

Build Brand Equity: Analysis of Marketing Mix (Empirical Case Study against Re-Brand Ink contents Data Print)

Hapzi Ali¹, Niknik Ahmad Munawar^{2*}, Dudi Permana³, Adi Nurmahdi⁴

^{1,3,4}Lecturer of Magister Management Program, University of Mercu Buana (UMB), Jakarta, Indonesia

²Student of Magister Management Program, University of Mercu Buana (UMB), Jakarta, Indonesia

***Corresponding author**

Niknik Ahmad Munawar

Article History

Received: 21.01.2018

Accepted: 05.02.2018

Published: 28.02.2018

DOI:

10.21276/sjhss.2018.3.2.6



Abstract: This study aimed to analyze the positive and significant effect of the marketing mix. The products of the partial brand equity, brand equity ratio price partially, place partially on brand equity, promotion of the brand equity and partial positive and significant impact Product, Price, Place, and Promotion of the brand equity simultaneously. The population of this study was students from six universities throughout Jakarta-Bogor-Depok-Tangerang-Bekasi. With the classification of students who had used the ink refill brand Data Print, with starta economy class upper middle (ABC), aged between 17 s / d 55 years spread at the University of Indonesia, Jakarta State University, University of Mercu Buana, Jakarta Muhammadiyah University, University Tarumanagara, University of Muhammadiyah Prof Dr Hamka. While the number of samples from a population of 146 598 students with MOE 5 percent at 5 percent confidence level based on the table of Isaac and Michael is 347 samples. Method of quantitative analysis using multiple linear regression analysis, followed by analysis of determination (R Square), partial hypothesis testing (t test) and simultaneous (test F). The results showed that the products are positive and significant impact on brand equity partially, Price has a significant and positive effect on brand equity partially, Places have a significant and positive effect on brand equity partially, Promotion positively and positively affects partial brand equity. And variable products, Price, Place and Promotion have a positive and significant effect on brand equity simultaneously.

Keywords: Build Brand Equity, Influence Marketing mix 4P, Product Effect, Influence Price, Influence Points, Influence of Campaign.

INTRODUCTION

The development of inkjet printer business in Indonesia is very fast along with the economic development is very encouraging. Recorded total sales (market size), inkjet printers in Indonesia 1.7 million units in this year as reported on www.bisnis.com on January 20, 2017. The business of this printer is dominated by brands that are familiar in our ears like Canon, Epsson, and Hewlett-Packard. The high sales of inkjet printers in Indonesia open business opportunities and competition is so tight for refill ink manufacturers in Indonesia.

There are approximately less than 50 brands of refilled ink in Indonesia, circulated to meet the needs of various brands of printer users in Indonesia. Just as the market share of the printer engine which is dominated by three manufacturers of brand printers, Canon, Epsson, and Hewlett-Packard then of about 50 brands of refilled ink on the market today is dominated by the five brands such as Data Print, E-print, Blue Print, Data Ink and Veneta (Top Brand survey 2009 until 2016). The four brands of ink refill very tight competition, a

variety of programs and marketing strategies to do to get a printer users in Indonesia. The difference in price and size or volume of the original ink that is issued by Canon, Epsson, and Hewlett Packard has a very long gap resulting refill ink business is so dynamic and rapidly growing demand for ink refill that is never lost.

From 2013 until 2017 surveys conducted by Frontier Consulting Group put the Data Print brand as the best known brand by consumers (Mind Share), the brand most recently used by consumers (Market Share) and the brand to be purchased by consumers in the period (Commitment Share). But the acquisition of Top Brand is inversely proportional to the achievement of a turnover of injecting ink print data for marketing the Greater Jakarta area. The lack of synchronization between the strength of the national brand equity with the market result in Jabodetabek area of marketing that chill, opened the opportunity to do research about the influence of marketing mix marketing mix to the creation of brand equity Strong data print in Jabodetabek marketing area.

The relationship of elements of marketing mix in building Brand Equity is inseparable from the treatment of elements such as Product, Price, Place and Promotion by the company in forming consumer perception of ink brand refill Data Print. As stated by David Aaker [1] that brand equity is a set of assets and liabilities (liabilities) associated with a brand name, and symbol, which add or subtract the value of a given product or service on the company and or the company's customers.

Based on the observation and tracking of ink product of Data Print, the phenomenon related to sales turnover problem is identified as follows: 1) Sales decrease during the period of 2013 until 2016 in Jabodetabek marketing area, 2) The prices were too high compared to competitors, 3) The promotional activities are still relatively low and likely to decline in the marketing area Jabodetabek, 4) Number of distributors decreased in the marketing area Jabodetabek, 5) Acquisition of top brand nationally no significant effect on the increase in turnover Data Print at Jakarta, Bogor, Depok, Tangerang, Bekasi area.

