The Impact of Brand Equity on Brand Preference and Purchase Intention in Indonesia's Bicycle Industry: A Case Study of Polygon

Felly Liliyana Soenyoto
International Business Management Program, Petra Christian University
Jl. Siwalankerto 121-131, Surabaya
E-mail: felly.liliyana@yahoo.com

ABSTRACT

In the midst of stiff competition of local and foreign brands in Indonesia's bicycle industry, understanding the role of a brand in influencing consumer's brand preference and purchase intention is becoming more important as more choices are available for consumers. Thus, taking the case study of Polygon, this research aims to investigate the impact of brand equity on consumer's brand preference and purchase intention as well as the possibility of brand preference as the mediator between brand equity and purchase intention.

Through an online platform of questionnaire, 121 respondents were gathered from both Polygon existing consumers and other bicycle consumers whom have not had Polygon bicycle. The data gathered was analyzed using the linear regression and sobel test. The result shows that brand equity has significant impact on brand preference and purchase intention. Brand preference is also proven to significantly impact consumer's purchase intention. Finally, brand preference is confirmed to mediates the impact of brand equity on purchase intention. Thus, bicycle companies, especially the PT Insera Sena as the company of Polygon brand, should focus on improving their brand equity to increase consumer's brand preference and purchase intention of their brand.

Keywords: Brand Equity, Brand Preference, Purchase Intention, Consumer Behavior, Brand Management.

ABSTRAK

Di tengah ketatnya persaingan antara merek lokal dan merek asing di industri sepeda Indonesia, pemahaman akan peran merek dalam mempengaruhi preferensi merek dan minat beli konsumen sangatlah penting seiring dengan bertambahnya pilihan yang tersedia bagi konsumen. Oleh karena itu, dengan studi kasus tentang merek sepeda Polygon, penelitian ini bertujuan untuk mengetahui pengaruh ekuitas merek pada preferensi merek and minat beli konsumen sekaligus kemungkinan preferensi merek berperan sebagai mediator antara ekuitas merek dan minat beli.

Penelitian ini dibuat berdasarkan 121 responden dari konsumen Polygon saat ini dan konsumen sepeda yang belum memiliki sepeda Polygon, yang dikumpulkan melalui platform kuesioner online. Data yang diperoleh kemudian dianalisa dengan menggunakan regresi linear dan Sobel Test. Hasil penelitian menunjukkan bahwa ekuitas merek mempunyai dampak signifikan pada preferensi merek dan minat beli konsumen. Preferensi merek juga terbukti secara signifikan mempengaruhi minat beli konsumen. Oleh karena itu, perusahaan sepeda pada umumnya dan PT Insera Sena sebagai perusahaan pemilik merek Polygon pada khususnya, perlu fokus untuk meningkatkan ekuitas merek untuk meningkatkan preferensi merek dan minat beli konsumern terhadap merek mereka.

Kata Kunci: *Ekuitas Merek, Preferensi Merek, Minat Beli, Perilaku Konsumen, Brand Management.*

INTRODUCTION

Bicycle industry in Indonesia has been growing over the years both in demand and supply side. In the demand side, as mentioned in Inabikes (Indonesia International Bikes Exhibition) official websites, Indonesia is the largest consumer for bicycle in ASEAN (Inabike, 2015). Based on data from Indonesian Bicycle Industry Association, in 2010, the market demand of bicycle is 5.5 million units which then increased 10% in 2011 to 6 million units (Caturini, 2011). Finally, according to the Head of Indonesian Bicycle Industry Association (AIPI), Rudiyono, the market demand of bicycle in 2014 has reached 6.5 million and in the future is projected to grow 20% annually (Issetiabudi, 2014). Not only that, international bike event and exhibition also annually being held in Indonesia, such as Inabikes exhibition which is also the ASEAN's largest international trade show for bike, part, and accessories industry.

From the supply side, it seems that the opportunity raised from the growing market demand in Indonesia is captured by both local bicycle manufacturer and foreign manufacturers, making significant increase in the number of imported bicycle is inevitable. According to Indonesian Statistics Bureau (BPS), total value of imported bicycle increase 223.4% from US$ 42.8 million in 2012 to US$ 138.5 million in 2013 (Yogatama, 2014). The increase in the number of imported bicycle is also supported by a cheap import tariff for the Completely Built Unit (CBU), which is only 10%. It is cheaper compared to the import tariff for the bicycle parts which later on still need to be assembled, which is 10% to 15%. It makes the price of foreign bicycle more competitive than the local brand. As a result, most of local bicycle manufacturers choose to allocate 40% of the production for the International market, such as Europe and America, and leaving 60 % of the production for the domestic market (Yogatama, 2014).

