained a t-statistic value of 2.821, which is greater than 1.96 ($2.821 > 1.96$), indicating a significant mediating effect. The results indicate that H7 is accepted, meaning that cross-selling influences customer satisfaction through brand image in after-sales services.

DISCUSSION

The findings of this study confirm that upselling and cross-selling have positive and significant effects on customer satisfaction and brand image, both directly and indirectly through mediation. However, beyond confirming previous studies, the results provide deeper insights into the psychological mechanism underlying these relationships. From the perspective of the S-O-R framework, the findings indicate that upselling and cross-selling function as external stimuli that shape customers' internal evaluations (brand image), which subsequently influence their satisfaction. This suggests that customer satisfaction is not solely determined by the functional benefits of additional offers, but also by how customers perceive and interpret these offers.

Critical Insight: Why Upselling Works

Although upselling shows a positive effect, this relationship is highly dependent on the perceived relevance and delivery approach. The findings imply that upselling is not inherently beneficial; rather, its effectiveness depends on how customers interpret the intention behind the offer. If customers perceive upselling as a value-adding recommendation, it enhances trust and satisfaction. However, if it is perceived as aggressive or profit-driven, it may create resistance and negatively impact brand image.

This highlights a potential boundary condition that is not fully explored in this study but is important for future research.

Critical Insight: Cross-Selling as Value Co-Creation

The positive effect of cross-selling indicates that customers value complementary offerings that enhance their overall service experience. This finding suggests that cross-selling can be viewed as a form of value co-creation, where customers perceive additional products or services as solutions rather than sales pressure. However, this also implies that irrelevant or excessive cross-selling may reduce perceived value and lead to cognitive overload, ultimately diminishing customer satisfaction.

Role of Brand Image as a Psychological Mechanism

One of the most important contributions of this study is the confirmation of brand image as a mediating variable. The results demonstrate that brand image serves as a key psychological mechanism that translates marketing strategies into customer satisfaction. This finding reinforces the idea that customers do not respond directly to sales strategies, but rather to their perceptions of the brand formed through those interactions. Therefore, improving customer satisfaction requires not only effective strategies but also positive perception management.

Theoretical Contribution

This study extends the application of the S-O-R framework in the context of automotive after-sales services by empirically validating the mediating role of brand image. Unlike previous studies that primarily focus on direct effects, this research highlights the importance of internal psychological processes in shaping customer responses. Furthermore, the integration of Relationship Marketing Theory emphasizes that long-term customer relationships are built not merely through transactions, but through perceived value and trust developed over time.

Managerial Reflection

From a managerial perspective, the findings suggest that companies should move beyond transactional selling toward customer-centric value delivery. Upselling and cross-selling should not be treated as revenue-maximizing tools alone, but as strategic instruments to enhance customer experience and strengthen brand perception. Additionally, companies need to: 1) Ensure personalization of offers; 2) Train staff in consultative selling; 3) Avoid excessive or irrelevant recommendations. Failure to manage these aspects may lead to negative perceptions, even when the strategy itself is theoretically beneficial.

CONCLUSIONS

This study concludes that upselling and cross-selling have positive and significant effects on both customer satisfaction and brand image in automotive after-sales services. In addition, brand image plays a crucial role in enhancing customer satisfaction and acts as a significant mediating variable in the relationship between sales strategies and customer satisfaction. Beyond confirming previous findings, this study demonstrates that customer satisfaction is not only influenced directly by upselling and cross-selling strategies, but also indirectly through customers' perceptions of brand image. This highlights the importance of perceptual and psychological mechanisms in shaping customer responses.

From a theoretical perspective, this study contributes by applying the Stimulus–Organism–Response (S-O-R) framework to explain how external marketing strategies influence internal evaluations and

behavioral outcomes. From a practical perspective, the findings emphasize the importance of implementing customer-oriented upselling and cross-selling strategies to strengthen brand image and improve customer satisfaction.

