

**THE EFFECT OF PRODUCT QUALITY, PRODUCT DESIGN, AND PROMOTION ON THE PURCHASE DECISION OF NIRO GRANITE IN UD BANGUN JAYA PEKANBARU**

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**ABSTRACT**

*This study aims to analyze the effect of product quality, product design, and promotion on the purchasing decision of Niro brand granite at UD Bangun Jaya Pekanbaru both partially and simultaneously. The population in this study is not known with certainty, so the sample was determined using the probability Sampling method, namely convenience Sampling, and the number of pieces in this study using the Roscow formula, which resulted in a total sample of 100 people consisting of all customers at UD Bangun Jaya Pekanbaru. The research method uses multiple Linear Regression Equation analyses using the SPSS Version 21 application. The results of the overall study of product quality, product design, and promotion variables affect the purchasing decision of Niro brand granite at UD Bangun Jaya Pekanbaru. Variables of product quality, product design, and advertising have contributed 74.8% to the purchasing decision variables for the Niro Granite at UD Bangun Jaya Pekanbaru. However, there is still a 25.2% influence on other factors not included in the study.*

**Keyword** : *Product Quality; Product Design; Promotion; Purchase Decisions*

## INTRODUCTION

UD Bangun Jaya is a trading business that sells various building materials, established in 2008. This trading business is under the auspices of PT Mitra Hijau Lestari (abbreviated as PT.MHL), where PT.MHL built UD Bangun Jaya to become a supplier of materials and buildings for each building project being handled by PT MHL. Apart from being the leading supplier of building materials for the PT MHL project, UD Bangun Jaya also accepts general transactions outside the project being handled. UD Bangun Jaya sells various building materials, from stone, sand, and cement to home decoration accessories, also available here. Apart from selling different building materials that are generally available, UD Bangun Jaya also provides various brands of porcelain/granite tiles, which vary significantly in terms of price, quality, brand, and the design of the granite itself. There are also several brands of granite marketed by UD Bangun Jaya, such as Essenza Granite, Niro Granite, and Granito Granite. The price of each brand of granite sold by UD. Bangun Jaya also varies so that consumers can choose according to their needs.

Based on granite sales data at UD Bangun Jaya from 2018-2020, it can be explained that sales of Niro Granite are among the lowest compared to other competing brands. In 2018, Niro Granite sold 245 boxes, and then in 2019, there was a decline in sales; namely, only 120 boxes were sold. Then, in 2020, Niro Granite experienced another increase in sales, but not too high, namely 200 boxes sold, very far compared to competing brands. Namely, Essenza Granite sold 655 boxes, and Granito sold 500 boxes. If you look at the price of the Niro Granite brand porcelain tiles, it is the cheapest compared to its competing brands. Niro granite size 60X60 is sold for Rp. 105,000/box, Gtanito for Rp. 260,000/box, and Essenza granite is much more expensive, namely Rp. 305,000/box. From the sales data above, it can be seen that Niro Granite is a porcelain tile brand with a relatively affordable price compared to its competing brands. However, it has relatively low sales figures each year compared to competing brands with expensive prices. Therefore, based on the data that has been explained, it can be concluded that there are indications of problems with consumer purchasing decisions at UD. Bangun Jaya Pekanbaru.

Purchasing decisions are a pattern of thinking of individuals/consumers who evaluate a product from the many available product choices. According to Olson (2013), the core process in consumer decision-making is an integration process that combines knowledge, evaluates two or more alternative behaviors, and chooses one. The integration process results in a choice (choice) that cognitively shows a behavioral intention, which is a plan (decision plan) to carry out one or more behaviors. This research's Factors influencing consumer purchasing decisions include product quality, design, and promotion. According to previous research results from Lokas (2016), Lidya (2018), Yoepitasari and Khasanah (2018), and Siregar (2017) concluded that product quality has a significant effect on consumer purchasing decisions.

Apart from product quality, product design is one of the main factors consumers consider when choosing a product, especially those with aesthetic or aesthetic value. Product design can generally be interpreted as a series of efforts to plan functional, ergonomic, and aesthetic products to become more valuable and useful for consumers. Previous research results from Suari (2019) concluded that product design significantly influences consumer purchasing decisions. However, in contrast to the research results conducted by Rosha (2019), it is known that product design does not influence purchasing decisions.

Sales of a product require promotion because promotion is an essential thing to do. Promotion is a strategy to provide information and influence target consumers to buy your products. Promotion is essential for every business, small or large scale. Promotion costs are sometimes prohibitive, but carrying out promotions will significantly impact the company. Carrying out promotions will influence a product's sales results, impacting the company's marketing activities.

Promotion is a communication activity between sellers and consumers to influence consumers to buy a product the seller offers and adapt it to the consumers' desires and needs. In general, promotion is defined not only as a communication tool for sellers to consumers but also as a tool to influence consumer purchasing decisions. Based on previous research from Siregar (2017), it was concluded that promotions significantly affect consumer purchasing decisions.

