

# Structural Model for Product Design Aesthetics, Product Development Process, Attitudes to Brands, Product Evaluation, and Product Preference

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## Abstract

The purpose of this study is to identify the relationship between product design aesthetics, product development process, attitude toward the brand, product evaluation, and product preference based on literature review and data analysis. This study's approach is quantitative research with a data collection method using the electronic questionnaires of Google forms. This study was conducted in Indonesia, so the Indonesian consumer becomes the respondents of this research. In this research, total data gathered from 250 respondents were analyzed by Smart PLS 3.2.2. These findings of this study indicate that product design aesthetics, product development process, and attitude toward the brand impact product evaluation. Moreover, product design aesthetics also impacts product preference. However, in this study, the attitude toward the brand towards product preference is not supported. Besides, the hypothesis between product evaluation and product preference is also not supported. This study's results provide significant theoretical and managerial implications for marketing strategy theory and R&D through product evaluation and product preferences for the factors included in this study and a deeper understanding of the smartphone industry marketing by describing it.

**Keywords:** Product Design Aesthetics; Product Development Process; Attitude Toward the Brand; Product Evaluation; Product Preference

## 1. Introduction

Technology cannot be denied from everyone's desire in this period of globalization because technology can help each individual's daily activities, such as smartphones. Smartphones have a working system like computers that can filter the system and gadget capabilities usually; smartphones also have a touch screen, can access the web, and a system that can run downloaded applications (Oxford University Press, 2016). In Indonesia, the information and telecommunication industry is one of the industrial sectors that has experienced significant progress because the demand for smartphones in Indonesia is relatively high. This high demand is seen through an increase in demand by 17.1% in 2018 compared to the previous year (Ermalina, 2020). The high demand for smartphones in Indonesia makes competition between smartphone manufacturers increasingly competitive in making sales. Gartner, in the third quarter of 2017, there were five smartphone manufacturers with the highest sales, namely Samsung with 85.6 million units, Apple with 45.4 million units, Huawei 36.5 million units, OPPO with 29.4 million units, and Xiaomi with 26.8 million units sales (Bohang, 2017). Even though Apple is one of the smartphone manufacturers that occupies the second level, there is still much demand for iPhones because it has its market share with users who like sensitively attractive smartphones (Barokah et al., 2019). The iPhone continues to improve and add to its features, as

seen in the iPhone 11 released on September 10, 2019, United States. The advantages of the iPhone 11 are upgrading the runway to the Apple A13 Bionic chip and upgrading the rear camera so that the iPhone 11 has two rear cameras, namely wide and ultra-wide (Pertiwi, 2019). The iPhone's success is supported by good features and design and concerns the attitude towards the iPhone brand itself so that the iPhone uses a marketing strategy with a classy perception (Krypton, 2020). Therefore, the researcher wanted to examine the relationship between product design aesthetics, product development processes, brand attitudes, product evaluation, and product preferences.

## 2. Literature review and hypotheses

According to the Oxford Dictionaries, a product is grown, produced, or made and usually for sale. A product is offered in a buying and selling relationship carried out by producers to consumers so that the product cannot be separated from the market. The existence of the product can support the company in achieving its goals, where the product is a means provided by the company to meet the needs and desires of its consumers, both tangible and intangible (Firmansyah, 2019, p. 4). In running its business, companies must pay attention to consumers' needs and desires through the products it offers. The product offered must have different elements and development so that the product has added value, the benefits that can be taken into consideration in making purchasing decisions. Different elements and developers in a product are also referred to as product attributes (Firmansyah, 2019, p. 12). According to Kloter and Armstrong (2012) (Firmansyah, 2019, pp. 13–14), a product is usually followed by a series of attributes that accompany the product, such as: Product quality, Product features, Product Style and Design, The brand, and Packaging. Label, as a marker affixed to the product.

### Product design

According to KBBI, a design can also be called a design or form framework. Meanwhile, according to Archer (1965) (Muhajirin, 2017), the design is the finder of a solution with a clear target. It is a combination of art, science, and technology, where the existence of these disciplines can produce a design that has good quality aesthetically, ethically, and communicatively. So a company needs to pay attention to the product design that it will provide to consumers. Product design means bridging dynamic aesthetics and technology with specific patterns in its development to find solutions to problems that affect humans (Firmansyah, 2019). A successful company is a company that can survive in the industry for an extended period. Companies can survive by adapting the products offered according to changing market needs and wants, so that companies must be able to read what the market wants, and design products according to market needs. Product design is the main key for a company when doing marketing, where the design can be seen whether a company knows or sees what their market wants. Ulrich & Eppinger (2008: 190) quoted from Dreyfus (1967), showing there are five critical goals in the product design process (Ulrich & Eppinger, 2012): Usability, Display, Ease of Maintenance, Low cost, and Communication.

### Product Design Aesthetics

The display is one of the five critical goals in the product design process. For some consumers, product appearance plays a vital role in evaluating the product to be consumed. A unique appearance and aesthetic value must be had from the appearance of the company's design products because aesthetics significantly affect consumer behavior such as purchase intention, product perception, customer satisfaction, and product evaluation. Aesthetic customization transforms products by increasing the attractiveness or enjoyment of using the product (Kaiser & Janiszewski, 2017, p. 3). The aesthetic dimension in products can help companies achieve their commercial goals such as product differentiation and as a brand recognition tool (Bhadauria, 2016). According to KBBI, aesthetics itself is a branch of philosophy that studies and discusses art and beauty. According to (Homburg et al., 2015, p. 44), aesthetics refers to the appearance and perceived beauty of a product. Aesthetics can be the attributes of the product itself, created in the beholder's eye, or a combination of the two options. According to (Homburg et al., 2015, p. 44), product design aesthetics is a product that has attributes that cause a perception of beauty to the viewer. According to (Bruner 2009, p. 354), the centrality of visual product aesthetics (CVPA) is a significant overall visual aesthetics level for consumers concerning products. CVPA has four related dimensions, such as the value assigned to product appearance, acuity or ability to recognize and evaluate product design, response to aspects of product design, and the impact of visual design on product preference and satisfaction.

### Product Development Process

The new product development process is a strategic activity in a company that is important for its long-term success; this is because the product development process is a stage where a company turns an idea into a scalable product (Cadeddu et al., 2019, p. 24). A successful company is a company that can go through the product development

process well. To go through the product development process correctly, the company must also know about market needs and desires so that the innovative product can provide added value to its consumers (Moors & Donders, 2009). According to (Bhuiyan 2011, p. 749), in developing new products, several stages must be passed, namely: Idea generation, Screening, The business analysis, Development, Testing, and Commercialization. With the above definition, it can be said that product development or product development carried out by the R&D team is a strategic activity that is important for the health and survival of the company by realizing existing ideas into innovative and functioning products that can be marketed to the target market. To be able to achieve company goals.

