

# THE INFLUENCE OF PRODUCT QUALITY, BRAND AND PROMOTION ON INTEREST IN BUYING ELECTRIC BIKES IN TEMBILAHAN

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## Abstract

Anticipating the rapid competition faced in the sale of electric bicycles in order to maintain their existence, it is deemed necessary to conduct research on the extent of consumer behavioral factors regarding interest in purchasing bicycle products electricity the. This research was conducted at the Matahari Tembilaan Shop which is located on Jl. General Sudirman. In this research, data was collected through interviews and questionnaires of 87 respondents by taking samples using the Slovin formula. The independent variable is Product Quality ( $X_1$ ), Brand ( $X_2$ ), Promotion ( $X_3$ ) and the dependent variable is Purchase Interest ( $Y$ ). Data was processed using SPSS 19.0 for Windows, instrument testing used validity and reliability tests. Meanwhile, the data analysis method uses multiple linear regression with coefficient of determination, t test, f test. The result of the calculation using the equation is  $Y = 0.244 + 0.212 X_1 + 0.274 X_2 + 0.397 X_3 + \epsilon$ , with coefficient of determination ( $R^2$ ) obtained yield 0.708 or 70.8%. The remaining 29.2% is influenced by other variables that are not equalized in the variables of this research. The partial test results showed that the influential variable was the Product Quality Variable ( $X_1$ ) has a  $t_{\text{value}_{\text{count}}} 3,789 > t_{\text{table}} 1.988$ , Brand variable ( $X_2$ ) has a  $t_{\text{value}_{\text{count}}} 4,158 > t_{\text{table}} 1.988$ , Promotion Variable ( $X_3$ ) has a  $t_{\text{value}_{\text{count}}} 3,914 > t_{\text{table}} 1,988$ . The results of simultaneous testing or f test obtained values  $F_{\text{count}}$  greater than  $F_{\text{table}}$ ,  $67.066 > 2.71$ . Thus, it can be compared that the significant value in the table above (0.000a) is  $< 0.05$ , so  $H_0$  is rejected and  $H_a$  is accepted, this means that the variables Product Quality, Brand and Promotion together influence the Interest in Buying an Electric Bicycle.

## 1. INTRODUCTION

### Background problem

Marketing has a very important role in creating product turnover, marketing activities are carried out to achieve company goals that have been set with results that meet expectations to create a growing company so that it can win the competition in the middle very rapid business development. This is because marketing is one of the marketing activities that is directly related to consumers. Marketing is an important factor in the cycle related to meeting consumer needs. In a company, marketing is one of the main activities carried out by the company to maintain its survival, develop and make a profit. The company's marketing activities must also be able to provide satisfaction to consumers if it wants its business to continue running. In today's increasingly tight business competition conditions, companies need to utilize their resources optimally, including trying to create or carry out engineering that can influence consumer perceptions, for example through the brand image of their products.

This phenomenon can be seen from the current competitive conditions that are occurring, namely when fuel prices are starting to skyrocket, resulting in various company innovation has emerged to create the introduction of electric bicycle products, where electric bicycles do not use fuel oil at all. The diversity of bicycle products, namely electric bicycles that currently exist, encourages consumers to identify when making decisions when determining a brand that they think meets the criteria for an ideal bicycle product. By increasing sales, the company will gain profits and be able to maintain its survival. The strategy is branding, improving product quality and carrying out intensive promotions.

Improving product quality is needed to retain customers and to attract the interest of other consumers to buy the products offered. Meanwhile, promotion has an important role in attracting consumers in an effort to introduce products on the market, especially since electric bicycles are new, so companies need to use many methods to ensure that consumers are interested and have an interest in purchasing the products offered. Consumer behavior is one of the factors that needs to be considered in product marketing efforts. The right marketing strategy is one way to achieve company goals, namely by knowing consumer needs and desires so that the right product is created. In this way, increasing sales volume and winning competition can be achieved. Bicycle manufacturers are also doing this in line with increasing demand.

Ajay and Goodstein (1998) say that if we want to influence someone, the best way is to learn what they think, then we will get not only information about that person and how the information process can work and how to use it, recognizing the need itself to determine something to fulfill it.