## LITERATURE REVIEW

### Marketing Management

When viewed in terms of the marketing process, it is one of the company's main activities in maintaining survival, developing to gain profits, and being able to compete, Kotler & Armstrong (2014). The meaning of marketing is based on the opinion of Kotler & Armstrong (2014), stating that Marketing is a social and managerial process that they need and want by creating, offering, and exchanging products. According to John Howard in Nurmansyah (2018:10), marketing management is the process of decision-making, planning, and monitoring a company's marketing aspects in connection with the marketing concept within the marketing system. Meanwhile, according to Ginting (2011:23), marketing management is the analysis of planning, implementation, and control of programs designed to create, build, and maintain profitable exchanges with target buyers to realize organizational goals. In a narrow sense, marketing is often defined as channeling or distributing

goods or services to consumers. Meanwhile, according to (Swastha and Sukotjo, 2010), the overall system of business activities is aimed at planning, determining prices, promoting and distributing goods and services that can satisfy the needs of existing and potential buyers.

### **Buying Decision**

According to Oslon (2013: 160), the core process in consumer decision-making is the integration process used to combine knowledge and evaluate two or more alternative behaviors and choose one of them. The result of the integration process is a choice (choice) that cognitively shows a behavioral intention, which is a plan (decision plan) to carry out one or more behaviors. According to Kotler and Keller (2012: 188), purchasing decisions are: The purchasing decision process consists of five stages carried out by a consumer before arriving at a purchasing decision and then post-purchase. According to Morissan (2014: 111), the purchasing decision is the next stage after there is an intention or desire to buy, but the purchasing decision is not the same as the actual purchase. Additional choices are required regarding when to buy, where to buy, and how much money to spend.

Factors that Influence Purchasing Decisions According to Kotler and Keller (2012:214), purchasing decisions are influenced by the following three factors: (1) Cultural Factors Culture, sub-culture, and social class are very important for buying behavior. Culture is the most basic determinant of desires and behavior. (2) Social Factors, (a) Reference Groups, Reference groups in consumer purchasing behavior can be defined as groups that can directly or indirectly influence a person's attitudes or behavior. (b) Family, in this case the family is divided into two types, The Asian family which consists of a person's parents and siblings who can provide religious, political, and economic orientation as well as personal ambition, self-esteem, and love. In addition, there is the procreative family, which consists of the couple and the number of children a person has. (c) Role and Status. The higher a person's role in an organization, the higher their status in the organization, which can directly impact their purchasing behavior. (2) Personal, (a) Age and Family Life Cycle. People buy different goods and services throughout their lives, where these consumption activities are influenced by the family life cycle. (b) Employment and Economic Environment. A person's job and economic environment can influence their consumption. Usually, product selection is also made based on a person's economic situation, such as the amount of income they have, the amount of savings, debt, and attitudes towards shopping or protection. (c) Lifestyle. Lifestyle can be defined as a person's lifestyle pattern revealed in their activities, interests, and opinions formed through social class and occupation. Seeing this as an opportunity in marketing activities, many marketers direct their brands to a person's lifestyle. (d) Personality. Personality is humans' distinct innate psychological characteristic that produces relatively consistent and long-lasting responses to environmental stimuli. Personality can be an instrumental variable in analyzing consumer brand choices. This is because some consumers will choose brands that match their personality. (e) Psychological. This psychological factor is influenced by four main factors, including motivation, perception, learning, and beliefs and attitudes.

Purchasing Decision Indicators Tjiptono (2015:56) states that consumers consider when deciding to buy a product: (1) Identification of Needs. The purchasing process begins when the buyer recognizes a problem or need; then, the buyer feels a difference between the desired and actual states. (2) Information Search: A customer moved by stimuli will try to find more information about a particular product. The person pays attention to product advertisements, products their friends will buy, and conversations about them. (3) Evaluation of Alternatives: No single, simple evaluation process is used by all customers or even by a single customer in all purchasing situations. Most current models of the customer evaluation process in making product considerations are essentially conscious and rational. Certain fundamental concepts will help us understand the customer evaluation process. (4) Purchase and Consumption: In the evaluation stage, customers form preferences among brands in the choice group. Customers may also form a purchase intent to purchase the most preferred brand. However, two factors can influence purchases and purchasing decisions. (5) After-Purchase Evaluation: The customer will experience a certain level of satisfaction or dissatisfaction after purchasing a product. Customers will also take action after purchasing and using the product, which gets the attention of marketers.

### **Product Quality**

Tjiptono (2015:121) suggests that the conventional definition of quality is a direct description of a product, such as performance, reliability, ease of use, aesthetics, etc. In the strategic report, quality is anything that can fulfill the desires or needs of customers (meeting the needs of consumers). According to Nurmansyah (2018: 122), product quality is the ability of a product to carry out its duties, which includes durability, reliability, strength, ease of use, product repair, and other characteristics. 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.

Factors that Influence Product Quality Product quality is usually the first consideration for consumers when purchasing a product. According to Lamb and Hair in Nurmansyah (2018: 124), the factors that are taken into consideration in determining product quality are: (1) Reliability, (2) Durability, (3) Easy Maintenance (easy to repair), (4) Easy of Use (easy to use), (5) Low Price (low price).