### **Brand**

Brand or brand is an important thing contained in a product because a brand can have dimensions that distinguish products designed with the same function. According to the American Marketing Association (AMA) (Keller, 2013, p. 30), a brand is a name, term, sign, symbol, or a combination of them, which serves to identify the product of one or a group of sellers and to differentiate it from competitors. According to (Firmansyah 2019, pp. 26–27), brands have several objectives such as building brand awareness to win the market so that it is easy to make sales, creating emotional relationships, differentiating products between sellers, as a branding strategy by creating trust and credibility, and motivate purchases in order to create brand loyalty. According to (Chovanova et al., 2015, p. 616), a brand is a business asset that is legally protected and is protected by duplication, where the brand means something important to the company. Brands can serve as a focus for consumer loyalty which can develop as an asset in future demand. Therefore, the brand must be designed according to the brand element criteria. According to (Keller 2013, p. 142), there are six criteria for selecting brand elements, namely: Memorable, Meaningful, Likable, Transferable, Adaptable, and Protectable. A good brand must be able to meet the criteria of the elements in order to be a strong brand. Having a strong brand is expected to create a positive attitude towards a consumer for a brand.

### **Attitude Toward the Brand**

Attitude toward the brand or attitude toward the brand is an important matter that must be paid attention to by corporate marketing, where this attitude can be related to consumer behavior towards the brand. According to (Zarantonello & Pauwels-Delassus, 2016, p. 130), attitude means an individual's internal evaluation of an object, or attitude refers to the individual's internal state always directed at the object. Meanwhile, according to (Esmaeilpour & Aram, 2016, p. 427), attitudes include evaluating likes and dislikes, feelings, and behavioral attitudes. According to Wu and Wang (Esmaeilpour & Aram, 2016, p. 427), the attitude has three components, namely: cognitive component, stimulation component, and the effort component.

According to (Keller 2013, p. 117), brand attitude is a consumer's overall assessment of a brand and is often the basis for brand selection. Consumers can choose several attitudes towards a brand and, most notably, perceived quality and customer value and satisfaction. Brand attitude is people's trust to benefit from the reputation, performance, and brand experience (Esmaeilpour & Aram, 2016, p. 427). Consumers can determine attitudes towards the brand, both positive and negative attitudes. A positive brand attitude in consumers' minds can encourage a brand to become a product preference or an evaluation product for consumers.

### **Product Evaluation**

According to (Kotler & Keller, 2012), there are five series that consumers usually go through before making a purchase decision, namely, problem recognition, information search, alternative evaluation, buying decisions or not, and post-purchase behavior. According to the Oxford Dictionaries, evaluation or assessment means an act of forming an opinion about the amount, value, or quality of something after careful thought. According to (Huang et al., 2020, p. 962), product evaluation refers to consumers' subjective feelings and judgments about the product. According to (Dodds, Monroe, & Grewal, 1991) in (Huang et al., 2020, p. 962), there are three dimensions capable of measuring product evaluation: perceived quality, perceived value, and purchase intention. According to (Wiecek et al., 2020, p. 808), the evaluation carried out by consumers of a product is determined by the quality of the results and the manufacturing process and shaped by the understanding of the materials that are the material of the production process. With the above interpretation, it can be concluded that product evaluation is a stage that must be passed before making a purchase decision by providing a consumer's subjective opinion of the material, quality, and perceived value of the goods or services given the assessment.

### **Product Preference**

According to (Lefkoff & Marson, 1993) (Wan et al., 2016), preference ratings are defined as the result of a consumer evaluation process and are usually used to predict product choice. Preference is a consumer's affective

response to a stimulus and can explain how consumers choose products (Yoo & Kim, 2014). The product preferences obtained by customers are usually through the information search stage. With the information about a product, consumers can determine product preferences that align with customer needs and desires. According to KBBI, preference itself means taking precedence, taking precedence over others or choices, tendencies, or preferences. Meanwhile, according to (Wardhani et al., 2016, p. 47), preference is pleasure, choice, or something that consumers prefer. According to (Sirgy 2015), product preference is the tendency of customers to decide on one product compared to another because it is considered capable of representing its ideal self. According to Marwan in (Faizah & Afif, 2018, p. 209), customer preference is the attitude of customers who want a product based on their skills to drive the value of satisfaction to what is bought or offered, so that people who want or crave for the product have an attitude. Purchasing behavior. With the definition above, it can be said that product preference is the tendency of consumers in determining attitudes such as whether consumers like or dislike a product compared to other products, based on the values provided so that these values can be felt and can represent the needs and desires of consumers.

### **Product Design Aesthetics and Product Evaluation**

Product evaluation is a process that is passed before making a purchase decision. Product evaluation can be measured through perceived quality, perceived value, and purchase intention (Huang et al., 2020, p. 962). In general, consumers can evaluate products through product appearance because the aesthetic design can be used to create product differentiation that can be seen directly so that visual aesthetics have a symbolic role that can influence product evaluation (Mumcu & Kimzan, 2015, p. 529). Product design with aesthetic value can change the product by increasing the pleasure obtained from using the product (Kaiser & Janiszewski, 2017, p. 3). According to (Lam & Mukherjee 2005), in their research entitled "The effect of merchandise coordination and juxtaposition on consumer's product evaluation and purchase intention in store-based retailing," explains that aesthetic responses significantly influence product evaluation and purchase intention. This is also seen through (Bloch et al., 2002, p. 560) in their research entitled "Individual differences in the centrality of visual product aesthetics: concept and measurement," indicating that there is a significant interaction between aesthetic products and CVPA in aesthetic assessments. High CVPA consumers are more discriminatory in evaluating their product designs than subjects with low CVPA, and the significance is related to purchase attitudes and intentions. According to (B. Wu, 2017, p. 1985), if two products have the same function and price, consumers will prefer an aesthetic appeal to please the product. Therefore, the product's aesthetic appeal will be a positive brand evaluation because the aesthetic context can show different appearance characteristics. Thus, this study proposes:

*H1: There is a positive and significant effect between product design aesthetics and product evaluation*

