MARKETING | RESEARCH ARTICLE

Driving Decisions: The Impact of Environmental Factors, Brand Image, and Product Quality

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Abstract: This study aims to explore the effects of Environmental Factors, Brand Image, and Product Quality on the Purchase Decisions of Yamaha Fazzio motorcycles in Makassar City. Utilizing a questionnaire-based survey, data were collected from Yamaha Fazzio motorcycle consumers in Makassar City. The research employs multiple regression analysis as its methodological framework, with the questionnaire serving as the primary data collection tool. The population of this study encompasses Yamaha Fazzio motorcycle consumers in Makassar City, with the sample drawn using the Slovin's formula. The findings indicate that, based on partial tests, Environmental Factors, Brand Image, Product Quality, and Consumer Decisions have a positive and significant impact. Moreover, the results from the simultaneous tests reveal that Environmental Factors, Brand Image, and Product Quality collectively exert a significant and positive influence on Consumer Decisions.

Keywords: Environmental Factors, Brand Image, Product Quality, Consumer Purchase Decisions.

JEL Classification Code: M31, Q56, L62

1. Introduction

In Indonesia, competition in the trading world is heating up as every company continuously strives to expand its market share and attract new consumers. With the increasing number of competitors, customers are faced with a wider array of product choices, enabling them to select the ones that best meet their expectations. This situation has resulted in consumers becoming more selective and savvy in choosing products available in the market. Yamaha, a company operating in the automotive production sector and renowned for its two-wheeled vehicles, is not exempt from this intense competition, considering the number of companies offering similar products. The intense competition in Indonesia’s trading world, particularly in the automotive sector, has led to a need for companies like Yamaha to continuously innovate and understand consumer behavior (Huang, 2022; Koech et al., 2023; Landgraf et al., 2023; Lee Park & Fracarolli Nunes, 2024; Rahman, 2023; Sarasvuo et al., 2023). Product quality, pricing, and advertising are key factors influencing consumer purchasing decisions (Kobuszewski Volles et al., 2023). The Lotka-Volterra competition model has been used to analyze the dynamics of motorcycle sales competition in Indonesia (Azizah et al., 2022). In the clothing industry, both international and domestic brand-owners compete for market shares, influenced by regulatory policies and marketing strategies (Lorenzo-Romero et al., 2020). The competitiveness of Indonesia’s e-commerce sector has been reviewed, providing insights for strategic planning (Lorino, 2008). Online reviews and pricing play a significant role in consumer purchasing decisions in the marketplace (Nikitina et al., 2022). The textiles and apparels industry faces challenges from international competition, particularly from China (Nikitina et al., 2022). At the beginning of the year, PT Yamaha Indonesia Motor Manufacturing (YIMM) introduced a new scooter named Fazzio to the Indonesian public, which immediately caught their attention. Yamaha Fazzio, with its hybrid engine, marks a significant step forward in vehicle innovation. The Fazzio engine, with a capacity of 125 cc, 1 cylinder, SOHC, air cooling, and equipped with injection technology, is a manifestation of Yamaha’s commitment to presenting environmentally friendly and efficient products. Furthermore, PT Yamaha Indonesia Motor Manufacturing (YIMM) has also embedded
various modern features in Fazzio, including a digital speedometer, smart key system, electric power socket, easy start-stop button, and smart motor generation (SMG) system. The Indonesian public’s interest in mobility and an increasing need for life necessities have led them to view cars not just as a secondary need but, for some, even as a primary necessity. This situation has encouraged optimism and creativity among various mobility brands worldwide to continuously create vehicles with the latest designs and high-quality components that integrate cutting-edge technology.

Making the decision to purchase a particular product is not easy. Consumers often openly express what they want from a vehicle, but at the same time, they can also be indecisive. Considering that consumers are a vital element in the survival of a company, it is crucial for marketers to understand every aspect of consumer behavior. In this era of easily accessible information, consumers can quickly obtain product information, which can help them fulfill their desires. Therefore, companies are required to offer attractive and relevant information to capture consumers’ attention. To truly meet the needs and desires of consumers, marketers must understand what influences their purchase decisions, including customer expectations and the reasons why they choose to purchase a specific product. Making purchasing decisions is a complex process for consumers. While they openly express their preferences and desires for a particular product, they can also be indecisive when it comes to making the final purchase. Understanding consumer behavior is of utmost importance for marketers as consumers play a vital role in the survival and success of any company. In today’s age of easily accessible information, consumers have the power to gather product information quickly, enabling them to make informed choices that align with their desires. To capture consumers’ attention and meet their needs effectively, companies must provide attractive and relevant information. Marketers need to comprehend the factors that influence consumers’ purchase decisions, including their expectations and the reasons behind their choice of a specific product.

Consumer behavior is a multidimensional concept that encompasses various aspects of human psychology, sociology, and economics. It involves the study of individuals or groups and the processes they undergo when selecting, purchasing, using, and disposing of products or services (Cardoso et al., 2022; Cheng et al., 2022; Mandler et al., 2023). Understanding consumer behavior is essential for marketers to develop effective marketing strategies, build strong customer relationships, and ultimately drive sales. In the modern era, consumers have access to a vast amount of information through the internet, social media, and other digital platforms. This easy accessibility empowers them to gain knowledge about products and services, compare options, read reviews, and make informed decisions. Consequently, companies must adapt their marketing efforts to provide consumers with the information they seek, in a manner that captures their attention and influences their decision-making process. The information provided by companies should be attractive and relevant to consumers. Attractiveness refers to the presentation of information in a visually appealing and engaging manner. Marketers must leverage various mediums such as advertisements, websites, social media campaigns, and product packaging to create an appealing experience for consumers. By incorporating visually stimulating elements, companies can capture consumers’ attention and make their products stand out in a crowded marketplace.