Dimensions of Product Quality According to Tjiptono in Firmansyah (2019:16-17), he identified eight dimensions of product quality, namely as follows: (1) Performance, the main operating characteristics of the core product purchased, for example, speed, fuel consumption, number of passengers that can be carried, ease and comfort in driving, and so on. (2) Additional features (features), namely secondary or complementary characteristics, for example, interior and exterior equipment such as dashboard, AC, sound system, door lock system, power steering, etc. (3) Reliability, namely the tiny possibility that it will experience damage or fail to use. For example, the car doesn't often stall/get stuck/freak/break down. (4) Conformance to specifications, namely the extent to which the design and operating characteristics meet previously established standards. For example, safety and emission standards are met, such as truck axle size must be more significant than sedans. (5) Durability, related to how long the product can continue to be used. This dimension includes the technical life and economic life of the car. (6) Aesthetics, namely the product's appeal to the five senses, for example, the attractive physical shape of the car, artistic model/design, color, and so on. (7) Perceived Quality (Perceived Quality) is the consumer's perception of a product's overall quality or superiority. Usually, due to the buyer's lack of knowledge about the attributes or characteristics of the product to be purchased, the buyer perceives its quality from price, brand name, advertising, company reputation, and country of manufacture. (8) The dimension of ease of repair (Service capability) includes speed, convenience, and satisfactory handling of complaints. The services provided are not limited to just before sales but also during the sales process to after-sales, which includes repair services and availability of required components.

### **Product Design**

According to Kotler and Armstrong (2014), the concept of product design is that design has a broader idea than style. Besides considering appearance factors, design also aims to improve product performance, reduce production costs, and increase competitive advantage. Design Kotler and Keller (2012) define "Design as the totality of features that affect how a product looks feels, and functions to a consumer". This means that design is the totality of features that influence how a product looks, feels and functions for consumers. The design offers three, namely position aesthetic appeal. Kotler and Armstrong (2014) also define product design as the totality of features that influence a product's appearance, feel and function based on customer needs. From the concepts and definitions above, it can be concluded that good product design is a design that can influence the appearance, taste and function of the product in accordance with consumer needs. In this way, it can influence consumer decisions in purchasing a product because consumers are interested in buying a product based on the product design. Product design can also determine a company's success in selling its products. In other words, one of the factors for a company's success in selling its products comes from product design.

Aspects of Product Design Kotler and Keller (2012) state that many aspects of product design or design include shape, features, fit quality, durability, reliability, style, and ease of repair. The following is an explanation of each aspect: (a) Shape. Many products can be differentiated in shape, size, model, or physical structure. (b) Features: Most products can be offered with features that complement their essential functions or additional features. A company can identify and select appropriate new features based on recent buyer surveys and then calculate the customer value against the company's costs for each potential feature. Marketers must consider how many people want each feature, how long it will take to introduce it, and whether competitors can easily copy it. (c) Conformity Quality is the level of conformity and fulfillment of all units produced to the promised specifications. Products are designed and operated based on characteristics close to product standards to meet the requested specifications. (d) Durability is a product's resistance or a measure of the product's expected operating life under normal or severe conditions which is a valuable attribute for a particular product. (e) Reliability measures the probability that a product will not be damaged or fail within a certain period and its properties are not visible. A product that is said to be goodwill have reliability to be used for a long time. (f) Style Style is another way to add customer value through different product styles and designs. Style only describes the appearance of the product. Style can be interesting or even boring. Sensational styles can attract attention and create a beautiful aesthetic, but they don't actually make the product perform better. Unlike style, design is more than skin deep. Design is the heart of the product. (g) Ease of repair Is a measure of the ease of repairing a product when the product is damaged, a measure of which can be seen through the value and time used.

Product Design Indicators according to Kotler and Keller (2012) indicators of product design are: (1) Product Color, Product color is a variety of colors that make consumers interested in buying. (2) Striping the product. Striping makes the appearance more beautiful and attractive. (3) Product Shape, various product shapes can provide different choices according to consumer desires.

### **Promotion**

Buchari Alma (2010:179) promotion is a type of communication that provides explanations and convinces potential consumers about goods and services with the aim of getting attention, educating, reminding and convincing potential consumers. Promotion is one of the determining factors for the success of a marketing

program. No matter how high-quality a product is, if consumers have never heard of it and are not sure that the product will be useful for them, then they will never buy it. According to Ray in Morissan (2010: 16) promotion is the coordination of all efforts initiated by the seller to build various channels of information and persuasion to sell goods and services or introduce an idea. Meanwhile, according to William in Buchari Alma (2010: 192), promotion is an element in a company's marketing mix which is used to inform, persuade and remind about the company's products.

The aim of Promotion is to inform, influence, persuade, and remind target customers about the company and its marketing mix. In detail, the three promotional objectives can be described as follows (Tjijtono, 2015:221): (1) Inform. (a) Inform the market about the existence of a new product. (b) Introducing new ways of using a product. (c) Communicate price changes to the market. (d) Explain how a product works. (e) Informing about the services provided by the company. (f) Correcting erroneous impressions. (g) Reduce buyers' fears or concerns. (h) Building company image. (2) Persuading Customers, (a) Forming brand choices. (b) Switch selection to a specific brand. (c) Changing customer perceptions of product attributes. (d) Encourage buyers to shop right away. (e) Encourage buyers to accept visits from salespeople; (3) Remind (reminding), (a) Remind buyers that the product in question is needed in the near future. (b) Remind buyers of places that sell company products. (c) Keep buyers interested even if there is no advertising campaign. (d) Maintaining that the buyer's first memory falls on the company's products.