Therefore, the bicycle market in Indonesia is dominated by imported bicycle. According to Head of AIPI, Rusdiyono, in 2014, from 6.5 million units bicycle sold in the market, only 3 million units was local brand while the rest are imported brand (Issetiabudi, 2014). Seventy percent of the imported bicycle are coming from China, 20% from Taiwan, and the rest are coming from US and South East Asia, such as Malaysia (Yogatama, 2014). Some of the top foreign brands that are widely sold in Indonesia are Phoenix, Pacific, and XDS for the middle-low class and Giant, Merida, Specialized for the middle-up class (Bike Taiwan, 2013). For the local supplier, there are three biggest bicycle manufacturers that have been dominating the market for years, namely PT Wijaya Indonesia Makmur Bicycle Industries with its brand "Wimcycle", PT Insera Sena with its brand "Polygon", and PT Terang Dunia Internusa with its brand "United Bike". Those three companies consistently achieved highest Top Brand Index (TBI) among other bicycle brands in Indonesia from 2012-2014 (Top Brand Award, 2015).

Based on the exploration about the market condition, the concern arise as more companies entering the market and selling similar products which are bicycles and merchandise of bicycle-related product to the same market, customers are having more choices of product as well. Therefore, to win such a stiff competition arising from both local and overseas brand, of course relying on product quality only is not enough for the bicycle companies. Brand is definitely a very powerful key distinction among products in the market. According to American Marketing Association, brand is defined as "a name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers" (American Marketing Association, 2015). Therefore, as a key distinction, a brand need to be carefully built and managed. A good brand management could lead to a high brand equity.

Past researches has shown the importance of brand equity. Brand equity can help company to outperform competitors in market by differentiating the product and lead to competitive advantage (Aaker, 1991). Beside brand equity, brand preference and purchase intention are chosen to be analyzed in this research based on certain considerations. Brand preference is important in indicating consumer's option on a brand among other brands, especially in midst of stiff competition from both local and foreign brands, while purchase intention is essential as it will influence company's financial performance through sales. Past researches (Allaway et al., 2011; Buil et al., 2008) found that "a strong brand with positive equity is considered to have high strategic value and advantages of higher margins, brand extension opportunities, insulation against competitors and more effective communicative power, as well as stronger consumer preferences, purchase intentions and customer loyalty" (in Vincze, 2012, p.440). In this case, consumer preference refers to the brand preference of consumer. In addition, brand preference is proven to have positive impact on purchase intention (Buil, Martinez, & Chernatony, 2013). It means the more preferable a brand is, the higher the probability that the customer will buy a product from that brand.

However, there has not been many researches analyzing the possibility of brand preference as mediator between brand equity and purchase intention, which make the researcher want to find out the answer. A research by Sanjaya (2012) shows that strong brand equity will trigger some kind of favoritism of certain brand that will increase consumer willingness to buy the product of that brand. However, the research focused on service sector, specifically an insurance industry. Different industry may has different result according the nature, consumer behavior, and competition within the industry. In this research, the researcher try to analyze the manufacturing sector, specifically bicycle industry, in which customer can see, touch, and use the real product. Therefore, there might be a possibility of different result obtained.

Thus, after looking the above condition of bicycle industry and past researches about the importance of brand equity, brand preference, and purchase intention, in this research, the researcher decided to analyze the impact of brand equity on brand preference and purchase intention in Indonesia bicycle industry by taking a case study of one of top local bicycle brands, Polygon.

LITERATURE REVIEW

There are three main concepts used as the backbone of this research, which are brand equity, brand preference, and purchase intention.

To understand the concept of brand equity, it is important to first understand the basic concept of a brand itself. According to American Marketing Association (2015), brand is defined as "a name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers". From that definition, it is clear that a brand serve as a key distinction among product of other sellers in the market. Therefore, a brand that is carefully built and managed can actually leverage the position and value of a product in consumer's mind which will eventually benefit the company as well. A well-established brand can be called as having a high brand equity.

There has been various definitions of brand equity defined by many researches in the past due to growing popularity of brand equity. Simon and Sullivan (1990) defined brand equity as the incremental discounted future cash flows of a product caused by a brand name which can be measured through the value of tangible and intangible assets (in Keller, 1993, p.1). Aaker (1991) defined brand equity as a set of five brand assets (brand awareness, brand association, perceived quality, brand loyalty, and other proprietary assets) that add value to a product. Other researchers, Lassar, Mittal, & Sharma (1995), defined brand equity as consumers' perception of product's superior value as a result of brand name attached to it, which can be measured through 5 dimensions (performance, social image, value, trustworthiness, and attachment). Anderson (2011) described brand equity as the financial value of customers' response to the marketing of a brand.