### **Product Development Process and Product Evaluation**

New product development is caused by new technology or new market opportunities (van Kleef et al., 2005). The product development process is essential for a company to increase its profit and competitiveness. A fair product development process can encourage consumers to evaluate products. Therefore, companies must be able to develop products according to consumer needs. (Ogawa & Piller, 2006) explained that Muji developed products using their knowledge of technical constraints and market acceptance to interpret customer evaluations. According to (May-Plumlee & Little, 2006), evaluative criteria are an essential component that links product development and consumer purchasing decisions. The application of the quality function is one-way consumers are associated with the product development process. Therefore, this study proposes:

*H2: There is a positive and significant effect between the product development process and product evaluation*

### **Attitude Toward the Brand and Product Evaluation**

Attitudes towards brands are an individual's internal evaluation of the brand, and this attitude can be positive or negative; these feelings are relatively long-lasting and can change if consumers get new experiences or reflections (Ghorban, 2012; Spears & Singh, 2004, p. 55). According to (Posavac et al., 2014) in his research, it shows that brand positive effects are more likely to occur in various assessments and purchase intentions when the category is judged to be preferred. According to (Isotalo & Watanen, 2015), attitude has a vital role in shaping the overall brand evaluation. According to (wu & lo 2009), consumer attitudes towards core brands refer to consumers' overall evaluation of these core brands. Product attitude as a consistent consumer idea about a brand can help make the final choice by evaluating each product in product purchases (Yao & Huang, 2017). Thus, this study proposes:

*H3: There is a positive and significant effect between attitude toward the brand and product evaluation*

### **Product Design Aesthetics and Product Preference**

Before determining product preferences for consumers, consumers must look for useful information regarding the design, production process, brand image, and the quality of a product they want to consume or buy. The primary thing that consumers can see or judge directly to determine their preferred product is a product design and brand attitude. With the aesthetic value in a product, it can provide added value and differentiation for the product. According to (Yoo & Kim, 2014, p. 243), visual encouragement can increase preferences. Aesthetic design can also interact with the marketing mix to make it easier to influence preferences (Liu et al., 2017, p. 86). According to (Liu et al., 2017, p. 96), in a study entitled "The Effect of Products' Aesthetics Design on Demand and Marketing Mix Effectiveness: The Role of Segment Prototypically and Brand Consistency," states that the aesthetic design of a product can have a significant influence on consumer preferences. According to (Chitturi & Chitturi 2016, p. 18), a study entitled "Aesthetics Versus Function; Assessing Relative Customer Preference" states that mobile phones' aesthetics and functional dimensions significantly affect customer preferences. According to (F. Wu et al., 2017, pp. 11–12), aesthetics plays a broad role in helping consumer preferences, where consumers often rely on product aesthetics to inform their purchasing decisions. It shows that consumers are attracted to beautiful products in the choice and the pre-consumption process of the decision process. Therefore, this study proposes:

*H4: There is a positive and significant effect between product design aesthetics and product preference*

### **Attitude Toward the Brand and Product Preference**

Brand as a name and distinguishing symbol that identifies and distinguishes seller's goods or services from competitors' goods and services and brand value is significant for the company because brands can encourage market position, fight against competitors, support premium prices, and create customer preferences (Isotalo & Watanen, 2015). According to (Kardes et al., 2006), attitudes and preferences can be distinguished, where attitude is an overall evaluation of a single target product while preference is a relative evaluation that requires comparing the target product with competing brands. According to (Yao & Huang, 2017), Attitudes are an individual's perception, evaluation, feelings, and behavioral intention to agree or disagree with some issues or concepts. According to (Hudson & Elliott 2013), a brand attitude refers to consumer preferences for brands. According to (DENEÇLİ 2015, p. 329), in his research entitled "The Effect of Consumers' Attitudes Towards Logos or Emblems on Brand Preference," states that attitudes towards logos or symbols have a significant relationship with consumer brand preferences. Thus, this research proposes:

*H5: There is positive and significant effect between attitude toward the brand and product preference*

### **Product Evaluation and Product Preference**

Before making a purchase decision, the customer has product preferences to streamlining the product buying process. This product preference is obtained from evaluating the information held about several products in the industry. According to (Sohail et al., 2015), purchase intention is the consumer's preference to buy a product or service. In other words, purchase intention has another aspect where consumers want to buy a product after evaluation. This is in line with (Lefkoff & Marson, 1993) in (Wan et al., 2016), which states that preference ratings are defined as the result of the consumer evaluation process and are usually used to predict product choice. To measure consumer preferences, a multi-attribute model of attitude and product evaluation is used. Therefore, this research proposes:

*H6: There is positive and significant effect between product evaluation and product preference*

Based on the relationship that has been shown through the propositions mentioned earlier, the researchers obtained the model developed by from previous study. The conceptual framework of the study is presented in Figure 1.

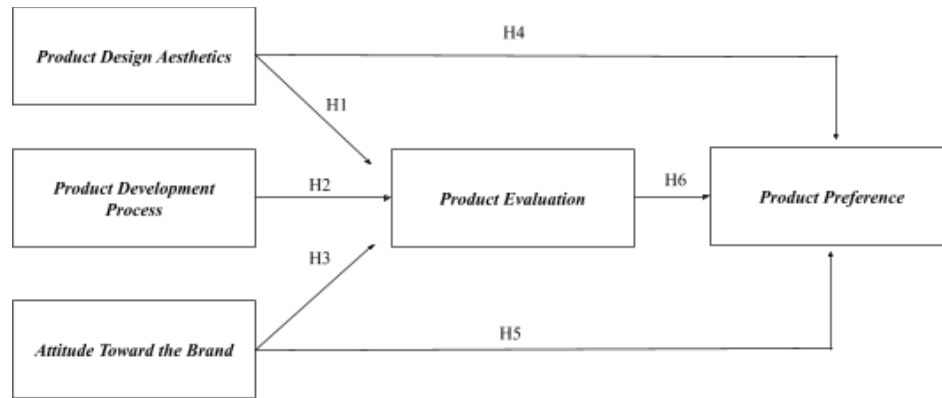


Figure 1. Conceptual framework

### 3. Methodology

This research is a descriptive study with a quantitative approach using PLS-SEM, which explains the relationship between variables and the extent to which these variables are related and the researcher wants to develop the frequency of several variables. The data used is secondary data in the form of journals, books, important documents, and primary data were obtained directly by collecting data through electronic media, namely online questionnaires using Google forms, and distributed to Indonesian consumers personally through social media as a mediation to help distribute questionnaires more quickly and efficiently. From the data obtained, there were 254 respondents, the valid number was only 250 because there were sampling criteria, four questionnaires were not possible because their participation did not meet the criteria. So the researchers decided to use 250 questionnaires for data analysis to achieve a sample size. A sample of 250 was obtained by calculating ten times the indicator according to (Raykov & Marcoulides, 2006). The sampling technique used is judgmental sampling or also known as purposive sampling with the subject selected according to the expertise of the subject being analysed. The sample in this study were Indonesians who have an interest in buying an iPhone smartphone. The Likert scale is used to test all subjects agree or disagree with the statement (Table 1) on a five-point scale between 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree).

