

# The Influence of Product Design and Green Marketing on BYD Car Purchase Decisions

Ketut Narmande<sup>1\*</sup>, Tri Lestira Putri Warganegara<sup>2</sup>

Universitas Bandar Lampung, Lampung, Indonesia<sup>1,2</sup>

[ketut.21011085@student.ubl.ac.id](mailto:ketut.21011085@student.ubl.ac.id)<sup>1\*</sup>, [tira@ubl.ac.id](mailto:tira@ubl.ac.id)<sup>2</sup>



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## Abstract

**Purpose:** This study analyzes the influence of product design and green marketing on BYD car purchase decisions.

**Methodology:** This study uses a quantitative approach with primary data collected through questionnaires. The population consists of BYD car customers in Indonesia during the 2024–2025 period, totaling 24,629 individuals. The sampling method employed was non-probability sampling with a purposive sampling approach, selecting respondents based on criteria relevant to the research objectives. Using the Slovin formula with a 10% error rate, 100 respondents were obtained. Data analysis was conducted using multiple linear regression.

**Results:** The results show that product design and green marketing have a positive and significant influence on purchasing decisions, both partially and simultaneously. These findings highlight the importance of developing aesthetically and functionally superior products as well as implementing environmentally friendly marketing strategies to shape consumer preferences and decisions.

**Conclusions:** This study concludes that product design and green marketing significantly influence BYD car purchasing decisions both individually and jointly. Consumers' positive perceptions of modern design and the company's commitment to environmental issues serve as key drivers of purchase decisions.

**Limitations:** Although this study shows that product design and green marketing significantly influence BYD car purchase decisions, it focuses only on these two variables and does not consider other factors, such as price, product quality, or brand image.

**Contributions:** This study demonstrates that product design and green marketing significantly influence BYD car purchase decisions, both partially and simultaneously, highlighting the importance of innovative aesthetics and sustainability values in attracting modern consumers.

**Keywords:** *Green Marketing, Product Design, Purchasing Decision*

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## 1. Introduction

The growth of the Indonesian automotive market continues to increase in line with the public's need for comfortable and efficient transportation (Ahmadi & Jokolelono, 2025). Cars have become the main choice because of their function as a means of transportation as well as support for comfort and protection. Intense competition in this industry encourages manufacturers to continuously innovate and design effective marketing strategies. One rapidly growing segment is electric vehicles, which are environmentally friendly and energy efficient (Putra, 2025). The Indonesian government supports the acceleration of electric vehicle adoption through regulations, such as Presidential Regulation No. 55 of

2019. Sales of Battery-Based Electric Vehicles (BEVs) have increased significantly, reaching 23,900 units in January–April 2025, or rising by 211% compared to the previous year.

BYD (Build Your Dreams), a Chinese automotive manufacturer, began entering the Indonesian market through electric buses in 2018 and expanded into the passenger segment in 2024 by launching three models: BYD Dolphin, Atto 3, and Seal. With a market share of 35.7% in 2024 and 38.5% in early 2025, BYD has become a major player in the national electric vehicle market. However, BYD's success is accompanied by several challenges, such as limited charging infrastructure, weak promotional strategies, window film quality that does not meet expectations, and safety issues due to vehicle fire incidents. If not addressed promptly, these issues may reduce trust and influence consumers' purchasing decisions regarding BYD products.

The decision to acquire a product is based on considerations of available options ([Septiani & Warganegara, 2025](#)). In the buyer's decision-making process, the actual purchase decision occurs when the product is bought ([Chaniago & Warganegara, 2023](#)). Customer actions in purchasing a product are identified as a customer's purchase decision. Therefore, every producer must employ various strategies to influence customers to choose products ([Lestari & Ekowati, 2020](#)). A purchase decision is a customer's decision to buy or consume a particular product, which begins with several stages: need recognition, timing, changes in situation, product selection, product consumption, individual differences, marketing influences, information search, internal search, and external search ([Hafisah & Irawanti, 2023](#)).

Purchase decisions are strongly influenced by product design. Product design is important in attracting people to buy a product ([Pradnyana & Susila, 2022](#)). Product design refers to the value embedded in a product in the form of an attractive appearance that helps it stand out from competitors and attracts customers to purchase it ([Sofa & Parmariza, 2023](#)). Research shows that product design has a positive and significant impact on purchase decisions, as designs that match customer preferences can increase purchase decisions ([Pradnyana & Susila, 2022](#)). However, [Hubbina, Mutia, and Putriana \(2023\)](#) stated that product design does not have a positive and significant impact on purchase decisions. These findings indicate that product design is not necessarily a determining factor that hinders consumers from making purchase decisions.

