

Construction and Psychometric Properties Identification of Brand Image

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Abstract: The Purpose of research is to construct of measurement that can provide a description of something that needs to be done actually. Likewise, to measure whether a product had been able to market with the right strategy. The other words, this research to construct a scale of brand image with psychometric properties identification. The research method uses a quantitative approach, with three stages of research that can be done. First, The basic concepts theoretically. Second, Research instruments and data collection. Third, test validation. The sampling technique in this study used purposive sampling, with 689 respondents. Construction of brand image using an ordinal scale from Likert. The results found a brand image scale that was applied directly to measure the brand image of a product that had adequate validity and reliability so that it could be used to measure the level of the brand image of a product. The findings of this study are the brand image scale which has implications that can be used as a measure of brand image for all products. Besides that, to improve the marketing of these products and read opportunities to improve marketing in the future.

1 PRELIMINARY

An image in an English dictionary is a description of something that is in the mind. An image is related to the brand. The brand is a trading identity by a company that is used to provide services and products for consumers. According to Rangkuti (2012), a brand is a seller's promise to consistently provide certain *features*, benefits, and services to buyers. The best brands will provide quality assurance. But naming or branding a product should not only be a symbol, but an attribute, benefit, value, culture, personality, and wearer. Brands have become crucial and contribute to the success of a marketing organizations, both for-profit and non-profit companies, manufacturers and service providers, and local and global organizations. Kotler, et al. (2019) and Kotler and Armstrong (2018) state that a brand is not just a name or symbol, but a brand is a key element in the relationship between the company and its customers. Indonesia is one of the trading markets that is very interested in by various producers of goods and services. However, some brands are not always

directly one of the purchasing decisions of consumers in Indonesia. Therefore, marketers must always design brand image-building programs in marketing activities and carry out activities that support marketing to strengthen the brand.

Brand images are elements that are considered important by consumers and are used as the basis for making decisions to buy a product. Brand strength is related to two things, namely consumer perceptions of the brand and consumer loyalty to brand use. According to Coaker (2021), Tharpe (2014), and Simonson and Schmitt (2009). Brand image is the redefinition of all perceptions of the brand formed from information and experiences of consumers and customers in the past towards the brand. According to Espíndola (2020) and Arifin and Fachrodji (2015), brand image is related to consumer attitudes in the form of preference for a brand. Mcpheron (2021) and Wardhana, et al. (2021) suggest that if a customer has a positive image of a brand, then the customer will repurchase that product. On the other hand, if the image of a brand is negative, it is unlikely that the product will be repurchased. Kim and Chao (2019) suggest that the rationalization of consumer perceptions and emotional feelings both

play an important role in the process of building a brand (brand building). Furthermore, they suggest that the relationship between *image* and *brand trust* brand, which is the initial stage of the brand-building process, plays an important role in purchasing decisions. Simultaneously, brand experience positively influences brand image *and* attachment, which leads to consumer purchasing decisions. In general, brand image can add or even reduce value for customers and for the company. Brand image can act as a key/complex element of the brand because it has a direct impact on brand equity (Opatha, 2015). The research findings of Kim and Chao (2019) also provide insight into the various paths in the brand-building process, hence the importance of a different branding strategy for various product categories. Rosengren, Standoft, & Sundbrandt (2010) argue that the opinions expressed by other people about a product will have an impact on brand image. Therefore, social influences can influence consumer perspectives thoughts, and trust in certain products, services, or brands.

However, there are not many measuring instruments capable of measuring brand image and there is no standardization. Therefore the aim of this research is to construct and identify psychometric properties in building a brand image scale

2. THEORY

Brands can be words or symbols, letters, numbers, designs, symbols, slogans, or spatial characteristics of the product itself (images, packaging, shapes, colors), which are marked and help distinguish between products. company's people or products. Even though a brand is only a sign, everyone understands what is said.