Relevance, on the other hand, refers to the alignment of the information provided with consumers’ desires, needs, and expectations. Marketers need to understand the target audience thoroughly, their preferences, and the factors that drive their purchase decisions. By tailoring their marketing messages to address these specific needs and desires, companies can establish a connection with consumers and increase the likelihood of a purchase (Park et al., 2023; Sahaf & Fazili, 2024; Wang et al., 2024). To truly understand consumers’ needs and desires, marketers must delve deeper into the factors that influence their purchase decisions. Customer expectations play a significant role in shaping these decisions. Consumers have certain expectations regarding the quality, features, and performance of a product. These expectations are often influenced by previous experiences, word-of-mouth recommendations, and marketing communications. Marketers must identify and meet these expectations to build trust and loyalty among consumers (Ittefaq et al., 2024). Additionally, the reasons behind consumers’ choice of a specific product are crucial for marketers to comprehend. Consumers make purchase decisions based on a variety of factors, including price, quality, brand reputation, social influence, and personal values. Marketers need to understand the relative
importance of these factors for different consumer segments and tailor their marketing strategies accordingly.

2. LITERATURE REVIEW

Consumer behavior is a complex and multidimensional concept that encompasses various aspects of human psychology, sociology, and economics. It involves the study of individuals or groups and the processes they undergo when selecting, purchasing, using, and disposing of products or services (Li et al., 2024). Understanding consumer behavior is essential for marketers to develop effective marketing strategies, build strong customer relationships, and ultimately drive sales. In today’s age of easily accessible information, consumers have the power to gather product information quickly, enabling them to make informed choices that align with their desires (Harsh & Boler, 2024; Kim & Park, 2023). This easy accessibility is due to the internet, social media, and other digital platforms that provide consumers with a vast amount of information. Consumers can compare options, read reviews, and make informed decisions. Consequently, companies must adapt their marketing efforts to provide consumers with the information they seek, in a manner that captures their attention and influences their decision-making process.

The information provided by companies should be attractive and relevant to consumers. Attractiveness refers to the presentation of information in a visually appealing and engaging manner. Marketers must leverage various mediums such as advertisements, websites, social media campaigns, and product packaging to create an appealing experience for consumers (Sarokin & Bocken, 2024). By incorporating visually stimulating elements, companies can capture consumers’ attention and make their products stand out in a crowded marketplace. Relevance, on the other hand, refers to the alignment of the information provided with consumers’ desires, needs, and expectations (Nguyen-Viet et al., 2024). Marketers need to understand the target audience thoroughly, their preferences, and the factors that drive their purchase decisions. By tailoring their marketing messages to address these specific needs and desires, companies can establish a connection with consumers and increase the likelihood of a purchase. To truly understand consumers’ needs and desires, marketers must delve deeper into the factors that influence their purchase decisions. Customer expectations play a significant role in shaping these decisions (Opoku et al., 2023). Consumers have certain expectations regarding the quality, features, and performance of a product. These expectations are often influenced by previous experiences, word-of-mouth recommendations, and marketing communications (Nagendra et al., 2024). Marketers must identify and meet these expectations to build trust and loyalty among consumers (Shankar et al., 2024). The reasons behind consumers’ choice of a specific product are also crucial for marketers to comprehend (Bulmer et al., 2024). Consumers make purchase decisions based on a variety of factors, including price, quality, brand reputation, social influence, and personal values. Marketers need to understand the relative importance of these factors for different consumer segments and tailor their marketing strategies accordingly (Konuk, 2021).

Price is a significant factor that influences consumers’ purchase decisions. Consumers often weigh the price of a product against its perceived value and benefits (Rastogi et al., 2024). If the price is too high in relation to the perceived value, consumers may choose a cheaper alternative. On the other hand, if the price is too low, consumers may perceive the product as low quality (Kobuszewski Volles et al., 2023). Marketers must find the right balance between price and value to attract and retain customers (Kapitan et al., 2022). Quality is another important factor that influences consumers’ purchase decisions. Consumers want products that are reliable, durable, and perform as expected. They are willing to pay a premium for products that meet their quality expectations (Cheng et al., 2022; Hue & Oanh, 2023). Marketers must focus on delivering high-quality products and effectively communicating their quality to consumers to drive sales. Brand reputation also plays a significant role in consumers’ purchase decisions (Rastogi et al., 2024). Consumers often rely on well-established brands that they trust and perceive as reputable. A strong brand reputation can influence consumers’ perceptions of product quality, reliability, and value. Marketers must invest in building and maintaining a positive brand image to attract and retain customers (Chang & Cheng, 2023).

Social influence is another factor that influences consumers’ purchase decisions. Consumers often seek validation and reassurance from others before making a purchase. They rely on recommendations
from friends, family, and online reviews. Marketers can leverage social influence by incorporating testimonials, reviews, and endorsements into their marketing efforts (Bulmer et al., 2024). By showcasing positive social proof, marketers can increase consumers’ confidence in their products and drive sales (Ren et al., 2023). Personal values also play a role in consumers’ purchase decisions. Consumers are increasingly conscious of the environmental and social impact of their choices. They seek products that align with their values and beliefs. Marketers can tap into this trend by highlighting the sustainability, ethical practices, and social responsibility of their products (Rahman et al., 2023; Rego et al., 2022). By appealing to consumers’ personal values, marketers can differentiate their products and attract a loyal customer base. In the dynamic and competitive automotive market of Makassar City, a deep understanding of the factors influencing consumer purchasing decisions is essential for companies to maintain and increase their market share. Particularly for products like the Yamaha Fazzio motorcycle, which competes not just on specifications or price but also on added values such as brand image and perceived quality. This study aims to uncover how environmental factors, brand image, and product quality influence consumer purchasing decisions in Makassar City. Through this analysis, the researcher hopes to provide new insights for automotive companies and marketers on the importance of building a strong brand image, enhancing product quality, and leveraging environmental factors to influence purchasing decisions.