Green marketing not only includes the provision of environmentally friendly products but also packaging, product modifications, and production methods ([Sulaiman, 2025](#)). Businesses can now use green marketing to increase sales because of the growing customer interest in environmental issues ([Hafisah & Irawanti, 2023](#)). To meet customer demand, reduce negative environmental impacts, and encourage customers to be more environmentally conscious, green marketing is the process of planning the marketing mix by utilizing increased customer awareness of more environmentally friendly goods and services. This is achieved through changes in products, production processes, and packaging ([Yulianti, 2020](#)).

Research shows that green marketing has a positive and significant impact on purchase decisions, where environmentally friendly electric vehicles that use sustainability-based marketing strategies become an important factor influencing purchase decisions ([Zuliyanti, Yucha, & Arif, 2024](#)). However, a study conducted by [Ginting et al. \(2023\)](#) states that green marketing does not have a significant effect on purchase decisions, indicating that green marketing has not yet become a primary consideration for consumers in determining their purchasing choices. The purpose of this study is to determine the effect of product design and green marketing on the purchase decisions of BYD cars. Based on this background, the objective of this research is to analyze the impact of product design and green marketing on BYD car purchase decisions.

Although many studies have examined the influence of product design and green marketing on consumer purchase decisions, there remains a significant gap in understanding the combined impact of

these two factors, particularly in the growing Electric Vehicle (EV) market in Indonesia, with a focus on the BYD brand. Previous studies often examine these factors separately or within different industries. However, there is still no comprehensive empirical evidence that analyzes how the aesthetic design features and unique technologies of BYD vehicles, combined with the brand's specific green marketing strategies, influence consumer purchase intentions in Indonesia. This gap is crucial, considering Indonesia's socioeconomic landscape and the relatively early stage of EV adoption, which may result in different consumer perceptions and priorities compared to more advanced markets. Therefore, research focused on this topic will provide valuable insights into the specific drivers of EV adoption in Indonesia and offer strategic guidance for brands such as BYD.

This study offers significant novelty by specifically focusing on the BYD brand in the Indonesian Electric Vehicle (EV) market. Although numerous studies have examined the effects of product design and green marketing in general, no study has thoroughly analyzed these two factors within the unique context of BYD. This novelty lies in the effort to bridge the existing research gap, in which empirical data regarding the interaction between BYD's innovative design features and its green marketing strategies (including blade battery technology) on consumer purchasing behavior in Indonesia are limited. Thus, this study not only confirms or rejects findings from previous studies but also provides new insights that are highly relevant and specific to the EV industry in Indonesia. The results can serve as an important reference for industry players and policymakers in understanding the driving factors of EV adoption in developing countries.

Based on the above background, the findings of this study are expected to contribute to a broader discussion regarding the factors that shape purchase decisions in the automotive industry, particularly in the EV segment. If the results show that BYD's product design and green marketing have a positive and significant influence, this will support the view that a combination of visual appeal and environmentally friendly messaging is an effective strategy. Conversely, if the influence is not significant, this will trigger discussions about other factors that may be more dominant in influencing consumer purchase decisions in Indonesia, such as price, availability of charging infrastructure, or brand trust. These results will provide valuable input for BYD to adjust its marketing strategies, both in terms of product design and green marketing communication, to better align with local consumer preferences. In addition, this study can serve as a basis for comparative studies with other EV brands to understand differences in strategies that are effective in influencing this dynamic market.