A brand that has high quality is of significant benefit to producers and traders, and a quality brand will have value (Išoraitė, 2018). According to Espíndola (2020) and Arifin and Fachrodji (2015), brand image is related to consumer attitudes in the form of preference for a brand. Kotler, Keller, Brady, Goodman, Hansen (2019) and Kotler and Armstrong (2018) state that a brand is not just a name or symbol, but a brand is a key element in the relationship between a company and its customers. Mcpheron (2021) and Wardhana, et al. (2021) suggest that if a customer has a positive image of a brand, then the customer will repurchase that product. But on the contrary, if the image of a brand is negative, it is less likely to repurchase the product.

Brand image is an idea that consumers get when they think about the need to buy an item or service. Therefore, brand image can act as a key/complex element of the brand because it has a direct impact on brand equity (Opatha, 2015). According to Wijaya (2013), Brand is a sign left in the minds and feelings of consumers, which creates a certain sense of meaning and feeling. Thus, a brand is more than just a logo, name, symbol, trademark, or label attached to a product.

According to Kotler and Armstrong (2014), brand image has three indicators, namely: 1). Corporate image, which is a set of associations that consumers perceive of companies that make products and services in this study, which include: popularity, credibility, and company network. 2). User image, which is a set of associations perceived by consumers for users who use goods or services, including the user himself, lifestyle or personality, and social status. 3). Product image, which is a set of associations that consumers perceive of a product, which includes product attributes, benefits for consumers, users, and guarantees. Wijaya (2013) suggests that the dimensions of brand image include brand identity, brand personality, brand associations, brand behavior & attitudes, and brand competence & benefits.

According to Schiffman and Kanuk (2007), "brand image (brand image) is a set of associations about a brand stored in the minds or memories of consumers". Brand image is what consumers think and feel when they hear or see a brand. A positive consumer image of a brand allows consumers to make purchases more. Schiffman and Wisenblit (2015) brand image is the desired outcome of effective positioning is a distinct "position"(or image) that the brand occupies in the consumer's mind. Cai and Hobson (2004) argued that brand image is the customer's perception of brand associations that exist in the minds of customers. A company is very important if the brand image that is formed in the minds of customers is based on their experiences. Keller (1993) states that "brand image is perceptions about the brand as reflected by the brand association held in consumer memory", and that the brand association acts as an information center that is connected to brain memory and contains the meaning of the brand for consumers.

3 METHOD

This research method is a quantitative study, with a purposive sampling method. The criteria for research

respondents are people who have consumed Jamu and are adults. Domicile in Indonesia and Malaysia. The research sample consisted of 689 respondents. Retrieval of data using the ordinal scale of Likert. The scale was built based on a theoretical review developed by Coaker (2021), Tharpe (2014), and Simonson and Schmitt (2009). They argue that brand image is the re-interpretation of all perceptions of a brand formed from information and experiences of consumers and customers in the past towards the brand. Therefore, this scale includes 3 dimensions, namely cognitive, affective, and conative dimensions.

A validity test using correlation analysis of item scores with total items and reliability was also carried out repeatedly using Cronbach alpha calculations. A validity test means the extent to which the accuracy and accuracy of the measuring instrument in carrying out its measurement function. An indicator can be said to be valid if the indicator is able to achieve the measurement objectives of the observed construct correctly. Thus, Azwar (2016) suggests that validity is what indicates the extent to which an instrument actually measures what is being measured. While reliability is the level of confidence in the results of a measurement the higher the score produced, the more trusted the measuring instrument will be.

Identification of psychometrics using exploratory factorial analysis (EFA), and confirmatory factorial analysis (CFA) to test the fit of the model measurement.

4 RESULT

Based on data obtained from 689 respondents, the number of respondents who were male was 226 people (32.81%) and those who were female were 463 people (67.19%). The number of respondents by age group is as follows; age group 18-21 years amounted to 53.8%, ages 22-30 years amounted to 23.6%, ages 31-40 amounted to 12.4%, aged 41-50 amounted to 11%, and aged 51-60 years amounted to 2.4 %.

Following are the results of the validity analysis using the item score correlation test with the total scale score.

