THE INFLUENCE OF BRAND IMAGE TOWARDS BRAND LOYALTY OF DENTAL HOSPITAL OF UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

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Abstract

The change of hospital image become socio-economic organizations requires hospital has to be able to finance its operations and compete to gain the market share. Dental Hospital of Univesitas Muhammadiyah Yogyakarta is hospital in Yogyakarta. Hospital uses various marketing strategies to seize and retain consumer. One of them is making good brand image to get consumer loyalty. The purpose of study was to determine the influence of brand image towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta. The type study was quantitative research with causality and descriptive explanation. The samples were dental specialist pastient of Dental Hospital of Universitas Muhammadiyah Yogyakarta who had visited more than once with quota sampling technique. Data analysis was multiple regression analysis. The results showed brand image dimensions had a positive and significant simultaneously influence toward consumer loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta. The favorability of brand association and uniqueness of brand association had positive and significant influence towards brand loyalty, while the strength of brand association had positive and insignificant influence towards brand loyalty. The conclusion of the study showed brand image had a positive and significant influence towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.
Keyword: brand image, strength of brand association, favorability of brand association, uniqueness of brand association, brand loyalty

Abstrak

Perubahan citra rumah sakit menjadi organisasi sosio-ekonomis mengharuskan rumah sakit mampu membiayai operasional dan bersaing untuk mendapatkan pangsa pasar. Rumah Sakit Gigi dan Mulut Universitas Muhammadiyah Yogyakarta (RSGM UMY) merupakan rumah sakit khusus gigi dan mulut di Yogyakarta. Rumah sakit menggunakan berbagai strategi pemasaran untuk merebut dan mempertahankan konsumen, salah satunya dengan membentuk citra merek yang baik untuk mendapatkan loyalitas konsumen. Tujuan penelitian ini adalah untuk mengetahui pengaruh citra merek terhadap loyalitas merek RSGM UMY. Jenis penelitian adalah penelitian kuantitatif dengan penjelasan kausalitas dan deskriptif. Sampel yang digunakan adalah pasien poli gigi umum dan spesialis RSGM UMY yang telah melakukan kunjungan lebih dari satu kali teknik pengambilan sampel quota sampling. Analisis data yang digunakan adalah analisis regresi berganda. Hasil penelitian menunjukkan bahwa dimensi citra merek berpengaruh positif dan signifikan secara simultan terhadap loyalitas merek. Keunggulan asosiasi merek dan keunikan asosiasi merek berpengaruh positif dan signifikan terhadap loyalitas merek, sedangkan kekuatan asosiasi merek berpengaruh positif dan tidak signifikan terhadap loyalitas merek RSGM UMY. Kesimpulan penelitian adalah citra merek berpengaruh positif dan signifikan terhadap loyalitas merek RSGM UMY.
Kata kunci: *citra merek, kekuatan asosiasi merek, keunggulan asosiasi merek, keunikan asosiasi merek, loyalitas merek*

INTRODUCTION

The hospital is a health service institution that carry on individual health services that provides inpatient, outpatient and emergency services[1]. The hospital must be able to finance its operations in order to the hospital function can be carried out properly. It causes the image change of the hospital, that is a social function to an economic function, so that the image of hospital has change into a socio-economic organization.

Potential of market potential in Indonesia makes hospital owners and managers must compete to reach markets that can provide financial benefits to hospitals. One of the challenges was how to gain and maintain market share, so that the owner and manager of the hospital has to develop and design a marketing strategy that can support its business.

Brand image is the opinion, attitude and emotion of consumer toward a brand that reflects the cognitive or psychological elements of a brand. Brand loyalty is relationship measurement between customer and brand. The measurement can provide a possibility overview of consumer that switch to another product, especially if a brand has changed, whether price or other attributes[2].

The Health Profile of the Special Region of Yogyakarta (DIY) in 2013 shows that dental pulp disease is one of the diseases that includes to top 10 diseases in DIY. This condition shows that the demand of dental and oral health services in DIY was still high. Dental Hospital of Universitas Muhammadiyah Yogyakarta is a special hospital located in DIY. Dental Hospital of Universitas Muhammadiyah Yogyakarta has complete dental and oral health service because it has all dental specialist services of dentistry and completes dental supporting facilities. The condition should make Dental Hospital of Universitas Muhammadiyah Yogyakarta became as market leader in dental and oral health services, especially in DIY.