From the various definitions above, the researcher concludes that there is indeed a red line among all those definitions that is, brand equity is all about "value added" that lies in a product as a result of the brand attached to it. The main point that differentiate one research and another is from which perspective the "value added" is seen and dimension used in measuring that value. Generally, there are two perspectives in defining brand equity, which are firm's perspective and consumer's perspective. From firm's perspective, brand equity is seen more in terms of financial value that a brand can give to the company as a measure of success and performance of the company. Brand equity defined from the perspective of consumers, focus on the interaction of customer and brand as well as the consequences result in that relationship.

One of the argument in defining brand equity from consumer's perspective is that financial value of brand equity is only the outcome of the consumer's response to the brand name itself (Christodoulides & Chernatony, 2009) while the power of a brand actually lies in what customers have learned, felt, seen, and heard about the brand as a result of their experiences over time (Keller, 2003). Therefore, "for a brand to have value, it must be measured by customer", which mean that "if the brand has no meaning to the customer, none of other definitions is meaningful" (Atilgan, Aksoy, & Akinci, 2005, p.238). That also become the underlying reason for the researcher to focus on analyzing the impact brand equity from consumer's perspective in this research.

This research will use the dimensions of brand equity introduced by Aaker (1991) to measure brand equity.

Table 1. Dimensions of Aaker's Brand Equity Concept

Dimension	Description
Brand awareness	"the ability of a potential buyer to recognize or recall a brand"
Brand association	"anything linked in memory to a brand"
Perceived quality	"customers' perception of the overall quality or superiority of a product with respect to its intended purpose, relative to alternatives"
Brand loyalty	"the attachment that a customer has to a brand"
Other proprietary assets	e.g. trademarks, patents, channel relationships

Source: Aaker (1991, p.15)

However, among those 5 dimensions of brand equity, only three will be used in this research, which are brand awareness, brand association, and perceived quality. Brand loyalty dimension is not used as this research will investigate the impact of brand equity on brand preference and purchase intention not only to the existing consumer of Polygon, but also to the potential consumer of Polygon which have not had Polygon bicycle. Therefore, it is not relevant to include 'brand loyalty' dimension. The "other proprietary assets" dimension is not used as it is not related with consumer's perspective.

Brand preference is defined as "the biased behavioral tendencies reflecting the consumer's predisposition toward a brand" (Ebrahim, 2011) which refers the extent to which a consumer favors one brand over another. Creating a strong bond between brand and customer is ultimately one of the goals of marketing managers. Understanding brand preference is crucial in achieving that goal as it is believed to influence consumer intention to purchase a product or conveying a positive word-of-mouth (Ebrahim, 2011). A strong preference toward a brand can help the brand to sustain in the long run despite of stiff competition from other brands. The reason is that as there are more brands coming into the market selling the same product category, consumers' have more choices of brands; therefore, a more favorable brand will be more likely to be chosen by consumers compared to those who are not.

Past researchers (Sirgy, 1997; Buil, Martinez, & Chernatony, 2013) measured brand preference using indicators such as "I like brand X better than other brands of product category", "I would use brand X product category more than other brands of product category", and "In the product category, brand X is my preferred brand". Other researchers (Chen & Chang, 2008; Sanjaya, 2012) used four indicators such as, "I feel that brand X is appealing", "I prefer this brand X to other brand of its type", "If I was to buy a product from this category, I would prefer this brand X if everything else was equal", "Overall, I have a very strong preference for X". Five out of those seven indicators will be used as the indicators of brand preference in this research. The third indicator from Sirgy (1997) and Buil, Martinez, & Chernatony (2013) is actually similar with the second and third indicator of Chen & Chang (2008) and Sanjaya (2012), therefore, only one of them will be used.

Intention is "motivational factors that influence a behavior" (Ajzen, 1991). Therefore, according to Dodds et al. (1991), purchase intention can be defined as the possibility for consumers to buy a product (in Huong, 2012). Similarly, Sam & Tahir (2009) also defined purchase intention as the probability that a consumer will purchase the product. In brand management, purchase intention is one of the important factor in predicting consumer behavior (Durianto & Liana, 2004).

Purchase intention can be classified into two, which are purchase intention of new consumers and purchase intention of existing consumers. Purchase intention of new consumers (potential consumers) is essential to identify the likelihood of future sales to occur and to know whether the current brand position is strong enough to motivate new consumers to buy the product since each consumer has different perception and perceived value toward a brand. Identifying purchase intention of existing consumer is useful to predict the possibility of buying more products from the brand (Madahi & Sukati, 2012) which eventually will contribute to company's financial performance as well as giving an insight for improvement of the brand position. In this research, purchase intention from both type of consumers will be investigated.