Promotion Indicators According to Liliweri (2011:503), indicators that can be used to measure promotions are: (1) Advertising, a form of payment made by a person or group of people, a combination of businesses, companies, profit, and non-profit organizations for messages about products goods or services communicated through non-personal media or mass media to targeted audiences or the general public. (2) Sales Promotion: Sales promotions are carried out by various efforts to increase sales by holding various meetings, shows, graphic examples or demonstrations, competitions, and special packaging, which are carried out to increase immediate and short-term sales. Sales promotion is also often used as an integral tool in advertising and personal selling. Thus, sales promotion can be said to be part of the activities that complement and encourage advertising. (3) Publicity. The advantage of publicity is that it can reach many potential customers who avoid salespeople and advertising. The message reaches buyers as news, not as a sales communication. Meanwhile, the disadvantage is that marketers use public relations or as an afterthought. The media used are seminars, sponsors, company magazines, and commemorations of certain events.

### Framework

To facilitate understanding of the entire series of research, a research framework has been prepared.

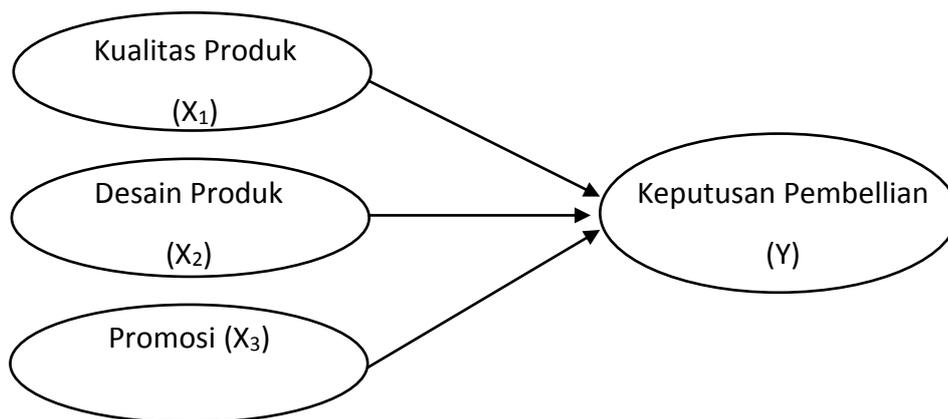


Figure 1. Framework of Thought

### METHODOLOGY

#### Population and sample

According to Arikunto (2013:173), the population is the totality of research subjects. So what is meant by population is individuals who have the same characteristics even though the percentage of similarity is small, or in other words, all individuals who will be used as research objects. The population in this research is permanent consumers who are recorded as always making purchases at UD Bangun Jaya, totaling 203 people.

According to Arikunto (2013: 174), the sample is a part or representative of the population studied. If the population is large and the research is not possible to study everything in the population. The sampling technique is based on research needs based on certain considerations. This sample is referred to as purposive sampling. In the book *Research Methods for Business*, Roscoe provides suggestions regarding sample size for research: (1) An appropriate sample size in research is between 30 and 500. (2) If the sample is divided into categories (for example, male-female, civil-private employees, and others), then the minimum number of sample

members for each category is 30. (3) If the research will conduct multivariate analysis (correlation or multiple regression, for example), then the number of sample members must be at least ten times the number of variables studied. For example, if there are five research variables (independent + dependent), the number of sample members =  $10 \times 5 = 50$ . (Sugiyono, 2017: 133) Based on Roscoe's calculations, the sample in this study is =  $10 \times (\text{dependent variable} + \text{independent variable}) = 10 \times (1+3) = 10 \times 4 = 40$ . According to Roscow, it was decided to take a sample of 100 respondents based on considerations from the sample calculation.

## **Data Analysis Techniques**

### **Validity test**

The validity test is useful for finding out whether there are questions in the questionnaire (list of questions) that need to be removed or replaced because they are considered irrelevant (Umar, 2010: 54). The validity test was carried out by comparing the calculated r-value with the r table for a significance level of 5 percent ( $\alpha = 0.05$ ) with degree of freedom ( $df = n-k-1$ , in this case ( $n$ ) is the number of samples. Submission of questionnaire validity in SPSS 23 can use two analysis methods: Pearson correlation and Corrected Item Total Correlation. According to Ghozali (2012: 53), if  $r \text{ count} > r \text{ table}$ , the question or indicator is declared valid, and vice versa. If  $r \text{ count} < r \text{ table}$ , the question or hand is declared invalid.

### **Reliability Test**

Reliability testing relates to how precisely a measuring instrument can be relied upon. A high level of consistency characterizes a research instrument with a high-reliability level. According to Ghozali (2012:64), reliability can be considered trustworthy. A reliable instrument means that it will produce the same data if used several times to measure the same object. Reliability can be calculated using Cronbach's Alpha formula in the range of 0.6 is acceptable; above 0.07 is good (Sugiyono, 2017:11).