With usage This consumer behavior seems to have a positive impact on electric bicycles. This can be seen from the sales volume of electric bicycles in 2021 to 2023 reaching 650 sales at an electric bicycle shop in Tembilahan, namely Toko Matahari.

Product quality, branding and promotion are one of the benchmarks for a company's success in attracting consumer interest. This is because consumers will be interested in buying an electric bicycle brand product. The right marketing strategy is one way to achieve company goals, namely by knowing consumer needs and desires so that the right product is created. In this way, increasing sales volume and winning competition can be achieved. Bicycle manufacturers are also doing this in line with increasing demand.

Tjiptono (2012) said that the fact is Promotion is a form of marketing communication. What is meant by marketing communications is marketing activities that seek to disseminate information, influence/persuade, and increase the target market for the company and its products, so that they are willing to accept, buy, and be loyal to the products offered by the company in question.

To do this, one way is to introduce a product and form an understanding of the product continuously, so that consumers will try and buy it. In relation to the decision to purchase electric bicycle products, it can be concluded that it is important to analyze the factors that influence consumer behavior regarding a particular product. To be able to anticipate the rapid competition faced by bicycle companies in order to maintain their existence, it is deemed necessary to conduct research on the extent of consumer behavior factors in the decision to purchase bicycle products.

From the description above, the author took the title of the research "**The Influence of Product Quality, Brand and Promotion on Interest in Buying Electric Bicycles in Tembilahan.**"

### Problem Formulation

The formulation of this research problem is:

1. Is the product quality Does it affect consumers' buying interest in electric bicycles in Tembilahan?
2. Does the brand matter to Consumers interested in buying electric bicycles in Tembilahan?
3. Does promotion have an effectto Consumers interested in buying electric bicycles in Tembilahan?
4. Do product quality, brand and promotion factors together influence consumers' buying interest in electric bicycles in Tembilahan?

### **Research purposes**

The aim of the research is to determine the influence of product quality, brand and promotion on consumer buying interest in electric bicycles in Tembilahan.

## **2. LITERATURE REVIEW**

### **Understanding Marketing**

Kotler and Armstrong (2014:27) stated *The process by which companies create value for customers and build strong customer relationships in order to capture value from customers in return.* This definition means that, Marketing is the process by which companies create value for customers and build strong relationships with customers, with the aim of capturing value from customers in return. According to Fandy Tjiptono (2012), defining marketing is a series of activities carried out by a company to stimulate demand for its products and services and ensure that the products are sold and delivered to customers.

According to Stanton (2012) marketing is system the totality of business activities aimed at planning, determining prices, promoting and distributing goods and services that can satisfy the needs of buyers and potential buyers.

Several definitions of marketing put forward by these experts can be concluded that marketing is a social process or organizational function in business activities that aims to distribute or distribute goods in order to satisfy consumer needs. The goal of marketing is to know and understand customers in such a way that the product suits them and can sell itself. Ideally, marketing causes customers to be ready to buy so that all that remains is how to make the product available.

### **Interest in buying**

According to Kotler and Armstrong (2012) buying interest is something that arises after receiving stimulation from the product they see, then the desire to buy and own it arises. Purchase interest is different from purchase intention, purchase intention is a follow-up to consumer purchase interest where the confidence to decide to buy is already in a large percentage. So it can be said that purchase intention is the final level of purchase interest in the form of beliefs before a purchase decision is made. Attitude (*attitudes*) and cognitive knowledge behavior that consumers have by linking attributes, benefits and objects (by evaluating information), while attitude refers to feelings or effective responses. According to Schiffman and Kanuk (2010) Purchase interest is a psychological force that exists within an individual, which has an impact on an action. Purchase interest is considered as a measurement of a consumer's possibility of purchasing a particular product, where high purchase interest has a significant impact on the possibility of a purchase decision occurring.