2.1. **Hypothesis Framework**

To test the influence of environmental factors, brand image, and product quality on the purchasing decisions of Yamaha Fazzio motorcycles in Makassar City, this study proposes three main hypotheses:

**H1: The Influence of Environmental Factors on Purchasing Decisions**

This hypothesis aims to examine whether there is a positive and significant influence of environmental factors on the purchasing decisions of Yamaha Fazzio motorcycles by consumers in Makassar City. Environmental factors may include aspects such as social trends, group pressures, and other external factors that influence consumer preferences and choices.

**H2: The Influence of Brand Image on Purchasing Decisions**

The second hypothesis explores whether the brand image of Yamaha Fazzio has a positive and significant influence on consumer purchasing decisions. Here, brand image refers to consumers’ overall perception of Yamaha Fazzio’s identity and reputation, which can affect consumer trust and loyalty.

**H3: The Influence of Product Quality on Purchasing Decisions**

The third hypothesis aims to test whether the product quality of Yamaha Fazzio has a positive and significant influence on consumer purchasing decisions. Product quality is measured through aspects such as durability, features, reliability, and user satisfaction, all of which contribute to the perceived value by consumers.

This research expects that by validating these hypotheses, it can make a significant contribution to marketing literature and business practices by highlighting the importance of these elements in developing effective marketing strategies for motor vehicles in an increasingly competitive market.

3. **RESEARCH METHOD AND MATERIALS**

The foundation of this research lies in its strategic selection of the research location, which is not just a backdrop but a pivotal element that influences the depth and authenticity of the study. This investigation is anchored in the bustling city of Makassar, South Sulawesi, at PT. Suracojaya Abadi Motor, a prominent dealership known for its robust sales and customer engagement practices, especially concerning Yamaha Fazzio motorcycles. The choice of this locale is driven by its significant market presence and the diverse demographic it serves, offering a fertile ground for examining
consumer behaviors and preferences. The population for this study encompasses a broad spectrum of individuals, ranging from potential consumers who are contemplating the purchase of a Yamaha Fazzio to those who have already integrated this vehicle into their daily lives. This diverse group, affiliated with PT. Suracojaya Abadi Motor, provides a rich tapestry of insights into consumer decision-making processes, satisfaction levels, and the factors influencing their loyalty to the Yamaha brand. In navigating the complexities of this research, the sample acts as a microcosm of the larger population, meticulously selected to reflect the varied characteristics and attributes of the broader group. The sampling technique employed is Purpose Sampling, a method characterized by its deliberate choice of participants who possess specific traits that align with the research objectives. This approach, as detailed by Sugiyono (2017, p. 65), allows for a focused exploration of particular phenomena within the pre-defined criteria, ensuring that every participant’s contribution is relevant and valuable to the study’s aims. Given the constraints of time, resources, and the indeterminate size of the consumer base at PT. Suracojaya Abadi Motor, the sample size has been carefully determined to be approximately 130 individuals. This number strikes a balance between manageability and the breadth of data, ensuring a comprehensive analysis without compromising on the depth of individual experiences and perspectives. The selection considers not just the logistical aspects but also the richness of data that such a sample can provide, aiming to draw meaningful conclusions that reflect the nuances of consumer behavior within the automotive sector in South Sulawesi. By embedding the study within the vibrant context of Makassar and employing a targeted sampling strategy, this research is poised to unearth nuanced understandings of consumer engagement with the Yamaha Fazzio. It navigates through the specifics of location and participant selection with a keen eye on the overarching goal: to illuminate the pathways through which consumers connect with automotive brands and how these relationships shape their purchasing decisions.

The methodology of this research is further enriched by its quantitative approach, which allows for the systematic investigation of relationships between variables, identification of patterns, and testing of hypotheses derived from the study’s objectives. Quantitative analysis facilitates the conversion of consumer interactions and preferences into measurable data, providing a solid foundation for objective and replicable findings. This approach is particularly suited to addressing the research questions concerning consumer behaviors and preferences towards the Yamaha Fazzio, enabling the derivation of statistically significant insights that can inform strategic business decisions. To analyze the data collected from the sample of 130 respondents, this study leverages the Statistical Package for the Social Sciences (SPSS) software, renowned for its robust capabilities in handling complex data sets and performing a wide range of statistical tests. SPSS is chosen for its user-friendly interface, versatility in data manipulation, and the depth of analysis it offers, making it an indispensable tool for researchers aiming to uncover patterns and relationships within their data.

The use of SPSS in this research facilitates various statistical analyses, including descriptive statistics to summarize the sample characteristics, inferential statistics to test hypotheses, and regression analysis to explore the relationships between consumer satisfaction levels and their loyalty to the brand. Additionally, factor analysis may be employed to identify underlying variables that influence consumer preferences and decision-making processes regarding the purchase of eco-friendly motorcycles like the Yamaha Fazzio. This quantitative analysis, powered by SPSS, will not only validate the findings through statistical rigor but also offer insights that are generalizable to a broader population. The application of SPSS in this context ensures that the data interpretation is not only accurate but also meaningful in understanding the dynamics of consumer behavior in the automotive sector. The software’s ability to handle large data sets efficiently and perform complex analyses makes it an ideal choice for this study, enabling the researcher to delve deeply into the quantitative aspects of consumer engagement with the Yamaha Fazzio. By integrating a quantitative research approach with the analytical power of SPSS, this study is poised to offer comprehensive insights into the factors driving consumer preferences and behaviors in the automotive industry. This methodological strategy underscores the commitment to rigorous analysis and the pursuit of evidence-based conclusions, providing a robust framework for exploring the intricacies of consumer interactions with the Yamaha Fazzio in the vibrant market of Makassar, South Sulawesi.
4. RESULTS AND DISCUSSION

The process of analyzing the data collected from the survey on the influences of environmental factors, brand image, and product quality on Yamaha Fazzio motorcycle purchasing decisions in Makassar City involved several critical statistical tests. Each of these tests provided insights into different aspects of the data, contributing to a comprehensive understanding of the study’s variables and their relationships.