### **Classic assumption test**

#### **Normality test**

The normality test aims to test whether the confounding or residual variables have a normal distribution in the regression model. As is known, the t and F tests assume that the residual values follow a normal distribution. If this assumption is violated, the statistical test will be invalid for small sample sizes. Normality detection can be done by looking at the histogram or Normal P-plot of the Regression Standardized Residual graph by looking at the distribution of the diagonal axis data or the standard graph. The basis for making this test decision includes the following: If the data spreads around the diagonal line and follows the direction of the line, showing a typical distribution pattern, then the regression model meets the assumption of normality, and if the data spreads far from the diagonal line or does not change the direction of the diagonal line, then it does not show a typical distribution pattern. So, the regression model does not meet the normality assumption (Ghozali, 2012: 160). Normality testing can also be done using the Kolmogorov-Smirnov Test. If the probability significance level is  $> 0.05$ , then the research data is usually distributed (Ghozali, 2012: 164).

#### **Multicollinearity Test**

The multicollinearity test tests whether the regression model finds a correlation between independent variables. A good regression model should not correlate with independent variables. If independent variables are related, then these variables are not orthogonal. Orthogonal variables are independent variables whose correlation value between independent variables equals zero. So, a low tolerance value is the same as a high VIF value (because  $VIF = 1/\text{Tolerance}$ ). The cutoff value commonly used to indicate the presence of multicollinearity is a Tolerance value  $\leq 0.10$  or the same as a VIF value  $\geq 10$ . Each researcher must determine the level of coloniality that can still be tolerated. The regression is free from multicollinearity if the VIF is less than ten and the tolerance value is more than 0.1 (Ghozali, 2012: 105).

#### **Heteroscedasticity Test**

The heteroscedasticity test aims to test whether there is an inequality of variance in the regression model from the residuals of one observation to another. If the conflict from the residual from one word to another is constant, it is called homoscedasticity; if it is different, it is called heteroscedasticity. A good regression model is one with homoscedasticity (Ghozali, 2012: 139). (1) If there is a specific pattern, such as the points forming a regular pattern (wavy, widening, then narrowing), it indicates heteroscedasticity has occurred. (2) If there is no clear pattern, and the points are spread above and below the number 0 on the Y axis, then heteroscedasticity does not occur.

#### **Multiple Linear Regression Equations**

According to Sugiyono (2017: 277), multiple linear regression analysis aims to predict the condition (up and down) of the dependent variable (criterion) if two or more independent variables as predictor factors are

manipulated (increasing and decreasing their values). So, multiple regression analysis will be carried out if the number of independent variables is at least 2. According to Sugiyono (2017:277), the multiple linear regression equation determined is as follows:  $Y = a + b_1X_1 + b_2X_2 + b_3X_3$ , where  $Y$  = Purchase Decision,  $a$  = Constant,  $b$  = Regression coefficient,  $X_1$  = Product Quality,  $X_2$  = Product Design,  $X_3$  = Promotion.

### **F Test (Simultaneous)**

According to Ghozali (2012:98), the F statistical test is also called the simultaneous significance test. This test shows whether all the independent or independent variables included in the model have a joint influence on the dependent/dependent variable. The calculated F value from the results of considerations using the formula above is then compared with the Ftable or f obtained using a risk level of 0.05 and degree of freedom ( $df = n - k - 1$ ). The F test calculation results are compared with the F table with the following criteria: (1) If F count > F table at  $\alpha = 0.05$ , or PV value (sig) <  $\alpha$ , then  $H_0$  is rejected, and  $H_1$  is accepted (has influence). (2) If Fcount < Ftable at  $\alpha = 0.05$ , or P Value (sig) >  $\alpha$  then  $H_0$  is accepted and  $H_1$  is rejected (has an effect).

### **Coefficient of Determination ( $R^2$ )**

Sanusi (2014: 136) states that the coefficient of determination ( $R^2$ ) is often also called the multiple coefficients of determination, which is almost the same as the  $R^2$  coefficient.  $R$  is also almost similar to  $r$  but are different functions (except simple linear regression).  $R^2$  explains the proportion of variation in the dependent variable ( $Y$ ) that is explained by the independent variables together. Meanwhile,  $r^2$  measures the goodness-of-fit of the regression equation, giving the percentage of total variation in the dependent variable ( $Y$ ) explained by only one independent variable ( $X$ ). Furthermore,  $r$  is a correlation coefficient that explains the closeness of the linear relationship between two variables that are explained together, and its value is always positive.

### **T Test**

According to Ghozali (2012:164), this test was carried out to determine each independent variable's influence on the dependent variable. Does it have a significant effect or not? To determine whether it is significant, the calculated t number will be compared with the t table. The t-test is carried out by looking at the following conditions: (1) If t count > t table, then  $H_0$  is rejected, it is accepted, meaning there is a significant influence of the dependent variable. (2) If t count < t table, then  $H_0$  is accepted, then Haditoreject means there is no significant influence of the independent variable on the dependent variable.