Several factors shape consumer buying interest, namely:

- a. Other people's attitudes, the extent to which other people's attitudes reduce someone's preferred alternative will depend on two things, namely, the intensity of the trait negative other people towards alternatives that consumers prefer and consumer motivation to comply with other people's wishes.
- b. Unanticipated situational factors, these factors will later be able to change consumers' stance in making purchases. This depends on the consumer's own thoughts, whether he is confident in deciding whether to buy an item or not.

Meanwhile, according to Ferdinand (2014), purchasing interest is a mental statement from consumers that reflects their plans to purchase a number of products with a certain brand. According to Ferdinand (2014), buying interest indicators can be identified through the following indicators:

- a. Transactional interest, namely a person's tendency to buy a product. This means that consumers have an interest in purchasing the desired product.
- b. Referential interest, namely a person's tendency to refer products to other people. This means that consumers who already have an interest in buying will suggest to other people to make purchases of the same product.

- c. Preferential interest, namely interest that describes the behavior of someone who has a primary preference for the product. These preferences can only be overridden if something happens to the products preference.
- d. Exploratory interest, this interest describes the behavior of someone who is always looking for information about the product they are interested in and looking for information to support the positive properties of the product.

Thus, it can be understood that buying interest is a feeling of being attracted to a good or service to get it. Therefore, people buy usually preceded by an interest in the goods they want to buy.

Consumer interest is how likely consumers are to buy a brand or how likely consumers are to switch from one brand to another brand other. If the perceived benefit is greater than the sacrifice to get it, then the urge to buy it will be higher. Consumer purchasing behavior is often initiated and influenced by many stimuli from outside themselves, both in the form of marketing stimuli and stimuli from the environment. These stimuli are then processed within oneself according to their personal characteristics, before a purchasing decision is finally made. Consumers' personal characteristics used to process these stimuli are very complex and one of them is motivation to buy.

If we want to influence someone, the best way is to learn what they think, so we will get more than just information about that person and how the information process works and how to use it. This is what is called "*The Buying Process*" (Purchasing Process). According to him, the purchasing process includes five things:

- a. *Need* (need), the purchasing process begins with a need that does not have to be met or a need that arises at that time and motivates you to make a purchase.
- b. *Recognition* (Introduction), recognizing the need itself to be able to determine something to fulfill it.
- c. *Search* (Search), is an active part of purchasing, namely looking for ways to fill these needs.
- d. *Evaluation* (Evaluation), a process of studying everything obtained during the search process and developing several options.
- e. *Decision* (Decision), the final step of a purchasing process to make informed decisions accepted.

### **Product quality**

One of the advantages in this competition is primarily product quality that can fulfill consumer desires. If it does not comply with specifications, the product will be rejected. Even if the product is still within the specified tolerance limits, it should be noted that the product should be recorded to avoid larger errors in the future. Likewise, when consumers buy a product, they always hope that the goods they buy can satisfy all their wants and needs. For this reason, companies must be able to understand consumer desires, so that companies can create products that meet consumer expectations. Good product quality is a consumer expectation that must be met by the company, because good product quality is the key to developing company productivity.

The definition of product quality has its core in efforts to fulfill customer needs and desires which aim to balance customer expectations. According to Tjiptono (2012), product quality is the expected level of quality and controlling diversity in achieving this quality to meet consumer needs. Meanwhile According to Kotler and Armstrong (2014: 11), product quality is the ability of a product to perform its function, this includes overall durability, reliability, accuracy, ease of operation, and product repair, as well as other product attributes. According to Kotler and Keller (2016: 164), product quality is the ability of an item to provide results or performance that match or even exceed what customers want. According to Mowen (2012:61) product quality is an overall evaluation process for customers to improve the performance of a product. Product quality has an interest in consumers in managing good relationships with product provider companies. The existence of a reciprocal relationship between the company and consumers will provide an opportunity to know and understand what the needs and expectations are in consumer perceptions. So, product provider companies can provide good performance to achieve consumer satisfaction by maximizing pleasant experiences and minimizing unpleasant experiences for consumers in consuming products. If the performance of a product received or felt is in accordance with consumer expectations, then the quality of the product received or felt is in accordance with consumer expectations. Product quality indicators according to Tjiptono (2012), include:

- 1) Performance

- 2) Additional privileges (*Features*)
- 3) Reliability
- 4) Conformity to specifications
- 5) Durability
- 6) Aesthetic

## Brand

A brand is a sign, symbol or design or a combination of these intended to identify the products or services of a seller or group of sellers and to differentiate of competing goods or services. (Kotler and Keller, 2016:322). The distinction can be made using a rational and tangible approach, or an emotional, symbolic and intangible approach. If manufacturers can understand consumers' motivations and desires and package them with relevant appeal, then a brand can last a long time.

