The Effect Of Product Design, Product Quality, And Promotion On Customer Satisfaction Through Purchasing Decisions As An Intervening Variable

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Abstract . The purpose of this study was to determine the factors that affect customer satisfaction at the Jati Putra Mandiri Indonesia company. PT Jati Putra Mandiri is experiencing problems with customer satisfaction with the products offered. The independent variables used in this study are product design (X1), product quality (X2), promotion (X3) and the intervening variable in this study is the purchase decision. The population and samples used in the study were all customers at PT Jati Putra Mandiri Indonesia, totaling 148 respondents. The research uses quantitative methods where the analysis technique used is Partial Least Square (PLS) with SmartPls 3.2.9 software. The results of the analysis show that product design has no effect on purchasing decisions and customer satisfaction. Product quality has a positive influence on purchasing decisions and customer satisfaction, promotion has a positive effect on purchasing decisions and customer satisfaction. Then purchasing decisions are able to mediate the role of product quality on customer satisfaction, while product design and promotion are not significant. Thus, it can be concluded that the factors that influence customer satisfaction in this study are product quality, promotion, and purchasing decisions. Therefore, it is recommended for companies to maintain product quality and improve promotions and purchasing decisions.

Keywords . Customer satisfaction; purchase decision; promotion; product quality; product design.

INTRODUCTION

The creative economy in Indonesia is currently experiencing rapid development, especially in the craft sector. The only industry in Indonesia that serves as a focal point of the country's export-oriented economy is the furniture industry. Jati Putra Mandiri Indonesia is one of the companies headquartered in Jepara that specializes in the manufacture and sale of furniture. As a company engaged in production and art, product design, product quality and promotion need to be considered to maintain customer satisfaction. Customer satisfaction can occur if consumers have made a purchase of a product, then feel the benefits produced by the product.

Table 1. Sales Quantity of Jati Putra Mandiri Indonesia Products
Sales Data of Jati Putra Mandiri Tables and Chairs
Period of 2020-2022

Years	Table	Chair
2020	1340	522
2021	3075	971
2022	1140	565

(Source: Jati Putra Mandiri Indonesia Sales Data)

Based on the data above, it can be concluded that there was a significant decrease in sales of PT Jati Putra Mandiri products. Then to find out the level of customer satisfaction with PT Jati Putra Mandiri products, a questionnaire was distributed to several customers of PT Jati Putra Mandiri products.

Table 2. Customer Satisfaction Pre-Survey Results

No	Question	Agree	Percent	Disagree	Percent
1.	Do Jati Putra Mandiri products have the product design you want?	30 people	100%	0 people	0%
2.	Are the products offered at Jati Putra Mandiri of good quality?	30 people	100%	0 people	0%
3.	Does the advertisement that Jati Putra Mandiri offers match the original product?	30 people	100%	0 people	0%
4.	Do Jati Putra Mandiri products match the criteria you set before purchasing the product?	1 people	3,33%	29 people	96,67%
5.	Do the products sold by Jati Putra Mandiri match the needs you are looking for?	30 people	100%	0 people	0%
6.	Do the products sold by Jati Putra Mandiri suit your lifestyle?	29 people	96,67%	1 people	3,33%

Source: (Pre-survey results of Jati Putra Mandiri Indonesia product customer satisfaction questionnaire).

Based on the questionnaire distributed by researchers, 29 people or 96.67% of respondents felt that Jati Putra Mandiri Furniture products had not been able to meet all customer criteria, which means that the level of customer satisfaction with Jati Putra Mandiri Furniture products has not been fully achieved. Firmansyah (2018) reveals that there are several factors that affect customer satisfaction, namely; service or service quality, product quality, price, situational factors, and personal factors from customers. In addition, purchasing decisions also affect customer satisfaction. This is in line with research conducted by Manabung, Muafa & Awotkay (2023) and Yuliza & Dewi (2022) which reveal that product design has a significant positive effect on customer satisfaction. However, it is contrary to Priandewi's research (2021) which states that product design is not significant to customer satisfaction

Sutrisno, Ausat, A. M. A., Permana, R. M., & Santosa, S. (2023, 4 9), state that to attract consumers to buy a product, they must pay attention to several components, such as improving product and service quality, making special offers, and paying attention to consumer needs. Sasono, Sopi, Nafiah & Widiyasari (2023) and Anisa & Manurung (2021) state that product quality affects customer satisfaction. However, Haris (2019) states that product quality is not significant to customer satisfaction.

