



# The Effects of Product Quality, Price, and Product Design on Purchasing Decisions (Study on Electric Motorcycle Owners in Purwokerto)

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## ABSTRACT

This study analyzes the effect of product quality, price, and design on purchasing decisions. The approach used in this research is quantitative. To obtain data from respondents, researchers used purposive random sampling technique. The Roscoe approach was used in this study. The questionnaire was distributed to 100 respondents. The analysis used by researchers is multiple linear regression analysis using SPSS version 25. The results of this study are product quality, price, and product design partially have a positive and significant effect on purchasing decisions. t-statistic of product quality is 2.449 and a significance value of 0.016. In addition, t-statistic of price is 3.963 with a significance value 0.000. Lastly t-statistic of product design is 2.276 with a significance value 0.025.

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## 1. INTRODUCTION

The moment after the issuance of Presidential Regulation Number 55 of 2019 concerning the Acceleration of the Battery Electric Vehicle Program for Road Transportation and then followed by other supporting regulations is the right momentum for companies producing electric motor vehicles (especially electric motorbikes) to increase production volumes and formulate strategic marketing so that market demand increases significantly. According to Kotler, one of the stages that must be passed in market demand is the purchase decision (Arfah, 2022).

Technological growth and awareness of environmental impacts have led to increased consumer interest (Alfan et al., 2023) (Lestari, 2020) in electric motorcycles as a sustainable alternative to oil-fueled vehicles. Electric motorcycles offer an environmentally friendly and energy-efficient mobility solution. In an increasingly competitive business environment, electric motorcycle manufacturers need to understand that product quality not only includes technical aspects, such as range, battery life, and engine performance, but also needs to consider durability, performance, Conformance to specifications, Features, Reliability being critical dimensions that describe product quality (Lupiyoadi, 2013: 214).

Previous research that has become a construct of thought in supporting this research includes research conducted by Anam et al. (2021), Wicaksono et al. (2019), Abi et al. (2020), Firmansyah et al. (2019), Saputri et al. (2021), and Ilham et al. (2020) which concluded that product quality has a positive effect on purchasing decisions. However, this differs from the research from Laila et al. (2018), which concluded that product quality does not affect purchasing decisions.

Product purchasing decisions cannot be separated from the influence of prices. According to Kotler and Armstrong (2017), price is the amount of money charged for a product or service or the value customers exchange for the benefits of owning and using the product or service. Previous research that supports this

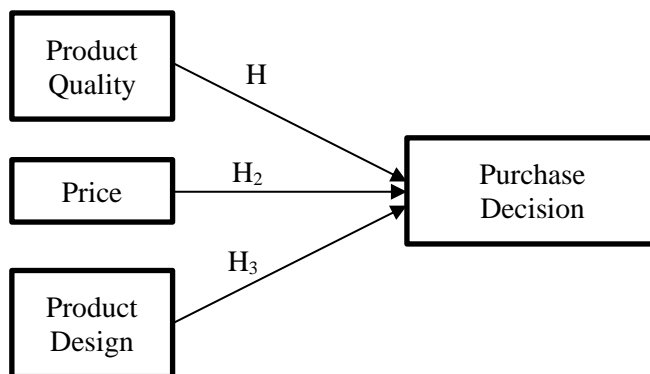
research conducted by Susanto & Cahyono (2021), Ashari et al. (2020), Fera & Pramuditha (2021), Juliana et al. (2021), Muliastari (2019), Nasution et al. (2020), Prayitno (2019) and Vindiana and Lestari (2023) shows that price affects purchasing decisions. However, in contrast, research conducted by Supu et al. (2021) and Susanto (2021) shows that price does not affect purchasing decisions.

No less exciting market phenomenon regarding factors that can influence purchasing decisions is product design. Previous research that supports this research was conducted by Kirana et al. (2019), Wicaksono et al. (2019), Panjaitan et al. (2021), Deatami et al. (2019), and Nanda (2019), who concluded that product design has a significant positive effect on purchasing decisions. However, contrary to research from Maindoka et al. (2018), which concluded that product design does not affect purchasing decisions.

This study focuses on the influence of product quality, price, and product design on purchasing decisions for electric motors. This paper is development research from previous research (Hermawan, 2023) by adding the independent variable price variable, which is assumed to influence consumer purchasing decisions.