Brand names consist of legible letters, words and numbers. Brand sign (*brand mark*) is the part of a brand that appears in the form of symbols, designs or different distinctive colors and letters. Brand signs are only seen by the eye but cannot be read when consumers mention the brand of a product. Brands make it easier for consumers to identify products or services. Brands can also make buyers believe they will get the same quality goods if they buy again. *Trademark* is *brand* which is protected by law because it has been registered with the government and the company has the sole right to use it. So *trademark* self for words, letters or numbers that can be pronounced, including brand *mark* (Swastha, 2010).

Consumers can recognize electric bicycles from the brands offered, so brands are one of the pieces of information used by consumers in choosing various alternative bicycle brands on offering the market. Customers tend to choose brands that are already known because they feel safe with something that is known and think that a well-known brand is likely to be reliable and of reliable quality. Thus, the brand is thought to influence purchasing interest. The better the consumer's perception of the brand, the greater the influence of interest in buying a bicycle with that brand.

According to Kartajaya (2010:62), defines a brand as an asset that creates value for customers by increasing satisfaction and appreciating quality. Brands represent consumers' perceptions and feelings about a product and its performance, all about the meaning of products and services to consumers. According to Sunyoto (2012), brand benefits include:

- 1) For consumers  
The benefits of a product's brand name for consumers include:
    - a) Make it easier for consumers to research products or services.
    - b) Helping consumers or buyers in obtaining the same quality of goods, if they buy again and at the price.
  - 2) For sellers  
The benefits of a product's brand name for sellers include:
    - a) Brand names use sales to process orders and reduce problems
    - b) Branding will also help sellers keep an eye on their market as buyers will not become confused
    - c) Brands give sellers the opportunity for consumer approval of the product
    - d) Brands can also help sellers in grouping the market into segments
- It is)
- f) A brand will protect sales from counterfeiting of product characteristics.

In a dynamic and competitive market situation, customer loyalty to a brand is the key to remaining able to compete in the market. To create a brand that can be recognized and remembered by consumers, companies must aggressively carry out promotions. With promotions, a brand will automatically be known to consumers. Brand indicators according to Durianto (2013) include:

- a. Brand Awareness  
Shows a potential buyer's ability to recognize or recall that a brand is part of a particular product category.
- b. Brand Association  
Reflects the image of a brand to an impression in relation to habits, lifestyle, benefits, product attributes, prices, competitors, celebrities and so on.
- c. Brand Perception



Reflects the customer's perception of the overall quality of a product with respect to its intended purpose.

d. **Brand Loyalty**

Reflects the level of consumer loyalty to a product. Consumers will be loyal to a brand if the product can provide satisfaction.

According to Alma (2014), a brand launched by a producer is a specific producer promise and the benefits offered to consumers. A good and well-known brand guarantees a level of quality. There are 6 meanings of the brand, namely:

- 1) Attributes, there is an attribute attached to them, for example expensive goods, good quality, long lasting, do not fade, etc.
- 2) Benefit, say attribute interpreted as functional and emotional benefits.
- 3) Expensive goods have high value for users, because they can increase prestige/prestige. Comfort and safety.
- 4) Culture, it's a matter of culture, who is impressed, famous, efficient, always buys high quality goods.
- 5) Personality, showing or giving the impression of a certain personality.
- 6) User, giving the impression that the majority of users of the product are people from a certain social class.

## **Promotion**

According to Kotler and Armstrong (2014:76) define the meaning of promotion as follows, *Promotion refers to activities that communicate to merits of the product and persuade target customers to buy it.* This definition states that promotion refers to the activity of communicating about a product and persuading target customers to purchase it. One way to help companies communicate with consumers is that promotions can convey information in the form of knowledge about the products being offered. In fact, promotions are not only carried out by companies/sellers, but buyers also often use them. So, it can be said that buyers, sellers, and intermediaries can be involved in promotions.