Two past researches done by Erdem et al. (2006) and Buil, Martinez, & Chernatony, (2013) measured purchase intention based on the degree of seriousness to buy the product, such as the intention of consumer to buy the product, the intention to consider buying the product seriously, and the possibility of them to actually buy the product.

Relationship between Concepts

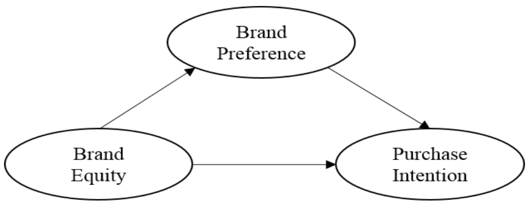

Figure 1. Relationship between Concepts

Myers (2003) found that brand with higher equity generated greater brand preference. Other researchers, Prasad and Dav (2000) also found that high brand equity lead to a high brand preference. It shows that the more added value the consumers get from a brand, the more likely they will like the brand and favor that brand over another. Besides, brand equity is also confirmed to bring positive influence on consumers' purchase intention (Cobb-Walgren, Ruble, & D, 1995). The higher the brand equity it means the more consumers can easily recognize the brand, consumers are highly connected with the brand, consumers perceive the brand as high quality; therefore, the more likely consumer will like the brand, choose the brand over other brands, and motivated to actually buy the product of that brand. The relation between brand preference and purchase intention has been confirmed by Buil, Martinez, & Chernatony (2013), Sanjaya (2012), and Prabhawedasttya & Yasa (2013) who found that brand preference have positive influence toward purchase intention. It means the more preferable a brand is, the higher the probability that the customer will buy a product from that brand. The theory planned behavior by Ajzen (1991) explained that a favorable attitude towards a brand leads to purchase intention. So, when consumer like certain brand, they are more motivated to buy the product rather than buying a product from the brand that they do not like.

The relation among brand equity, brand preference, and purchase intention as explained above, leads to a possibility that brand preference may serve as the mediator between brand equity and purchase intention. Sanjaya (2012) tried to investigate that possibility in the insurance industry. In the result, brand preference was proven to mediate the impact of brand equity on purchase intention. It means that brand equity actually affect consumers' purchase intention indirectly by forming a strong preference of a brand on consumers' mind which then influence them to purchase the product of that brand. In this research, the researcher try to analyze the same issue but in different industry, which is bicycle industry to see whether the same result is shown or not.

Besides the theories explained in the above section, the researcher also use four relevant researches with similar research framework as depicted in Figure 1, as reference and additional knowledge for conducting this research. Those four relevant researches are research by Buil, Martinez, & Chernatony (2013) on 6 brands of sportswear, consumer electronics, and cars products, Chen & Chang (2008) on airline industry, Prabhawedasttya & Yasa (2013) on smartphone products , and Sanjaya (2012) on insurance industry. The result of all those four relevant researches support the theorical background used in this research about brand equity, brand preference, and purchase intention.

On the basis of the relation among brand equity, brand preference, and purchase intention concepts, the four hypotheses below will be tested in this research.

H1: Brand equity significantly impacts brand preference of Polygon

H2: Brand preference significantly impacts purchase intention of Polygon

H3: Brand equity significantly impacts purchase intention of Polygon

H4: Brand preference mediates the impact of brand equity on purchase intention of Polygon

RESEARCH METHOD

According to Cooper & Schindler (2014), there are four types of research, which are reporting, descriptive, explanatory, and predictive research. This research can be categorized as an explanatory research because it tries to investigate the impact of brand equity on brand preference and purchase intention and explain why that relationship occur with the related theory as the base of the research and to generate hypothesis.

In this research, there are three types of variables used, which are independent variable (brand equity), mediating variable (brand preference), and dependent variable (purchase intention). The measurements used for each variable are explained in the following tables.

Table 2. Indicators of Brand Equity

Indicator	Reference
"I am aware of Polygon brand"	Prabhawedasttya & Yasa (2013)
"I can recognize Polygon bicycle among other competing brand of bicycle"	Prabhawedasttya & Yasa (2013)
"I consider Polygon as a trusted brand"	Buil, Martinez, & Chernatony (2013)
"I associate Polygon as bicycle for middle-up market"	Pappu, Quester, & Cooksey (2005)
"Polygon offers very good quality bicycle"	Buil, Martinez, & Chernatony (2013)
"Polygon offers bicycle with excellent specification"	Buil, Martinez, & Chernatony (2013)