Prasetyana, E., Sutrisno, & Andriani, R. (2023, 6 21), state that promotion is one of the factors that can affect the level of customer satisfaction. If the promotion is carried out appropriately, it will have an impact on the level of customer satisfaction. Fathurahman & Sihite (2022) and Ardiansyah & Saputri (2020) state that promotion has a positive sognificant on customer satisfaction. However, it is not in line with the research of Siregar, Elfikri, & Daulay (2022) which states that promotion is not significant to customer satisfaction. Apart from some of the above, customer satisfaction is also influenced by buyer decisions. This is in accordance with research conducted by Firmawati (2022) and Suwarno (2022) which states that purchasing decisions are significantly positive towards customer satisfaction. However, it is not in line with Andika, Kusnadi, and Wiryaningtyas (2022) who state that purchasing decisions are not significant to customer satisfaction.

Based on the problems discussed above, research was conducted to examine the effect of product design, product quality, promotion and purchasing decisions on customer satisfaction.

METHOD

This study uses a type of quantitative research based on causality. The population used is customers of PT Jati Putra Mandiri. The sampling technique uses saturated sampling where all sample members are used as samples. In this case the number of samples used was 148 people. The data in the study were collected by using a closed questionnaire. The questionnaire was distributed to 148 customers at PT Jati Putra Mandiri Indonesia using Google Form. Operationally, the dara measurement technique uses a Likert scale with a score range of 1 to 5. Data analysis uses the Partial Least Square (PLS) method by utilizing SmartPLS software version 3.2.9.

RESULTS AND DISCUSSION

Results

1. Customer Satisfaction

Daryanto (2019) states that customer satisfaction is an emotional assessment of consumers after using a product where after using the product, consumer expectations and needs are met. According to Indrasari (2019) the indicators used to measure customer satisfaction are repurchase or interest in visiting again, word of mouth or recommending to others, conformity to expectations.

2. **Product Design**

Pero et al (2018) explain that product design is the overall features possessed by the product that are tailored to consumer needs so as to increase consumer satisfaction. Azany (2018) explains that product design has several indicators, namely; design variations, the latest models, and designs following trends.

3. **Product Quality**

Kotler (2019) states that product quality is an understanding of the value of a product compared to other products so that companies will be able to focus on several more competitive products and increase the number of sales. The following are indicators of product quality according to Firmansyah (2019), additional features, reliability, conformity to specifications, durability and aesthetics.

4. **Promotion**

Laksana (2019) explains that promotion is a type of communication between sellers and buyers resulting from accurate information intended to increase buyer confidence and the size of their purchase, but it will be revealed after the buyer makes a purchase and still knows the product in question. According to Kotler and Amtrong (2019), several indicators of promotion include; advertising, sales promotion, and public relations.

5. **Purchase Decision**

According to Kotler & Armstrong (2019), purchasing decisions are decisions made by consumers to make purchases by going through several stages of purchasing decisions. Kotler also revealed several indicators of purchasing decisions, namely; product selection, brand selection, selection of places or distribution channels, purchase time, and purchase quantity.

DISCUSSION

1. **Validity and Reliability Test Results**

In PLS-SEM analysis, validity testing is carried out using the convergent validity test by looking at the Average Variance Extracted (AVE) value. The convergent validity test is used to see the magnitude of the construct correlation with latent variables. The basis for taking can be seen in the Average Variance Extracted (AVE) whose value must be> 0.50.

Table 3. Value Average Variance Extracted (AVE)

Variable	Average variance extracted (AVE)	Description
Product design	0.640	Valid
Product quality	0.564	Valid
Promotion	0.668	Valid
Purchase decision	0.722	Valid
Customer satisfaction	0.789	Valid

Source: Data that has been processed SmartPLS 3.2.9 (2023)

In 3 table, it is known that the Average Variance Extracted (AVE) value for each variable is> 0.50. Thus it can be concluded that each variable meets the validation standards and can be tested further.

Reliability test is carried out to prove the level of accuracy, consistency, and accuracy of research instruments in measuring constructs. To state that an instrument is declared reliable, the Composite Reliability value is> 0.70. The following presents the results of the Composite Reliability value.

Table 4. Value *Composite reliability*

Variable	*Composite reliability (rho_a)*	Description
Product design	0.842	Relible
Product quality	0.866	Reliable
Promotion	0.858	Reliable
Purchase decision	0.838	Reliable
Customer satisfaction	0,882	Reliable

Source: Data that has been processed SmartPLS 3.2.9 (2023)

In table 4 it is known that each research variable has a Composite reliability value> 0.70. Therefore it can be concluded that each variable passes the reliability test and can be continued in the next research.