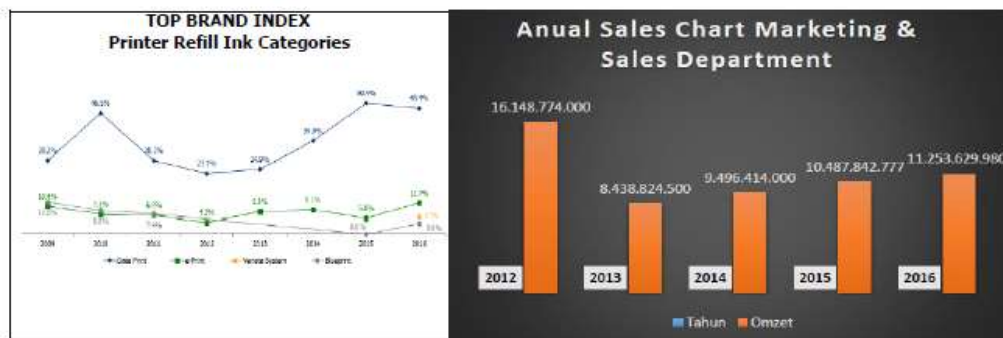


Fig-1: Research gap Data

The above phenomenon provides an illustration that the market share condition in Jabodetabek's marketing area is still low. To be able to provide a solution to increase market share in Jabodetabek area required a reliable scientific assessment and can provide a solution for the increase of sales and also the strength of Brand Equity by increasing the factors that influence sales and marketing mix elements that can increase Brand Equity.

This research is focused on how to build Brand Equity by analyzing marketing mix dimensions such as Product, Price, Place and Promotion. The study was conducted in Jabodetabek area (Jakarta-Bogor Depok-Tangerang-Bekasi) where this area has significant sales decline compared to national sales turnover.

Based on the background and problems above, the goals to be achieved from this research are:

- 1) Analyzing the effect of Products on Brand Equity partially
- 2) Analyzing the effect of Prices on Brand Equity partially
- 3) Analyzing the effect of Place on Brand Equity partially
- 4) Analyzing the effect of Promotion on Brand Equity partially
- 5) Analyzing the effect of Product, Price, Place, and Promotion on Brand Equity simultaneously

LITERATURE REVIEW

Definition Brands

Brands According to Aaker [1] are distinguishing names or symbols (such as logos, stamps, or packs) for the purpose of identifying the goods or services of a seller or a particular seller capable of distinguishing from the goods produced by competitors.

Kotler [2], brands can have six levels of understanding between them; attributes reminiscent of certain attributes, attributes need to be translated into functional and emotional benefits, the brand also states something about the value of the manufacturer, the brand also represents a particular culture, the brand also reflects the particular personality and brand also indicates the type of consumer who buys or uses the product or the user product [3]. A brand is a product or service that dimensions differentiate it from other products or services designed to meet the same needs. These differences may be functional, rational, or tangible in relation to the performance of a brand product. They may also be more symbolic, emotional, or intangible in relation to what represents or means the brand more abstractly [4]. The brand identifies the source or manufacturer of the product and enables the consumer to be an individual or an organization to hold responsibility for its performance to a particular manufacturer or distributor.

Brand Equity

Brand Equity According to David Aaker [1] is a series of assets and liabilities associated with a brand, name, and symbol, which add or subtract the value of a product or service to a company and or its customer. In line with Aaker, Kotler & Keller [4] define brand equity is the added value given to products and services. Brand equity can be reflected in the way consumers think, feel, and act in relation to brands, as well as the price, market share and profitability the brand brings to the company.

Cravens & Piercy [5] defines brand equity as a set of brand assets and liabilities associated with the marks, names, and symbols, which add or subtract the value provided by the product or service to the company and or its customers. Assets and liabilities affecting brand equity include brand loyalty, name awareness, quality perceptions, brand associations, and proprietary brand assets. Aaker [1] classifies elements of brand equity in five categories: brand loyalty, brand awareness, perceived quality, brand association, and patent assets brand (proprietary brand asset).

Product

McCarty classifies marketing of the activities as a marketing mix of four broad categories, called 4P from marketing such as product, price, place and promotion, kotler & keller [4]. The 4P marketing mix represents a marketing view of available marketing tools to influence buyers.

Roosta *et al.*, [6] defines the Product as any thing that presents the service and meets the needs of a person can be considered a product [7]. In other words, the combination of goods and services is presented to consider the market by the company. Indicators of this variable are product variety, design quality, features, brand, packaging, size, service, warranty, support, and reversibility [4]. Meanwhile, according to Tjiptono [8], the product is everything that the customer receives from an exchange with marketing. Products cover a wide variety of types including physical goods, events, experiences, places, properties, organizations, information, and ideas.

Price

Kotler [9] defines the Price literally means assessing, evaluating, measuring and benchmarking. The market for lodging prices means good exchange rates and services declared as other currencies, the price words are money to be paid by customers purchasing the product [7].

According to Tjiptono [8], the price is a monetary unit or other measure including other goods and services exchanged in order to obtain ownership or use of goods or services. This understanding is in line with the concept of exchange (exchange) in marketing.

Grewal and Levy formulate the definition of price as an overall sacrifice that consumers are willing to make in order to get a specific product or service [8].

Place

The place is describing where to distribute the goods or products as the purchase destination. Distribution defined by kotler [8] as a major element in distributing goods well to traders and demonstrating the importance of accessibility and reliability of suppliers as purchasing destinations for buyers. Distribution shows two related concepts but different marketing. The first distribution includes the mediator who buys the goods and sells them. The second distribution includes physical distribution; the transfer of goods after the production process by the company to reach customers [7]. In other words, the first distribution process is a marketing activity that can create value added products through marketing functions that can realize the use / utility of form, place, time and ownership. The second is to smooth the flow of marketing channels (flow channel) physically and non physically.

What is meant by the flow of marketing is the flow of activities that occur among the marketing agencies involved in the marketing process [8].

