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Original Article

ANALYSIS OF PRODUCT QUALITY AND PRICE AFFECT DEMAND FOR A PRODUCT

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ABSTRACT

Background. One of the key components of a marketing plan is price. Competitive prices can increase product attractiveness in the eyes of consumers, especially in price-sensitive market segments. The enthusiasts who are prospective buyers want the product to be of high quality, particularly in terms of fulfilling customer expectations so that they become satisfied and loyal to the company.
Research Purpose. Analyzing product quality and price affect demand for a product.
Research Method. This study is quantitative in nature and uses saturation sampling approaches to collect primary data from 50 consumers who were given questionnaires. Questionnaires and literature reviews were used as the data gathering approach. While conventional assumption tests include testing for normalcy, heteroscedasticity, and multicollinearity, instrument tests include tests for validity and reliability. Multiple linear regression was used to analyze the data.
Findings. The results showed that the price variable had a significant effect on product demand (tcount = 0.025), while the product quality variable had a significant effect on product demand (tcount = 0.000).
Conclusion. To become more competitive in the market, every business should constantly enhance the quality of its products and take customer preferences into account while adjusting prices.

Keywords: Demand, Price, Product Quality.

BACKGROUND

In competitive market conditions, price and product quality are the two main factors that influence consumer purchasing decisions. Therefore, it is important for companies to understand the extent to which these two variables influence the demand for their opak cracker products. One of the key components of a marketing plan is price. Competitive prices can increase product attractiveness in the eyes of consumers, especially in price-sensitive market segments. Previous research shows that when consumers are making purchases, pricing plays a big role in what they decide to buy, with lower prices or providing more value through discount promotions[1]. However, prices that are too low can also lead to negative perceptions of product quality.

On the other hand, product quality plays a crucial role in building consumer loyalty and increasing demand. Consumers are often prepared to spend extra for goods of higher quality, especially if the products meet their expectations. Previous research shows that product quality has a positive and significant influence on purchase intention and consumer purchasing decisions[2]. High-quality products not only increase customer satisfaction but also strengthen the brand image in the market. Other research that has been conducted discusses the effect of product quality, price, promotion, and sales location on cracker

purchasing decisions[3]. The results showed that all variables had a significant effect on purchasing decisions, with price as the most dominant variable.

Based on the results of the preliminary survey, the influence of price and product quality on the demand for company Y's products is high, as evidenced by 85% of respondents stating that price influences their purchasing decisions. Then, we can see that product quality also plays an important role in determining demand, where 88% of respondents are satisfied with the quality offered. In addition, 72% of respondents considered the price of the product to be affordable, while another 28% considered the price to be less affordable. Meanwhile, only 55% of respondents have recommended this product to others, meaning that there is still an opportunity to improve customer satisfaction so that more people recommend the product. As many as 62% of respondents stated that they would stop buying if the product quality decreased, indicating that quality is a major factor in maintaining customer loyalty. In general, the law of demand states that when the price of a product per unit increases, the amount of demand for the product tends to decrease. Conversely, if the price per unit decreases, the amount demanded will increase. In other words, there is a negative relationship between price and demand[4]. However, this law only applies under the assumption of ceteris paribus, that is, when other factors remain constant or unchanged.

Apart from price, there are various other factors that influence the demand for a product[5]. The law of demand which states that market demand is inversely proportional to price, is often misunderstood, because in reality, demand is also influenced by other factors such as quality, consumer preferences, income, and the availability of substitute and complementary goods. Therefore, in analyzing demand, it is necessary to consider various aspects that can influence consumer purchasing decisions, not just price factors alone.

The tighter competition of various companies in producing and selling their products has an influence on the view that companies must notify and introduce their products to the public to be interested in the products offered by the company. Products are everything that producers can offer to be noticed, requested, sought after, purchased, used by the market as a fulfillment of customer needs or desires.

Every company needs to find a balance between pricing and improving product quality to meet consumer needs and preferences. By analyzing the effect of price and quality on product demand, this study is expected to provide strategic recommendations for companies to optimize their marketing strategies to increase competitiveness and market share. This study aimed to analyze the effect of price and product quality on product demand.

RESEARCH METHOD

This study intends to analyze the variables of price and product quality on the demand for Crackers products of company Y. This research is a quantitative study[6] using primary data as the main data obtained from the results of distributing questionnaires.

The sample is representative of the population's size and makeup. Samples are taken in order to observe a portion of the population for use as study subjects. Saturated sampling, often known as census sampling, is the sample method employed. As a result, there are 50 customers in total, the same number of samples as the population.