Based on the data in Table 1 below, the validity test of the scale based on the correlation of item scores with total items obtained a correlation coefficient of 0.372 - 0.639 with a confidence level of 99% and an error rate of 1%. The significance of each item also shows 0.00 (<0.05) which indicates

that all items are acceptable.

Table 1. Test Validity.

		Correlations						BRAND-IMAGE
		BrandImage1	BrandImage2	BrandImage3	BrandImage4	BrandImage5	BrandImage6	
BrandImage1	Pearson Correlation	1	.273**	.285**	-.040	-.125*	-.104**	.372**
	Sig. (2-tailed)		.000	.000	.297	.001	.006	.000
	N	689	689	689	689	689	689	689
BrandImage2	Pearson Correlation	.273**	1	.390**	-.023	.046	-.004	.459**
	Sig. (2-tailed)	.000		.000	.548	.229	.907	.000
	N	689	689	689	689	689	689	689
BrandImage3	Pearson Correlation	.285**	.390**	1	.028*	.140**	.012	.544**
	Sig. (2-tailed)	.000	.000		.040	.000	.753	.000
	N	689	689	689	689	689	689	689
BrandImage4	Pearson Correlation	-.040	-.023	.028*	1	.549**	.332**	.634**
	Sig. (2-tailed)	.297	.548	.040		.000	.000	.000
	N	689	689	689	689	689	689	689
BrandImage5	Pearson Correlation	-.125*	.046	.140**	.549**	1	.356**	.639**
	Sig. (2-tailed)	.001	.229	.000	.000		.000	.000
	N	689	689	689	689	689	689	689
BrandImage6	Pearson Correlation	-.104**	-.004	.012	.332**	.356**	1	.552**
	Sig. (2-tailed)	.006	.907	.753	.000	.000		.000
	N	689	689	689	689	689	689	689
BRAND-IMAGE	Pearson Correlation	.372**	.459**	.544**	.634**	.639**	.552**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	689	689	689	689	689	689	689

** . Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).

Table 2. Reliability Test Results.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.705	.706	7

Based on Table 2 above, the results of the reliability test showed Cronbach's alpha of 0.705. According to Azwar (2016), the reliability coefficient is included in the category of numbers ranging from 0 to 1.00. Even if the reliability coefficient is higher, close to 1.00, it means that the measurement is more reliable.

The reliability of the measuring instrument indicates the extent to which the measurement results with the instrument used can be trusted. This is indicated by the level of constancy (consistency) of the scores obtained by subjects who are measured with the same instrument or measured with equivalent instruments in different conditions (Suryabrata, 2000). Test the reliability of measuring instruments in this study using the internal consistency reliability approach, namely the single presentation method. Azwar (2016) says that the single presentation method in estimating the reliability of measurements is carried out using one form of test that is subjected only once to one group of subjects (single-trial administration). The classification of reliability scores according to Periantolo (2015) is as follows.

Table 3. Classification of Reliability Score.

Score	Classification
>0,9	Very good
0,8-0,89	Good

Score	Classification
0,7-0,79	Fairly Good
0,6-0,69	Less Good
<0,6	Not Good

Urbani (in Periantolo, 2015) emphasized that a scale with a reliability of 0.8 can be used, on the other hand, a scale with a score of 0.7 can be accepted if it is for research purposes.

In the next step, psychometric identification was carried out using exploratory factorial analysis (EFA), and confirmatory factorial analysis (CFA) for measurable tests.

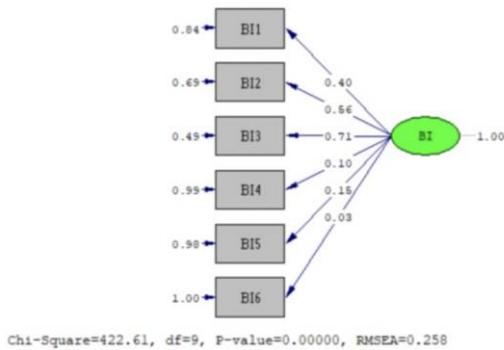


Figure 1. Measurement Model.