## **2. Literature Review and Hypothesis/es Development**

### **2.1 Product Design**

Product design is the culmination of all characteristics that enhance a product's appearance and functionality in relation to customer needs ([Hermawan & Fauzi, 2023](#)). Product design refers to the value embedded in a product in the form of an attractive appearance that helps it stand out from competitors and attract customers to purchase it ([Sofa & Parmariza, 2023](#)). Design encompasses the overall characteristics that influence how a product looks, feels, and operates as perceived by customers and covers three main aspects: functionality, aesthetic value, and visual appeal, which together determine the user experience of the product ([Anggraini, Wulandari, Sriyanto, & Dewita, 2023](#)). The value of a product lies in its design, which differentiates it from competing products and gives it a distinctive, attention-grabbing form ([Djordan, Yusnita, & Sutrisna, 2023](#); [Lenti, Beni, Sadewo, & Usman, 2020](#)). Product design can also be regarded as a function that enhances the usability of a product ([Ardiyan, Rizal, & Arsyianto, 2024](#)). Research shows that product design has a positive and significant impact on purchase decisions, and designs that align with customer preferences can increase purchase decisions ([Pradnyana & Susila, 2022](#)).

### **2.2 Green marketing**

To meet customer demand, reduce negative environmental impacts, and encourage customers to be more environmentally conscious, green marketing is the process of planning the marketing mix by leveraging increased customer awareness of more environmentally friendly goods and services. This is achieved through changes in products, production processes, and packaging ([Yulianti, 2020](#)). Green marketing is a concept aimed at fulfilling customer needs while simultaneously reducing environmental

damage (Su & Li, 2024). This concept requires environmental reorientation and responsibility across all fields, activities, and departments within an organization, in addition to promoting products in an environmentally friendly manner (Kawengia, Dotulong, & Samadi, 2024). Any activity intended to facilitate improvements in meeting human needs and aspirations while reducing potential negative environmental impacts is referred to as "green marketing" (Zuliyanti et al., 2024).

Green marketing not only includes the provision of environmentally friendly products but also modifications in packaging, production methods, and product development (Jamira & Yandi, 2019). Green marketing refers to strategies that utilize environmental issues to promote products (Gunawan, Saryono, and Mujaddid Faruk SE (2020). It encompasses all marketing activities aimed at creating and sustaining exchanges that satisfy human needs and wants, while minimizing negative impacts on the environment (Yaputra, Risqiani, Lukito, & Sukarno, 2023). Green marketing is also defined as a set of environmentally friendly marketing tools used by industries to continuously achieve their marketing objectives in target markets (Saputra & Asfar, 2024). Research shows that green marketing has a positive and significant impact on purchase decisions, where environmentally friendly electric vehicles that implement sustainability-based marketing strategies become an important factor influencing purchase decisions (Zuliyanti et al., 2024).

### **2.3 Purchase Decision**

Customer actions in purchasing a product are known as customer purchase decisions; therefore, every producer must use various strategies to influence consumers to choose their products (Lestari & Ekowati, 2020). Customers use a process called the purchase decision to determine which brands and products to buy (Hamdedi & Kenamon, 2024). This process begins with identifying needs, followed by information gathering, evaluation, and purchase, and is then followed by a post-purchase evaluation (Yulianti, 2020). Customers make purchase decisions by considering several factors, including needs, timing, changes in circumstances, product selection, consumption, individual differences, marketing influences, and information searches conducted both internally and externally (Hafisah & Irawanti, 2023).

Customers choose to buy the brands they prefer the most; however, two factors can influence the decision between intention and actual purchases (Djordan et al., 2023; Gong, Xiao, Tang, & Li, 2023). Decision-making is a real action when a person acts to acquire and use products offered for sale (Pradnyana & Susila, 2022). Research has shown that product design has a positive and significant impact on purchase decisions, in which designs that align with customer preferences can increase purchase decisions (Pradnyana & Susila, 2022). The findings from several studies confirm that attractive product design and relevance to market preferences encourage customers to make purchases. Likewise, environmentally based marketing strategies are increasingly relevant, especially in the electric vehicle industry (Zuliyanti et al., 2024).

### **2.4 Research Hypothesis**

Based on several previous studies mentioned above, the hypotheses proposed in this study are as follows:

- H<sub>1</sub>*: Product design has a positive and significant effect on the decision to purchase a BYD vehicle
- H<sub>2</sub>*: Green marketing has a positive and significant effect on the decision to purchase BYD vehicles
- H<sub>3</sub>*: Product design and green marketing positively and significantly impact the decision to purchase a BYD vehicle

## **3. Methodology**

This study employs a quantitative approach to test the relationships among variables and confirm hypotheses formulated based on theory and previous findings. Data were collected directly from respondents via an online questionnaire distributed through Google Forms to the BYD car community on social media. The survey instrument consisted of closed-ended statements using a five-point Likert scale to measure the intensity of respondents' attitudes. The population in this study consists of BYD

car customers from 2024 to 2025, with a total population of 24,629 people. The sampling technique employed was non-probability sampling, specifically purposive sampling; the sample size was calculated using Slovin's formula, resulting in a final sample of 100 respondents.