## 2. METHODOLOGY

This quantitative study examines the effect of product quality, price, and product design on purchasing decisions using primary data. Data or information is obtained from respondents using a questionnaire representing each variable's indicators. The intended respondents were electric motorbike owners in Purwokerto. This study uses a purposive sampling technique whose distribution refers to a random sampling of 100 respondents. The analysis used is multiple linear regression analysis using the SPSS version 25 instrument. The research hypothesis regarding product quality, price, and product design on purchasing decisions can be seen in the figure below:



H1: Product quality has a significant positive effect on purchasing decisions

H2: Price has a significant positive effect on purchasing decisions

H3: Product design has a significant positive effect on purchasing decisions

## 3. RESULTS AND DISCUSSION

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.188	0.412		0.457	0.649
ProductQuality	0.298	0.122	0.254	2.449	0.016
Price	0.374	0.094	0.348	3.963	0.000
ProductDesign	0.209	0.092	0.227	2.276	0.025

DV: Purchase Decision

The regression results provide valuable insights into the factors influencing purchase decisions. Firstly, Product Quality demonstrates a statistically significant impact on the purchase decision, as indicated by a t-statistic of 2.449 and a significance value of 0.016. This finding suggests that higher product quality results in more favorable purchase decisions. Consumers are often willing to purchase when they perceive a product as superior quality, emphasizing the importance of maintaining or improving quality standards in product development. Product Quality encompasses various aspects of a product, such as its durability, performance, reliability, and overall excellence. When these robust quality attributes meet or exceed consumer expectations, it significantly sways purchase decisions. *Quality* is a fundamental product dimension that significantly affects

consumers' purchasing choices. Several studies have consistently shown that consumers are inclined to make more favorable purchase decisions when they perceive a product as high quality.

Secondly, price plays a crucial role in shaping purchase decisions. The t-statistic of 3.963 and a significance value of 0.000 highlight the strong influence of price on consumer choices. Lower prices are significantly associated with more favorable purchase decisions. This underlines the importance of competitive pricing strategies and the need to balance price points with perceived product value. The influence of price on purchase decisions is a fundamental concept in consumer behavior, supported by various theoretical frameworks and extensive empirical evidence. Price is pivotal in shaping consumer choices and can be explained through economic and psychological theories. From an economic perspective, price is often a decisive factor due to the concept of utility theory. According to this theory, consumers seek to maximize their utility or satisfaction while purchasing. The price directly impacts the perceived value of a product. Consumers are more inclined to purchase when the price aligns with or is lower than the perceived value, as demonstrated by the law of diminishing marginal utility. As price decreases relative to perceived value, the utility derived from the purchase increases, leading to a positive impact on the purchase decision. This economic rationale aligns with consumer rationality in seeking the best value for their money.

Thirdly, Product Design also has a notable impact on purchase decisions. With a t-statistic of 2.276 and a significance value of 0.025, it is clear that a well-designed product contributes positively to consumer choices. Consumers are drawn to products that not only offer quality and affordability but are aesthetically pleasing and functional. Product design exerts a significant influence on consumers' purchase decisions. It is a critical element in the marketing and consumer behavior literature, impacting how consumers perceive and choose products.

Product design contributes to a product's aesthetic appeal and functionality. The visual and tactile aspects of a product's design, such as its shape, color, materials, and ergonomics, play a vital role in capturing consumers' attention. A well-designed product attracts consumers' interest, making them more likely to consider and explore it. For example, a sleek and modern smartphone design can captivate potential buyers, leading them to investigate the product further. Furthermore, product design is closely linked to user experience and functionality. A thoughtfully designed product enhances usability and convenience, meeting the needs and preferences of consumers. An intuitive interface, easy assembly, or innovative features can positively influence purchase decisions. Consumers often seek products that look appealing and offer a seamless and enjoyable experience. Moreover, the concept of design aesthetics highlights that consumers form emotional connections with well-designed products. Positive emotions triggered by an aesthetically pleasing product design can lead to a more favorable product evaluation and increase the likelihood of purchase.

The analysis of factors influencing purchase decisions, with a beta coefficient of 0.374, indicates that price exerts the most substantial influence compared to other observed factors. In this context, the beta coefficient measures the strength and direction of the relationship between the factors and purchase decisions. This suggests that consumers are highly responsive to the pricing of a product when making their purchasing choices. When the price aligns with their expectations or represents a favorable value, it significantly sways their decision to purchase. The magnitude of the beta coefficient underlines the importance of price as a determining factor in consumer decision-making. While other factors may still play a role in influencing purchase decisions, the relatively higher beta coefficient for price underscores its dominant influence. However, it is essential to consider that consumer behavior is complex, and multiple factors interact when making purchasing decisions. As a critical determinant, price should be addressed strategically by businesses seeking to attract and retain customers. However, it should not overshadow the significance of other factors that may also contribute to the overall decision-making process.

#### 4. CONCLUSION

Product Quality demonstrates a statistically significant impact on the purchase decision, as indicated by a t-statistic of 2.449 and a significance value of 0.016. This finding suggests that higher product quality results in more favorable purchase decisions. Consumers are often willing to purchase when they perceive a product as superior quality, emphasizing the importance of maintaining or improving quality standards in product development. Price plays a crucial role in shaping purchase decisions. The t-statistic of 3.963 and a significance value of 0.000 highlight the strong influence of price on consumer choices. Product Design has a notable impact on purchase decisions. With a t-statistic of 2.276 and a significance value of 0.025, it is clear that a well-designed product contributes positively to consumer choices. To sum up, all hypothesis which are proposed in this paper are accepted.

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