Managerial Implications

The findings of this study provide important managerial implications for automotive after-sales service providers, particularly in improving customer satisfaction through strategic service delivery. First, upselling strategies should be implemented using a customer-oriented approach. Service staff should deliver additional offers in a polite, non-intrusive manner and ensure that recommendations are aligned with the actual condition and needs of the customer's vehicle. Clear explanations regarding the benefits, pricing, and value of the offered services are essential to enhance customer trust and acceptance.

Second, cross-selling strategies should focus on relevance and perceived value. Offering complementary products or services that genuinely support the customer's needs can enhance the overall service experience. Companies should avoid excessive or irrelevant recommendations, as these may create discomfort and negatively impact customer perceptions.

Third, strengthening brand image is crucial as it acts as a mediating factor in influencing customer satisfaction. Companies should maintain consistent service quality, improve staff professionalism, and emphasize service reliability. Highlighting advantages such as the use of genuine spare parts, certified technicians, and comfortable service facilities can reinforce positive brand perceptions.

Companies should shift from a transactional selling approach toward a relationship-based strategy, where upselling and cross-selling are positioned as tools to enhance customer value rather than merely increase revenue. This approach is essential for building long-term customer relationships and sustaining competitive advantage.

REFERENCES

- Abdullah, R., Nulizairos, N., Ariffin, N., Witarsyah, D., & Maskat, R. (2024). Predicting and explaining customer response to upselling in telecommunications: A Malaysian case study. *JOIV: International Journal of Inform Visualization*, 8(3), 1861–1868.
- Adlina, N., Afrisawati, & Harahap, I. (2023). Implementation of E-CRM upselling and cross-selling strategy at Mitra Sejahtera Store. *JURTEKSI (Jurnal Teknologi dan Sistem Informasi)*, 9(2), 303–310.
- Araujo, J., Pereira, I., & Santos, J. (2023). The effect of corporate social responsibility on brand image and brand equity and its impact on consumer satisfaction. *Administrative Sciences*, 13(118), 1–16.
- Basten, C., & Juelsrud, R. (2023). Cross-selling in bank-household relationships: Mechanisms and implications for pricing. *The Review of Financial Studies*, 11, 1–34.
- Bauer, C., Spangenberg, K., Spangenberg, E., & Herrmann, A. (2022). Collect them all! Increasing product category cross-selling using the incompleteness effect. *Journal of the Academy of Marketing Science*, 50, 713–741.
- Diputra, I. G. A. A., & Yasa, N. N. K. (2021). The influence of product quality, brand image, and brand trust on customer satisfaction and loyalty. *American International Journal of Business Management*, 4(1), 25–34.
- Eckert, C., Neunsinger, C., & Osterrieder, K. (2022). Managing customer satisfaction: Digital applications for insurance companies. *The Geneva Papers on Risk and Insurance – Issues and Practice*, 47, 569–602.
- Famoti, O., et al. (2024). Enhancing customer satisfaction in financial services through advanced BI techniques. *International Journal of Multidisciplinary Research and Growth Evaluation*, 5(6), 1558–1566.
- Gabungan Industri Kendaraan Bermotor Indonesia (Gaikindo). (2024). Indonesian automobile industry data. <https://www.gaikindo.or.id/indonesian-automobile-industry-data/>
- Ghozali, I. (2018). *Structural equation modeling: Metode alternatif dengan partial least square (PLS)*. Badan Penerbit Universitas Diponegoro.