Table 1 shows the patient number of dental specialist of Dental Hospital of Universitas Muhammadiyah Yogyakarta was increased in 2014, but there was decreased of patient number in 2015 and 2016. Based on the description, the study problem that can be formulated is " Does the brand image towards the brand loyalty of the Dental Hospital of Universitas Muhammadiyah Yogyakarta?" The purpose of this study were to determine the influence of brand image towards the brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta and to determine the influence brand image dimension towards the brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.

This study was expected to be useful on the theoretical aspect, those are a data resource for similar study reference, literature resource and provide idea about marketing management, as well as useful on practical aspect, those are obtained an overview of brand image and brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta and it can be used as one the base for Dental Hospital of Universitas Muhammadiyah Yogyakarta manager to determine the right strategy to develop the product, obtained an overview of the influence of brand image towards the brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta and provide advice to the development of marketing strategies for Dental Hospital of Universitas Muhammadiyah Yogyakarta.

STUDY METHODE

Type of study is quantitative study that explain causality and descriptive. The populations were dental specialist patient of Dental Hospital of Universitas Muhammadiyah Yogyakarta who had visited more than once. The number of study sample was 100 patients with quota sampling technique.

Table 1. The Number of Dental Specialist Patient of Dental Hospital of Universitas Muhammadiyah Yogyakarta year 2013, 2014, 2015 dan 2016

Month	Year			
	2013	2014	2015	2016
January	718	727	664	619
February	619	766	722	593
March	617	814	816	636
April	632	858	821	692
May	596	770	717	601
June	582	816	754	574
July	642	524	536	468
August	512	688	660	770
September	650	769	729	613
October	753	701	831	716
November	774	611	701	658
Desember	800	650	657	780
Total	7895	8694	8608	7720

Resource: Management Information System Dental Specialist Patient of Dental Hospital of Universitas Muhammadiyah Yogyakarta, 2017

Data collection was done by questionnaire with Likert scale. Validity test and reliability test was used Pearson Correlation test and Cronbach Alpha test. The data presentation was carried out by descriptive analysis. Regression equation was tested with classic assumption test consist of normality test, multicollinearity test and heteroscedasticity test. Data analysis was used multiple regression analysis. The hypotheses were:

H1: Brand image with strength of brand association, favorability of brand association and uniqueness of brand association has influence simultaneously towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.

H2: Strength of brand association has influence partially towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.

H3: Favorability of brand association has influence partially towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.

H4: Uniqueness of brand association has influence partially towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.

Result and Discussion

A. Validitas Test and Reability Test

Validity test shows all statement of questionnaire about brand image (strength of brand association, favorability of brand association and uniqueness of brand association) and brand loyalty had value of r was positive and the value of r was more than 0.3 (table 2), so that all the statements were valid.

Reliability test of all statement of the questionnaire about brand image (strength of brand association, favorability of brand association and uniqueness of brand association) and brand loyalty shows the value of Cronbach Alpha was 0.973 (table 3), so that all statements were reliable.

Table 2. Validity Test Result

Variable	Statement	Value of r	Status
	Strength of Brand Association		
	1	0,797	Valid
	2	0,760	Valid
	3	0,799	Valid
	4	0,742	Valid
	5	0,481	Valid
	6	0,593	Valid
	7	0,751	Valid
	8	0,851	Valid
	9	0,883	Valid
	10	0,867	Valid
	11	0,836	Valid
Brand image	*Favorability of Brand Association*		
	1	0,896	Valid
	2	0,900	Valid
	3	0,792	Valid
	4	0,881	Valid
	5	0,878	Valid
	6	0,780	Valid
	Uniqueness of Brand Association		
	1	0,848	Valid
	2	0,730	Valid
	3	0,892	Valid
	4	0,756	Valid
	1	0,781	Valid
Brand loyalty	2	0,698	Valid
	3	0,810	Valid
	4	0,589	Valid

Resource: SPSS output, 2018

Table 3. Validity Test Result

Reliability Statistics	
Cronbach's Alpha	N of Items
.973	25

Resource: SPSS output, 2018

B. Descriptive Analysis

The characteristic description of respondent based on gender was present in table 4.

