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Creating Consumer Value From Product Design Through Product Differentiation For Yamaha Nmax Motorcycle Consumers In Pekanbaru

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ABSTRACT

The purpose of this study is to determine the effect of product design variables on consumer value variables, to determine the effect of product design variables on product differentiation variables and to determine the effect of product differentiation variables on consumer value variables and to determine the effect of product design on consumer value through product differentiation variables on Yamaha Nmax motorcycle consumers in Pekanbaru. As is known, the demand for Yamaha Nmax in Indonesia can be described as a successful and sustainable market phenomenon, changing the competitive landscape in the premium automatic scooter (skutik) segment with total sales reaching 3 million units in 2025.

This research was conducted in Pekanbaru City with a sample of 93 respondents using a purposive sampling method. The criteria for respondents who became the object of the study were Nmax motorcycle users in Pekanbaru. The research method used the Partial Least Squares-Structural Equation Modeling (PLS-SEM) method in the form of an outer model, an inner model, and hypothesis testing.

The results of the study indicate that there is no influence of product design variables on product differentiation variables on Nmax Motorcycle consumers in Pekanbaru, seen from the p-value of 0.109 which is greater than 0.05. The results also show that there is an influence of product design on consumer value on Nmax Motorcycle consumers in Pekanbaru with p-value of 0.000 which is smaller than 0.05. A significant influence is also shown from the Product Differentiation Variable on consumer value variables on Nmax Motorcycle consumers in Pekanbaru with p-value of 0.000 which is smaller than 0.05. And so the product differentiation variable successfully mediates the influence of product design variables on consumer value on Nmax Motorcycle consumers in Pekanbaru with p-value of 0.000 which is smaller than 0.05.

INTRODUCTION

The Yamaha Nmax is more than just an ordinary automatic scooter; it is a phenomenon that has revolutionized the motorcycle market in Indonesia. Since its inception in 2015, the Nmax has brought the Premium Big Scooter concept that broke the mold, changing the perception that big automatic

scooters have to be expensive. With its distinctive, tough, elegant design and relaxed riding position, the Nmax has succeeded in creating a new market segment now known as the MAXi Yamaha.
The Nmax's distinctive feature lies in its large body proportions, giving it a luxurious feel typical of European scooters. This design isn't just about looks, but also comfort. Ample legroom allows riders to choose a relaxed seating position , either upright or extended forward (*cruiser style*), making it a reliable companion for daily urban commuting and long-distance *touring* .
Demand for the Yamaha Nmax in Indonesia can be described as a successful and sustainable market phenomenon, changing the competitive landscape in the premium automatic scooter (skutik) segment. First introduced in February 2015, the Nmax not only filled a market gap but also created a new *trendsetter* : Yamaha's MAXi category.
The high demand for the Nmax is reflected in the total sales (population) data achieved over its decade-long presence in the country. By 2025, total Yamaha Nmax sales in Indonesia are claimed to have exceeded 3 million units since its first launch in 2015. *(Kompas Otomotif, June 12, 2024 & Sindo News, April 27, 2025)* . This figure indicates that an average of around 330,000 Nmax units are sold annually in the Indonesian domestic market. *(kompas.com).*
In the first half of 2025, the Indonesian motorcycle market recorded total domestic sales of 3.1 million units. This figure represents a slight decrease of around 2% compared to the same period the previous year, reflecting economic dynamics and pressure on consumer purchasing power. *(Kompas.com)*
Yamaha Nmax focuses on three main aspects: Advanced Technology Performance, Aggressive (Sporty) Design Character, and Position as a Pioneer of Premium Features.
This differentiation is further strengthened by the presence of the latest generation, namely the Yamaha Nmax "Turbo", which significantly differentiates itself from its main competitor, the Honda PCX 160. Nmax projects a different image from its competitors, emphasizing a strong and aggressive impression through a Sporty and Masculine Design that is thick with a dashing, sporty impression and Big Scooter Aura.
The Yamaha Nmax design is rooted in the "MAXi Yamaha" philosophy which combines the comfort of a big scooter with a sporty and modern character. The Nmax design consistently conveys an image of strength, luxury, and functionality. The combination of stylish design with the efficient and powerful performance of the Blue Core engine (155 cc) has produced 3 generations. The third generation was launched in June 2024 with a "Futuristic and Fierce" style (Nmax "Turbo") - The design is refined to be more futuristic, sporty, and aerodynamic.
The objectives that the researcher wants to achieve are to determine the effect of product design on product differentiation; to determine the effect of product design on consumer value; to determine the effect of product differentiation on consumer value and to determine the effect of product design through product differentiation on product value for Nmax Motorcycle consumers in Pekanbaru.