Table 1. Operational definition of a variable

| Variables          | Definition   | Indicator   | Scale  |
|--------------------|--|---|--------|
| Product design     | Product design is the entire process of creating a new product, which involves identifying market opportunities, conceptualizing ideas, and developing concepts until the product is ready for the market. | <ol style="list-style-type: none"> <li>1. Design variations</li> <li>2. Latest models</li> <li>3. Trend-driven designs (<a href="#">Pradnyana &amp; Susila, 2022</a>).</li> </ol>   | Likert |
| Green marketing    | Green marketing is a marketing strategy that focuses on promoting eco-friendly products and services and demonstrating a company's commitment to sustainability and social responsibility.                 | <ol style="list-style-type: none"> <li>1. Green product</li> <li>2. Green price</li> <li>3. Green place</li> <li>4. Green promotion (<a href="#">Zuliyanti et al., 2024</a>).</li> </ol>  | Likert |
| Purchase decisions | A purchasing decision is the process by which consumers evaluate various available product or service options before choosing to buy, use, or consume a specific product.                                  | <ol style="list-style-type: none"> <li>1. Alignment with needs</li> <li>2. Tangible benefits</li> <li>3. Decisiveness when purchasing</li> <li>4. Likelihood of repeat purchases (<a href="#">Djordan et al., 2023</a>).</li> </ol> | Likert |

Before further analysis, the instruments were subjected to feasibility testing through validity and reliability tests. The validity test determines whether the items formulated truly represent the construct being measured. Meanwhile, the reliability test is used to ensure that the measurement results are consistent. Additionally, to meet the requirements for using multiple linear regression, the author conducted several classical assumption tests, such as tests for normality, linearity, and multicollinearity. The normality test examines the distribution of the data, the linearity test assesses the linear relationship among variables, and the multicollinearity test detects high correlations among independent variables. The analysis technique used is multiple linear regression to determine the simultaneous and partial effects of the independent variables on the dependent variable.

## 4. Results and Discussion

### 4.1 Validity Test

A validity test is a process used to measure the extent to which a research instrument, such as a questionnaire, measures the concept it is intended to measure. The purpose was to ensure that each item or question in the instrument accurately represented the variable under study. Based on the results of Pearson's correlation analysis of all items against the variables of product design, green marketing, and purchase decisions, the Sig score was  $< 0.05$ . This indicates that the research instrument used was well constructed and suitable for use.

### 4.2 Reliability Test

A reliability test is a statistical procedure used to measure the consistency and stability of a research instrument. Its purpose is to ensure that the instrument, when reapplied to the same or similar subjects, will produce consistent results. This research instrument has a reliability level ranging from adequate

to very good, based on a Cronbach's alpha score > 0.70 derived from the analysis of the variable's product design, green marketing, and purchase decision.

#### 4.3 Results of the Normality Test

A normality test is a statistical method used to determine whether the data in a sample are normally distributed. The primary purpose of this test is to ensure that the assumption of normality is satisfied, which is an important prerequisite for many parametric statistical tests.

Table 2. Results of the Normality Test

| Variables          | Sig. (2-tailed) | Significance Level | Description                      |
|--------------------|-----------------|--------------------|----------------------------------|
| Product design     | 0.082           | 0.05               | The data is normally distributed |
| Green marketing    | 0.084           | 0.05               | The data is normally distributed |
| Purchase decisions | 0.259           | 0.05               | The data is normally distributed |

Table 2 presents the results of the analysis conducted on the variables of green marketing, product design, and purchase decisions, all with a significance level greater than 0.05. This indicates that the data followed a normal distribution.

#### 4.4 Linearity Test

A linearity test is conducted to determine whether the relationship between the independent and dependent variables is linear (a straight line). This test is important as a prerequisite in linear regression analysis to ensure that the model used is appropriate.