- Hardyansyah, R., Selviana, I., & Budiputranto, R. (2024). Faktor-faktor yang berpengaruh terhadap brand image ditinjau dari komunikasi pemasaran. *Jurnal Ilmiah Universitas Batanghari Jambi*, 24(3), 2681–2687.
- Harimurti, P., & Indriani, F. (2023). Analisis pengaruh brand image, perceived quality, dan resale value terhadap kepuasan serta loyalitas konsumen produk otomotif China dan Jepang di Indonesia. *Jurnal Studi Manajemen Organisasi*, 20(2), 73–88.
- Indiani, N. L. P. (2024). Pengaruh Kualitas Pelayanan, Persepsi Harga, dan Kelengkapan Produk terhadap Kepuasan Konsumen pada Apotekku di Tabanan. *Jurnal Mirai Management*. 9(1).
- Indra, H., Saragi, S., & Putriana, L. (2024). Analysis of the effect of upselling and cross-selling sales methods on brand image and its impact on purchasing decisions. *International Journal of Science and Society*, 6(1), 510–522.
- Janoskova, K., Kral, P., Popescu, G. H., Rowland, Z., & Kramarova, K. (2021). Perception of car brands with an emphasis on expected benefits and features as prerequisites for customer satisfaction. *Management & Marketing: Challenges for the Knowledge Society*, 16(3), 300–315.
- Kato, T. (2021). Factors of loyalty across corporate brand images, products, dealers, sales staff, and after sales services in the automotive industry. *Proceedings of the 25th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems*, 1–11.
- Lee, E., Kim, J., Shin, S., & Koo, C. (2024). Unlocking revenue: Psychological pricing effect for airlines' upselling strategies. *International Journal of Hospitality Management*, 119, 1–15.
- Meliarini, P., Sudiarta, M., & Darlina, L. (2021). Implementation of upselling as a strategy in increasing room sales by guest relation host at Alila Seminyak Hotel. *Journal of Applied Sciences in Travel and Hospitality*, 4(1), 9–17.
- Nanda, C. (2022). Analisis marketing communication dalam membangun brand image melalui media sosial Instagram. *Jurnal Administrasi Bisnis FISIPOL UNMUL*, 10(2), 166–180.
- Pandya, M., & Dholakia, A. (2021). Upselling strategy: A review. *Towards Excellence: An Indexed, Refereed & Peer Reviewed Journal of Higher Education*, 13(1), 157–168.
- Setiawan, R., & Susanto, V. (2024). Pengaruh customer satisfaction sebagai pemediasi kualitas pelayanan dan citra perusahaan terhadap loyalitas pelanggan. *Innovative: Journal of Social Science Research*, 4(2), 2388–2403.
- Setini, M., & bagus udayana Putra, I. (2025). The Role Of Customer Satisfaction In Mediating The Influence Of Service Quality And Price On Customer Loyalty In Retail Companies. *International Journal of Management and Digital Business*, 4(2), 115-136.
- Setini, M., & Juliasa, M. (2026). Smart Branding: Integration Of AI In The Marketing Strategy Of Bali MSME Cultural Products. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis*, 14(1), 767-782.
- Surlimna, N. K. L., Setini, M., & Wahyuni, N. M. (2025). The Role Of Environmental Concern In Mediating Promotion And Brand Image Of Electric Vehicle Purchase Intention In Denpasar City. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis*, 13(2), 1327-1338.
- Tanjung, D., Harahap, M., & Anggraini, T. (2024). The influence of cross-selling and upselling in increasing customer loyalty. *Jurnal Administrare: Jurnal Pemikiran Ilmiah dan Pendidikan Administrasi Perkantoran*, 11(1), 81–90.
- Torieh, A., & Amin, D. (2021). The effect of cross-selling on Egyptian consumer behavior. *International Journal of Economics, Commerce and Management*, 9(2), 413–426.
- Triana, N., Rahmani, N., & Dalimunte, A. (2024). Cross-selling customer service strategy in increasing product sales. *Indonesian Interdisciplinary Journal of Sharia Economics*, 7(1), 297–311.
- Wiratama, N. I., Setini, M., & Yasa, P. N. S. (2025). Customer satisfaction as a bridge: The impact of service quality and product diversification on loyalty. *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis*, 13(3), 2357-2372.
- Zainuddin, A., & Ridzwan, S. (2024). Why do customers browse online stores without making purchases? *International Journal of Business and Technology Management*, 6(2), 688–696.