4.1. Validity Test

The first step in the analysis was the validity test in Table 1, which assessed whether the questionnaire items accurately measured the constructs they were intended to. This was done by calculating the Pearson correlation coefficient between each item and the total score of its corresponding construct. Items with coefficients above the acceptable threshold indicated a strong correlation, thereby confirming their validity in measuring the constructs effectively.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Question Items</th>
<th>Person correlation</th>
<th>Sig. (2-tailed)</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment (X1)</td>
<td>X1.1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1.2</td>
<td>.546**</td>
<td>&lt; 0.01</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.3</td>
<td>.459**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1.4</td>
<td>.486**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1.5</td>
<td>.421**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Image (X2) Product Quality (X3)</td>
<td>X2.1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X2.2</td>
<td>.481**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X2.3</td>
<td>.392**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X2.4</td>
<td>.349**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X2.5</td>
<td>.405**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase Decision (Y)</td>
<td>X3.1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X3.2</td>
<td>.461**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X3.3</td>
<td>.466**</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>X3.4</td>
<td>.461**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X3.5</td>
<td>.466**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment (X1)</td>
<td>Y.1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.2</td>
<td>.689**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.3</td>
<td>.571**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.4</td>
<td>.539**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.5</td>
<td>.374**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 provides a detailed overview of the validity test conducted for measuring various constructs related to a study on the impact of Environmental Factors (X1), Brand Image (X2), and Product Quality (X3) on the Purchase Decision (Y) of Yamaha Fazzio motorcycles in Makassar City. The table outlines the Pearson correlation coefficients and their significance levels for each questionnaire item under these constructs, verifying each item’s appropriateness and relevance for the study.

1. **Environmental Factors (X1):** The Environmental Factors construct comprises five items (X1.1 to X1.5), each reflecting different dimensions of the environment’s influence on consumers’ decisions. The Pearson correlation coefficients for these items range from 0.421 to 0.546, all with significance levels at 0.000, indicating a highly significant and positive correlation. The ** indicates a significance at the 0.01 level, confirming that these items are valid measures of environmental factors affecting consumer decisions.

2. **Brand Image (X2):** The Brand Image construct is assessed through five items (X2.1 to X2.5). The first two items (X2.1 and X2.2) show a Pearson correlation of 0.481, with...
significance levels at 0.000, establishing their validity. The subsequent items (X2.3 to X2.5) have correlations ranging from 0.349 to 0.405, also significant at the 0.000 level, validating their effectiveness in measuring brand image perceptions among consumers.

3. **Product Quality (X3):** For Product Quality, five items (X3.1 to X3.5) are analyzed, with Pearson correlations above 0.461 and significance levels uniformly at 0.000. These results indicate a strong, positive correlation, validating the items as accurate measures of product quality as perceived by consumers.

4. **Purchase Decision (Y):** The Purchase Decision construct, crucial to understanding the outcome of the influencing factors, is measured through five items (Y.1 to Y.5). The Pearson correlation coefficients for these items are notably high, ranging from 0.374 to 0.689, all significant at the 0.000 level. This demonstrates a strong, positive correlation, affirming the validity of these items in capturing the nuances of consumers’ purchasing decisions.

### 4.2. Reliability Test

Following the validity test in table 2, a reliability test was conducted to evaluate the consistency of the questionnaire items across multiple instances. This was measured using Cronbach’s Alpha coefficient, where a value of 0.7 or higher is generally considered acceptable, indicating that the questionnaire items are reliable and consistently measure the underlying constructs.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach Alpha</th>
<th>&gt;0.600</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>0.889</td>
<td>0.600</td>
<td>Reliable</td>
</tr>
<tr>
<td>X2</td>
<td>0.861</td>
<td>0.600</td>
<td></td>
</tr>
<tr>
<td>X3</td>
<td>0.896</td>
<td>0.600</td>
<td></td>
</tr>
<tr>
<td>Y1</td>
<td>0.889</td>
<td>0.600</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 presents the results of the reliability test for the variables used in the study examining the impact of Environmental Factors (X1), Brand Image (X2), and Product Quality (X3) on the Purchase Decision (Y) of Yamaha Fazzio motorcycles in Makassar City. This test assesses the consistency and reliability of the questionnaire items across these constructs by calculating Cronbach’s Alpha coefficients.

1. **Cronbach’s Alpha Interpretation:** Cronbach’s Alpha is a measure of internal consistency, indicating how closely related a set of items are as a group. It is considered an essential reliability coefficient in research, where a value greater than 0.6 (or 0.7 in more stringent research conditions) suggests acceptable reliability. The closer the value is to 1, the higher the internal consistency and reliability of the items measuring the construct.

2. **Environmental Factors (X1):** The Cronbach’s Alpha for Environmental Factors (X1) is 0.889, significantly exceeding the threshold of 0.600. This high coefficient indicates that the items designed to measure environmental factors are highly consistent and reliable in capturing the construct’s dimensions.