Literature Review

Product Value

Customers choose for whatever reason the offer they believe will deliver the highest value and act on it. Whether the offer lives up to expectations affects customer satisfaction and the probability that the customer will purchase the product again (Kottler & Keller, 2016).
Customer-perceived value (CPV) is the difference between the prospective customer's evaluation of all the benefits and costs of an offering and the perceived alternatives. Customer-perceived value is thus based on the difference between the benefits the customer gets and the costs he or she assumes for different choices. The marketer can increase the value of the offering by raising economic, functional, or emotional benefits and/or reducing one or more costs. (Kottler & Keller, 2016)
total customer value the perceived monetary value of the bundle of economic, functional, and psychological benefits customers expect from a given market offering. (Kottler & Keller, 2016)

Differentiated Products

Product as anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy a want or need. Products include more than just tangible objects, and products also include services.

Product differentiation can come from (Kottler & Keller, 2016):

1. Form. Many products can be differentiated in terms of the size, shape, or physical structure of a product.
2. Features. Most products can be offered with varying features that supplement their basic function.
3. Performance Quality Most products occupy one of four performance levels: low, average, high, or superior.
4. Conformance Quality. Buyers expect a high conformance quality, the degree to which all produced units are identical and meet promised specifications.
5. Durability, as a measure of the product's expected operating life under natural or stressful conditions, is a valued attribute for vehicles, kitchen appliances, and other durable goods
6. Reliability, is a measure of the probability that a product will not malfunction or fail within a specified time period.
7. Repairability measures the ease of repairing a product when it malfunctions or fails.
8. Style, describes the product's look and feel to the buyer and creates distinctiveness that is hard to copy
9. Customization, customized products and marketing allow firms to be highly relevant and differentiating by finding out exactly what a person wants and doesn't want and delivering on that.

Product Design

Product planners need to think about products and services on three levels (figure 1). Each level adds more customer value. The most basic level is the core customer value (Kottler & Armstrong, 2018).

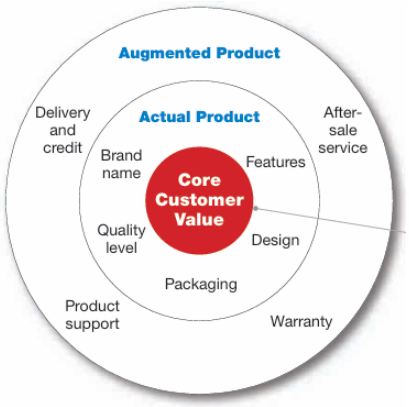

Figure 1. Three Levels of Product
Source: Kottler & Armstrong, 2018

Another way to add customer value is through distinctive product style and design. Design is a larger concept than style. Style simply describes the appearance of a product. Styles can be eye catching or eye producing. A sensational style may grab attention and produce pleasing aesthetics, but it does not necessarily make the product perform better. Unlike style, design is more than skin deep, it goes to the very heart of a product. Good design contributes to a product's usefulness as well as to its looks. Good design doesn't start with brainstorming new ideas and making prototypes. Design begins with observing customers, understanding their needs, and shaping their product-use experience. Product designers

should think less about technical product specifications and more about how customers will use and benefit from the product. (Kottler & Armstrong, 2018).

Design is the totality of features that affect the way a product looks, feels, and functions to a consumer. It offers functional and aesthetic benefits and appeals to both our rational and emotional sides (Kottler & Keller, 2016). Design is especially important with long-lasting durable goods and design can shift consumer perceptions to make brand experiences more rewarding.