Table 3. Linearity test

| Variables                           | Sig. Deviation from Linearity | Significance Level | Description |
|-------------------------------------|-------------------------------|--------------------|-------------|
| Product Design → Purchase Decision  | 0.304                         | 0.05               | Linier      |
| Green marketing → Purchase Decision | 0.268                         | 0.05               | Linier      |

Table 3 shows that the results of the analysis conducted on the product design variable, green marketing in the purchase decision has a Sig. Deviation from Linearity score > 0.05, indicating that both the product design and green marketing variables have a valid linear relationship with the purchase decision variable.

#### 4.5 Results of the Multicollinearity Test

The multicollinearity test is a classical assumption test in regression analysis designed to detect the presence of perfect or near-perfect linear relationships among the independent variables in a model. This test ensures that the regression model does not suffer from high correlations among the independent variables, which can cause the estimated regression coefficients to be unstable and difficult to interpret.

Table 4. Results of the Multicollinearity Test

| Variables                           | Tolerance | VIF   | Tolerance limit | VIF limit | Description                   |
|-------------------------------------|-----------|-------|-----------------|-----------|-------------------------------|
| Product Design → Purchase Decision  | 0.742     | 1.347 | > 0.10          | < 10      | There is no multicollinearity |
| Green marketing → Purchase Decision | 0.742     | 1.347 | > 0.10          | < 10      | There is no multicollinearity |

Table 4 presents the results of the analysis conducted on the product design and green marketing variables in the purchase decision, the tolerance score was > 0.10, and the VIF was < 10, indicating no signs of multicollinearity in the regression model.

#### 4.6 Multiple Linear Regression Equation

A multiple linear regression equation is a statistical model used to analyze the relationship between one dependent variable and two or more independent variables. This model predicts the value of the dependent variable based on the values of the independent variables.

Table 5. Results of the multiple linear regression analysis

| Components      | Coefficient Values |
|-----------------|--------------------|
| Constant (a)    | 7.997              |
| Product Design  | 0.191              |
| Green marketing | 0.462              |

Regression Equation:

$$Y = 7,997 + 0,191X_1 + 0,462X_2 \quad (1)$$

Description:

$Y$  = Purchase Decision

$X_1$  = Product Design

$X_2$  = *Green marketing*

- A constant value of 7.997 indicates that if the scores of both independent variables are zero, the predicted purchase decision score is 7.997. Theoretically, this constant represents the baseline value of the purchase decision when the independent variables have no influence.
- The regression equation above indicates that a one-unit change in the perception of product design will increase purchase decision value by 0.191 units, holding all other variables constant.
- The regression equation above indicates that a one-unit change in the perception of green marketing will increase the purchase decision by 0.462 units, indicating that it has a stronger influence than product design.

#### 4.7 Results of the t-test

A t-test is a statistical method used to compare the means of two different sample groups. Its primary purpose is to determine whether the observed difference in means between the two groups is statistically significant or a result of chance.

Table 6. Results of the t-test

| Variables                           | Sig   | Significant level | Description |
|-------------------------------------|-------|-------------------|-------------|
| Product Design → Purchase Decision  | 0.039 | 0.05              | Significant |
| Green marketing → Purchase Decision | 0.000 | 0.05              | Significant |

- The results of the t-test indicate that the product design variable has a significance level of  $0.039 < 0.05$ , indicating that the product design variable has a significant impact on the decision to purchase a BYD car.
- Based on the results of the t-test, the significance level of the green marketing variable was  $0.000 < 0.05$ , indicating that the green marketing variable had a significant impact on the decision to purchase a BYD car.

#### 4.8 Results of the F-Test

The F-test is a statistical test used to determine whether a set of independent variables simultaneously has a significant effect on the dependent variable. In regression analysis, the F-test measures how well the constructed regression model explains the variation in the dependent variable compared to a model that uses only a constant.

Table 7. Results of the F-Test

| Variables  | Sig   | Significant level | Description |
|--|-------|-------------------|-------------|
| Product design and green marketing → Purchase Decision | 0.000 | 0.05              | Significant |

Table 7 shows the results of the F-test, in which product design and green marketing have a Sig score of  $0.000 < 0.05$ , indicating that product design and green marketing together have a significant impact on the decision to purchase a BYD car.