Promotion

Kotler & Keller [4] defines Promotion as a short-term incentive to encourage the purchase or sale of a product. Promote sales on various types of promotional tools designed to stimulate stronger and faster market reaction. These tools include: encouraging consumers, promoting trade and encouraging sellers. Some sales promotion tools are to create customers include: sales messages with a process to create long-term consumer demand in buying brand change. Permanently this process includes: presenting product samples, discount coupons and rewards for purchasing products.

In other words, promotion is a collection of activities that offer product value and encourage customers to buy it. Promotion is one of the determinants of the success of a marketing program. No matter how good the quality of a product is if the consumer has not heard it or is not sure that it will be useful to them, they will not be interested in buying it. Tjiptono [8].

Conceptual Frameworks

Aaker [1], classifies elements of brand equity in five categories: brand loyalty, brand awareness, perceived quality, brand asset and asset patent brand (proprietary brand asset), brand loyalty, namely the level of attachment (attachment) a consumer on a particular brand. Brand awareness, reflecting the ability of consumers to recognize or remember that a brand is a

member of a particular product category. Perceived quality (perceived quality), is the consumer's assessment of the superiority or superiority of the product as a whole. Therefore, perceived quality is based on subjective evaluation of consumers (not managers or experts) on product quality. Brand association, reflecting everything associated with memory of a brand.

Brand association is closely related to the brand image, which is defined as a series of brand associations with a certain meaning. Brand associations have a certain level of strength and will grow stronger as consumption experiences or exposure with specific brands grow. A proprietary brand asset, concerning other matters of potential brand assets such as trademark protection.

According to Kotler & Keller [4], the brand identity typically consists of 8 to 12 representing concepts such as product scope, product attributes, quality/ value, usability, users, organizational attributes, brand personality and most important symbols of all which will work on a brand development program, is a core identity element. The creation of significant brand equity is due to the achievement of the peak or the highest point of the brand pyramid, which only occurs when the right building contact is installed in place.

Many researches suggest that the right marketing strategies such as interactive advertising, promotion and marketing strategies can create a competitive advantage, increasing the company's Brand Equity. Packaging differentiation, brand image, brand experience positively improves customer perceptions, brand awareness and brand associations. In addition, the factors that can improve Brand Equity are influenced by the marketing mix marketing activity activity with 4 dimensions of brand equity including the research conducted by Majid *et al.*, [10], Marhaeni *et al.*, [12]

Nam *et al.*, [12], Clark S *et al.*, [14], Raithel *et al.*, [14] and Sinapuelas *et al.*, [15].

While the results of research Huang & Sarigöllü [16], said that Variable marketing mix, such as Promotion, Distribution, Price and Brand Experience positively affect the Brand Equity and sales results. Research conducted by Buil & Marti'nez [17] found that brand equity dimensions are interrelated. Brand awareness positively affects the perceptions of quality and brand association. Brand loyalty is mainly influenced by brand associations. Finally, quality perceptions, brand associations and brand loyalty are the overall key drivers of brand equity findings also reinforce the positive impact of brand equity on consumer responses. Swoboda *et al.*, [18] in his research found that price perception most significantly affects Retail Brand Equity (RBE) strongly. The importance of retail attributes for Retail Brand Equity (RBE) varies across different sectors, but there is a strong and stable relationship between Retail Brand Equity (RBE) and proven customer loyalty in this retail. A study by Ali, Hapzi & Mappesona [19] found results that say that Brand Image can be built with variable Service Quality and Product Quality. That Service Quality and Product Quality have positive and significant effect to Brand Image, either partially, simultaneously either directly or indirectly.

Then the results of the study conducted Aghaeia *et al.*, [20], Dmaour *et al.*, [21], Supriatna *et al.*, [22] found a relationship of Quality Perceptions and Brand Loyalty, Brand Awareness brand associations have a positive and direct relationship with the variables Price, Product, Advertising, place, physical evidence, process and People in enhancing brand equity. Based on the above explanation of the flow of thinking between research variables with reference to the results of previous research and expert opinion, it can be described through the framework of research models such as the following figure:

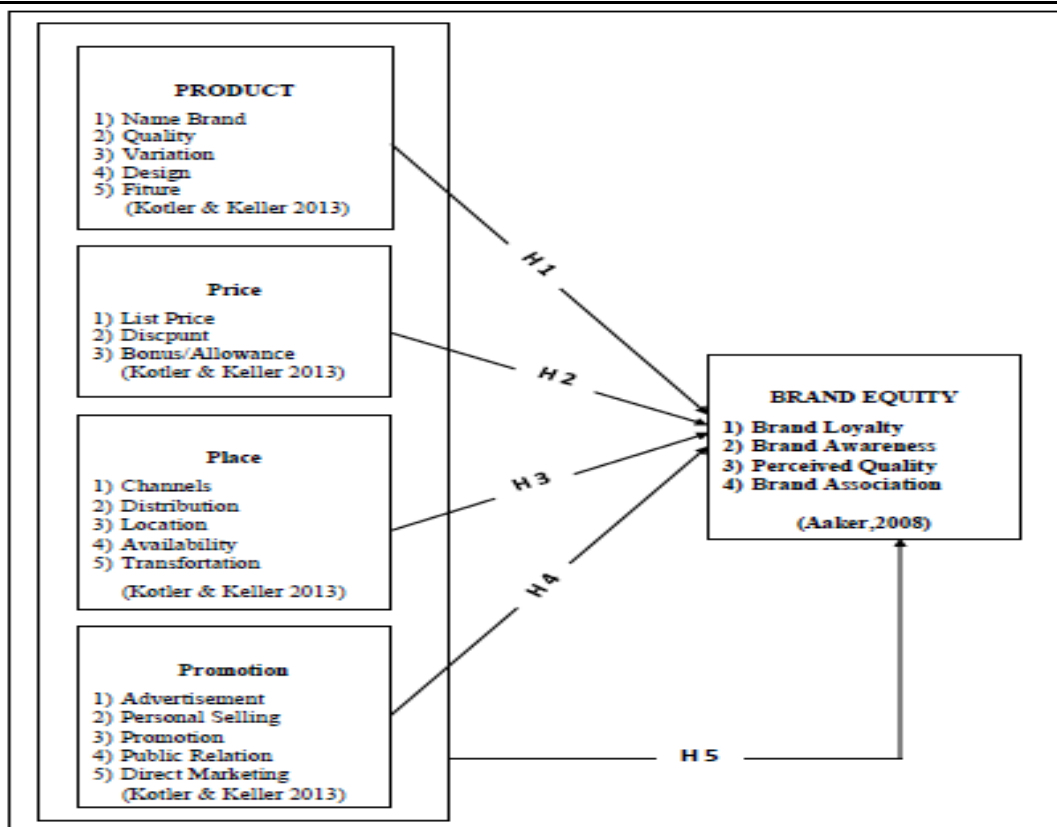


Fig-1: Concetual Framework

Research Hypothesis

Based on the research hypothesis research objectives are:

- H1 : *Product* has a positive and significant effect to *Brand Equity* .
- H2 : *Price* has a positive and significant effect to *Brand Equity*.
- H3 : *Place* has a positive and significant effect to *Brand Equity*.
- H4 : *Promotion* has a positive and significant effect to *Brand Equity*.
- H5 : *Product, Price, Place* and *promotion* have a direct and positive direct effect to *Brand Equity*.

RESEARCH METHODS

The study was conducted by observing students from six universities in Jakarta, Bogor Depok, Tangerang, Bekasi consisting of two state universities and four private universities. With the classification of middle and upper class students who have used refill ink such as University of Indonesia, Jakarta State University, University of Mercur Buana, University of Muhammadiyah Jakarta, Tarumanagara University, Muhammadiyah University Prof. Dr. Hamka. So the number of samples from the total population of 146,598 students with 5% MOE at 95% confidence level are: $S = 347$ samples.

A valid instrument means that the measuring instrument used to obtain or measure is valid. Valid

means the instrument can be used to measure what should be measured [23]. In this research, the validity and reliability test is done by computerized using SPSS 23.0. In conducting the research, the researchers need to test the instrument or measuring instrument in the form of questionnaires to be disseminated on the respondents. In testing this instrument, the researchers tested Validity and Realiabilas by distributing questionnaires to 30 respondents. This is done by the researcher to know whether the measuring instrument in the form of questionnaire is valid and realibel. When the measuring instrument is valid and the reliability of the questionnaire can be distributed to 347 respondents. In any statistical test it is necessary to establish a basis for a decision as a reference for making a conclusion. As already explained on the theoretical basis that a question item is called valid if it meets the following requirements:

- 1) If the value of r arithmetic positive and r arithmetic $> r$ table, then the item is declared valid
- 2) If the value of r arithmetic negative or r arithmetic $< r$ table, then the item of the questionnaire is declared invalid

Reliability is the reliability level of the questionnaire. The realibel instrument is an instrument that when used multiple times to measure the same object will produce the same data [23]. A construction or variable is said to be reliable if it gives a cronbach

alpha (α) value > 0.60 and is said to be unreliable if it gives a cronbach alpha (α) value < 0.60 .

In this study the authors will perform some classical assumption test which includes normality test, multicollinearity test, and heteroscedasticity test where the purpose of this test is to know the existence of violation against the classical assumption as the basis for testing of Multiple Linear Regression before testing hypothesis.

The normality assumption test aims to determine whether a set of data is in accordance with the modeled normal distribution or not? Or to calculate how likely random variables are normally distributed [24]. Basic decision-making can be done as follows: 1). When dots or data spread around the diagonal and follow the direction of the diagonal line, the regression model satisfies the assumption of normality 2). When the point or data spreads far from around the diagonal area and or does not follow the diagonal line, then the regression model does not meet the assumption of normality.

While multicollinearity test aims to determine whether there is a linear relationship between independent variables (Product, Price, Place, Promotion) in a multiple linear model. Linear relationships between independent variables (independent) can occur in the form of a perfect relationship or not perfect. To determine the relationship it can be done by testing the variance inflation factor (VIF) [24]. As a basis for decision making, if the VIF X_1 value over X_2 , X_3 and X_4 < 10 , it can be concluded not to occur Multicollinearity or if tolerance value > 0.10 then does not occur Multicollinearity.