Table 4. Respondent Characteristic Based on Gender

Gender	Frequency	Persentage
Male	39	39%
Female	61	61%
Total	100	100%

Resource: primer data, 2018

Table 4 shows male respondent was 39 persons (39%) and female respondent was 61 persons (61%) It can concluded that mayority respondent based on gender was female (61 persons). The characteristic description of respondent based on age was present in table 5.

Table 5. Respondent Characteristic Based on Age

Age (Years Old)	Frequency	Persentage
17-27	46	46%
28-38	29	29%
39-49	14	14%
>49	11	11%
Total	100	100%

Resource: primer data, 2018

Table 5 shows respondent at 17-27 years old was 46 persons (46%), at 28-38 years old was 29 persons (29%), at 39-49 years old was 14 person (14%) and more than 49 years old was 11 persons (11%). It can concluded that mayority respondent based on age was 17-27 years old (46 persons). The characteristic description of respondent based on occupation was present in table 6.

Table 6. Respondent Characteristic Based on Occupation

Occupation	Frequency	Persentage
Student	42	42%
Housewife	8	8%
Government employees	10	10%
Private employees	21	21%
Entrepreneur	13	13%
Other (retired)	6	6%
Total	100	100%

Resource: primer data, 2018

Table 6 shows student respondent was 42 persons (42%), housewife was 8 persons (8%), Government employees was 10 persons (10%), Private employees was 21 persons (21%), Entrepreneur was 13 persons (13%) and other (retired) was 6 persons (6%). It can

concluded that mayority respondent based on occupation was student (42 persons). The characteristic description of respondent based on expenditure was present in table 7.

Table 7. Respondent Characteristic Based on Expenditure

Expenditure Average per Month	Frequency	Persentage
< Rp2.500.000	43	43%
Rp2.500.000 – Rp5.000.000	25	25%
Rp5.000.001 – Rp7.500.000	18	18%
Rp7.500.001 - Rp10.000.000	8	8%
> Rp10.000.000	6	6%
Total	100	100%

Resource: primer data, 2018

Table 7 shows respondent with expenditure average per month less than Rp2.500.000 was 43 persons (43%), expenditure average per month Rp2.500.000 – Rp5.000.000 was 25 persons (25%), expenditure average per month Rp5.000.001 – Rp7.500.000 was 18 persons (18%), expenditure average per month Rp7.500.001 – Rp10.000.000 was 8 persons (8%), and expenditure average per month more than Rp10.000.000 was 6 persons (6%). It can concluded that mayority respondent based on expenditure average per month was less than Rp2.500.000 (43 persons).

C. Classic Assumption Test

Normality test with Kolmogorov-Smirnov analysis showed on table 8.

Tabel 8. Normality Test Result

Variable	Significance	Explanation
Strength of Brand Association	0,689	Normal
Favorability of Brand Association	0,990	Normal
Uniqueness of Brand Association	0,893	Normal
Brand Image	0,860	Normal

Resource: SPSS output, 2018

Normality test result shows all of variable has significance value was more than 0,05 (sig > 0,05). It can concluded that the data has normal distribution. Multicollinearity test result showed on table 9.

Table 9. Multicollinearity test result

Dimention	Tolerance	VIF	Explanation
Strength of Brand Association	0,330	3,029	There was no multicollinearity
Favorability of Brand Association	0,360	2,776	There was no multicollinearity
Uniqueness of Brand Association	0,492	2,032	There was no multicollinearity

Resource: SPSS output, 2018

Multicollinearity test result shows all of variable has tolerance value more than 0,1 and VIF value less than 10. It can concluded that regression model has no multicollinearity. Heteroscedasticity test result showed on table 10.

Table 10. Heteroscedasticity test result

Dimention	Significance	Explanation
Strength of Brand Association	0,297	There was no heteroscedasticity
Favorability of Brand Association	0,133	There was no heteroscedasticity
Uniqueness of Brand Association	0,715	There was no heteroscedasticity

Resource: SPSS output, 2018

Heteroscedasticity test result shows all of variable has significance value was more than 0,05 (sig > 0,05). It can concluded that the data has normal distribution. It can concluded that regression model has no heteroscedasticity.

D. Multiple Regression Analysis

Multiple regression analysis result shows on table 11. Multiple regression analysis showed β value (constant) was 3,696, regression coefficient X1 was 0,025, regression coefficient X2 was 0,151 and regression coefficient X3 was 0,442, so that the multiple regression equation can be written as:

$Y = 3,696 + 0,025X_1 + 0,151 X_2 + 0,442 X_3$

The regression equation models in standardized regression equation were:

1. Constant coefficient was 3,696 it means independent variable (strength of brand association, favorability of brand association dan uniqueness of brand association) has positive influence towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta

2. Regression coefficient (β) X1 was 0,025. It means strength of brand association has positive influence towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.