According to Rambat Lupiyoadi (2013:92) defines the meaning of promotion as follows, Promotion is an activity carried out by a company to communicate product benefits and as a tool to influence consumers in purchasing activities or using services according to their needs. According to Buchari Alma (2014) *Promotion is an exercise in information, persuasion and conversely, a person who is persuades is also being informed.* The definition states that Promotion is an exercise in information, persuasion and vice versa, by persuading people to become informers. Based on the definition above, promotion is an effort to inform or offer a product or service to a destination by attracting potential consumers to buy or consume it. With promotions, producers or distributors hope that sales figures will increase. A product that has high quality and a low price, but is not known by the market, means all the superior attributes of the product are in vain. Efforts to introduce products to the market include promotional strategies. The concept used to introduce the product is promotion *mix*, activities that combine product advantages and encourage consumers to buy (Swastha, 2010).

Promotion mix is a very important activity to be carried out by product marketers. Through activities promotion *mix* In this case, the company tries to inform consumers about a product and encourage them to buy the product. There are many ways used by companies to promote their products, between other:

1. *Personal Selling*

That is, direct interaction occurs, meeting each other face to face between buyers and sellers. Communication carried out by both parties is individual, in this case the seller is required to have skills and Skills in influencing or motivating the buyer by presenting the benefits that will be obtained by the buyer so that there is a profit adjustment.

2. *Advertising*

Any form of paid, non-personal presentation of ideas, goods or services by a sponsor that can be recognized as a presentation medium including magazines, newspapers, radio, TV, signs and flyers.

3. *Sales Promotion*

Are all promotional activities that are not advertising, publicity and sale individuals who can stimulate interest in trying or purchasing by end customers or other parties in the sales promotion channel. Competitive pricing consumer offers packaging and presentation, in-store promotions and inside promotions special occasion.

#### 4. *Publicity*

Namely to stimulate non-personal demand, and this effort is not funded by people or organizations who benefit from the publication. Usually this publicity takes the form of praising a product, service or organization.

### 3. RESEARCH METHODS

#### Time and Time of Research

The research was conducted at Matahari Shop on Jl. Jendral Sudirman sells electric bicycles and the research will be carried out in 2023.

#### Data Types and Sources

The type of data used in this research is quantitative data, which is a method that uses numbers and analysis using statistics and qualitative data is an interpretive method because research data is more concerned with the interpretation of data found in the field, qualitative data is data in non-numerical form. The data sources used are Primary and Secondary data.

#### Population and Sample

According to Arikunto (2010:173), the population is the whole subject of study. Where the population that researchers will take in this research is all consumers who bought electric bicycles at the Matahari Tembilaan Shop during sales in 2021-2023, namely 650 people. The sample is part of the population (a portion or representative of the population studied) (Arikunto, 2010). Retrieval technique sampling which is used is non *probability sampling*, This research uses types purposive *sampling*, namely a sampling method in which the elements included in the sample are taken deliberately, provided that the sample is representative or represent a population. To calculate the number of samples available, the Slovin formula (Umar, 2004) will be used which assumes that the sample to be studied can be tolerated Or you want to use a small percentage, namely 10%.

$$n = \frac{N}{1 + N(e)^2}$$

Where :

n = Sample Size

N = Population Size

It is = Percent allowance for inaccuracy due to sampling error that can still be tolerated or desired.

In this research :

N = 650 people

It is = 10 % = 0,1

So the minimum amount taken in this study is:

$$n = \frac{650}{1 + 650(0,1)^2}$$

$$n = \frac{650}{1 + 6.5}$$

$$n = \frac{650}{7.5}$$

$$n = 86.67 \text{ (rounded to 87 samples)}$$

So based on the results above, in this writing the author took a sample of 87 people.

#### Data Collection Method

Data collection is an important part of research. Arikunto (2010:265) states that compiling instruments is an important job in research, but collecting data is much more important. The data collection techniques used by researchers in this research are Questionnaires, Interviews and Literature Study.