#### 4.9 Discussion

##### 4.9.1 The Influence of Product Design Variables on Purchase Decisions

The results of the t-test indicated that product design had a Sig score of  $0.039 < 0.05$ , indicating that the product design variable had a statistically significant impact on the decision to purchase a BYD car. The statistical test results indicate that a positive perception of BYD car design encourages customers to make a purchase. Product designs that are innovative, futuristic, and in line with modern lifestyle trends serve as a unique draw for customers (Nugroho, Hutajulu, & Mollet, 2024). Based on the results of the descriptive analysis, the product design variable is categorized as “Fairly Good.” This implies that consumer perceptions of BYD car design still have room for improvement.

Although these factors already influence purchasing decisions, improvements in design elements, such as visual aesthetics, interior comfort, and alignment with consumers’ lifestyle values, can still be optimized to enhance product competitiveness. The findings of this study are consistent with research conducted by Pradnyana and Susila (2022), Anggraini et al. (2023), Ardiyan et al. (2024), Djordan et al. (2023), and Hermawan and Fauzi (2023) indicating that purchasing decisions can be positively and significantly influenced by product design, and that designs appealing to customer preferences can lead to increased purchases. Product design refers to the value inherent in a product in the form of an attractive appearance, as it helps the product stand out from competitors and attract customers to purchase it (Sofa & Parmariza, 2023).

These findings confirm that the innovative, futuristic, and modern design of BYD vehicles is a key driver of consumer purchasing decisions. An attractive design not only enhances visual appeal but also creates a perception of quality and value that sets BYD apart from its competitors, consistent with previous research showing that product designs aligned with consumer preferences can increase purchase rates. Therefore, for BYD, the implication of these findings is the importance of continuing to invest in the development of cutting-edge product designs that align with modern consumer lifestyle trends as a key strategy to attract interest and drive purchasing decisions.

##### 4.9.2 The Influence of Green Marketing Variables on Purchase Decisions

The results of the t-test indicated that green marketing had a significant score (Sig =  $0.000 < 0.05$ ), indicating that the green marketing variable had a significant impact on the decision to purchase a BYD vehicle. These results suggest that customers do not purchase solely based on technical specifications but also because of the moral and ideological values offered by the product (Akramova, 2025). Green marketing strategies, such as promoting the use of clean energy, battery efficiency, and positioning the company as an eco-friendly entity, serve as key differentiators that set BYD apart from its competitors. Based on the descriptive analysis, the green marketing variable fell into the “Good” category, indicating that consumers have a positive perception of BYD’s sustainability efforts.

Although there is still room for further innovation, the environmental marketing strategies implemented are considered effective in attracting attention and influencing consumer purchasing decisions. The results of this study are consistent with research conducted by Zuliyanti et al. (2024), Yulianti (2020), Saputra and Asfar (2024), Kawengia et al. (2024), Gunawan et al. (2020) which demonstrate that green marketing has a positive and significant impact on purchasing decisions; for environmentally friendly electric vehicles, the use of sustainability-based marketing strategies is a crucial aspect in influencing purchasing decisions. Green marketing comprises a series of environmentally friendly marketing



techniques utilized by businesses to consistently meet their marketing objectives in their target markets ([Saputra & Asfar, 2024](#)).

Based on the research findings, the key implication of the t-test results, which indicate a significant influence of green marketing on the decision to purchase a BYD vehicle, is that modern consumers are increasingly considering moral and ideological values alongside technical specifications. This suggests that green marketing strategies are no longer merely supplementary but rather decisive factors that distinguish a brand from its competitors. For BYD, the practical implication is the need to integrate sustainability narratives more deeply into every aspect of marketing communications. The company must continue to highlight the advantages of eco-friendly technology, such as battery efficiency and the use of clean energy, through educational campaigns, collaborations with environmental communities, and Corporate Social Responsibility (CSR) programs. In this way, BYD is not only selling products but also selling sustainable solutions that align with consumer values, thereby building long-term loyalty and strengthening the brand's position as a leader in the electric vehicle market.

#### *4.9.3 The Influence of Product Design and Green Marketing Variables on Purchase Decisions*

The F-test results indicate that product design and green marketing have a Sig score of  $0.000 < 0.05$ , indicating that product design variables simultaneously have a significant impact on the assessment of design and sustainability when making a purchase decision. Modern customers, particularly in the electric vehicle segment, seek more than just a functional vehicle ([Ugli, 2025](#)). They seek emotional experiences, a representation of personal values, and social contributions, all of which are reflected in the combination of design and green marketing strategies. Before purchasing or using a particular product, several procedures must be carried out, including identifying requirements, timing, changing conditions, product selection, product use, individual variance, marketing effects, information search, internal search, and external search ([Hafisah & Irawanti, 2023](#)).