Table 3. Indicators of Brand Preference

Indicator	Reference
"I feel that the design of Polygon bicycle is appealing"	Chen & Chang (2008); Sanjaya (2012)
"I like Polygon better than other brands of bicycle"	Sirgy (1997); Buil, Martinez, & Chernatony (2013)
"I would use Polygon bicycle more than other brands of bicycle"	Sirgy (1997); Buil, Martinez, & Chernatony (2013)
"I would prefer to buy Polygon rather than other brands of bicycle."	Chen & Chang (2008); Sanjaya (2012)
"Overall, I have a very strong preference for Polygon"	Chen & Chang (2008); Sanjaya (2012)

Table 4. Indicators of Purchase Intention

Indicator	Reference
"I will buy Polygon bicycle"	Erdem et al. (2006); Buil, Martinez, & Chernatony, (2013)
"I will seriously consider buying Polygon bicycle"	
"It is very likely that I would buy Polygon bicycle"	

Likert scale is used in measuring all variables because it is easy and quick to be answered by the respondents and most importantly it is believed to provide a more reliable and a greater volume of data than any other scale (Cooper & Schindler, 2014). Specifically, in this research the 6-point Likert scale is used because the researcher wants to avoid the "neutral" answers that often dominating the result when an odd Likert scale (e.g. 5-point Likert scale) is being used. Omitting mid-point or neutral answer might minimize social desirability bias, in which the respondents try to please the interviewer or tend to avoid answers that they perceived to be socially unacceptable answer (Garland, 1991). By using the 6-point Likert scale, it is easier to identify whether the respondents express a (an) "disagreement" or "agreement".

There are two types of data scale used in this research which are nominal and interval data. Nominal data can be found in the screening question part, which include gender, category of age, occupation, category of monthly income, category of intensity in cycling, and brand of bicycle owned. The answers to these questions are considered as nominal data as it is presented in the form of multiple choices, in which the numbers representing the answers are only codes which shows no particular order, distance, or natural origin. The interval data is generated from the answers of the target questions regarding brand equity, brand preference, and purchase intention. It is classified as interval data as the average of the data measure the same distance between any two points (Cooper & Schindler, 2014).

The data for this research is collected from three types of sources, which are primary sources, secondary sources, and tertiary sources. The primary source used is online questionnaires, which is filled in by the respondents that is part of the population. Other than primary sources, the researcher also collect information from the secondary and tertiary sources to support the analysis of this research. The secondary sources used are books (both online and offline), journals, articles from website, online newspaper, and dissertation. This research take advantage of internet search engine (e.g. Google scholar) and journal database (e.g. Science Direct, Emerald) to help identify and local online books and journals online.

The sampling method used is the simple random sampling under the probability sampling method in which each element of the population has equal chance to be selected into the sample. The population of this research include both potential and existing consumer of Polygon in Indonesia. The potential consumer is defined as people who like cycling and know (ever heard and ever seen) Polygon bicycle but have not had Polygon bicycle. They can be regarded as potential consumer of Polygon as they might be a possibility for these people to buy Polygon in the future as they like cycling, know Polygon brand, and have not had Polygon bicycle. The existing consumer of Polygon is defined as people who have had Polygon bicycle. To obtain a more reliable result, the researcher set the minimum age of 18 to be the respondents of this research since they are considered to be fully capable to understand the questionnaire's questions and have the buying power to be the consumer of Polygon. So, the population of this research will be all people who like cycling, know about Polygon bicycle, have or have not had Polygon bicycle whose age are above 18, and reside in Indonesia.

A good sample need to represent the characteristics of the population well (Cooper & Schindler, 2014). Therefore, the questionnaire will be distributed randomly to people who meet those criteria. To reach a greater number of respondents, the questionnaire will be distributed through an online platform, Google Docs, to several online cycling communities in Indonesia. The simple random sampling method enable an opportunity for the researcher to generalize the findings to the population of interest from sample population.

The number of the sample size will be determined based on the formula from Green (2001) which is $N \geq 50 + 8k$ where N is the number of minimum sample size needed and k is the number of predictor or independent variable (as cited in Brooks & Barcikowski, 2012). In this research, there is only one independent variable, which is brand equity, therefore, the minimum sample size needed is 58 (50+8(1)).

In order to answer the four hypothesis in this research, an additional package of IBM SPSS 21 macros downloaded from afhayes.com is used as a mean to analyze the data collected from the questionnaires.Before testing all hypothesis, the validity and reliability of the data need to be tested for justification of the data. After the data is found to be both valid and reliable then the classic assumption test need to be fulfilled as requirements for running the mediation analysis.

A validity and reliability test are performed to ensure that the data collected from the questionnaire is both valid and reliable. The validity of the indicators is measured by comparing r-data of each indicator and r-table with the degree of freedom (df) = n-2, where n is the number of sample (Ghozali, 2013). The r-data of each indicator can be seen from the Cronbach Alpha output in the SPSS, specifically under Corrected Item-Total Correlation Column. If the r-data greater is greater than the r-table at the specified degree of freedom, it means that the indicator used is a valid measurement of the variable. The reliability is tested based on the Cronbach Alpha value. If the Cronbach Aplha value is higher than 0.7 the indicators are said to be reliable (Ghozali, 2013).