Design thinking is a very data-driven approach with three phases: observation, ideation, and implementation. Design thinking requires intensive ethnographic studies of consumers, creative brainstorming sessions, and collaborative teamwork to decide how to bring the design idea to reality. (Kottler & Keller, 2016)

METHODS

Research conceptual framework

The research concept used in this analysis is a structure equation model with the following description:

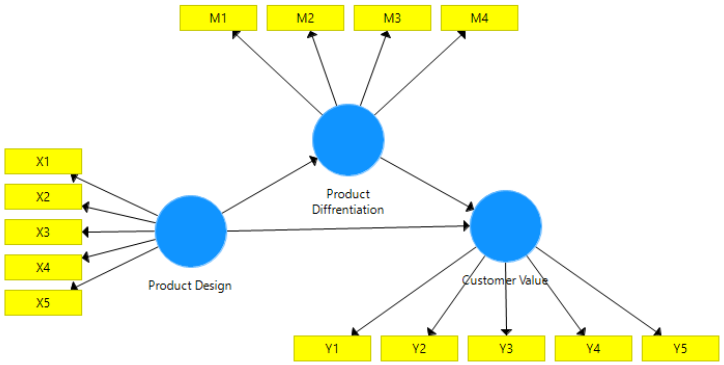

Figure 2. Research framework
Source: Processed data, 2025

Research methods

This research was conducted in the city of Pekanbaru with a sample of 93 people using purposive sampling with the criteria of respondents who use Yamaha Nmax motorbikes.

In this research , data analysis using the method *Partial Least Square - Structural Equation Modeling* (PLS-S EM) with Smart PLS software support support 3.2.9 PLS- SEM. The tools used to analyze research results to provide confidence and a justified approach are:

1. *Outer Model*: *Convergent Validity*;*Discriminant Validity*; dan *Reliability*
2. *Inner Model*: Determination (R^2), *Predictive Relevance* (Q^2)
3. Hypothesis Testing

RESULT

In the sampling that was carried out, the researcher summarized the characteristics of the respondents in the table below.

Table 1. Respondent Characteristics

Category	Frequency	Percentage
Gender		
Man	72	77.4%
Woman	21	22.6%
Age (years)		
20-25	11	11.8%
26-30	36	38.7%
31-35	29	31.2%
>35	17	18.3%
Reasons to buy		
Design	26	28.0%
Technology	13	14.0%
Style	29	31.2%
Resilience	15	16.1%
Advertisement	10	10.7%
Work		
PNS	18	19.3%
Private Employee	34	36.6%
Self-employed	20	21.5%
Professional	13	14%
Other	8	8.6%

Source: Processed data, 2025

The table above illustrates that in this study, male respondents dominated by 77.4%. Based on age, the percentage of age with the 26-30 year category was the highest with a percentage of 38.7%, then at the age of 31-35 years by 31.2%. In this study, it is also necessary to know the reasons for buying an Nmax motorcycle are due to style factors as much as 31.2%, design factors 28.0%, durability factors 16.1%, technology factors 14.0% and advertising factors 10.7%. Respondents with jobs as private employees were the majority with a percentage of 36.6%, then self-employed as much as 21.5%.