2. Results of Structural Data Analysis (Inner Model)

Inner Model Partial Least Square analysis can be seen by looking at the R-Square value and the path coefficient test.
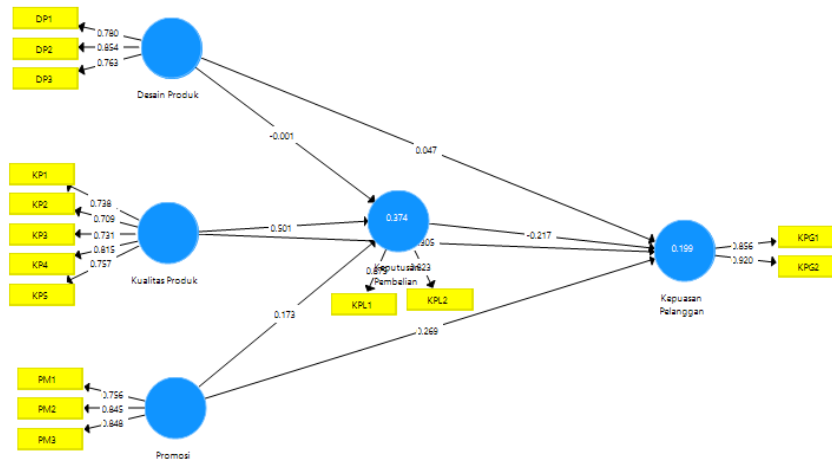
Picture 1. Inner Model (Structural Model Evaluation Results)

Source: Primary data that has been processed SmartPLS 3.2.9 (2023)

a) **R-Square**

The R-square value is used to explain the influence of the independent variable on the dependent variable. Ghozali and Latan (2015) state that the R-square value is concluded to be a strong model of 0.75, concluded to be a moderate model of 0.50 and a weak model of 0.25. The following are the results of the R-square test.

Table 5. R-square Test Results

Variable	R-square
Customer Satisfaction	0.199
Purchase Decision	0.374

Source: Data that has been processed SmartPLS 3.2.9 (2023)

Table 5 shows that the R-square value on the customer satisfaction variable is 0.199, thus it can be concluded that the strength of the product design, product quality, and promotion variables on customer satisfaction is 19.9% (weak category). Then the R-square value on the purchasing decision variable is 0.374. This shows that the strength of product design, product quality, promotion together with customer satisfaction on purchasing decisions is 37.4% (medium category).

b) **Direct effect test**

Table 6. Direct effect test results

Variable	P Values
Product Design -> Customer Satisfaction	0.334
Product Design -> Purchase Decision	0.494
Purchase Decision -> Customer Satisfaction	0.008
Product Quality -> Customer Satisfaction	0.006
Product Quality -> Purchase Decision	0.000

Promotion -> Customer Satisfaction	0.003
Promotion -> Purchase Decision	0.015

Source: Data that has been processed SmartPLS 3.2.9 (2023)

Table 6 shows that the P-values on the effect of product design variables on customer satisfaction and purchasing decisions are greater than 0.05. So that it can be concluded that the hypothesis which states that there is an effect of product design on customer satisfaction and purchasing decisions is not accepted. Meanwhile, other variables such as product quality and promotion have an influence on customer satisfaction and purchasing decisions, and purchasing decisions affect customer satisfaction because they have P-values smaller than 0.05. So thus the hypothesis that product quality affects customer satisfaction and purchasing decisions, as well as promotions affect customer satisfaction and purchasing decisions affect customer satisfaction can be accepted.

c) **Indirect Effect Test**

Table 7. Indirect effect test results

Variabel	P Values
Product Design -> Purchase Decision -> Customer Satisfaction	0.495
Product Quality -> Purchase Decision -> Customer Satisfaction	0.017
Promotion -> Purchase Decision -> Customer Satisfaction	0.066

Source: Data that has been processed SmartPLS 3.2.9 (2023)

Table 7 explains that the hypothesis stating that product design has an effect on customer satisfaction mediated by purchasing decisions is not accepted because it has a P-value of 0.495 or greater than 0.05. Then the hypothesis stating that product quality has an effect on purchasing decisions mediated by purchasing decisions is accepted because it has a P-value of 0.017 or less than 0.05. Then for the hypothesis stating that promotion has an effect on customer satisfaction mediated by purchasing decisions, it is not accepted because it has a P-value of 0.066 or greater than 0.05.

CONCLUSION

The conclusion that can be drawn from this research is that customer satisfaction of PT Jati Putra Mandiri Indonesia is directly influenced by product quality, promotion and purchasing decisions. Then the decision is able to mediate the effect of product quality on purchasing decisions. As for testing product design, it states that product design is not a factor that affects customer satisfaction of PT Jati Putra Mandiri Indonesia, either directly or indirectly. Therefore, it is recommended for companies to continue to pay attention to quality

and increase promotion so that customer satisfaction and decisions can be achieved. Future researchers are expected to expand the research object and use substitute variables such as service quality or discounts.

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