As the mediation analysis will include some regression models, some classic assumption tests need to be performed to ensure a correct regression analysis is used. The classic assumption tests include normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test (Ghozali, 2014). However, in this research, the autocorrelation test does not need to be conducted as it aims to test whether or not there is a correlation between the residual on period t and the residual in the previous period (t-1) (Ghozali, 2014). Autocorrelation test is only needed when a longitudinal research with time series data is conducted. This research is considered as the cross-sectional research as it is only conducted once and represent a snapshot of one point in time, therefore, an autocorrelation test can be omitted (Ghozali, 2014).

In this research, the mediation relationship is analyzed using Sobel test. Sobel test will investigate directly whether the indirect effect is significant or not and how much is the indirect effect (Ghozali, 2014). The Sobel test is performed through an additional macro of IBM SPSS 21 (downloaded from afhayes.com). The additional macros is used as it can analyze the direct effect, total effect and indirect effect of each variable at once and give the big picture of all answers needed to answer the hypothesis, instead of doing it separately for each of the analysis. The conceptual framework used as the basis of the mediation analysis is as follows:

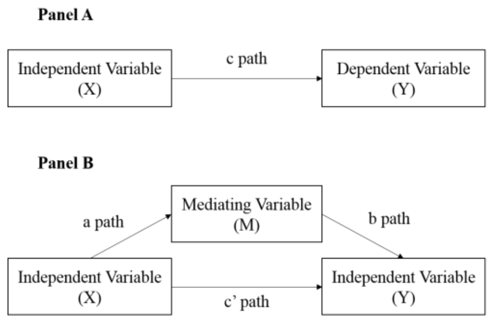

Figure 2. Framework of Mediation Analysis
Source: Modified from Preacher & Hayes (2008, p.880)

Panel A shows a direct effect of X on Y. This simple relation between X and Y is called as total effect with c as the coefficient value. Panel B represents a simple mediation, which is the indirect impact of X on Y through M as the mediator. Coefficient c' is the direct effect of X on Y after controlling M.

According to Baron and Kenny (1986), a variable can be indicated as a mediator if:

X significantly impact Y (c path is significant)
X significantly impact M (a path is significant)
M significantly impact Y by controlling X (b path is significant)

The impact of the independent variable on dependent variable of each path is tested through the t-test. The significance of each path can be seen by looking at the p value of each regression. For the decision rule, if the p-value is higher than the significance level (α) of 0.05 then the null hypothesis is failed to be rejected. It means that there is no significant impact between variables in the regression model. On the other hand, if the p-value is lower than the significance level (α) of 0.05, then the null hypothesis will be rejected, which mean that there is significant impact between variables in the regression model (Lind, Marchal, & Wathen, 2010).

The significance of the indirect effect, which is the product coefficient of and b path, is then tested directly using the Sobel test to reveal whether or not the mediating variable really mediates the impact of the independent variable on the dependent variable. The hypothesis for testing the significance of the indirect effect (ab) is as follows:

$H0: ab = 0$
$H1: ab \neq 0$

The result of the Sobel test can be seen in the normal theory section. As for the decision rule, the null hypothesis is failed to be rejected if the p-value of the indirect effect is higher than the significance level (α) of 0.05 or the z-value is lower than the z-table at that significance level, which is 1.96, meaning that the mediation impact is not significant. On the other hand, the null hypothesis will be rejected if the p-value of the indirect effect is lower than the significance level (α) of 0.05 or the z-value is higher than the z-table at that significance level, which is 1.96, meaning that the mediation impact is significant (Preacher & Hayes, 2004).

If the mediation impact is proven to be significant from the result of Sobel test, the type of the mediation will then be identified. A perfect mediation happens when a path, b path, and c path are proven to be significant but when M is included in the computation (c' path), the impact of X on Y becomes zero or insignificant (p-value > α). If the impact of X on Y decreases after including M, but not equal to zero or still significant (p-value < α), a partial mediation is said to happen (Preacher & Hayes, 2004; Ghozali, 2014).

RESULTS AND DISCUSSION

There are 125 respondents filled out the online questionnaires in which four of their responses were immediately excluded from the responses pool as they do not like cycling and do not know about Polygon, which means that they are not the member of the population to be taken as the sample. Thus, in total there are 121 responses to be processed further.