#### Data analysis

In this research, the data analysis method is used to determine the influence of product quality, brand and promotion on interest in buying electric bicycles in Tembilahan using the SPSS program (*Statistical Product and Service Solution*) version 19.0 which is a computer application for analyzing statistical data. The data analysis includes:

**a. Uji Instrument**

- 1) Validity test
- 2) Reliability Test

**b. Multiple Linear Regression Analysis**

This method is to predict how strong the influence of each independent variable will be on the dependent variable. The multiple linear regression forecasting model according to Sugiyono (2011) which is in accordance with the proposed hypothesis is:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + e$$

Where :

AND = The dependent variable is Purchase Interest

a = constant

$b_1$  = regression coefficient of the 1st independent variable

$X_1$  = Product Quality

$X_2$  = Brand

$X_3$  = Promotion

e = Standard *error* (Buller error)

In this research, each variable will be described in the form of questions using a scale likert, where the answers to the qualitative questionnaire are converted into ordinal by giving the following values:

- |                   |                       |
|-------------------|-----------------------|
| Strongly agree    | : rated 5             |
| Agree             | : rated 4             |
| Neutral           | : rated 3             |
| Don't agree       | : given a value of 2  |
| Strongly Disagree | : given a value of 1. |

**Hypothesis testing**

Hypothesis testing aims to test the hypothesis stated above and to determine whether the influence of variables is significant independent to variables depend. To prove the truth include the Determination Test, Partial Test (t) and F Test.

**4. RESULTS AND DISCUSSION**

**Validity and Reliability Test**

**Validity test**

An instrument is said to be valid if it is able to measure what is desired, and can reveal data from the variables studied accurately. The method of testing validity is by calculating the correlation between the scores for each question and the total score using the correlation formula *Product Moment*.

**Table 1. Validity Test**

N o	Variable	No Indicator	$r_{\text{count}}$	$r_{\text{table}}$	Is
1	Product Quality (X1)	Question 1	0,759**	0,211	Valid
		Question 2	0,723**	0,211	Valid
		Question 3	0,804**	0,211	Valid
		Question 4	0,777**	0,211	Valid
		Question 5	0,776**	0,211	Valid
		Question 6	0,706**	0,211	Valid
2	Merek (X2)	Question 1	0,750**	0,211	Valid
		Question 2	0,698**	0,211	Valid
		Question 3	0,708**	0,211	Valid
		Question 4	0,514**	0,211	Valid
3	Promotions (X3)	Question 1	0,702**	0,211	Valid
		Question 2	0,620**	0,211	Valid



		Question 3	0,633**	0,211	Valid
		Question 4	0,727**	0,211	Valid
4	Purchase Interest (Y)	Question 1	0,716**	0,211	Valid
		Question 2	0,615**	0,211	Valid
		Question 3	0,763**	0,211	Valid
		Question 4	0,790**	0,211	Valid

Source :Output SPSS 19.0 for Windows, 2023

From testing the validity of the research instrument (questionnaire) with each question getting an  $r_{\text{value count}} \geq r_{\text{table}}$ , which  $r_{\text{table}}$  of 87 respondents was 0.211, and  $P \leq 0.05$  so that the entire research instrument is said to be valid.

### Reliability Test

A research instrument is said to be reliable if it can be used more than once in different periods of time, but still shows consistent results or the extent to which the measuring instrument can be trusted or relied upon. Reliability test results are declared reliable if the calculation results have a reliability coefficient (*reliability*) of  $\alpha \geq 0.05$ . Or the instrument has a high level of reliability if the coefficient value obtained is  $> r_{\text{table}}$ .

**Table 2. Reliability Test**

N o	Variable	Cronbach's Alpha	$r_{\text{table}}$	Is
1	Product Quality (X1)	0,850	0,211	Reliable
2	Merek (X2)	0,577	0,211	Reliable
3	Promotions (X3)	0,593	0,211	Reliable
4	Purchase Interest (Y)	0,692	0,211	Reliable

Source: Processed Data, 2023

The reliability test results presented in the table above are declared reliable with the calculation results having a reliability coefficient (*reliability*) above 0.211.