## **RESULTS AND DISCUSSION**

### **Descriptive Analysis**

The variables in this research consist of three independent variables, namely product quality ( $X_1$ ), product design ( $X_2$ ), promotion ( $X_3$ ), and purchasing decisions as a variable ( $Y$ ).

It can be explained that the product quality variables at UD Bangun Jaya Pekanbaru are good. This can be seen from the highest average score of 3.95, with the statement that Niro granite products can withstand heavy loads, meaning that Niro granite products can withstand heavy loads, while the lowest score is 3.45. with the statement that the Niro granite product is very easy to install, meaning that the Niro granite product is easy to install, and the average score of all these variables is 3.73, which indicates that the Product Quality variable at UD Bangun Jaya Pekanbaru in this study is still in good condition.

It can be explained that the Product Design variables at UD Bangun Jaya Pekanbaru are good. This can be seen from the highest average score of 3.90, with the statement that the pattern (color) of Niro granite products varies greatly, meaning that Niro granite products' pattern (color) varies greatly, while the lowest score obtained is at the average value. an average of 3.53 with the statement that the accessories (list) of Niro granite products are complete and varied, meaning that the accessories (list) of Niro granite products are quite complete and varied, and the average score of all these variables is 3.68 which indicates that the Product Design variable in UD Bangun Jaya Pekanbaru in this research is still in good condition.

It can be explained that the promotional variables at UD Bangun Jaya Pekanbaru are good. This can be seen from the highest average score of 4.20, with the statement that consumers are able to understand promotional messages for Niro granite products through print media, meaning that consumers feel they are able to understand promotional messages for Niro granite products through print media, while the lowest score is at The average score is 3.45 with the message statement in the print media advertisement for Niro granite products attracting the attention of consumers, meaning that consumers feel that the message in the print media advertisement for Niro granite products is enough to attract the attention of consumers. The average score of all these variables is 3.70, indicating that the Promotion variable at UD Bangun Jaya Pekanbaru in this study is still in good condition.

It can be explained that the purchasing decision variables at UD Bangun Jaya Pekanbaru are good. This can be seen from the highest average score of 3.79, with the statement that the choice of Niro granite products at UD Bangun Jaya is very wide, meaning that consumers feel that the choice of Niro granite products at UD

Bangun Jaya is very large. In contrast, the lowest score is the value of an average of 3.53 with the statement that information regarding Niro brand granite is very easy to obtain clearly at UD Bangun Jaya, meaning that consumers feel that information regarding Niro brand granite is quite easy to obtain clearly at UD Bangun Jaya. The average score of all these variables is 3.82, indicating that the Purchasing Decision variable at UD Bangun Jaya Pekanbaru in this study is still in good condition.

### Validity test

A validity test is a measure that shows an instrument's validity or authenticity levels. The question items in the questionnaire are measuring instruments (tools) that must measure the research objective so that the validity of each question item in the questionnaire must be measured. The validity test describes the corrected item's total correlation coefficient. An indicator is declared valid if it produces a corrected item-total correlation  $>$   $r_{table}$  ( $df=n-2$ )  $100-2=98$ ; it is known that the  $r_{table}$  value = 0.196. On the other hand, it is declared invalid if it produces a corrected item-total correlation  $<$   $r_{table}$  (0.196). The results of the validity test of the research variable indicators can show correlation values for 23 statement items consisting of 8 statement items for variable  $X_1$  (product quality), 5 question items for variable  $X_2$  (product design), 5 statement items for variable  $X_3$  (promotion), and 5 Items from the variable Y statement (purchasing decision), show that all questions used to measure all variables have been understood along with the correlation value compared with the  $r$  table.

### Reliability Test

**Table 1. Reliability Test Results**

No.	Variable	Cronbach's Alpha	Information
1	Product Quality ( $X_1$ )	0,835	Reliable
2	Product Design ( $X_2$ )	0,817	Reliable
3	Promotion ( $X_3$ )	0,743	Reliable
4	Purchase Decision (Y)	0,890	Reliable

*SPSS 2022 Processed Data Source*

The variables tested are four independent variables and one dependent variable, including variable  $X_1$  (product quality), variable  $X_2$  (product design), variable  $X_3$  (promotion), and variable Y (purchase decision) from a total of 32 statement items using SPSS for Windows system, the results of all the questions above are said to be reliable and successful, because the variables measured produce Cronbach's Alpha values of 0.835, 0.817, 0.743, and 0.890, so all the items from the statements contained in each variable are stated as a whole. reliable, because the reliability coefficient value is more than 0.6.