Then Heteroskedastisitas test aims to determine the variance of the error regression model is not constant or the variance between errors that one with another is different. Next to find out whether the pattern of error variables containing Heteroskedastisitas can be done with Test Glejser. This test is done by regressing residual as dependent variable while independent variable X_1 , X_2 , X_3 and X_4 as predictor variable. As the basis of the decision maker is If the significance value $>$ of 0.05 means it can be concluded no symptoms of Heteroskedastisitas [24]. This study uses multiple linear regression analysis, the equation is $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$, where Y = Brand Equity (result of regression / prediction / estimation), β_0 = Intercept, β_{123} = Slope or coefficient regression for variable X (independent variable X_1 product, X_2 = promotion, X_3 = price, X_4 = place, ϵ = error are all things that may affect the dependent variable Y , which is not observed by the researcher. test of determination analysis (R Square), partial hypothesis

testing (t test) and simultaneous (F test) with 5 percent error tolerance level.

RESULTS AND DISCUSSION

Respondents Answer

Judging from the results of respondents can be drawn description or description related to the variables that focus on the discussion of this study. Where the description can be described as follows.

1. Based on the score and percentage of total contribution for the Product variable can give an idea that the product variable score entered in the category is quite high. It can be taken interpretation that according to the respondent's assessment can be known that the condition or condition of the Product is good enough.
2. Based on score and percentage of total contribution for Price variable can give picture that variable score Price enter in category enough high. It can be taken interpretation that according to the respondent's assessment can be seen that the condition or condition Price according to the perception of respondents is good enough.
3. Based on score and percentage of total contribution for Place or Distribution variable can give description that place / distribution variable score included in category high enough. It can be taken interpretation that according to the respondent's assessment can be seen that the condition or state of variable Place / Distribution according to the perception of respondents is good enough.
4. Based on the score and percentage of total contribution for Promotion variables can give an idea that Promotion variable scores enter in the category is quite high. It can be taken interpretation that according to the respondent's assessment can be known that the condition or state of variable Promotion according to the perception of respondents is good enough.

Judging from the results of respondents' perceptions of the variables in this study, said all variable categories are quite high. Which means that the performance of each variable needs to be improved to achieve excellent respondent perceptions in achieving the goal terbagunnya Brand Equity is strong in the eyes of customers.

A good multiple-linear regression equation model that can be passed to the next analysis is those that meet the requirements of classical assumptions, including all normal distributed data, the model must be free of heteroskedastisitas and no correlation between independent variables. The following will explain the results of the classical assumption test.

Based on the results of tests conducted with the use of SPSS 23.0, as a tool in this research, showed that the data in this study is normally distributed. This

can be seen from the normal image plot of regression standardized residual where the normal P-P points are close and follow the diagonal line so that the Residual value is normally distributed. As the basic provisions of decision making, then the normality requirement in the regression analysis can be fulfilled. As the basic provisions of decision making, then the normality requirement in the regression analysis can be fulfilled. Then from the multicollinearity test results are known for the VIF value of the Product variable of 2.25, the Price variable of 2.13, the VIF Value of Place 1.68 variable, and the Promotion variable 1.79, this value is smaller than the value determined as the basis of the decision maker is 10.00 then it can be said that there is no linear relationship between independent variables in a multiple linear model or does not occur Multicollinearity.

Furthermore, the result of heteroskedasticity test shows that the significance value for product variable X1 is 0.147, for the significance value of the variable price (X2) of 0.134, the significance of the

Venue (X3) 0.889 and the Promotion (X4) variable significance value of 0.50. Because of significance value > 0.05 then on this regression model does not occur heteroskedasticity symptoms on product variable (X1), Price (X2), Place (X3) and Promotion variable (X4), so that good and ideal regression model can be fulfilled.

From the results of testing and analysis of several classical assumptions that have been done proved that the equation model proposed in this study has met the requirements of the classical assumption so that the equation model in this study is considered good.

Multiple Linear Regression is used to analyze the relationship of a variable to another variable, ie the independent variable in order to make an estimate of the size or prediction of the average value of the dependent variable by knowing the independent variable. Here the researchers present the results of multiple linear regression test in table 1 below:

Table-1: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4,601	1,299		3,541	,000
PRODUCT	,357	,047	,432	7,658	,000
PRICE	,234	,070	,185	3,362	,001
PLACE	,298	,066	,221	4,532	,000
PROMOTION	,286	,048	,220	4,445	,000

a. Dependent Variable: Brand Equity

Source: Output SPSS under 23.00

From Table-1 above were obtained the results of multiple linear regression equation is $Y = 4601 + 0357 + X1 + 0.234X2 + 0.298X3 + 0.286X4$. Description Y is Brand Equity, X1 = Product, X2 = Price, X3 = Place, X4 = Promotion. From the results of this equation can be interpreted that the variable Product, Price, Place and Promotion has a positive coefficient value against the direction of Brand Equity. While the constant value indicates the effect of the variables X1,

X2, X3 and X4 when variable X rises one unit will significantly influence one unit in the variable Y.

Result of Determination Analysis (R²)

To find out how big donation of Product Variables (X1), Hara (X2), Place (X3) and Promotion (X4) to Brand Equity variables can be seen from the coefficient of determination R² as seen in Table 2 below:

Table-2: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,755 ^a	,570	,564	3,189178

a. Predictors: (Constant), PROMOTION, PLACE, PRICE, PRODUCT

Source: Output SPSS under 23.00

Point R Square which the contained in table.2 above is 0.570 while the values of all variables that affect the regression model outside the model that is outside the observation (variable €) and entered into the model of 0.43. For Determination coefficient value (KD) is equal to 57,0%. So about 57.0% of variations in

the Brand Equity (Y) model can be explained by Product variables (X1), Price (X2), Place (X3), and Promotion (X4), and the rest of 43.0% can be explained by other factors observed by the researcher (variable €). So that this model can be interpreted that the influence of product variable (X1), Price (X2), Place (X3) and

Promotion variable significantly influence to Brand Equity dependent variable equal to 57,0%. While the rest of 0.43 influenced by variable factors that researchers are not observed.