Customers choose to purchase the brands they prefer the most; however, two factors can influence both their intentions and actual purchases ([Djordan et al., 2023](#)). Decision-making occurs when a person acts to acquire and use goods offered for sale ([Pradnyana & Susila, 2022](#)). The results of this study align with those of [Pradnyana and Susila \(2022\)](#), revealing that product design has a positive and significant impact on purchasing decisions; designs that align with customer preferences can increase purchasing decisions. Additionally, research from [Zuliyanti et al. \(2024\)](#) indicates that green marketing has a positive and significant impact on purchasing decisions; environmentally friendly electric transportation and sustainability-based marketing strategies are key factors influencing purchasing decisions.

Theoretically, the results of the F-test, which indicate a simultaneous influence of product design and green marketing on purchase decisions, reinforce contemporary consumer behavior models. These models argue that purchase decisions are no longer based solely on rational considerations but are also influenced by emotional and ethical factors. Practically, these results provide clear strategic guidance for manufacturers, such as BYD. To succeed in the competitive electric vehicle market, companies must holistically integrate visually appealing and ergonomic product design with a strong and credible green marketing strategy. In this way, manufacturers can meet the increasingly complex needs of consumers who want products that are functional while also reflecting their personal values regarding sustainability and social responsibility.

## **5. Conclusions**

### **5.1 Conclusion**

Based on the partial analysis, product design has been proven to have a positive and significant effect on the purchase decisions of BYD cars. This indicates that the better the product design offered, the higher the likelihood of customers making a purchase. Similarly, green marketing also shows a positive and significant effect on purchase decisions, meaning that the stronger the company's commitment to communicating environmentally friendly values through its marketing strategies, the greater the consumer's intention to buy. Product design and green marketing have a significant influence on the purchase decisions of BYD cars.

These findings indicate that the more positive the customer perception of product design and the stronger the company's communication strategy in highlighting environmental sustainability, the higher the probability of consumers making purchase decisions. The results confirm that both product design and green marketing, either partially or simultaneously, have a positive and significant impact. This suggests that consumer perceptions of modern and ergonomic design, as well as the company's commitment to environmental issues, are key factors in driving purchase decisions. This study fulfills its initial objectives and provides important practical contributions for BYD to continuously innovate in product design and strengthen its green marketing communication to build customer loyalty and enhance competitiveness in the Indonesian automotive market.

From a theoretical perspective, this study enriches the marketing literature by confirming the validity of a model that integrates product design and green marketing as strong predictors of purchase decisions, particularly in the rapidly growing electric vehicle market. It supports the view that purchase decisions are influenced not only by functional product attributes but also by aesthetic (design) and ethical (sustainability) values communicated by the brand. Practically, the findings provide strategic guidance for automotive manufacturers, such as BYD, to offer environmentally friendly products and invest in attractive and innovative design as well as consistent green marketing communication to achieve sustainable competitive advantage and market growth.

### **5.2 Research Limitations**

This study has several limitations. First, it focuses only on two variables, namely, product design and green marketing, which may not fully capture all factors influencing purchase decisions. Second, the study is limited to a single brand, BYD, which may reduce the generalizability of the findings to other electric vehicle brands or industries. Third, the study primarily uses a quantitative approach, which may not fully capture deeper emotional or psychological factors influencing consumer behavior.

### **5.3 Suggestions and Directions for Future Research**

Future research should expand the scope by including additional variables, such as brand image, service quality, and price, to provide a more comprehensive understanding of the factors influencing purchase decisions. Further studies could also compare multiple electric vehicle brands, such as Wuling or Hyundai, to identify differences in marketing strategies that influence consumer behavior. In addition, future research may adopt qualitative approaches, such as in-depth interviews or focus group discussions, to explore consumers' emotional and ideological considerations that are not captured through quantitative data. These approaches will provide a more holistic understanding of consumer behavior in the electric vehicle market.

### **Author Contributions**

KN contributed to the conceptualization, study design, data collection, data analysis, and manuscript drafting. TLPW contributed to the supervision, critical revision of the manuscript, and final approval of the version to be published. Both authors have read and agreed to the published version of the manuscript.

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