The data collected is processed using an outer model and an inner model with the Partial Least-Structural Equation Modelling Square (PLS-SEM) approach and path estimation. As has been determined, this research is a quantitative study, where data analysis is an activity after data has been collected from all respondents. At the data analysis stage, the collected data will be analysed statistically to determine whether the hypothesis has been supported. Table 2 is the analysis step in PLS-SEM.

Table 1. Measurement Scales

Construct	Items	Code	References
<b>Product Design Aesthetics</b>  The overall level of significance that visual aesthetics have for the consumer about the product. (Bearden et al., 2011, p. 355)	My desire to have a product that has a superior design makes me feel good about myself	PDA01	(Bearden et al., 2011, p. 355)
	Product design is a source of pleasure for me	PDA02	
	Beautiful product designs make my world a better place to live in	PDA03	
	Being able to see subtle differences in product design is one skill I have developed over time	PDA04	
	I see things in product design that others tend to be missed	PDA05	
	I can imagine how a product will fit into the design of another item I already have	PDA06	
	I see a pretty good idea of what makes one product look better than its competitors	PDA07	
	sometimes the way the product is seen reaches and	PDA08	

	reaches for me		
	if the product design really "speaks" to me, I feel like I should buy it	PDA09	
	when I see a product that has a wonderful design, I pay a fortune to buy it	PDA10	
<b>Product Development Process</b>	The iPhone smartphone product development process is very surprising	PDP01	(Bruner, 2009, p. 337)
An action that is essential to the health and survival of the company. The success of new product innovations is enhanced when there is a true added value to consumers (Moors & Donders, 2009, p. 2)	The iPhone smartphone product development process is quite unexpected	PDP02	
	the way the iPhone smartphone application was created was completely new to me	PDP03	
	This iPhone smartphone application is based on a new and innovative idea	PDP04	
	<b>Attitude Toward the Brand</b>	iPhone has an attractive price	ATB01
	the desire to buy an iPhone is a good buying decision	ATB02	
	iPhone is available at a reasonable price	ATB03	
Overall consumer evaluation of a brand and is often the basis for brand selection (Keller, 2013, p. 117)	iPhone has a positive brand name	ATB04	(Bruner, 2009, pp. 39–40)
	iPhone has an attractive brand name	ATB05	
<b>Product Evaluation</b>	I like the look of this iPhone smartphone	PE01	(Bruner, 2009, p. 340)
	I like the iPhone smartphone itself	PE02	
Consumer subjective feelings and judgments about the product and can be measured by the quality of perceived, perceived, and purchase intention (Huang et al., 2020, p. 962)	I like the quality of this iPhone smartphone	PE03	
<b>Product Preference</b>	people look for different things when it comes to the type of iPhone smartphone	PP01	(Bruner, 2009, p. 341)
the tendency of customers in deciding one product over another, because the product is deemed capable of representing its ideal self (Sirgy, 2015)	Most people want the same type of iPhone smartphone	PP02	
	People can generally agree on what makes this type of iPhone a good smartphone	PP03	

Table 2. PLS-SEM Analysis

Step of Analysis		Analysis Unit	Rule of Thumb
Measurement Evaluation	Model	Convergent Validity: Factor Loading	Value > 0.7
		Convergent Validity: Average Variance Extracted	Value > 0.5
		Discriminant Validity: Heterotrait-Monotrait Ratio (HTMT)	Value < 0.9
		Internal Consistency Reliability: Cronbach's Alpha	Value > 0.7

		Internal Consistency Reliability: Composite Reliability	Value > 0.7
<b>Structural Evaluation</b>	<b>Model</b>	Multicollinearity	Value < 5
		Goodness of Fit	0.10 (Small)
			0.25 (Medium)
			0.36 (Large)
		Model Fit: Standardized Root Mean Square Residual (SRMR)	Value <0.08
		Model Fit: Normed Fit Index (NFI)	NFI >0.9
		Model Fit: RMS Theta	Value <0,12
		R <sup>2</sup> Value	0.75 (Strong)
			0.50 (Moderate)
			0.25 (Weak)
		Q <sup>2</sup>	0.35 (Strong)
			0.15 (Moderate)
0.02 (Weak)			
T-Statistics	T-Value > 1.96		
P-Value	P-Value < 0.05		

Source: (Joseph F. Hair;dkk, 2018), (Prof. Dr. H. Imam Ghozali;dkk.2014, 2014), (Henseler, 2014), (Garson, 2016)

#### 4. Results

This study aims to examine the relevance of product design aesthetics, product development process, attitude toward the brand, product evaluation, and product preference using data from 250 respondents in Indonesia. Data were calculated using Smart PLS 3.2.2 software to answer existing research problems using statistical methods and models. This study is aimed at respondents who have an interest in buying the iPhone smartphone used in this study. Table 3 shows that the most dominant respondents are women (58.4%), 18-25 years old (55.2%), domiciled in Jakarta (48.4%), and a monthly income <RP. 5,000,000 (49.2%).

Table 3. Description of Respondents

Demographics	Category	Frequency	Percentage
<b>Gender</b>	Female	146	58.4%
	Male	104	41.6%
<b>Age</b>	18-25	138	55.2%
	26-35	56	22.4%
	36-45	20	8%
	46-55	31	12.4%
	>55	5	2%
	Jakarta	121	48.4%
<b>Domicile</b>	Tangerang	76	30.4%
	Padang	16	6.4%
	Jambi	15	6%
	Bandung	7	2.8%
	Semarang	3	1.2%
	Bogor	2	0.8%
	Bekasi	3	1.2%
	Bali	2	0.8%
	Pangkal Pinang	1	0.4%
	Depok	1	0.4%
	Surabaya	1	0.4%
	Batam	1	0.4%
	Medan	1	0.4%
	<b>Monthly income</b>	< Rp 5.000.000	123
Rp 5.000.000-Rp 10.000.000		70	28%
> Rp 10.000.000		57	22.8%