3. Regression coefficient (β) X2 was 0,151. It means favorablity of brand association has positive influence towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.

4. Regression coefficient (β) X3 was 0,442. It means uniqueness of brand association has positive influence towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.

Table 11. Multiple Regression Analysis Result

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.696	1.366		2.706	.009
Strength of Brand Association	.025	.062	.057	.401	.689
Favorability of Brand Association	.151	.087	.234	1.729	.088
Uniqueness of Brand Association	.442	.099	.518	4.485	.000

a. Dependent Variable: *Brand_image*

Resource: SPSS output, 2018

E. Hypothesis Test

The determination coefficient test result shows that the coefficient of determination (Adjusted R Square) was 0.526 (Table 12). This value means 52.6% of brand loyalty can be explained by strength of brand association, favorability of brand association and uniqueness of brand association the variables. While 47.4% of brand loyalty was influenced by other variables not examined in this study.

Table 12. Determination coefficient test result

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error
1	.739[a]	.546	.526	1.540

a. Predictors: (Constant),

b. Dependent Variable: brand loyalty

Resource: SPSS output, 2018

Simultaneous test result (test F) was shown in Table 13. The influence of independent variables simultaneous ly towards the dependent variable shows that the calculated F value was more than F table value (27.697> 2.70) with significant value less than 0.05 (0.000). It can concluded strength of brand associations, the favorability of brand associations and the uniqueness of brand associations have a significant influence simultaneously towards consumer loyalty. The hypothesis that state the strength of brand associations, favorability of brand associations and uniqueness of brand associations simultaneously have positive influence towards consumer loyalty can be accepted (H_0 rejected and H_1 accepted).

Tabel 13. Simultaneous Test Result (Test F)

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	196.992	3	65.664	27.679	.000[a]
	Residual	163.693	69	2.372		
	Total	360.685	72			

a. Predictors: (Constant),   *Strength of Brand Association, Favorability of Brand Association, Uniqueness of Brand Association*

b. Dependent Variable: brand loyalty

Resource: SPSS output, 2018

The partial test result (test t) was shown in table 14. The partial test result between strength of brand association variable towards brand loyalty showed the regression coefficient value of the strength of brand association was 0.025 and has positive value. It can concluded that the strength of brand association has positive influence towards brand loyalty. Positive influence means the brand loyalty will increase if strength of brand association was increases. Regression analysis has a significance value was 0.689 (> 0.10 at 90% confidence level). It was concluded that Ho was accepted and H2 was rejected, meaning that the strength of brand association had no significant influence towards on brand loyalty.

The partial test result between favorablity of brand association variable towards brand loyalty showed the regression coefficient value of the favorablity of brand association was 0.151 and has positive value. It can conclude that the favorablity of brand association has positive influence towards brand loyalty. Positive influence means the brand loyalty will increase if favorablity of brand association was increase. Regression analysis has a significance value was 0.088 (< 0.10 at 90% confidence level). It was concluded that Ho was rejected and H3 was accepted, meaning that the favorablity of brand association had significant influence towards on brand loyalty.

The partial test result between uniqueness of brand association variable towards brand loyalty showed the regression coefficient value of the favorablity of brand association was 0.442 and has positive value. It can conclude that the uniqueness of brand association has positive influence towards brand loyalty. Positive influence means the brand loyalty will increase if uniqueness of brand association was increase. Regression analysis has a significance value was 0.000 (< 0.10 at 90% confidence level). It was concluded that Ho was rejected and H4 was accepted, meaning that the uniqueness of brand association had significant influence towards on brand loyalty.

Tabel 14. Partial Test Result (Test t)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.696	1.366		2.706	.009
Strength of Brand Association	.025	.062	.057	.401	.689
Strength of Brand Association	.151	.087	.234	1.729	.088
Strength of Brand Association	.442	.099	.518	4.485	.000

Resource: SPSS output, 2018

F. Discussion

The data analysis showed that all brand image variables (strength of brand association, favorability of brand association and uniqueness of brand association) have a positive and significant influence simultaneously with calculated F value more than F table and a significance value was 0.000 (<0,05). It means that all of brand image dimensions of Dental Hospital of Universitas Muhammadiyah Yogyakarta were the consumers' decisions basic to be loyal to Dental Hospital of Universitas Muhammadiyah Yogyakarta.