First of all, a validity and reliability testing is conducted. The result of validity test shows that the r-data of each indicator is bigger than the r-table (with df=119), which is 0.1786. It means that all indicators are valid. The result of reliability test shows that all indicators are reliable as the Cronbach's Alpha value are all higher than 0.7, which are 0.885 for brand equity, 0.963 for brand preference, and 0.925 for purchase intention.

The data also has passed all the classic assumption tests, which are normality test, multicollinearity, and heteroscedasticity, which mean that the data is good enough for regression that will be used as part of the mediation analysis. The mediation analysis is performed based on the following conceptual framework:

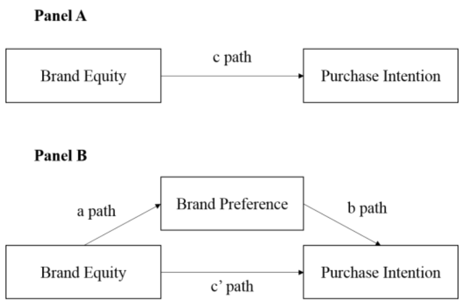

Figure 3. Framework of Mediation Analysis of the Research

The path testing as illustrated in Figure 3 is conducted to examine whether or not the criteria of a mediator variable is fulfilled. The result of the t-test shown in Table 5 shows that the p value of a path, b path, c path are all lower than 0.05. Thus, the null hypothesis is rejected, meaning:

Brand equity has significant impact on brand preference

Brand preference has significant impact on purchase intention

Brand equity has significant impact on purchase intention

Table 5. Path Testing Results

Test	Path	Coefficient	SE	p-value
BE to BP	a	0.8776	0.0771	0.0000
Direct effect of BP to PI	b	0.6654	0.0464	0.0000
Total effect of BE to PI	c	0.9078	0.0644	0.0000
Direct effect of BE to PI	c'	0.3238	0.0564	0.0000

As brand equity is proven to be significantly impact brand preference of Polygon, it means the first hypothesis (H1) of this research in confirmed. The current result is in line with the result of the four relevant researches of Buil, Martinez, & Chernatony (2013), Chen & Chang (2008), Prabhawedasttya & Yasa (2013), Sanjaya (2012). The significant impact of brand equity on brand preference can be explained as follows: the higher the brand equity it means the easier consumers can recognize the brand, consumers are highly connected with the brand, consumers perceive the brand as high quality; therefore, the more likely consumer will like the brand and favor that particular brand over another. Conversely, it less likely for a brand that is barely even known by the consumers, not associated to certain positive image, and perceived as a brand with poor quality, to be chosen as a preferred brand by the consumers. Therefore, building a strong brand is important to get a high overall preference over another competing brand.

Brand preference is proven to have significant impact on purchase intention. It confirms the second hypothesis (H2) of this research which stated that brand preference significantly impact purchase intention of Polygon. The result of this research also confirms the four past researches of Chen & Chang (2008), Sanjaya (2012), Buil, Martinez, & Chernatony (2013), and Prabhawedasttya & Yasa (2013). The four past researchers also found that brand preference have significant impact to purchase intention. Significant impact means the more preferable a brand is, the higher the probability that the customer will buy a product from that brand. When consumer like certain brand, they are more motivated to buy the product rather than buying a product from the brand that they do not like. The theory of planned behavior by Ajzen (1991) also supports this argument, as stated that one of the construct of individual's behavioral intention is attitude toward behavior. The more favorable attitude toward performing certain behavior, the stronger the intention to perform that behavior. In the case of purchase intention, it means when consumer feels positive about choosing, favoring, or buying the product of a brand, the higher their willingness to actually choose and buy the product of that brand. Thus, it is important for a company to form a strong preference of its brand in consumer's mind so that more consumers will buy the product of that brand and for the existing consumers, the more likely they will keep buying the product in the future.

Brand equity is proven to significantly influence purchase intention, which means the third hypothesis (H3) of this research is also confirmed. Comparing with the past researches, the current result supports the result of the past researchers who also found that brand equity have significant impact on purchase intention. Significant impact of brand equity on purchase intention means that the higher the “added value” that consumers felt from a brand, or in other words, the more familiar they are with the brand, the more positive their association towards the brand, and the more positive their perception about the quality of the product; therefore, the more likely they will buy the product from that brand. On the other hand, brand with low equity means that consumers are not really aware of the brand, does not associate the brand with certain positive image, does not perceive the brand as a high quality product; therefore, the less likely they will buy the product from that brand.

The result of Sobel Test for testing the significance of the indirect effect are presented in Table 6. It shows that the p-value is 0.0000, which is lower than the significance level (α) of 0.05, and the z-value is 8.9650 which is higher than the z-table (1.96) showing that the null hypothesis is rejected. It means that the mediation impact of brand preference is proven to be significant.