Test Results Effect of Partial (t test) and Simultaneous Effect (Test F)

Hypothesis testing aims to explain the characteristics of particular relationships or differences

between groups or the independence of two or more factors in a situation [25]. Assessment of the effect of partial aims to examine whether each of the independent variables significantly influence the dependent variable partially with $\alpha = 0.05$ and also the acceptance or rejection of the hypothesis. Partial test (t test) to answer hypotheses one and two of this study.

Table-3: T Test Results (Partial)

Variabel	t	Sig.
(Constant)	3,541	,000
PRODUCT	7,658	,000
PRICE	3,362	,001
PLACE	4,532	,000
PROMOTION	4,445	,000

F Counted : 100.64 Sig : 0.000 R² : 0.570

Source: Output SPSS under 23.00.

Product Influence on Brand Equity

Based on the regression test results in table 3 above obtained t Calculate on Product variables of 7658 with the value of t Table of 1.968 and significance 0.000. Because the value of t count (7,658) > t table (1.968) and significance value 0.000 < 0.05 it can be concluded that the Product Variable significantly and positively affect the Brand Equity variable. This means that there is a linear relationship between varabel Products (X1) with Brand Equity (Y) variable.

These findings are consistent with the problem formulation and the research mindset that the Product has a positive and significant effect on Brand Equity, and the results of this study are confirmed by the results of the research, Supriatna *et al.*, [22], where the results of his research indicate a relationship and positive influence of Product variable, to Brand Equity. In addition Dmour *et al.*, [21], and Aghaeia [20], also shows that there is a positive and significant influence and there is a direct relationship of product variables to Brand Equity. The results of Hapzi & Mappesona study [19] confirm that Brand Image (dimension of Brand Equity) can be built with Service Quality and Product Quality variables. That Service Quality and Product Quality have positive and significant impact on Brand Image, either partially, simultaneously and either directly or indirectly.

Price Influence on Brand Equity

Based on the regression test results in table 3 above obtained t arithmetic on the variable price of 4.445 is greater than the value of t table of 1.968 (t Count > t Table) and the significance of 0.001 smaller than 0.05 (significance < 0.05) it can be concluded that Price Variables significantly and positively affect the Brand Equity variable. This implies that there is a linear relationship between Price variabel (X2) and Brand Equity (Y) variable.

These findings are consistent with the problem formulation and the research mindset that Price has a positive and significant effect on Brand Equity, and the results of this study are confirmed by the results of the study, Huang & Sarigöllü [16], showing that marketing mix variables, such as Promotion, Distribution, Price and Brand Experience positively affect Brand Equity. Similarly, research Dmour *et al.*, [21], and Aghaeia *et al.*, [20], also shows that there is a positive and significant influence and there is a direct relationship of Price variables to Brand Equity.

Place of Influence on Brand Equity

From the result of regression test in table 3 above t calculated on place variable equal to 4,532 bigger than t table value equal to 1,968 (t count > t table) and significance 0.000 less than 0.05 (significance < 0.05) hence can be concluded that variable Places have significant and positive effects on Brand Equity variables. This means that there is a linear relationship between variabel Place (X3) and Brand Equity (Y) variable.

These findings are consistent with the formulation of the problem and the research framework that Place has a positive and significant influence on Brand Equity, and the results of this study are confirmed by Huang & Sarigöllü [16], showing that marketing mix variables, such as Promotion, Distribution, Price and Brand Experience positively affect Brand Equity. Similarly, the study of Dmour *et al.*, [21], and Aghaeia *et al.*, [20], also shows that there is a positive and significant influence and there is a direct relationship of Place variables to Brand Equity.

The Influence of Promotion on Brand Equity

Regression test results in Table-3 above shows that the value of t arithmetic on Promotion variable of 4532 is greater than the value of t table of 1.968 (t

count > t table) and the significance of 0.000 smaller than 0.05 (significance < 0.05) it can be concluded that Promotion Variable positively and significantly influence to Brand Equity variable. This implies that there is a linear relationship between Promotional variables (X4) and Brand Equity (Y) variables.

These findings are in accordance with the formulation of the problem and the research mindset that Promotion has a positive and significant effect on Brand Equity, and the results of this study are confirmed with the results of the study, Huang & Sarigöllü [16], showing that marketing mix variables such as Promotion, Distribution, Price and Brand Experience positively affect Brand Equity. Similarly, the study of Dmour *et al.*, [21], and Aghaeia *et al.*, [20], also shows that there is a positive and significant influence and there is a direct relationship of Promotion variables to Brand Equity. Further research result Supriatna *et al.* 2017 reinforce that in the marketing mix and brand equity study found the finding that only promotion factors and marketing channel factors from

the marketing mix that affect brand equity in this dimension only on perceived quality. The measurable variables of the three constructs that have influence (promotion, marketing channel, and perceived quality) are also influential, positively correlated, and can explain the constructs.