Brand image that has been established by Dental Hospital of Universitas Muhammadiyah Yogyakarta was the consumer loyalty consederation to Dental Hospital of Universitas Muhammadiyah Yogyakarta. Complete dental specialist and dental supporting facilities were Dental Hospital of Universitas Muhammadiyah Yogyakarta's superiority compared to competitors. It is appropriate with the theory that state the image was a perception that relatively consistent in the long term (enduring perception) and formed by a product has advantages and different compared to competing products[7]. It can be said that the consumer loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta was established by image that has been built by Dental Hospital of Universitas Muhammadiyah Yogyakarta. It is accord to statement that consumers who perceive the image of product will either make a repurchase or become loyal to the product[4].

The result of a partial test between strength of brand association and consumer loyalty showed a regression coefficient was 0.025 and has positive value. Its mean strength of brand association which consists of attributes and benefits has influence consumer loyalty toward Dental Hospital of Universitas Muhammadiyah Yogyakarta product. However, the influence of strength of brand association towards consumer loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta has not significant influence. Strength of brand association can help consumers to build their image and know the brand, so that it becomes a reason for consumers to use or buy the product. A good strength of brand association has a positive effect on consumer attitudes so that consumers will make repeat purchases and become loyal consumer of a brand. The strength of the brand association of Dental Hospital of Universitas Muhammadiyah Yogyakarta shows a positive influence towards consumer loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.

Positive influence can happen because consumers perceive Dental Hospital of Universitas Muhammadiyah Yogyakarta as a company with good facilities, friendly and responsive officers, affordable costs and able to solve dental and oral problems of consumers. These things can become strength of brand association of Dental Hospital of Universitas Muhammadiyah Yogyakarta, thus built product information and establish a good image in the consumers mind.

The result of a partial test between favorability of brand association and brand loyalty show a regression coefficient of 0.151 and has positive value. This showed that the favorability of brand association has influence towards consumers' loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta product.Brand favorability makes consumers believe that the attribute and benefit of brand can satisfy the consumers, so that a positive attitude on the brand was created. Good service quality, safety and comfort, and pride to Dental Hospital of Universitas Muhammadiyah Yogyakarta were dimensions that can satisfy consumers of Dental Hospital of Universitas Muhammadiyah Yogyakarta. Consumer satisfaction was able to meet the consumer necessary, so that the purpose of purchase a product can be achieved. It is accord to statement that consumer satisfaction was goal of purchase a brand and customer satisfaction can be achieved if the product provided reaches or exceeds consumer expectation[5].

The result of a partial test between uniqueness of brand association variable and brand loyalty show a regression coefficient of 0.442 and has positive value. This shows that the uniqueness of brand association has influence towards consumers' loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta product. Complete dental specialist and dental supporting facilities were Dental Hospital of Universitas Muhammadiyah Yogyakarta's uniqueness. It may allow consumer can be treated comprehensively in one dental health facility. These uniquenesses were a Dental Hospital of Universitas Muhammadiyah Yogyakarta hallmark, so that it was difficult to replicate by other brand. The uniqueness gives a certain impression that consumer remember the products easily, so that consumer want to know more about the product. Consumer's desire to find out more about the product can make a positive impression that can imprint in the consumer's memory so that consumers will feel comfort with the brand. It will be makes consumer remember certain brands even though there are similar product, so that consumer loyalty can increase[8].

The study result was accordance with the research conducted by Al-Abdallaha and Aborumman (2013) which states that there was a significant influence between brand associations on brand loyalty, and Iqbal and Adami's (2013) research which states that brand image has a positive influence on brand loyalty of Close up toothpaste.

CONCLUSION

Based on the study result and discussion, the following conclusions can be drawn:

1. Brand image through strength of brand associations, favorability of brand associations and the uniqueness of brand associations had a positive influence simultaneously and was significant toward brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.
2. Strength of brand association had no significant influence partially towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.
3. Favorability of brand association had significant influence partially towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.

4. Uniqueness of brand association had no significant influence partially towards brand loyalty of Dental Hospital of Universitas Muhammadiyah Yogyakarta.

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