Outer Model

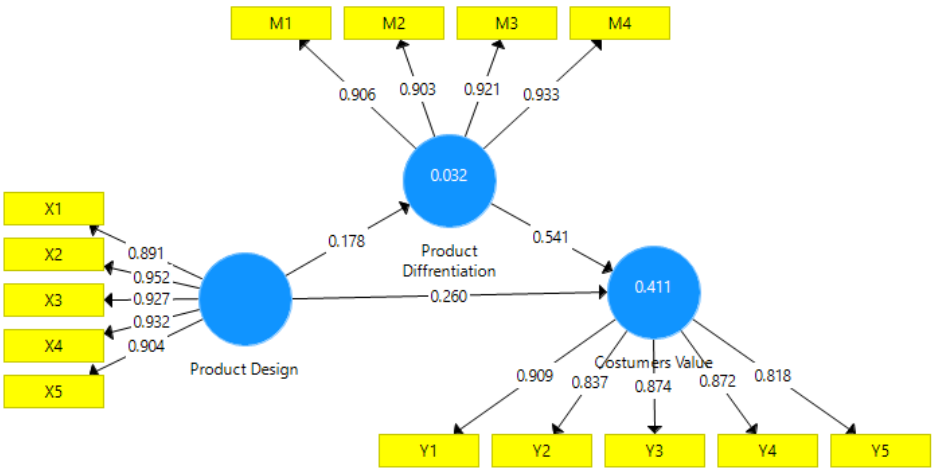

Figure 3. Path Diagram
Source: Processed data, 2025

a. Convergent Validity

Convergent validity is evident from the factor loading values between the latent variables and their indicators. A reflective measure is considered high if its correlation is greater than 0.70 with the construct being measured (Ghozali, 2016:25).
The results of the convergent validity test are presented in the following table:

Table 2. Convergent Validaty

Variables	Indicator	Loading Factor	T Statistics	P Value
Product Design	X1	**0.891**	34,079	**0,000**
	X2	**0.952**	77,765	**0,000**
	X3	**0.927**	48,580	**0,000**
	X4	**0.932**	50,554	**0,000**
	X5	**0.904**	40,701	**0,000**
Product Differentiation	M1	**0.906**	40,206	**0,000**
	M2	**0.903**	37,175	**0,000**
	M3	**0.921**	54,812	**0,000**
	M4	**0.933**	64,053	**0,000**
Customer Value	Y1	**0.909**	50,657	**0,000**
	Y2	**0.837**	24,312	**0,000**
	Y3	**0.874**	29,894	**0,000**
	Y4	**0.872**	34,240	**0,000**
	Y5	**0.818**	22,725	**0,000**

Source: Processed data, 2025

Based on the table above, it can be seen that all indicators measuring product design, product differentiation, and customer value have values greater than 0.7. Thus, these indicators are declared valid for measuring their variables.

b. Discrimination Validity

This test is conducted by comparing the square root of the Average Variance Extracted (AVE) value of each construct with the correlation of that construct with other constructs. The AVE value is calculated using the PLS algorithm and appears in the results matrix, and a value above 0.50 indicates good discriminant validity (Ghozali, 2016:45).

Table 3. ***Average Extracted (AVE)***

Variables	AVE
Product Design	0.849
Product Differentiation	0.839
Customer Value	0.744

Source: Processed data, 2025

It can be concluded that all AVE values are above 0.5 so it can be concluded that the indicators used to measure the variables are valid.

c. Reliability

In reliability testing, a construct is considered reliable if its composite reliability is > 0.70 and its Cronbach alpha is > 0.60. For reinforcement, a Cronbach alpha value is expected to be > 0.70 for all constructs. Furthermore, a construct is considered reliable if its AVE value is > 0.50 (Ghozali, 2016).

Table 4. ***Composite Reliability and Cronbach alpha***

Variables	Composite Reliability	Cronbach Alpha
Product Design	0.966	0.955
Product Differentiation	0.954	0.936
Customer Value	0.936	0.914

Source: Processed data, 2025

Based on the table above, all composite reliability values are above 0.7, thus all indicators that measure the research variables (product design, product differentiation, customer value) can be said to be reliable.

Likewise, the Cronbach Alpha values all show values greater than 0.6, so it can be concluded that the research variables based on the Cronbach Alpha calculation are reliable.

Inner Model

Coefisien Determination (R 2)

The interpretation of the coefficient of determination in PLS-SEM is similar to that used in conventional regression analysis. R-squared values such as 0.75, 0.50, and 0.25 indicate strong, moderate, and weak models, respectively. In PLS-SEM, the PLS R-Square result reflects the amount of variation in the construct explained in the model (Ghozali, 2016:76).

Based on the figure 3, the coefficient of determination value for customer value is 0.411, which means that the product design and product differentiation variables are able to contribute 41.1% to customer value and the remaining 58.9% is contributed by other variables not examined in this study.

Predictive Relevance (Q 2)

According to Ghozali (2015), Q-Square is a measure in PLS-SEM to evaluate how well a model predicts observational values and its parameter estimates. A model is considered to have good predictive relevance if Q-Square > 0, with a value range between 0 and 1. If Q-Square < 0 indicates that the model does not have adequate predictive relevance.