The data collection method in this study was carried out in several ways as follows: 1) The questionnaire is a method in which the researcher compiles a list of questions in writing, which are then distributed to respondents to obtain data related to research activities;

2) Literature study is data collection from literature books and other readings that support this research.

This research uses a quantitative approach with statistical analysis methods. The instrument test used includes a validity test and a reliability test. The classical assumption test consists of a normality test, a heteroscedasticity test, and a multicollinearity test. To determine the effect of independent variables on the dependent variable, multiple linear regression analysis was used. All data analysis was carried out with the help of SPSS version 26 software, with reference to the formula:

$$Y = c + d1X1 + d2X2 + e$$

Description: Y = demand for the company's crackers product Y; c = constant; d1,2 = multiple regression coefficients between x and y; X1 = price; X2 = product quality; e = error of term.

FINDINGS

Table 1. Validity Test and Reliability Test Result

Variable	Item	R-count	Reliability
Price (X1)	X1.1	0.828	0.852
	X1.2	0.771	
	X1.3	0.756	
	X1.4	0.729	
	X1.5	0.702	
Product Quality (X2)	X2.1	0.855	0.794
	X2.2	0.704	
	X2.3	0.654	
	X2.4	0.731	
	X2.5	0.791	
Product Demand (Y)	Y.1	0.884	0.868
	Y.2	0.754	
	Y.3	0.880	
	Y.4	0.754	
	Y.5	0.828	

The capacity of a measuring device to measure what should be measured that is, if the device can measure indications of an object of measurement, is the validity test of a measuring device. One method for determining the validity of a questionnaire is the validity test. Processing data that is invalid or that might lead to conclusions that are not derived from the object of measurement necessitates validity. The decision-making rule is that the data is said to be valid if there is a relationship between the question items and the total questions as a whole, and the value of rcount ≥ rtable, where rtable = 0.361[7, 8]. Reliability test based on Table 1, all variables in this study have a Cronbach's Alpha score> 0.6. Because the test results have met the provisions and principles in statistical theory, the data is declared reliable and can be used for further analysis.

The normality test based on the residual value shows the Kolmogorov-Smirnov results with a significance value of 0.180. This value is greater than the 5% significance level (0.05) or sig. > 0,05. Thus, the distribution of the two variables can be said to be normally distributed (Table 2).

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		50
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.81418882
Most Extreme Differences	Absolute	.101
	Positive	.180
	Negative	-.101
Test Statistic		.110
Asymp. Sig. (2-tailed)		.180[c,d]

Table 3. Heteroscedasticity Test

Coefficients[a]					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
(Constant)	1.411	.890		1.585	.125
Price	.094	.099	.396	.951	.530
Product Quality	-.143	.118	-.504	-1.213	.392

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residual data. A good regression model is one that does not experience symptoms of heteroscedasticity. Based on the coefficients table, the significance value for the price variable is 0.530 and the product quality variable is 0.392, both of which are greater than 0.05. Therefore, H0 is accepted. Thus, it can be concluded that this research model does not experience heteroscedasticity problems.

Table 4. Multicollinearity Test

Coefficients[a]							
	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
(Constant)	2.449	1.505		1.628	.115		
Price	.905	.168	.951	5.391	.000	.203	3.494
Product Quality	-.050	.199	-.045	-.253	.802	.203	3.494

The multicollinearity test aims to test whether the regression model found a correlation between the independent variables. Multicollinearity is a situation where there is a strong relationship between the independent variables. Multicollinearity has an important

influence on regression coefficient estimates and on the general use of model estimates. The criteria for multicollinearity can be seen from the Tolerance value and its opposite, the Variance Inflation Factor (VIF) value. If the tolerance value is above 0.10 and the VIF value is below 10, it does not have a multicollinearity problem, so it can be carried out to the next test. A model is said to be free of multicollinearity symptoms if the independent variables have no correlation with each other. Multicollinearity tests can be analyzed through the Variance Inflation Factor (VIF) and tolerance values. Based on the test results in the coefficients table, the VIF value for the two independent variables is 3.494, which is still below the tolerance limit of 10. Thus, H0 is accepted, so it can be concluded that this research model does not experience multicollinearity symptoms.

Table 5. Multiple Linear Regression Test

Coefficients[a]					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
(Constant)	4.449	1.505		1.628	.115
Price	.520	.399	.245	2.235	.028
Product Quality	.509	.168	.951	5.193	.000
a. Dependent Variable: Product Demand					

Regression formula: Product Demand = 4.449 + 0.520 (Price) + 0.509 (Product Quality) + e

a. The constant value of 4.449 indicates that if the Price and Product Quality variables are zero, then Product Demand is 2.449.
b. The regression coefficient value of the Price variable of 0.520 indicates that each increase in price by 1 unit will reduce product demand by 0.520 units.
c. The regression coefficient value of the Product Quality variable of 0.509 means that each increase in Product Quality by 1 unit will increase Product Demand by 0.509 units.