### Classic assumption test

#### Normality test

**Table 2. Normality Test Results**

	Unstandardized Residual
N	100
Kolmogorov-Smirnov Z	0,640
Asymp. Sig. (2-tailed)	0,807

*SPSS 2022 Processed Data Source*

The normality test aims to test whether the confounding or residual variables have a normal distribution in the regression model. Testing for normality in this research was carried out using the Kolmogorov-Smirnov Test, namely that the significant value (Sig) of variable  $X_1$  (product quality), variable  $X_2$  (product design), and variable  $X_3$  (promotion) was greater than 0.05. This shows that it is significant (Sig)  $>$  0.05 or  $0.847 >$  0.05, meaning that the research data is normally distributed

#### Heteroscedasticity Test

**Table 3. Heteroscedasticity Test Results**

Variable	Sig.
Product Quality ( $X_1$ )	1,000
Product Design ( $X_2$ )	1,000
Promotion ( $X_3$ )	1,000

*SPSS 2022 Processed Data Source*

The heteroscedasticity test aims to test whether, in the regression model, there is an inequality of variance from the residuals of one observation to another. The Glejser test proposes regressing the residual's absolute value against the independent variable. Probability results are significant if the significance value exceeds the 5% confidence level. A good regression model should not have heteroscedasticity. That is, it is known that the significant value (Sig) of variable  $X_1$  (product quality), variable  $X_2$  (product design), and

variable X3 (promotion) is greater than 0.05. This shows that the significance (Sig) of 1,000 and 1,000 is  $> 0.05$ , meaning that the research data does not have symptoms of heteroscedasticity in the regression model.

### Multicollinearity Test

**Table 4. Multicollinearity Test Results**

Variable	Tolerance	VIF
Product Quality (X <sub>1</sub> )	0,226	4,431
Product Design (X <sub>2</sub> )	0,306	3,265
Promotion (X <sub>3</sub> )	0,183	5,466

*SPSS 2022 Processed Data Source*

The multicollinearity test aims to test whether the regression model found a correlation between variable X<sub>1</sub> (product quality), variable X<sub>2</sub> (product design), and variable X<sub>3</sub> (promotion). A good regression model should have no correlation between variables X<sub>1</sub>, and the value VIF is smaller than 10.00. This shows that there is no multicollinearity in the research

### Hypothesis testing

#### F test

**Table 5. F Test Results**

Model	F	Sig.
1 Regression	94.794	0,000 <sup>b</sup>
Residual		
Total		

*SPSS 2022 Processed Data Source*

The F test can be done by comparing the calculated F with the F table; if the calculated F is  $>$  than the ftable (H<sub>0</sub> is rejected, H<sub>a</sub> is accepted), then the model is significant or can be seen in the significance column in Anova. It is known that the value of fcount is greater than ftable with a significance level of 0.000. This shows that fcount  $>$  ftable (94.794  $>$  2.700) or significant probability  $<$  0.05, then H<sub>0</sub> is rejected and H<sub>1</sub> is accepted

### Determination Coefficient Test

**Table 6. Coefficient of Determination**

Adjusted R Square	Std. Error of the Estimate
0,748	1,43473

*SPSS 2022 Processed Data Source*

Determination Analysis is used to determine the percentage contribution or distribution of influence of variable X<sub>1</sub> (product quality), variable X<sub>2</sub> (product design), and variable (74.8%). This shows the percentage contribution of variable X<sub>1</sub> (product quality), variable X<sub>2</sub> (product design), and variable from other variables not included in this study.

### Multiple Linear Regression Analysis

**Table 7. Multiple Linear Regression Values**

Model/Variable	Unstandardized Coefficients (B)
(Constant)	0,467
Product Quality (X <sub>1</sub> )	0,151
Product Design (X <sub>2</sub> )	0,176
Promotion (X <sub>3</sub> )	0,538

*SPSS 2022 Processed Data Source*

In this research, the regression used as analysis in determining the equation is multiple linear regression with the following equation: The simple regression coefficient value from the table above is  $y = a + bx_1 + bx_2 + bx_3$ ,  $y = 0.467 + 0.151x_1 + 0.176x_2 + 0.538x_3$ .

So, the constants of the equation above are as follows: (1) It is known that the constant is 0.467. This means that if the purchase decision has a value of 0, then product quality, product design, and promotion have a value of 0.796. (2) The regression coefficient for the product quality variable is 0.151; The coefficient is positive, meaning that the purchasing decision variable will increase when the product quality variable increases. (3) Regression coefficient for product design variables 0.176; The coefficient is positive, meaning that the purchasing decision variable will increase when the product design variable increases. (4) Promotion variable regression coefficient 0.538; The coefficient is positive, meaning that when the promotion variable increases, the purchasing decision variable will increase

**Partial Test (t-Test)****Table 8. T-test Results**

Model/Variable	t	Sig.
(Constant)	0,401	0,689
Product Quality (X <sub>1</sub> )	2,126	0,036
Product Design (X <sub>2</sub> )	1,703	0,092
Promotion (X <sub>3</sub> )	4,335	0,000

*SPSS 2022 Processed Data Source*

Testing by comparing the tcount value and ttable value or looking at the P value of each so that it can be determined whether the hypothesis that has been made is significant, the researcher presents the following:  $n-k-1 = (100-3-1) = 96$ , ttable value  $(0.05) = 1,660$ .