The results of the $Q^{2\ calculation}$ are as follows:

Q Square = $1 – [(1 – R_1^2) (1 – R_2^2)]$

Q Square = $1 – [(1 – 0.032) (1 – 0.411)] = 0.570$

The Q-Square predictive relevance (Q2) is 0.570 or 57%. This indicates that the overall model can explain 57% of the diversity of the Customers Value variable, or in other words, the contribution of the product design and product differentiation variables to the overall Customers Value variable is 57%, while the remaining 43% is the contribution of other variables not discussed in this study.

Hypothesis Testing

Hypothesis testing is used to examine the influence of exogenous variables on endogenous variables. The testing criteria state that if the probability value is ≤ *the level of significance (alpha = 5%)* , then there is a significant influence of the exogenous variable on the endogenous variable. The results of the significance test can be seen in the following table.

Table 5. ***Hypothesis Testing***

Exogenous	Endogen	Path Coefficient	T Statistics	P Value
Product Design	Product Differentiation	0.178	1,605	**0.109**
Product Design	Customer Value	0.260	3,987	**0,000**
Product Differentiation	Customer Value	0.541	7,986	**0,000**

Source: Processed data, 2025

The Influence of Product Design on Product Differentiation . The test results listed in the table above show that the T statistics value of the relationship between *Product Design* and Product Differentiation is 1.605 with a probability of 0.109. The test results show that the T statistics value is <1.96 or probability> level of significance (Alpha = 5%). This shows that there is no significant influence between *Product Design* and Product Differentiation on Nmax motorcycle consumers in Pekanbaru .

The influence of product design on customer value . The test results listed in the table above show that the T-statistics value of the relationship between product design and customer value is is 3.987 with a probability of 0.000. The test results show that the T statistics value is > 1.96 or the probability is > level of significance (Alpha = 5%). This indicates that there is a significant influence between Product design and Customer Value on Nmax motorcycle consumers in Pekanbaru .

The Effect of Product Differentiation on Customer Value . The test results listed in the table above show that the T statistics value of the relationship between Product Differentiation and Customer Value is 7.986 with a probability of 0.000. The test results show that the T statistics value is > 1.96 or probability > level of significance (Alpha = 5%). This shows that there is a significant influence between Product Differentiation and Customer Value on Nmax motorcycle consumers in Pekanbaru .

Indirect Effect

The indirect effect test is conducted to determine whether the independent variable has an indirect influence on the dependent variable through its mediating variable. The test criteria state that if the probability is ≤ *the level of significance (alpha = 5%)*, then there is a significant influence of the exogenous variable on the endogenous variable through the mediating variable. The results of the indirect effect test can be seen in the following table:

Table 6. ***Indirect Effect Testing***

Exogenous	Mediation	Endogen	Indirect Coefficient	T Statistics	P Value
Product Design	Product Differentiation	Customer Value	0.159	2,471	0.000

Source: Processed data, 2025

Based on the test listed in the table above, it can be seen that the influence of *Product Design* on Customers Value through Product Differentiation obtained a T statistics value of 2.471 with a probability of 0.000. The test results show that the T statistics value is > 1.96 or a probability < *level of significance (Alpha = 5%).* This shows that there is a significant influence *of Product Design* on Customers Value through Product Differentiation. Therefore, Product Differentiation is declared capable of mediating the influence of *Product Design* on Customers Value on Nmax motorcycle consumers in Pekanbaru .

CONCLUSION

This research shows that the reason for customers purchasing the Nmax motorbike is dominated by style with a percentage of 31.2%, followed by design at 28%.

Based on the outer model testing (Convergent Validity, Discriminant Validity , *Reliability)* and inner model (Coefficient Determination , *Predictive Relevance) shows* that all indicator data and variables and models used are valid and reliable and can *be used in this research* .
The results of the study showed no effect between *product design* and product differentiation. However, product design and product differentiation significantly influenced customer value. Product differentiation also successfully mediated the effect between *product design and customer value*.

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