### Multiple Linear Regression Analysis

Creating multiple regression equations using SPSS output can be done by interpreting the numbers contained in the table below.

**Table 3. Multiple Regression Equation**

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Say.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.244	1.187		.205	.838		
	Product quality	.212	.056	.343	3.789	.000	.429	2.329
	Brand	.274	.066	.284	4.158	.000	.756	1.323
	Promotion	.397	.101	.368	3.914	.000	.397	2.518

a. Dependent Variable: MinatBeli

Sumber : Output SPSS 19.0 for Windows, 2021

The relationship between the independent variable and the dependent variable can be formulated into the following equation.

$$Y = 0.244 + 0.212X_1 + 0.274X_2 + 0.397X_3 + e$$

The above regression equation has the following meaning:

- The Constant value (a) is 0.244, indicating that if the value of  $X_1$ ,  $X_2$ ,  $X_3$ , value is 0, then Buying Interest will remain at 0.244.
- Regression coefficient for variable  $X_1$  namely Product Quality of 0.212. The coefficient value shows that product quality has a positive effect on purchase interest. This illustrates that when product quality increases, purchasing interest will increase.
- Regression coefficient for variable  $X_2$  namely the Brand variable of 0.274. The coefficient value shows that the brand has a positive effect on buying interest. This illustrates that when the Brand increases, Purchase Interest will increase.

- d. Regression coefficient for variable  $X_3$  namely the Promotion variable of 0.397. The coefficient value shows that Promotion has a positive effect on Purchase Interest. This illustrates that when promotions increase, buying interest will increase.

### Hypothesis testing

#### Coefficient of determination and Correlation

Results The test results of the coefficient of determination can be seen in the table below:

**Table 4. Results of Determination and Correlation Coefficients**

Model Summary <sup>b</sup>										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.841 <sup>a</sup>	.708	.697	1.12390	.708	67.066	3	83	.000	1.988

a. Predictors: (Constant), Promotion, Brand, Product quality  
b. Dependent Variable: MinatBeli

Sumber : Output SPSS 19.0 for Windows, 2021

The table above shows that the R Square value is 0.708, this means that 70.8% of the Buying Interest variable is influenced by two explanatory variables, namely Brand, Product Quality, Promotion. The remaining 29.2% is influenced by other variables that are not equalized in the variables of this research. And the correlation coefficient shows a value of 0.841, which means the level of influence between the variables is in the very strong category.

#### Partial Test (t Test)

The analysis results showing the significance coefficient are presented in the following table:

**Table 5. Partial Hypothesis Testing**

Model	Coef. Regression	Nilai t	Sig
Product Quality ( $X_1$ )	0,212	3,789	0,000
Brand ( $X_2$ )	0,274	4,158	0,000
Promotion ( $X_3$ )	0,397	3,914	0,000

Sumber : Output SPSS 19.0 for Windows, 2021

In accordance with the hypothesis proposed in this research, based on the table above in detail the following tests were produced:

##### 1) Product quality

The analysis results show a sig value of 0.000. The sig value is smaller than the probability value of 0.05, or the value  $0.000 < 0.05$ , then  $H_1$  accepted and  $H_0$  rejected. Variable  $X_1$  has a calculated t of 3.789 with a t table of 1.988. So  $t_{count} X_1 3,789 > t_{table} 1,988$ . This proves that the Product Quality variable is a variable that partially influences interest in buying electric bicycles in Tembilahan.

##### 2) Brand

The analysis results show a sig value of 0.000. The sig value is smaller than the probability value of 0.05, or the value  $0.000 < 0.05$ , then  $H_1$  accepted and  $H_0$  rejected. Variable  $X_2$  has a calculated t of 4.158 with a t table of 1.988. So  $t_{count} X_2 4,158 > t_{table} 1,988$ . This proves that the Brand variable is a variable that partially influences interest in buying electric bicycles in Tembilahan.