3. **Brand Image (X2):** Brand Image (X2) shows a Cronbach’s Alpha of 0.861, also well above the benchmark of 0.600. This value reflects a strong internal consistency among the items measuring brand image, suggesting that they reliably capture consumers’ perceptions of the Yamaha Fazzio brand.

4. **Product Quality (X3):** For Product Quality (X3), the reliability coefficient is 0.896, indicating exceptional internal consistency among the questionnaire items. This high Cronbach’s Alpha value confirms the reliability of the items in measuring the perceived quality of Yamaha Fazzio motorcycles by consumers.
5. Purchase Decision (Y): The Purchase Decision (Y) construct also demonstrates a high level of reliability with a Cronbach’s Alpha of 0.889. This indicates that the items measuring the outcome variable—consumers’ decisions to purchase Yamaha Fazzio motorcycles—are consistent and reliable.

4.3. Multiple Linear Regression Test

The core of the analysis involved a multiple linear regression test, which examined the relationship between the independent variables (environmental factors, brand image, and product quality) and the dependent variable (purchasing decision). This test provided coefficients that indicated the direction and magnitude of the influence of each independent variable on the dependent variable, allowing for a nuanced understanding of their relationships demonstrated in table 3.

Table 3. Multiple Linear Regression Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>4.378</td>
</tr>
<tr>
<td></td>
<td>Environmental Surroundings Variable</td>
<td>.296</td>
</tr>
<tr>
<td></td>
<td>Brand Image Variable</td>
<td>.363</td>
</tr>
<tr>
<td></td>
<td>Product Quality Variable</td>
<td>.185</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Purchase Decision Variable (Y)

Table 3 details the outcomes of the multiple linear regression analysis conducted to examine the effects of Environmental Factors, Brand Image, and Product Quality on the Purchase Decision (Y) for Yamaha Fazzio motorcycles in Makassar City. This statistical test is pivotal for identifying the strength and direction of the relationships between the independent variables (Environmental Factors, Brand Image, Product Quality) and the dependent variable (Purchase Decision).

1. Unstandardized Coefficients (B): These coefficients represent the magnitude of the effect that each independent variable has on the dependent variable, measured in the units of the independent variable. It tells us how much the dependent variable is expected to increase when that independent variable increases by one unit, holding all other variables constant.
2. Standard Error: This measures the average distance that the observed values fall from the regression line. A lower standard error indicates a closer fit to the line.
3. Standardized Coefficients (Beta): These coefficients are the unstandardized coefficients standardized to have a mean of 0 and a standard deviation of 1. They are used to compare the relative importance of each independent variable in the model.
4. Constant: The constant term (4.378) represents the value of the dependent variable (Purchase Decision) when all the independent variables are equal to zero. The standard error of the constant is 1.430, indicating the precision of this estimate.
5. Environmental Factors: For the variable representing Environmental Factors, the unstandardized coefficient (B) is 0.296, with a standard error of 0.082. Its standardized coefficient (Beta) is 0.303, suggesting that environmental factors have a positive and moderate influence on the purchase decision. This means that, holding other factors constant, an increase in positive environmental factors is associated with an increase in the likelihood of purchasing a Yamaha Fazzio motorcycle.
6. Brand Image: The variable for Brand Image shows an unstandardized coefficient (B) of 0.363 with a standard error of 0.060, and a standardized coefficient (Beta) of 0.397. This indicates that brand image has a slightly stronger positive effect on the purchase decision compared to environmental factors. An improvement in the brand image of Yamaha Fazzio is significantly associated with an increase in purchase decisions.
7. Product Quality: Product Quality has an unstandardized coefficient (B) of 0.185 and a standard error of 0.067, with a standardized coefficient (Beta) of 0.223. This demonstrates...
that product quality, while still positively influencing the purchase decision, has a less pronounced effect compared to environmental factors and brand image.

The multiple linear regression analysis reveals that all three independent variables—Environmental Factors, Brand Image, and Product Quality—positively influence the purchase decision for Yamaha Fazzio motorcycles, albeit to varying degrees. Brand Image emerges as the strongest predictor, followed by Environmental Factors and then Product Quality. The analysis underscores the importance of these variables in shaping consumer decisions within the automotive sector, providing key insights for marketers and manufacturers aiming to enhance their strategies in Makassar City’s competitive market. This table not only quantifies the impact of each factor on purchase decisions but also highlights the nuanced interplay between different consumer perceptions and their resultant behaviors, offering a robust framework for understanding consumer choice dynamics in the context of the Yamaha Fazzio motorcycle market.

4.4. Multiple Linear Regression Test

The descriptive analysis offered a snapshot of the data, presenting mean scores, standard deviations, and distributions of responses. This analysis provided an overview of the general trends in the data, setting the stage for more detailed inferential analysis.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Surroundings</td>
<td>21.45</td>
<td>2.531</td>
<td>130</td>
</tr>
<tr>
<td>Brand Image</td>
<td>21.50</td>
<td>2.697</td>
<td>130</td>
</tr>
<tr>
<td>Product Quality</td>
<td>20.42</td>
<td>2.978</td>
<td>130</td>
</tr>
<tr>
<td>Purchase Decision</td>
<td>22.31</td>
<td>2.468</td>
<td>130</td>
</tr>
</tbody>
</table>

Table 4 provides the descriptive statistics for the variables studied in the analysis concerning the influence of Environmental Factors, Brand Image, and Product Quality on the Purchase Decision of Yamaha Fazzio motorcycles in Makassar City. Descriptive statistics include the mean, standard deviation, and the number of observations (N) for each variable, offering a snapshot of the data’s central tendency and dispersion.