It is known that the tcount value of variable X1 (product quality), variable X2 (product design), and variable X3 (promotion) is partially greater than the ttable. This shows that tcount > ttable or significant probability < 0.05, then H1 is accepted. So: (1) Product quality with a value of tcount (2.126) > ttable (1.660) significant (0.036 < 0.05). Because the value of tcount > ttable (2.126 > 1.660), then H1 is accepted, meaning that there is a significant influence on product quality (X1) on the purchasing decision variable (Y). (2) Product design with a value of tcount (1.703) > ttable (1.660) significant (0.092 > 0.05). Because the value of tcount > ttable (1.703 > 1.660), H1 is accepted, meaning that there is an insignificant influence on product design (X2) on the purchasing decision variable (Y). (3) Promotion with a value of tcount (4.335) > ttable (1.660) significant (0.015 < 0.00). Because the value of tcount > ttable (4.335 > 1.660), then H1 is accepted, meaning that there is a significant influence on promotion (X3) on the purchasing decision variable (Y). (4) Based on information from research results, partial hypothesis testing resulted in H0 being rejected and H1 being accepted on variable X1 (product quality), variable X2 (product design), and variable).

**Discussion of Research****Results The Influence of Product Quality on Purchasing Decisions**

Based on the research results, it is known that the product quality variables in the research influence the purchasing decision variables. This is related to the results of the respondent's statement with the highest average value, which states that Niro granite products' pattern (color) varies greatly. At the same time, the lowest score is in the statement that the accessories (list) of Niro granite products are complete and varied, but overall, it is still in a good category. As for the research findings related to product quality variables in the t-test results, it is known that there is a significant influence of the product quality variable on the purchase decision interest variable at UD. Bangun Jaya Pekanbaru. The results of this research are also supported by research conducted by Lokas (2016), Lidya (2018), Yoepitasari and Khasanah (2018), and Siregar (2017), concluding that product quality has a significant effect on consumer purchasing decisions.

**The Influence of Product Design on Purchasing Decisions**

Based on the research results, it is known that product design variables influence purchasing decision variables. This is related to the results of the respondent's statement with the highest average value, which states that consumers feel that Niro granite products' patterns (colors) vary greatly. At the same time, the lowest score is in the statement that the accessories (list) of Niro Granite products are complete and varied, meaning that accessories (list) of Niro Granite products are quite complete and varied. However overall, they are still in a good category, but overall, they are still in a good category. From the t-test results, it is known that there is an insignificant influence of product design variables on purchasing decision variables at UD. Bangun Jaya Pekanbaru. The results of this research are also supported by research conducted by Suari (2019), concluding that product design significantly influences consumer purchasing decisions. However, in contrast to the research results conducted by Rosha (2019), it is known that product design has no influence on purchasing decisions.

**The Effect of Promotion on Purchasing Decisions**

Based on the research results, it is known that promotional variables influence purchasing decision variables. This is related to the results of the respondent's statement with the highest average value, which stated that consumers felt able to understand promotional messages for Niro granite products through print media. At the same time, the lowest score was in the statement that consumers felt that the messages in print media advertisements for Niro granite products were enough to attract consumers' attention. but overall, it is still in a good category. As for the research findings related to promotional variables in the t-test results, it is known that promotional variables have a significant influence on purchasing decision variables at UD. Bangun Jaya Pekanbaru. The results of this research are in contrast to research conducted by Siregar (2017), concluding that promotions significantly affect consumer purchasing decisions.

## CONCLUSION

Based on the results of data analysis and discussion in this research regarding the influence of product quality, product design, and promotion on purchasing decisions at UD. Bangun Jaya Pekanbaru, the following conclusions can be drawn: (1) Product quality variables significantly affect purchasing decision variables at UD. Bangun Jaya Pekanbaru, so that if product quality improves, consumers' tendency to make purchasing decisions will increase significantly. (2) Product design variables have an influence but are not significant on purchasing decision variables at UD. Bangun Jaya Pekanbaru, so that if the product design improves, the consumer's tendency to make purchasing decisions will increase significantly. (3) Promotion variables significantly affect purchasing decision variables at UD. Bangun Jaya Pekanbaru, so that if the company improves promotions, the consumer's tendency to make purchasing decisions will increase significantly.

The limitation of this research is that it is difficult to distribute questionnaires in the midst of the current COVID-19 pandemic, which slows down the process of distributing questionnaires. The obstacle found is that the time for collecting data from distributed questionnaires is inefficient and seems slow.

Based on the results of data analysis and discussion in this research regarding product quality, product design, and promotion on purchasing decisions at UD. Bangun Jaya Pekanbaru, what researchers can suggest is as follows: (1) It is hoped that the management of UD. Bangun Jaya Pekanbaru should be able to respond to follow-up in completing the inventory of Niro granite products with a more varied accessory (list) so that purchasing decisions at UD. Bangun Jaya Pekanbaru. (2) It is also hoped that CV Kharisma Logam Indo can make product design variables an obstacle in marketing existing products by creating new strategies to maximize product inventory with more attractive designs so that purchasing decisions at UD. Bangun Jaya Pekanbaru can continue to improve. (3) Apart from that, it is hoped that the leadership of UD. Bangun Jaya Pekanbaru can maintain its good condition and from other possibilities, especially in fulfilling consumer expectations in the supply of Niro granite products with more varied accessories (list) so that purchasing decisions at UD. Bangun Jaya Pekanbaru will be able to continue to grow and get higher. (4) For other researchers, it is hoped that the results of this research can provide a treasure trove as a reference for similar research.

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