This method is a method that combines the properties of the main component and multiple linear regression and is specially designed to solve a problem in multiple regression. In this study, the test consists of several calculation models used, namely the measurement model (Outer Model), structural model (Inner Model), and hypothesis testing. Evaluation of the measurement model or outer model is carried out to assess the validity and reliability of the model. The outer model with reflection indicator is evaluated through convergent and discriminant validity of latent constructs, while the Composite Reliability model forms indicators and Cronbach's alpha as a measure of reliability. The evaluation of the structural model or inner model aims to predict the relationship between latent variables. The inner model is evaluated by looking at the amount of variance described by looking at R<sup>2</sup> and bootstrapping to obtain the stability of the estimate (Ghozali & Hengky, 2015). Before testing the hypothesis to predict the relationship between latent variables in a structural model, first, an evaluation of the measurement model is carried out to verify the indicators and latent variables that can be tested later. The results in Table 4 only show indicators that have a value above 0.7, so that overall each latent variable has been able to explain the variance of each indicator that measures it. The next criteria are composite reliability, Cronbach's alpha, and convergent validity (AVE) which are presented in Table 4 below. Based on the composite reliability value in Table 4, it shows that the five latent variables have a composite reliability value above 0.7 and Cronbach's alpha which is presented in Table 4 shows that the five latent variables have a composite reliability value above 0.5. This means that the predetermined indicators have been able to measure each latent variable (construct) well or it can be said that the five measurement models are reliable. The better convergent validity value is shown by the higher the correlation between the indicators that make up a construct. The AVE value shown in Table 4 shows that the five latent variables have an AVE value above the minimum criterion, namely 0.5 so that the convergent validity measure is good or can be said to have met the convergent validity criteria.

Table 4. Variables, Factor Loading, Composite Reliability, Cronbach's Alpha, and AVE

Variables	Code	Mean	Standard Deviation	Factor Loading	AVE
<b>Product Design Aesthetics</b>	PDA05	4.028	0.931	0.714	0.603
	PDA08	4.224	0.697	0.728	
	PDA09	4.180	0.953	0.835	
	PDA10	4.208	0.932	0.822	
<b>Product Development Process</b>	PDP01	4.268	0.740	0.830	0.607
	PDP02	4.216	0.781	0.850	
	PDP03	3.968	0.938	0.707	
	PDP04	4.492	0.602	0.719	
<b>Attitude Toward the Brand</b>	ATB04	4.544	0.663	0.885	0.798
	ATB05	4.608	0.599	0.903	
<b>Product Evaluation</b>	PE01	4.564	0.624	0.772	0.678
	PE02	4.552	0.638	0.843	
	PE03	4.640	0.585	0.853	
<b>Product Preference</b>	PP01	4.452	0.732	0.762	0.618
	PP02	4.288	0.803	0.771	
	PP03	4.444	0.692	0.824	

Furthermore, Table 5 shows that all variables achieved discriminant validity according to the Heterotrait–Monotrait ratio of correlations (HTMT). To ensure discriminant validity between the two reflective structures, the HTMT value <0.90; value >0.85; and 0.85-0.90 (Henseler et al., 2015).

Table 5. Heterotrait-Monotrait Ratio

	ATB	PDA	PDP	PE	PP
<b>ATB</b>					
<b>PDA</b>	0.416				
<b>PDP</b>	0.455	0.749			
<b>PE</b>	0.872	0.552	0.510		
<b>PP</b>	0.708	0.698	0.615	0.653	

The next structural model evaluation stage is the next stage of the PLS-SEM analysis. The results of the Common Method Biases Test (CMB), Goodness of Fit (GoF), R square values, Q square value will be shown at this stage, and the path coefficients (T-value and P-value).

Table 6. Outer Variance Inflation Factor

Attitude Toward the Brand		Product Design Aesthetics		Product Development Process		Product Evaluation		Product Preference	
Indicators	VIF	Indicators	VIF	Indicators	VIF	Indicators	VIF	Indicators	VIF
ATB04	1.555	PDA05	1.374	PDP01	2.115	PE01	1.530	PP01	1.339
ATB05	1.555	PDA08	1.383	PDP02	1.925	PE02	1.694	PP02	1.301
		PDA09	1.964	PDP03	1.577	PE03	1.504	PP03	1.423
		PDA10	1.826	PDP04	1.250				

To show whether the issue exists or not is to test the variance inflation factor (VIF) value in testing the CMB on the research model. VIF can be explained as an indicator of the influence of other independent variables on the standard error of the regression coefficient, where a large VIF value indicates the high level of multicollinearity (Hair Jr et al., 2014). According to (Garson, 2016, pp. 71–72), the rule of thumb has a limit of 5. Thus, to show the absence of bias and multicollinearity in the indicator, the VIF value can't exceed 5. Table 6 shows the outer VIF column shows that all indicators have a value of less than 5 so that it can be said that the model is free from common method bias problems. Subsequently, The results shown in Table 7 in the VIF column show that all relationships have a value of less than 5 so that it can be said that the model is free from common method bias problems.

Table 7. Inner Variance Inflation Factor

	Attitude Toward the Brand	Product Design Aesthetics	Product Development Process	Product Evaluation	Product Preference
Attitude Toward the Brand				1.179	1.828
Product Design Aesthetics				1.544	1.233
Product Development Process				1.599	
Product Evaluation					2.017
Product Preference					

The goodness of Fit (GoF) is applied to test whether the research model can adequately explain empirical data. The GoF shows how well the defined theoretical structure represents the reality represented by the data (Hair Jr et al., 2018). In this study, GoF was measured by looking at the value of Standardized Root Mean Residual (SRMR), Normed Fit Index (NFI), and RMS\_theta. According to (Garson, 2016), a good research model when it has an SRMR value of <0.08 or <0.10. According to (Hair Jr et al., 2018), NFI is the ratio of one of the original incremental fit indexes with a value range between 0 and 1. According to (Henseler et al., 2014), an RMS\_theta value below 0.12 indicates a fit model, while a higher value indicates a lack of conformity.

Table 8. Goodness-of-Fit

	Saturated Model	Estimated Model	RMS_theta
SRMR	0.076	0.077	0.195
NFI	0.735	0.733	

The product evaluation variable R<sup>2</sup> is 0.511 and the product preference is 0.408. The R<sup>2</sup> value of the product evaluation variable is 0.511 which means that the product evaluation variable can be explained by 51.1% by the product design aesthetics and attitude toward the brand variables, then the product preference variable can be explained by 40.8% of the product design aesthetics and attitude toward the brand. The rest can be explained by variables outside the model. It can be concluded that this research model is classified as moderate. Based on the table below, it shows that the Q<sup>2</sup> value of the product evaluation variable is 0.327 and the product preference is

0.242, which indicates that  $Q^2$  is greater than zero. The value of 0.327 for product evaluation and product preference of 0.242 indicates that the predictive relevance of the category is moderate.