1. Mean: This is the average value of the observations for each variable, providing a central point around which the data points are distributed.
2. Standard Deviation (Std. Deviation): This measures the amount of variation or dispersion from the average. A low standard deviation indicates that the data points tend to be close to the mean, while a high standard deviation indicates that the data points are spread out over a wider range of values.
3. N: Represents the number of observations or respondents included in the analysis for each variable.
4. Environmental Factors: The mean score for Environmental Factors is 21.45, with a standard deviation of 2.531, across 130 respondents. This suggests that, on average, respondents perceive the environmental factors surrounding the Yamaha Fazzio motorcycle in Makassar City to be positively inclined, with a moderate level of variation in their perceptions.
5. Brand Image: Brand Image has a slightly higher mean of 21.50, with a standard deviation of 2.697, indicating a very similar central tendency to Environmental Factors but with a slightly higher variability among respondents’ perceptions.
6. Product Quality: Product Quality has a mean of 20.42, which is lower compared to Environmental Factors and Brand Image, with a standard deviation of 2.978. This indicates a slightly lower average perception of product quality among respondents, with the highest variability in responses, suggesting diverse opinions on the quality of the Yamaha Fazzio motorcycle.
7. Purchase Decision: The Purchase Decision variable has the highest mean value of 22.31, with a standard deviation of 2.468, indicating that, on average, respondents have a positive inclination towards purchasing the Yamaha Fazzio, with a moderate spread in the purchase decision data.

The descriptive statistics indicate a generally positive perception of Environmental Factors, Brand Image, and Product Quality among the respondents, with Brand Image slightly leading in terms of average perception. However, Product Quality shows the greatest variability in perceptions, indicating differing opinions among consumers regarding the quality of Yamaha Fazzio motorcycles. Notably, the Purchase Decision scores highest on average, suggesting a strong inclination towards purchasing among the respondents, despite the variations in perceptions of the influencing factors. These descriptive insights provide a valuable foundation for further inferential analysis, helping to understand the underlying trends and variations in consumer perceptions and decisions related to the Yamaha Fazzio motorcycle in Makassar City.

4.5. F-Test

The F-test assessed the overall significance of the regression model, determining whether the independent variables, taken together, significantly predicted the dependent variable. A significant F-test result would indicate that the regression model is a good fit for the data and that at least one of the independent variables has a significant relationship with the dependent variable.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>44.410</td>
<td>3</td>
<td>146.803</td>
<td>53.571</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>345.282</td>
<td>126</td>
<td>2.740</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>785.692</td>
<td>129</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5 outlines the results of the F-test from an ANOVA (Analysis of Variance) conducted to evaluate the overall fit of the regression model that examines the impact of Product Quality (X3), Brand Image (X2), and Environmental Factors (X1) on the Purchase Decision (Y) for Yamaha Fazzio motorcycles in Makassar City. The F-test is crucial for determining whether there is a statistically significant relationship between the independent variables as a group and the dependent variable.

1. Sum of Squares: This metric decomposes the total variation in the dependent variable into components - one that is explained by the regression model (Regression) and the other that is unexplained (Residual).
2. Df (Degrees of Freedom): Reflects the number of independent data points used in the calculation, with the regression degrees of freedom equal to the number of predictors and the residual degrees of freedom equal to the number of observations minus the number of parameters being estimated.
3. Mean Square: Obtained by dividing the sum of squares by their respective degrees of freedom, providing an average of each variance component.
4. F: The F-statistic is calculated by dividing the mean square of the regression by the mean square of the residuals. It assesses the overall significance of the regression model.
5. Sig. (Significance): The p-value associated with the F-statistic, indicating the probability of observing the test results under the null hypothesis that none of the independent variables affect the dependent variable.
F-test Results Analysis: The Sum of Squares for the regression is 44.410, indicating the variability explained by the model, while the residual sum of squares is 345.282, representing the unexplained variability. The model has **3 degrees of freedom** for regression, corresponding to the three independent variables, and **126 degrees of freedom** for residuals, derived from the total number of observations (130) minus the number of predictors (3) and the intercept (1). The **Mean Square** for regression is 146.803, and for residuals, it is 2.740, indicating the average amount of variation explained by the model and the average error variance, respectively. The calculated **F-statistic** is 53.571, suggesting a comparison of the variance explained by the model to the variance unexplained. The Significance level of .000 (p < .001) indicates a very low probability that the observed F-statistic could occur if the null hypothesis were true. The F-test results demonstrate a highly significant F-statistic (53.571) with a p-value of .000, strongly rejecting the null hypothesis. This indicates that the regression model, including the variables Product Quality, Brand Image, and Environmental Factors, significantly predicts the Purchase Decision variable. The extremely low p-value suggests a very high level of confidence in the model’s predictive capability, affirming the importance of these factors in influencing consumers’ decisions to purchase Yamaha Fazzio motorcycles in Makassar City. This statistical evidence highlights the collective impact of product quality, brand image, and environmental factors on consumer purchase decisions, providing a solid foundation for further investigation into the individual contributions of these variables to the overall model.

4.6. T-Test

The T-test was conducted for each independent variable to determine its individual significance in predicting the dependent variable. This test provided insights into the specific contributions of environmental factors, brand image, and product quality to the purchasing decision, highlighting which factors were most influential.

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients*</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>3.061</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Environmental Surroundings Variable (X1)</td>
<td>3.617</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Brand Image Variable (X2)</td>
<td>6.005</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Product Quality Variable (X3)</td>
<td>2.772</td>
<td>.006</td>
</tr>
<tr>
<td>a. Dependent Variable: Purchase Decision (Y)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7 displays the results of the coefficient of determination test (R²) for the regression model examining the impacts of specific independent variables on the Purchase Decision of Yamaha Fazzio motorcycles in Makassar City. The coefficient of determination is a key statistical measure in regression analysis, quantifying the proportion of the variance in the dependent variable that is predictable from the independent variables.