Table 6. Sobel Test Results for Indirect Effect

Test	Path	Effect	z-value	p-value
Indirect effect of BE on PI through BP	ab	0.5840	8.9650	0.0000

The type of mediation (full or partial mediation) will then be identified by examining the direct effect of the independent variable on dependent variable after including the mediating variable (c’ path). The result in Table 5 shows that the impact of brand equity on purchase intention after including brand preference decreases from 0.9078 to 0.3238, but is not equal to zero. In addition, the p-value is also lower than the significant level (α) of 0.05, showing that the direct effect of brand equity on purchase intention after including brand preference is still significant. Thus, it can be concluded that there is a partial mediation between brand equity and purchase intention with brand preference as the mediator. In the case of partial mediation, the independent variable have both direct and indirect effect to the dependent variable.

The above results confirms the fourth hypothesis (H4) of this research which stated that brand preference mediates the impact of brand equity and purchase intention of Polygon. The current result confirms the past research of Chen & Chang (2008) that also found brand preference mediates the impact of brand equity on purchase intention with an indirect effect of 0.40. In addition, the current result also confirms the latest research of Sanjaya (2012) that brand preference act as the mediator of between brand equity and purchase intention.

Brand preference as the mediator of brand equity and purchase intention means that brand equity actually affect consumers’ purchase intention indirectly by forming a strong preference of a brand on consumers’ mind which then influence them to purchase the product of that brand. Consumer’s knowledge, association, and perception of a brand are transformed into some favoritism and biased behavioral tendencies toward certain brand which then influence them to prefer particular brand over another. In accordance with the theory of planned behavior of Ajzen (1991), this preference (favorable attitude) is then the one that increase their motivation to purchase the product from that brand.

In this research, however, the mediation is proven to be partial, it means that the impact of brand equity does not always necessarily to be transformed into brand preference to motivate consumer to purchase the product of certain brand. The knowledge, association, and perception of consumers towards certain brand also can directly motivate them to buy the product. This phenomena can be explained by referring to the theory of planned behavior of Ajzen (1991) which explained that there are two other constructs of behavioral intention, which are subjective norm (perceived social pressure to perform or not to perform a behavior) and perceived behavioral control that a consumer has. Thus, even when the preference is not yet formed in consumer’s mind, but if the knowledge, association, and perception of the consumer toward a brand is positive, adding with supportive social pressure or enough resources to the buy the product, there is possibility that the consumer will buy the product.

CONCLUSION

After analyzing data and interpreting the result, the researcher will then summarize the content of this whole research. An introduction of the condition and problems of Indonesia’s bicycle industry is presented as the background of the research which then enable the researcher to come up with the four statements of research problem to be analyzed in this research. The research problems are basically focus on revealing the impact of the brand equity on brand preference and purchase intention as well as the possibility of brand preference acting as the mediator between brand equity and purchase intention. To address each of the research problems, four hypothesis are then developed accordingly. One hundred and twenty one responses are used as the sample of this research. Several tests, such as reliability-validity test, classical assumption test, and mediation test are conducted to process the data obtained from the questionnaires. The result shows that brand equity has significant impact on brand preference, brand preference has significant impact on purchase intention, brand equity has significant impact on purchase intention, and brand preference mediates the impact of brand equity on purchase intention. It means the four hypothesis of this research are all confirmed. Thus, by revealing the result of the hypothesis testing, all research objectives have also been accomplished.

During the completion of this research, the researcher realizes that there are also several limitations of this research. Firstly, regarding the research method, since all variables being investigated (brand equity, brand preference, purchase intention) are actually considered as latent variables, which are the variables that cannot be observed directly. It is suggested for the future research to use Partial Least Square (PLS) or Generalized Structured Component Analysis (GSCA) instead of regression. PLS or GSCA is better fitted analysis method for research with latent variables, one way casuality, and reflective and formative indicators (Lohmöller, 2013; Solimun, 2015).

Secondly, in this research, the researcher does not specifically ask about the geographical area of the respondents in the screening questions, therefore, there is a possibility that the sample might cover or might not cover various area of Indonesia. Since different geographical area might have different characteristics of consumers, different result might be obtained for different coverage area included in the sample. For further research, it is suggested to include specific question asking about the geographical area of the respondents to ensure a broad coverage area of sample is reached.

Finally, the scope of this research is limited to a single brand of bicycle, which is Polygon, while there are many other bicycle brands available in Indonesia's bicycle industry. Therefore, future researchers who wants to conduct similar research regarding bicycle industry or similar topic of brand equity is suggested to conduct the research on several brands (2 or 3 brands) so that a better picture of market condition in Indonesia's bicycle industry could be obtained. Then, the result can be compared with the current result of this research.

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