Table 9.  $R^2$  &  $Q^2$

<i>Variables</i>	$R^2$	$Q^2$
<b>Product Evaluation</b>	0.511	0.327
<b>Product Preference</b>	0.408	0.242

The significance of the hypothesis in research must be measured. In the research, the significant test using the T statistic was higher than the T value of 1.96 and the P-value was less than 0.05.

Table 10. Path Analysis and Hypothesis Test

<b>Path</b>	<b>Coefficients</b>	<b>T-Statistic</b>	<b>P-Value</b>	<b>Conclusion</b>
Product Design Aesthetics – Product Evaluation	0.573	12.726	0.000	Supported
Product Development Process - Product Evaluation	0.311	4.465	0.000	Supported
Attitude Toward the Brand - Product Evaluation	0.187	3.295	0.000	Supported
Product Design Aesthetics - Product Preference	0.357	4.703	0.000	Supported
Attitude Toward the Brand - Product Preference	0.105	1.814	0.070	Not Supported
Product Evaluation - Product Preference	0.131	1.641	0.101	Not Supported

Based on the research results, the first hypothesis which states "there is a relationship between product design aesthetics and product evaluation" shows that this hypothesis is supported because it meets the criteria of T-statistics > T-value 1.96 which results in 12.726. The results of this hypothesis are supported by the previous theory which states that visual aesthetics have a role that can influence product evaluation because in general consumers can evaluate directly through a design display that has aesthetics so that they can differentiate from other products. Thus, this hypothesis is supported because it proves its significance for the relationship between product design aesthetics and product evaluation.

Also, the second hypothesis which states "there is a relationship between product development process and product evaluation" is proven that this hypothesis is supported because it is confirmed that the criteria for the T-statistics criteria are > T-value 1.96 so that the value of 4.465 is obtained. The results of this hypothesis are supported by the previous theory which states that the product development process is an important thing that can help consumers to evaluate products. Therefore, the strong linkage in product evaluation is due to a linkage to the product development process. Thus, this hypothesis is supported because it proves its significance for the relationship between product development process and product evaluation.

Furthermore, the third hypothesis states "there is a relationship between attitude toward the brand and product evaluation". It is proven that the hypothesis is supported because it is confirmed by the criteria of T statistics > T-value 1.96 so that the value is 3.295. The results of this hypothesis are supported by the previous theory which states that positive brand attitudes occur more frequently in every assessment and purchase intention. Therefore, the strong relationship between product evaluation is due to the relationship between attitudes towards brands. Thus, this hypothesis is supported because it proves its significance for the attitude toward the brand and product evaluation relationship.

Furthermore, the fourth hypothesis states "there is a relationship between product design aesthetics and product preference". It is proven that this hypothesis is supported because it is confirmed that the criteria for t-statistics > T-value 1.96 so that the value of 4.703 is obtained. The results of this hypothesis are supported by the previous theory which states that visual encouragement can increase consumer preferences and aesthetic value can provide added value and differentiation for these products so that it affects consumer preferences for a product. Therefore, the strong relationship between product preferences is due to aesthetic product design linkages. Thus, this hypothesis is supported because it proves its significance for the relationship between product design aesthetics and product preference.

Furthermore, the fifth hypothesis states "there is a relationship between attitude toward the brand and product preference". It is proven that the hypothesis is not supported because it does not implement the rule of thumb T-statistics > T-value 1.96 so that the value is 1.814. In this connection, it is said to be emotionally related to product preferences which can be realized by obtaining positive brand information. This hypothetical relationship is not supported perhaps because the sample conditions are very diverse. Thus, some people who have bad information about a brand will not be willing to include the brand as their product of preference. In addition, there may be errors in respondents' responses because the questionnaire is a method of collecting data. Respondents may have the possibility not to answer honestly or to misinterpret questions. Therefore, these possibilities result in an unsupported hypothesis between attitude toward the brand and product preference.

Finally, the sixth hypothesis states "there is a relationship between product evaluation and product preference". It is proven that the hypothesis is not supported because it does not implement the rule of thumb T-statistics > T value 1.96 so that the value is 1.641. In this connection there is a possibility related to a person's perspective in interpreting the purchasing decision process such as according to (Kotler & Keller, 2012), there are five stages that consumers usually go through before making a purchase decision, namely, problem identification, information seeking, alternative evaluation, buying decisions. Or not, and post-purchase behaviour. Thus, there is a possibility that consumers do not go through the preference product stage after evaluating the product but instead immediately make a purchase decision. In addition, there may be errors in respondents' responses because the questionnaire is a method of collecting data. Therefore, these possibilities result in an unsupported hypothesis between product evaluation and product preference.

## 5. Conclusions

From data analysis using SmartPLS 3.3.2, there are four supported hypotheses and two unsupported hypotheses in hypothesis testing. The results support that product design aesthetics, product development process, and attitude toward the brand have an impact on product evaluation. And product design aesthetics also impacts product preference. However, in this study, the attitude toward the brand towards product preference is not supported. Also, the hypothesis between product evaluation and product preference is not supported in this study. From the results of this study, the theoretical implication that can be described is that it contributes to the ongoing product evaluation and product preference theory in the marketing environment. This research is a new research model that has not been developed by research at all. From this research, it was found that product design aesthetics, product development process, and attitude toward the brand were proven to have a significant relationship with product evaluation. Product design aesthetics also has a direct relationship with product preference. Therefore, this study extends the scope of subsequent research and makes theoretical contributions to the academic development of marketing and consumer behavior. Literature and previous research are still very minimal for product evaluation and product preference research models and their relationship with the variables in this study. This research can encourage the marketing and R&D teams to find out variables such as designs that have aesthetic value, product development and brand attitudes which enable consumers to evaluate products and product preferences, so that this strategy can market their products throughout the country and can produce a positioning high on the minds of consumers. The characteristics of the Indonesian market are shown by the results of this study. Judging from the results of the questionnaire, the product development process has the lowest mean among other variables which implies that Indonesians still do not know the true form of the product development process compared to the other two variables. However, the product development process has a significant relationship with product evaluation. Therefore, this study can contribute and benefit to managerial implications in marketing and R&D strategies that can be applied to other industries such as the smartphone industry. For further research, several recommendations are given: Adding mediator or moderator variables that might influence product evaluation and product preference, such as price, and social community; Using more respondents with a wider geographical location and can use longitudinal research to get more accurate results, because different geographies will have different characteristics over a possibly longer time. Future research can apply this theory to compare with other industries so that researchers can find out the characteristics of a product that will make product evaluations and preferences.