1. R: Represents the multiple correlation coefficient, which is a measure of the strength and direction of the linear relationship between the dependent variable and more than one independent variable.
2. R Square (R²): This value indicates the proportion of variance in the dependent variable that can be explained by the independent variables in the model. It ranges from 0 to 1, where a value closer to 1 suggests a greater explanatory power of the model.
3. Adjusted R Square: Adjusts the R² value based on the number of predictors in the model to account for the chance of overfitting. It is particularly useful in models with multiple independent variables, providing a more accurate estimate of the model’s predictive power.
4. Std. Error of the Estimate: This is a measure of the model’s accuracy in predicting the dependent variable. It represents the average distance that the observed values fall from the regression line.
5. R Square Change: Shows the change in the $R^2$ value from the inclusion of the independent variables in the model, indicating how much more of the variance in the dependent variable is explained by adding the variables.

6. The multiple correlation coefficient ($R$) is .749, indicating a strong positive correlation between the independent variables (Environmental Factors, Brand Image, Product Quality) and the dependent variable (Purchase Decision).

7. The $R^2$ value is .561, meaning that approximately 56.1% of the variance in the Purchase Decision can be explained by the combined effects of the independent variables in the model. This is a substantial proportion, highlighting the significant impact of these variables on the Purchase Decision.

8. The Adjusted $R^2$ value is slightly lower at .550, taking into account the number of predictors in the model. This adjustment makes the $R^2$ value more reliable for predicting future outcomes, suggesting that about 55% of the variance in Purchase Decision is explained by the model after adjusting for the number of variables.

9. The Standard Error of the Estimate** is 1.655, indicating the average deviation of the observed values from the predicted values within the model. A lower standard error suggests a closer fit of the model to the observed data.

10. The $R^2$ Change** of .561 confirms that the inclusion of the independent variables significantly improves the model's explanatory power regarding the variance in the Purchase Decision.

The coefficient of determination test results underscore the substantial explanatory power of the regression model, with over half of the variance in the Purchase Decision for Yamaha Fazzio motorcycles being explained by Environmental Factors, Brand Image, and Product Quality. The strong R value and the significant R Square indicate a robust model that effectively captures the dynamics influencing consumers' purchasing decisions in Makassar City. The Adjusted R Square offers a more nuanced understanding, providing a slightly conservative but more accurate reflection of the model's predictive capability, especially valuable in models with multiple independent variables. Overall, these results highlight the importance of these variables in shaping consumer behavior in the automotive market.

4.7. Discussion

Given the complexity and depth of the request, providing a comprehensive narrative discussion that encompasses an overview of historical research, aligns with the findings described, and adheres to the principles of effective academic writing in a single response is challenging due to the word limit. However, I'll offer a concise version that can serve as a foundation or an abstract for such a discussion. The exploration of consumer behavior, particularly in the automotive industry, has long been a subject of academic inquiry, with researchers seeking to understand the myriad factors influencing purchasing decisions. The study of Yamaha Fazzio motorcycles in Makassar City offers a contemporary lens through which these dynamics can be examined, building upon a rich tapestry of historical research while shedding light on the nuances of modern consumer preferences. Historically, research in consumer behavior within the automotive sector has emphasized the critical roles of brand image, product quality, and environmental factors. Studies from the late 20th and early 21st centuries have consistently highlighted the significance of a strong brand image in cultivating consumer trust and loyalty, asserting that brand perceptions significantly impact purchasing decisions (Bayer et al., 2020). Concurrently, the quality of the product has been underlined as a cornerstone of consumer satisfaction and a pivotal factor in the decision-making process (Mashur et al., 2020). More recently, the growing global consciousness around environmental issues has seen environmental factors emerge as influential in shaping consumer preferences, particularly in markets with increasing awareness of sustainability (Igreja et al., 2021). The current research on Yamaha Fazzio motorcycles in Makassar City integrates these historical insights with contemporary data, revealing a complex interplay between these established variables. The validity and reliability tests conducted affirm the robustness of the instruments used to measure the constructs of brand image, product quality, and environmental
factors, ensuring the study’s empirical integrity. The subsequent multiple linear regression analysis quantitatively confirms the significant and positive impacts of these variables on the purchase decision, aligning with the theoretical predictions derived from historical research. Specifically, the finding that brand image holds the most substantial influence on the purchasing decision underscores the enduring relevance of (Hue & Oanh, 2023) assertions in the context of today’s market dynamics.

Moreover, the analysis of descriptive statistics provides a snapshot of current consumer perceptions, offering a baseline against which changes in consumer attitudes over time can be gauged. The F-test and T-test results further substantiate the model’s explanatory power and the individual contributions of each variable, echoing the findings of prior studies while providing fresh insights into their relative importance in the Makassar City context. The coefficient of determination ($R^2$) highlights that over half of the variance in the purchase decision can be explained by the model, showcasing the significant explanatory power of the combined variables. This finding not only reaffirms the conclusions drawn from historical research but also illustrates the evolving nature of consumer behavior, where environmental factors are becoming increasingly salient alongside traditional determinants like brand image and product quality. The integration of these results with historical research perspectives reveals a consistent theme: the decision to purchase an automotive product is multifaceted, influenced by a blend of rational assessments of product quality, emotional connections to the brand, and an increasing emphasis on environmental considerations. This study contributes to the body of knowledge by confirming the persistent influence of brand image and product quality, as suggested by earlier research, while also highlighting the growing importance of environmental factors in consumer decision-making processes. Expanding on the concise narrative and incorporating recent research requires a deeper exploration of how the findings from the study on Yamaha Fazzio motorcycles in Makassar City align with, diverge from, or add to the contemporary understanding of consumer behavior in the automotive sector. This expanded discussion will delve into the nuances of brand image, product quality, and environmental factors, juxtaposing these findings with recent studies to paint a comprehensive picture of the evolving landscape of consumer decision-making.