Effect of Product, Price, Place and Promotion on Brand Equity

Simultaneous F test results showed that four variables like product (X1), Price (X2), Points (X3) and Promotion (X4) have an influence on injecting ink Brand Equity Data Print. This is in accordance with the opinion of Aaker [1] that the brand equity built by five main dimension that Loyalty, Brand Consciousness, Perceived Quality and Brand Association and the fifth dimension is influenced by Product, Price, Place and Promotion. Meaning The higher the quality of the four variables will create Loyalty, Brand Awareness, Perceived Quality and Brand Association that will ultimately create value for customers by reinforcing the interpretation of Product, Price, Place and Promotion.

Table-4: Simultaneous Test Results (F Test)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4096,153	4	1024,038	100,684	,000 ^b
	Residual	3091,940	304	10,171		
	Total	7188,093	308			

a. Dependent Variable: BRAND EQUITY

b. Predictors: (Constant), PROMOTION, PLACE, PRICE, PRODUCT

Based on the results of statistical tests in table 4 above the value of F arithmetic for product variable (X1), Price (X2), Place (X3), Promotion (X4) is 100.684 larger than F table is 2.401. While the Sig value of 0.000 is smaller than 0.05. Because the value of F arithmetic > F table and the value of Sig < 0.05 it can be concluded that the product variabel (X1), Price (X2), Place (X3) and Promotion (X4) simultaneously have a positive and significant influence on Brand Equity variables.

Based on the results of this research determination analysis that brand equity influenced by many factors, apart from marketing mix. Marketing mix also influences purchasing decisions, brand image, customer loyalty and other variables. The results of this study are aligned and reinforced by previous research among them is that:

1. Product, Price and Distribution Channel have a positive and significant effect on Purchase Decision either partially or simultaneously on Mandiri e-Cash [26];
2. Brand Image, Brand Awareness and Price have positive and significant effect on Purchase Decision either partially or simultaneously, SMECO Indonesia SME Case Study Case Study [27];

3. Quality of Service, Brand Image and Promotion have a positive and significant effect on Purchase Decision either partially or simultaneously at PT. Hartekprima Listrindo Jakarta [28].

CONSLUSSION AND SUGESTION

CONCLUSSION

Based on the results and the conclusion of this research are:

1. Product is a factor that can encourage the strong value of Brand Equity in the eyes of consumers where when dimensions of Product such as Brand, Quality, Variation, Packaging Fiture and Security Data Print product is good then by itself the ability of consumers to recognize and loyal to ink products Refill Data Print will also be stronger and ultimately the value of the Brand Equity of the Print ink refill also increases. The result of partial research of Product (X1) has significant and positive effect to Brand Equity (Y) variable.
2. Based on the results of partial test Influence of variable price (X2) to variable Brand Equity (Y), have a significant and positive influence. A strong and positive relationship is shown between the relationship of product variables to the Price List and Bonus dimensions with the dimensions of Brand Equity such as Brand Loyalty, Brand

Awareness, Quality Perceptions and Brand Associations. This implies that the Brand Equity variable can be explained by Product variables by only through the List and Bonus List dimensions.

3. The effect of Place variable (X3) on Brand Equity (Y) variable based on partial test results has a significant and positive influence. The relationship between the dimensions of independent variables and these are explained by their respective dimensions. The channel dimension, Distribution, Location, Availability and Transportation have a strong enough relationship and direction to the dimension of Quality Perception and Brand Association. So the relationship between these dimensions can explain the relationship between product variables and Brand Equity.
4. Based on the results of partial test the influence of Promotion variables on Brand Equity variables are significant and positive. The relationship between Promotion variables and Brand Equity Variables can be explained by looking at the relationship of the Ad dimension with the Brand Association, as well as the relationship that occurs to the personal dimension of Selling with the Brand's Accusations. Both seen from the results of partial test analysis and the correlation between dimensions on the variable Promotion results show to confirm the formulation of the problem and framework of thinking in this study.
5. The simultaneous test results of Product, Price, Place and Promotion variables indicate that these variables significantly and positively affect the Brand Equity. This result is confirmed by the correlation between dimensions where inter-dimensional relationship can explain the influence and direction of the relationship between independent variables (Product, Price, Place, and Promotion) with dependent variable (Brand Equity)

SUGESTION

Based on the results of data analysis, statistical calculation process, empirical research model testing and discussion of the results of the study conducted, submitted some suggestions as follows:

1. To obtain comparison and strengthen the theory of influencing among the variables studied, it is necessary to do research or review on other refill ink brands circulating in Jabodetabek marketing area with different respondent characteristics and more complex.
2. It needs to be studied more deeply dimension in product variables, Price, Place, and Brand Equity which character of weak inter-dimensional relationship even tend to be very weak. So that can be arranged another model in problem solving relating to the improvement of the value strength of the Brand Print Data Ink Refill Equity.
3. For further research is expected to examine the variables that are not observed researchers. Where

in this study the variable dependent (Brand Equity Y) can only be explained by about 57.0% of independent variables (4P variables). While the remaining 43.0% is an unobserved variable of research.