## References

- Barokah, S., Wulandari, O., & Andina, A. (2019). KEPUASAN MEREK MEMEDIASI PENGARUH SENSORIK MEREK TERHADAP LOYALITAS MEREK TELEPON PINTAR APPLE. *Jurnal Ilmiah Manajemen*, 8(1), 135–142.
- Bearden, W., Nettemeyer, R., & Haws, K. (2011). *Handbook of Marketing Scales: multi-item measures for marketing and consumer behaviour research* (third). SAGE Publication Inc.,
- Bhadauria, A. (2016). *INVESTIGATING THE ROLE OF AESTHETICS IN CONSUMER MORAL JUDGMENT AND CREATIVITY*. The University of Wisconsin-Milwaukee.
- Bhuiyan, N. (2011). A framework for successful new product development. *Journal of Industrial Engineering Management*, 4(4), 746–770. <https://doi.org/10.3926/jiem.334>
- Bloch, P. H., Brunel, F. F., & Arnold, T. J. (2002). Individual differences in the centrality of visual product aesthetics: Concept and measurement. *Journal of Consumer Research*. <https://doi.org/10.1086/346250>
- Bohang, F. (2017). *5 Vendor Smartphone Paling Laris*. KOMPAS.Com. <https://tekno.kompas.com/read/2017/12/04/11155577/5-vendor-smartphone-paling-laris>
- Bruner, G. C. (2009). *Marketing Scales Handbook*. GCBII Production, LLC.
- Cadeddu, S. B. M., Donovan, J. D., Topple, C., Waal, G. A. de, & Masli, E. K. (2019). *Frugal innovation and the new product development process*. Routledge. <https://doi.org/10.4324/9780429000980>
- Chitturi, R., & Chitturi, P. (2016). Aesthetics versus Function : Assessing Relative Customer Preference. *NMIMS Management Review*, XXIX, 11–22.
- Chovanova, H. H., Korshunov, A. I., & Babčanová, D. (2015). Impact of Brand on Consumer Behavior. *Procedia Economics and Finance*, 34, 615–621. [https://doi.org/https://doi.org/10.1016/S2212-5671\(15\)01676-7](https://doi.org/https://doi.org/10.1016/S2212-5671(15)01676-7)
- DENEÇLİ, S. (2015). THE EFFECT OF CONSUMERS' ATTITUDES TOWARDS LOGOS OR EMBLEMS ON BRAND PREFERENCE. *Öneri Dergisi*. <https://doi.org/10.14783/od.v11i44.5000080017>
- Ekolu, S. O., & Quainoo, H. (2019). Reliability of assessments in engineering education using Cronbach's alpha, KR and split-half methods. *Global Journal of Engineering Education*.
- Ermalina, E. (2020). Pengaruh Fitur dan Harga Produk Terhadap Keputusan Pembelian Telepon Pintar. *Jurnal Manajemen Strategi Dan Aplikasi*, 3(1), 11–20. <https://doi.org/https://doi.org/10.36407/jmsab.v2i1.115>
- Esmailpour, M., & Aram, F. (2016). Investigating the impact of viral message appeal and message credibility on consumer attitude toward the brand. *Management and Marketing*, 11(2), 470–483. <https://doi.org/10.1515/mmcks-2016-0010>
- Faizah, U., & Afif, M. N. I. (2018). PENGARUH PROMOSI TERHADAP PREFERENSI PRODUK PEMBIAYAAN MURABAHAH: Vol. VII (Issue 2). <https://doi.org/10.35878/ISLAMICREVIEW.V7I2.146>
- Firmansyah, A. (2019). *Pemasaran Produk dan Merek: Planning dan Strategy*. Qiara Media.
- Garson, G. D. (2016). *PARTIAL LEAST SQUARES: Regression & Structural Equations Models*. Statistical Associates Publishing. [www.statisticalassociates.com](http://www.statisticalassociates.com)
- Ghorban, Z. S. (2012). Brand Attitude, Its Antecedents and Consequences. Investigation into Smartphone Brands in Malaysia. *IOSR Journal of Business and Management*. <https://doi.org/10.9790/487x-0233135>
- Ghozali, I., & Hengky, L. (2015). Konsep, Teknik Dan Aplikasi Menggunakan Program Smart PLS 3.0. In *Universitas Diponegoro. Semarang*.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. In *European Business Review*. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hair Jr, J., Black, W. C., Babin, B. J., & Anderson, R. E. (2018). *Multivariate Data Analysis*. <https://doi.org/10.1002/9781119409137.ch4>
- Hair Jr, J., Hult, G. T., Ringle, C., & Sarstedt, M. (2014). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). In *SAGE Publications, Inc*. <https://doi.org/10.1016/j.lrp.2013.01.002>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2014). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Homburg, C., Schwemmler, M., & Kuehnl, C. (2015). New product design: Concept, measurement, and consequences. *Journal of Marketing*, 79(3), 41–56. <https://doi.org/10.1509/jm.14.0199>
- Huang, J., Wang, Z., Liu, H., & Yu, L. (2020). Similar or contrastive? Impact of product-background color combination on consumers' product evaluations. 37(7), 961–979. <https://doi.org/10.1002/mar.21361>
- Hudson, S., & Elliott, C. (2013). Measuring the Impact of Product Placement on Children Using Digital Brand