##### 3) Promotion

The analysis results show a sig value of 0.000. The sig value is smaller than the probability value of 0.05, or the value  $0.000 < 0.05$ , then  $H_1$  accepted and  $H_0$  rejected. Variable  $X_3$  has a calculated t of 3.914 with a t table of 1.988. So  $t_{count} X_3 3,914 > t_{table} 1,988$ . This proves that the Promotion variable is a variable that partially influences interest in buying electric bicycles in Tembilahan.

#### Simultaneous Test (F Test)

The statistical F test is used to see whether all the independent variables included in the regression model have a joint influence on the dependent variable. The calculation results are summarized in the following table.

**Table 6. F Test Results**  
**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	254.146	3	84.715	67.066	.000 <sup>a</sup>
	Residual	104.842	83	1.263		
	Total	358.989	86			

a. Predictors: (Constant), Promotion, Brand, Product quality

b. Dependent Variable: MinatBeli

Sumber: Output SPSS 19.0 For Windows, 2023

Testing the hypothesis regarding the Work Motivation and Compensation variables simultaneously in the table above obtained the F value<sub>count</sub> which is 67,066 which F<sub>table</sub> from df1 3, df2 83 is 2.71, so F<sub>count</sub> greater than F<sub>table</sub>, 67.066 > 2.71. And in the table above, a significance value of 0.000 is also obtained. Thus, it can be compared that the significant value in the table above (0.000a) is <0.05, so Ho is rejected and Ha is accepted, this means that the variables Brand, Product Quality and Promotion, together influence the Interest in Buying an electric bicycle in Tembilahan.

## 5. CONCLUSION

Based on the research, the following conclusions can be drawn:

1. The results of multiple linear regression analysis in this study obtained the equation  $Y = 0.244 + 0.212_1 + 0.274 X_2 + 0.397 X_3 + e$ .
2. From the coefficient of determination ( $R^2$ ) obtained a result of 0.708, this means that 70.8% of the Buying Interest variable is influenced by two explanatory variables, namely Brand, Product Quality, Promotion. The remaining 29.2% is influenced by other variables that are not equalized in the variables of this research. And the correlation coefficient shows a value of 0.841, which means the level of influence between the variables is in the very strong category.
3. Partial test results for the Product Quality variable ( $X_1$ ) there is a sig value of 0.000. The sig value is smaller than the probability value of 0.05, or the value 0.000 < 0.05, then  $H_1$  accepted and  $H_0$  rejected. Variable  $X_1$  has a calculated t of 3.789 with a t table of 1.988. So  $t_{count} X_1 3,789 > t_{table} 1,988$ . This proves that the Product Quality variable is a variable that partially influences interest in buying electric bicycles in Tembilahan. Brand Variable ( $X_2$ ) there is a sig value of 0.000. The sig value is smaller than the probability value of 0.05, or the value 0.000 < 0.05, then  $H_1$  accepted and  $H_0$  rejected. Variable  $X_2$  have  $t_{count}$  namely 4.158 with  $t_{table} 1,988$ . So  $t_{count} X_2 4,158 > t_{table} 1,988$ . This proves that the Brand variable is a variable that partially influences interest in buying electric bicycles in Tembilahan. Partial test results for the Promotion variable ( $X_3$ ) there is a sig value of 0.000. The sig value is smaller than the probability value of 0.05, or the value 0.000 < 0.05, then  $H_1$  accepted and  $H_0$  rejected. Variable  $X_3$  has a calculated t of 3.914 with a t table of 1.988. So  $t_{count} X_3 3,914 > t_{table} 1,988$ . This proves that the Promotion variable is a variable that partially influences Interest in Buying Electric Bicycles in Tembilahan,
4. Hypothesis testing regarding the variables Product Quality, Brand and Promotion simultaneously obtained an F value<sub>count</sub> which is 67,066 which table from df1 3, df2 83 is 2.71, so Ft count greater than F Table, 67.066 > 2.71. And a significance value of 0.000 was obtained. Thus, it can be compared that the significant value in the table above (0.000a) is <0.05, so  $H_0$  is rejected and  $H_a$  is accepted, this means that the variables Product Quality, Brand and Promotion together influence the Interest in Buying an electric bicycle in Tembilahan.

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