Based on Figure 1, the measurement model test results show different loading factor values between BI1 items and BI6 items. Loading factors whose value is less than 0.40 will be excluded from further data processing to obtain a fit model. According to some references, the loading factor value should be above 0.5 to get a fit model. However, in the data above, so that each dimension is represented, further data processing is limited to a loading factor value of 0.40. Therefore, the results of further data processing are as follows.

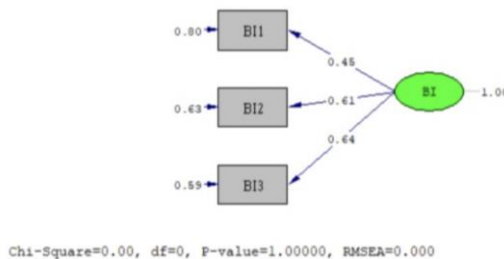


Figure 2. Model Measurement Fit.

Based on Figure 2 data analysis, shows that the measurement model is in accordance with the data. Based on the goodness of fit of the chi-square value

of 0.00, p-value of 1.00 df = 0, and RMSEA = 0.00. This is perfect.

5 DISCUSSION

The construction of a brand image scale is built on the theory of Coaker (2021), Tharpe (2014), and Simonson and Schmitt (2009) who argue that brand image is the reinterpretation of all perceptions of a brand formed from information and experiences of consumers and customers in the past. then to the brand. Therefore, this scale includes 3 dimensions, namely cognitive, affective, and conative dimensions.

The scale test was carried out using the SPSS application to obtain validity and reliability test results. The validity test was carried out to understand that the data obtained showed validity, being able to measure what was to be measured. While the reliability test is related to the level of confidence in the measuring instrument or scale.

Based on the results of the validity test, it show that all items have a coefficient value between 0.372 and 0.639 with a significance of 0.00 (<0.05). So it can be concluded that all items can be categorized as valid. The reliability test shows a Cronbach's alpha value of 0.705, which means it is reliable so this scale can be reused for different respondents at different times.

Psychometric identification was analyzed using the lisrel program to get the right measurement model. Based on factorial analysis, the factor loading value for each item is obtained. This value shows the difference between BI1 items and BI6 items, however, in general, they can be grouped into three factors that build brand image. The three factors are cognitive, affective, and conative. Cognitive is the consumer's perception of herbal medicine related to product information. Affective is the meaning of Jamu based on previous consumer experience. Conative is a consumer attitude based on a preference for herbal medicine. The results of the factor loading values of the three are also different. Cognitive has a loading factor value of 0.40. Affective has a loading factor value of 0.61 and conative has a loading factor value of 0.64. Of the three factors, the highest compared to the others is conative. Conative consumers can show attitudes based on preferences for herbal medicine, such as using herbal medicine as an alternative medicine.

Back to the construct built from brand image. That brand image is the reinterpretation of all

perceptions of a brand formed from information and consumer experience in the past. So Coaker (2021), Tharpe (2014), and Simonson and Schmitt (2009) actually want to tell us that building a brand image must cover all assessments involving cognitive, affective, and conative dimensions. Based on the test data, we have seen that these three dimensions are the factors that make up the formation of a brand image among consumers. Regardless of whether these are consumers of herbal medicine or consumers of other products, then we can also interpret that every consumer based on previous experience with a brand will have a perception and meaning of that experience which raises attitudes in the form of behavior.

6 CONCLUSIONS

Brand image is the redefinition of all perceptions of the brand formed from information and consumer experience in the past. So it is based on psychometric identification and is in line with the opinions of Coaker (2021), Tharpe (2014), and Simonson and Schmitt (2009) that building a brand image includes cognitive, affective, and conative dimensions. Based on the test data, we have seen that these three dimensions are the factors that compose the formation of a brand image among consumers. This metric can be used for all different products services and consumers. Regardless of whether these are consumers of herbal medicine or consumers of other products, then we can also interpret that every consumer based on previous experience with a brand will have a perception and meaning of that experience which raises attitudes in the form of behavior. This scale has good psychometric properties to measure the brand image of a product with three dimensions, namely cognitive, affective, and conative.

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