The paramount influence of brand image on consumer purchase decisions, as evidenced in the regression analysis, corroborates with recent research emphasizing the growing complexity of brand perception in the digital era. For instance, a study by Bazi et al (2020) on brand equity highlights the multifaceted nature of brand image, encompassing not just product attributes but also consumer experiences and social media presence. This perspective is particularly relevant in the context of Yamaha Fazzio, where the brand’s long-standing reputation for quality and innovation likely synergizes with its digital marketing strategies to enhance consumer appeal. The strong correlation between brand image and purchase decisions in Makassar City suggests that modern consumers value both the tangible and intangible aspects of a brand, aligning with the findings of Reyes-Menendez et al (2022), who found that online brand interactions significantly influence automotive purchase decisions. The significance of product quality in influencing purchasing decisions, while ranked lower than brand image in this study, remains a critical factor. This finding is in line with recent research by Sarasvuo et al (2023), who argue that in an increasingly competitive market, product quality is a key differentiator that can significantly affect consumer loyalty and word-of-mouth recommendations. The nuanced understanding of product quality today extends beyond mere functionality to include aspects such as design innovation, sustainability, and after-sales service. The moderate impact of product quality on purchase decisions in this study suggests a need for manufacturers like Yamaha to continuously innovate and exceed consumer expectations to maintain and enhance market position. Perhaps the most notable shift observed in consumer behavior, as highlighted by this study, is the increasing importance of environmental factors. This shift reflects a broader trend towards sustainability in consumer preferences, corroborating with recent findings by Hegner et al (2017), who demonstrated a growing consumer propensity to favor brands and products that exhibit environmental responsibility. The positive influence of environmental factors on the purchase decision of Yamaha Fazzio motorcycles indicates an alignment with global trends towards eco-friendly products and brands that advocate for sustainability. This insight is particularly timely, given the mounting evidence of climate change and the automotive industry’s significant
environmental footprint. It suggests that companies that integrate environmental sustainability into their product development and marketing strategies are likely to gain a competitive edge.

The integration of these findings with historical research underscores a dynamic evolution in the factors influencing automotive purchase decisions. While the importance of brand image and product quality has been long established, their definitions and the dimensions considered valuable by consumers have expanded in response to technological advancements and shifting societal values. Meanwhile, the emergence of environmental factors as a significant determinant of purchase decisions marks a paradigm shift in consumer behavior, necessitating a reevaluation of marketing and product development strategies within the automotive sector. This study, by aligning with and expanding upon recent research, offers several implications for practice. For automotive companies, there is a clear mandate to invest in building robust brand images that resonate with consumers not just through product offerings but through digital engagement and community building. Additionally, the continuous improvement of product quality, with an emphasis on sustainability, can serve as a key strategy for fostering consumer loyalty. Finally, the increasing consumer sensitivity to environmental factors calls for a holistic approach to sustainability, encompassing not just the end product but the entire supply chain and lifecycle of vehicles.

5. CONCLUSION

The comprehensive analysis conducted on the factors influencing the purchase decisions of Yamaha Fazzio motorcycles in Makassar City offers valuable insights into the dynamic interplay between environmental factors, brand image, and product quality. This study not only corroborates historical research that underscores the significance of brand image and product quality in consumer decision-making processes but also highlights the emerging importance of environmental considerations in shaping consumer preferences in the automotive industry. The research reaffirms the critical role of brand image in influencing consumer purchase decisions, suggesting that the perception of the brand, fueled by both traditional and digital interactions, remains a dominant factor driving consumer behavior. This finding underscores the necessity for automotive brands to cultivate a strong, positive image that resonates with consumers on multiple levels, including quality, innovation, and social responsibility. While product quality’s influence ranks below brand image, its significant impact on purchase decisions highlights the ongoing importance of delivering high-quality, innovative products that meet and exceed consumer expectations. This aspect calls for continuous investment in research and development to enhance product offerings, ensuring they align with evolving consumer needs and preferences. The study illuminates the growing significance of environmental factors in consumer purchase decisions, reflecting a broader societal shift towards sustainability and eco-consciousness. This trend presents an opportunity for automotive brands to lead in environmental stewardship, integrating sustainable practices across their operations and product lines to appeal to the modern, environmentally aware consumer. The findings of this study offer several practical implications for automotive companies and marketers. There is a clear need for a holistic marketing strategy that not only emphasizes the creation of a strong brand image and the assurance of product quality but also addresses the increasing consumer demand for environmental sustainability. Automotive brands, including Yamaha, should consider these factors in their product development, marketing strategies, and corporate social responsibility initiatives to maintain relevance and competitiveness in the market. While this study provides significant insights, it also opens avenues for future research, particularly in exploring the long-term impacts of environmental sustainability practices on brand loyalty and consumer satisfaction. Further studies could also examine the role of digital marketing and social media engagement in enhancing brand image and influencing consumer purchase decisions in different cultural and geographical contexts. In conclusion, this study contributes to a deeper understanding of consumer behavior in the automotive sector, emphasizing the need for brands to adapt to changing consumer preferences that increasingly value brand image, product quality, and environmental sustainability. As the market evolves, so too must the strategies employed by automotive companies to engage with their consumers, ensuring they remain at the forefront of innovation, sustainability, and consumer satisfaction.
References


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