REFERENCES

1. Aaker, D. A. (2008). *Manajemen Ekuitas Merek: Memanfaatkan Nilai dari suatu Merek*. Cetakan Ketiga.
2. Kotler, M. (2005). *Neighborhood government: The local foundations of political life*. Lexington Books.
3. Sangadji, E. M. (2013). Sopiah. *Perilaku Konsumen Pendekatan Praktis Disertai Himpunan Jurnal Penelitian*.
4. Khotler, P., & Kevin L. K. (2013). "Manajemen Pemasaran. Edisi ke 13 Jilid satu". Penerbit Erlangga. ISBN 978-0-13-600998-6. Jakarta.
5. Cravens, D. W., & Piercy, N. (2003). *Strategic marketing* (Vol. 8). Boston, MA: McGraw-Hill Irwin.
6. Roosta, S. H. (2012). *Parallel processing and parallel algorithms: theory and computation*. Springer Science & Business Media.
7. Mohammadi, M. K., & Dinani, H. G. (2016). Observing the Effect of Marketing Mix on Brand Equity and Customer Lifetime Value of Falizan Food Producing Company. *life*, 4(1), 19-26.
8. Tjiptono, F. (2015). *Strategi Pemasaran Edisi Empat*. Yogyakarta: Andi.
9. Kotler, P., & Lee, N. (2008). *Corporate social responsibility: Doing the most good for your company and your cause*. John Wiley & Sons.
10. Majid, M. A. A., Alias, M. A. M., Samsudin, A., & Chik, C. T. (2016). Assessing Customer-Based Brand Equity Ratings in Family Restaurant. *Procedia Economics and Finance*, 37(16), 183-189.
11. Fanani, Z., Hartono, B., & Nugroho, B. A. (2015). The influence of the marketing mix (product, price, promotion, place, process, entrepreneurs and physical evidence) to customer satisfaction and loyalty in buying shredded beef in palu city, indonesia. *International Journal of Economic Research*, 12(1).
12. Nam, J., Ekinci, Y., & Whyatt, G. (2011). Brand equity, brand loyalty and consumer satisfaction. *Annals of Tourism Research*, 38(3), 1009-1030.
13. Sinapuelas, I. C. S., Wang, H. M. D., & Bohlmann, J. D. (2015). The interplay of innovation, brand, and marketing mix variables in line extensions. *Journal of the Academy of Marketing Science*, 43(5), 558-573.
14. Raitel, S., Taylor, C. R., & Hock, S. J. (2016). Are Super Bowl ads a super waste of money? Examining the intermediary roles of customer-based brand equity and customer equity

- effects. *Journal of Business Research*, 69(9), 3788-3794.
15. Sinapuelas, I. C. S., Wang, H. M. D., & Bohlmann, J. D. (2015). The interplay of innovation, brand, and marketing mix variables in line extensions. *Journal of the Academy of Marketing Science*, 43(5), 558-573.
16. Huang, R., & Sarigöllü, E. (2014). How brand awareness relates to market outcome, brand equity, and the marketing mix. In *Fashion Branding and Consumer Behaviors* (pp. 113-132). Springer, New York, NY.
17. Martínez-Ariño, J., & Griera, M. (2016). Responses to Religious Diversity in Spain: Hospitals and Prisons from a Comparative Perspective. *Interdisciplinary Journal for Religion and Transformation in Contemporary Society—J-RaT*, 2(1), 37-59.
18. Swoboda, B., Weindel, J., & Hälsig, F. (2016). Predictors and effects of retail brand equity—A cross-sectoral analysis. *Journal of Retailing and Consumer Services*, 31, 265-276.
19. Ali, H., & Mappesona, H. (2016). Build Brand Image: Analysis. uality and Product Quality (Case Study at Giant Citra Raya). *International Economic Research*, 13(5), 2191-2211.
20. Aghaei, M., Vahedi, E., Kahreh, M. S., & Pirooz, M. (2014). An examination of the relationship between services marketing mix and brand equity dimensions. *Procedia-Social and Behavioral Sciences*, 109, 865-869.
21. Al-Dmour, H. Al-Zu 'bi, ZMF and Kakeesh, D. (2013).—The Effect of Services Marketing Mix Elements on Customer-Based Brand Equity: An Empirical Study on Mobile Telecom Service Recipients in Jordanl. *International Journal of Business and Management*, 8(11), 13-26.
22. Supriatna, D., Nurrochmat, D. R., & Fahmi, I. (2017). Pengaruh Bauran Pemasaran, Ekuitas Merek Terhadap Keputusan Pembelian Benih Cap Kapal Terbang di Jawa Barat. *Jurnal Aplikasi Bisnis dan Manajemen (JABM)*, 3(3), 341.
23. Rangkuti, F. (2016). "Riset Pemasaran". Penerbit Gramedia. ISBN 978-602-03-1921-61.Jakarta.
24. Riadi, E. (2016). Statistika Penelitian (Analisis Manual dan IBM SPSS). *Yogyakarta: Penerbit Andi*.
25. Ali, H., & Syailendra, Y. (2013). Pengaruh Tunjangan Profesi Guru Dan Kompetensi Guru Tehadap Kinerja Guru Pada Guru Sma Negeri 1 Muara Bungo. *Jurnal Ilmiah Universitas Batanghari Jambi Vol*, 13(2).
26. Hairiyah, S., & Ali, H. Customer Decision Analysis in Taking Multipurpose Loan: Promotions, Locations and Credit Procedures (A Case of the Bank" PQR Jakarta").
27. Novansa, H., & Ali, H. (2017). Purchase Decision Model: Analysis of Brand Image, Brand Awareness and Price (Case Study SMECO Indonesia SME products). *Saudi Journal of Humanities and Social Sciences*, ISSN 2415-6256 (Print).
28. Yunita, D., & Ali, H. (2017). Model of Purchasing Decision (Renting) of Generator Set: Analysis of Product Quality, Price an Service at PT. Hartekprima Listrindo.