- Integration. *Journal of Food Products Marketing*. <https://doi.org/10.1080/10454446.2013.724370>
- Isotalo, A., & Watanen, S. (2015). *THE IMPACT OF BRAND EXPERIENCE ON ATTITUDES AND BRAND IMAGE-a quantitative study*.
- Kaiser, U., & Janiszewski, C. (2017). *The Self-Expressive Customization of a Product Can Improve Your Performance*. 54(5), 75. <https://doi.org/https://doi.org/10.1509/jmr.14.0293>
- Kardes, F. R., Cronley, M. L., & Kim, J. (2006). Construal-level effects on preference stability, preference-behavior correspondence, and the suppression of competing brands. *Journal of Consumer Psychology*. [https://doi.org/10.1207/s15327663jcp1602\\_4](https://doi.org/10.1207/s15327663jcp1602_4)
- Keller, K. L. (2013). *Strategic Brand Management: Building, Measuring, and Managing Brand Equity* (fourth edi). PEARSON.
- Kotler, P., & Keller, K. L. (2012). Principles Of Marketing Kotler 14th Edition Pearson. In *Pearson Education Limited, Essex, England*.
- Krypton, A. (2020). ANALISIS ASOSIASI MEREK IPHONE PADA MAHASISWA VOKASI UI DI MASA PANDEMI. *Jurnal Administrasi Bisnis Terapan*, 2(2), 2020. <http://journal.vokasi.ui.ac.id/index.php/jabt/article/view/97>
- Lam, S. Y., & Mukherjee, A. (2005). The effects of merchandise coordination and juxtaposition on consumers' product evaluation and purchase intention in store-based retailing. *Journal of Retailing*. <https://doi.org/10.1016/j.jretai.2005.07.006>
- Liu, Y., Li, K. J., Chen, H. A., & Balachander, S. (2017). The effects of products' aesthetic design on demand and marketing-mix effectiveness: The role of segment prototypicality and brand consistency. *Journal of Marketing*. <https://doi.org/10.1509/jm.15.0315>
- May-Plumlee, T., & Little, T. J. (2006). Proactive product development integrating consumer requirements. *International Journal of Clothing Science and Technology*. <https://doi.org/10.1108/09556220610637512>
- Moors, E., & Donders, R. (2009). Understanding consumer needs and preferences in new product development: the case of functional food innovations. *Intellectual Property*.
- Muhajirin, M. P. (2017). Desain Produk, Pengertian Dan Ruang Lingkupnya. *Desain Produk, Pengertian Dan Ruang Lingkupnya*, 9. <http://eprints.uny.ac.id>
- Mumcu, Y., & Kimzan, H. S. (2015). The Effect of Visual Product Aesthetics on Consumers' Price Sensitivity. *Procedia Economics and Finance*, 26, 528–534. [https://doi.org/10.1016/s2212-5671\(15\)00883-7](https://doi.org/10.1016/s2212-5671(15)00883-7)
- Ogawa, S., & Piller, F. T. (2006). *Reducing the Risks of New Product Development*. 47(2), 65–71. [www.sloanreview.mit.edu](http://www.sloanreview.mit.edu)
- Oxford University Press. (2016). *smartphone - definition of smartphone in English | Oxford Dictionaries*. Oxford University Press.
- Pertiwi, W. (2019). Resmi, Ini Daftar Harga iPhone 11, 11 Pro, dan 11 Pro Max di Indonesia Halaman 2 - *Kompas.com*. <https://tekno.kompas.com/read/2019/11/28/09070067/resmi-ini-daftar-harga-iphone-11-11-pro-dan-11-pro-max-di-indonesia?page=2>
- Posavac, S. S., Sanbonmatsu, D. M., Seo, J. Y., & Iacobucci, D. (2014). How attitudes toward product categories drive individual brand attitudes and choice. *Psychology and Marketing*. <https://doi.org/10.1002/mar.20738>
- Raykov, T., & Marcoulides, G. A. (2006). *A First Course in Structural Equation Modeling* (2nd ed.). Lawrence Erlbaum Associates, Inc.
- Sirgy, M. J. (2015). The Self-Concept in Relation to Product Preference and Purchase Intention. In *Marketing Horizons: A 1980's Perspective* (pp. 350–354). Springer International Publishing. [https://doi.org/10.1007/978-3-319-10966-4\\_94](https://doi.org/10.1007/978-3-319-10966-4_94)
- Sohail, Y., Rasheed, F., & Zia, A. (2015). Identifying the Factors Affecting Customer Purchase Intention. *Global Journal of Management and Business Research: A Administration and Management Volume*, 15(2), 9–13.
- Spears, N., & Singh, S. N. (2004). Measuring attitude toward the brand and purchase intentions. *Journal of Current Issues and Research in Advertising*. <https://doi.org/10.1080/10641734.2004.10505164>
- Ulrich, K. T., & Eppinger, S. D. (2012). Product Design and Development: Fifth Edition. In *McGraw-Hill*.
- van Kleef, E., van Trijp, H. C. M., & Luning, P. (2005). Consumer research in the early stages of new product development: A critical review of methods and techniques. *Food Quality and Preference*. <https://doi.org/10.1016/j.foodqual.2004.05.012>
- Wan, E. W., Chen, R. P., & Jin, L. (2016). Judging a Book by Its Cover? The Effect of Anthropomorphism on Product Attribute Processing and Consumer Preference. *Journal of Consumer Research*. <https://doi.org/10.1093/jcr/ucw074>
- Wardhani, W., Sumarwan, U., & Yulianti, L. N. (2016). Pengaruh Persepsi dan Preferensi Konsumen terhadap Keputusan Pembelian Hunian Green Product. *Jurnal Manajemen Dan Organisasi*, 6(1), 45.

- <https://doi.org/10.29244/jmo.v6i1.12183>
- Wiecek, A., Wentzel, D., & Erkin, A. (2020). Just print it! The effects of self-printing a product on consumers' product evaluations and perceived ownership. *Journal of the Academy of Marketing Science*.  
<https://doi.org/10.1007/s11747-019-00700-7>
- Wu, B. (2017). *Research on the Aesthetic Experience of Consumers in Product Design*. 119(Essaeme), 1982–1986.  
<https://doi.org/10.2991/essaeme-17.2017.402>
- Wu, F., Samper, A., Morales, A. C., & Fitzsimons, G. J. (2017). It's Too Pretty to Use! When and How Enhanced Product Aesthetics Discourage Usage and Lower Consumption Enjoyment. *Journal of Consumer Research*, 0, 1–22. <https://doi.org/10.1093/jcr/ucx057>
- wu, S. I., & lo, C. L. (2009). The influence of core-brand attitude and consumer perception on purchase intention towards extended product. *Asia Pacific Journal of Marketing and Logistics*.  
<https://doi.org/10.1108/13555850910926317>
- Yao, C., & Huang, P. (2017). Effects of placement marketing on product attitude and purchase intention in traditional industry. *Eurasia Journal of Mathematics, Science and Technology Education*.  
<https://doi.org/10.12973/ejmste/78701>
- Yoo, J., & Kim, M. (2014). The effects of home page design on consumer responses: Moderating role of centrality of visual product aesthetics. *Computers in Human Behavior*, 38, 240–247.  
<https://doi.org/10.1016/j.chb.2014.05.030>
- Zarantonello, L., & Pauwels-Delassus, V. (2016). *The handbook of brand management scales* (first). Routledge.

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