In this study with a sample size of n = 50 and the number of independent variables k = 3, the t-table value = 1.70329 was obtained. The t-test results based on the regression estimates in Table 5 that the price variable has a t-count = 2.235, which is greater than the t-table and a significance of 0.028 <0.05 so that price has a significant effect on product demand. The product quality variable has a t-count = 5.193, which is greater than the t-table and significance 0.000 < 0.05 so that product quality has a significant effect on product demand.

DISCUSSIONS

This study showed that the price variable had a significant effect on product demand (tcount = 0.025), while the product quality variable had a significant effect on product demand (tcount = 0.000). in keeping with the results of studies that demonstrate that pricing significantly and favorably affects product demand. The results of the statistical analysis show a significant relationship, where the lower the price of a product, the higher the demand for the product. This is due to consumer sensitivity to price changes, where more affordable prices increase purchasing power and attract more consumers. The study proves that price, which includes aspects of affordability, conformity to product quality, competitiveness, and

conformity to the benefits obtained, has an influence on purchasing decisions. Thus, the right pricing strategy can be a major factor in increasing product demand.

Prices shouldn't just represent the cost of producing a something or rendering a service; they should also represent the value that customers are ready to pay. Accordingly, the price is the quantity of money that customers must pay in order to acquire or possess a useful and beneficial commodity. Simply put, price is a means of exchange expressed in the form of money that consumers exchange in order to obtain a product or service that has benefits and uses.

The regression results show that Product Quality has tcount = 5.193> ttable = 1.70329 with a significance value of 0.000 <0.05. This means that H0 is rejected and Ha is accepted, which indicates that Product Quality has a significant effect on Product Demand. The regression coefficient shows that every one unit increase in Product Quality will significantly increase Product Demand.

This is in line with the research which shows that product quality has a positive and significant effect on purchasing decisions[9]. This is evidenced by the tcount value which is greater than the ttable and the significance level of 0.000, which indicates that the higher the product quality, the greater the influence on purchasing decisions. Product quality, which includes aspects such as performance, durability, conformity to specifications, reliability, additional features, aesthetics, perceived quality, and ease of repair, is a major factor in increasing demand[10, 11].

The degree of excellence of a products or service that meets or above customer expectations is known as product quality. This quality encompasses the product's functionality, longevity, dependability, and user happiness. Anything presented to the market for use, ownership, attention, or consumption is considered to be of product quality. High-quality products may meet the demands and desires of customers[12].

Prospective buyers desire a high-quality product, particularly one that meets their expectations so they are happy and remain loyal to the business. Product quality is defined as a product's capacity to perform its intended tasks, including accuracy, dependability, durability, simplicity of use, and product maintenance, among other important characteristics. Every business that wishes to satisfy the demands and preferences of its clients will make an effort to produce high-quality goods, which are evident in both the product's outside features (design) and its inside features[13].

The general traits and attributes of a good or service that influence its capacity to meet explicit or implicit demands are referred to as product quality[14]. The capacity of a product to perform its intended function, including overall durability, accuracy, dependability, simplicity of use, and repairability, among other product features, is the definition of product quality.

Demand is a type of desire combined with the capacity to purchase products and services within a specific time frame at different price points. Economists, on the other hand, define demand as the desire of customers to purchase an item at different price points during a specific time period. Demand is the willingness and capacity to purchase a certain goods, backed by the desire for that thing[15]. The quantity of commodities that are desired in a given market at a specific price point, income level, and time frame is known as demand. The level of customer demand for a commodity can be influenced by a number of things.

These factors are the price of the good itself, the price of other goods that are closely related to the good, income, taste, and population. Product quality and price variables have a significant effect on product demand. This is evidenced by the t-count value of each

variable on product demand. This finding is in line with research that has been conducted stating that price and product quality simultaneously affect purchasing decisions[16]. If consumers are faced with two choices of products of the same quality and both are able to meet their needs effectively, but have price differences, then consumers tend to choose products with lower prices but still of good quality.

CONCLUSION

Product quality and price variables have a significant effect on product demand, as evidenced by the t-count value of each variable on product demand. If consumers are faced with two choices of products of the same quality and both meet their needs effectively but have price differences, they tend to choose products with lower prices but still of good quality.

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Conflict of Interest statement

The authors declare there is no conflict of interest.

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