

# Analysis of Factors Affecting Customer Loyalty EL Hana Aesthetic Center Batam

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**Abstract.** This study examines the analysis of factors that affect customer loyalty EL Hana Aesthetic Center Batam. 900 customers of EL Hana Aesthetic Center Batam is the total population of this study and a sample of 90 respondents. The purposive sampling method is a sampling technique used. In this study, data was collected through questionnaires (questionnaires) to respondents via google forms scanned through the QR Code Scanner. Using quantitative methods with EFA techniques. This research found that there are 2 factors that influence Customer Loyalty at EL Hana Aesthetic Center Batam, namely the first factor is the service factor and the second factor is market coverage and price. The total variance of the extracted factors is 79.763%, so the results of the research formed can explain the factors that influence customer loyalty at EL Hana Aesthetic Center Batam by 79.763%, and the rest is influenced by other factors.

**Keywords:** Customer Loyalty, Factor Analysis.

## 1 Introduction

Having healthy skin is the desire of everyone, especially women who have now realized that looking attractive is a necessity. That's why many women are increasingly concerned about maintaining their appearance by taking care of facial and body skin. In addition, there are many beauty vloggers and skincare influencers who review products and treatments carried out at a beauty clinic. This affects the level of purchase of skincare and the use of skincare products.

Because retaining loyal customers for a product or service is better than finding new customers. Customer loyalty is a positive action of a customer toward a product, by having a high willingness to repurchase the same product now or in the future [6].

This study aims to identify and analyze the factors that influence customer loyalty at EL Hana Aesthetic Center Batam. In addition, to identify and analyze the efforts made by EL Hana Aesthetic Center Batam to increase customer loyalty.

## **2 Research Method**

### **2.1 Customer Loyalty**

Customer loyalty is the long-term success of a particular brand not determined by the number of consumers who make a purchase once, but by the number of consumers who make repeated purchases [9].

#### **2.1.1 Customer Characteristics**

Here are some characteristics of customer loyalty according to [4]:

- a. Customers routinely repurchase products or service offers.
- b. Customers buy products or services on a new line of products.
- c. Customers recommend the products or services they use to potential new customers.
- d. Customers show a loyal nature to their products or services, so it is not easily influenced and moved on to other products.

#### **2.1.2 Factors that affect loyalty**

Here are factors - factors that affect customer loyalty:

- a. Customer Satisfaction  
An indicator of a customer's expectations of a reality accepted by a customer [4].
- b. Trust  
The desire to be confident in the performance of a product offered by a company to perform an appropriate function [4].
- c. Corporate image  
It is the personal opinion of the customers when they hear, see them brands, or when they experience them [1].
- d. Service Quality  
Quality of service is the ability to meet customers' needs consistently according to procedures [5].
- e. Price  
The exchange value of the product that the seller has prescribed to the consumer so that the consumer will benefit from it [8].
- f. Coverage.  
Contains a market that can include the desired market [3].
- g. Customer Service  
It is a system that consists of customer support, processing complaints, conflict management, and communication with customers [10].

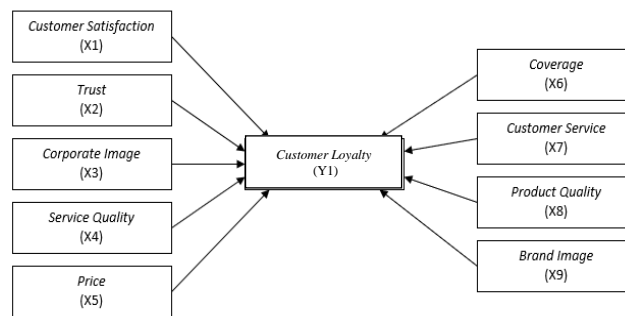
h. Product quality.

The quality of the product is the power of the product that can serve its good functions [2].

i. Brand image

A perception of the brand is Shared by customers and embedded in the minds of customers [7].

## 2.4 Framework



**Fig.1.** Framework

## 2.5 Research Hypotheses

Hypotheses are conjectures while researchers look at and guide previous journals and scripts that must be verified, testing several data to obtain the truth from the hypotheses being presented. Based on the above framework of thought, so this research hypothesis is:

H1: Customer satisfaction affects customer loyalty.

H2: Trust affects customer loyalty.

H3: Corporate image affects customer loyalty.

H4: Service quality affects customer loyalty.

H5: Price affects customer loyalty.

H6: Coverage affects customer loyalty.

H7: Customer service affects customer loyalty.

H8: Product quality affects customer loyalty.

H9: Brand image affects customer loyalty.

### 3 Research Method

#### 3.1 Research types

The study employed the quantitative approach as a type of study that used numerical data and was treated using statistical methods. And data processing uses multivariate statistical methods [11].

#### 3.2 Population and samples

There are 900 customers at EL Hana Aesthetic Center Batam as a research population with a total of 90 respondents. A sample verifying technique using the slovin is:

$$n = \frac{N}{(1+Ne^2)} \quad [11]$$

description:

N = sample number

N = total population

E = error rate in sample retrieval

Based on the techniques above the sample calculations could be used as follows:

$$\begin{aligned} n &= \frac{900}{(1 + 900 \times (0,1)^2)} \\ n &= \frac{900}{(1 + 9)} \\ n &= \frac{900}{10} \\ n &= 90 \end{aligned}$$

That would make the sample count 90.

**Table 1.** Operational variable and measurement.

Variables	Indicator	Scale
<i>Customer loyalty</i> (Y1) <b>Curatman, Suroso, &amp; Setyanto (2020)</b>	1. Repeated product purchases 2. Immune to situational or marketing influences from other brand competitors 3. Repurchase the product for a long time	Likert
<i>Customer satisfaction</i> (X1) <b>Astuti &amp; Amanda (2020)</b>	1. There is a measurement of customer expectations with accepted reality	Likert

Variables	Indicator	Scale
	2. The company can provide services that exceed customer expectations 3. Customers are satisfied with the company's services	
<i>Trust (X2)</i> <b>Astuti &amp; Amanda (2020)</b>	1. Old customer 2. Believe in the product or service offered 3. Companies provide quality products	Likert
<i>Corporate Image (X3)</i> <b>Akbar, Evadianti, &amp; Asniar (2021)</b>	1. Customer's personal opinion when hearing and using the company's brand 2. Customer's impression of the company	Likert
<i>Service Quality (X4)</i> <b>Atmadjati (2018)</b>	1. The company's ability to meet customer needs 2. Comparison of customer expectations of company services	Likert
<i>Price (X5)</i> <b>Indrasari (2019)</b>	1. There is a price according to the ability of the customer 2. There is a price match with the quality and benefits offered by the company	Likert
<i>Coverage (X6)</i> <b>Ariyani, Sion, Pusporoni, Handayani, &amp; Rizkita Amanda (2021)</b>	1. The company can cover the desired market 2. There are audiences who are exposed to the company's social media	Likert
<i>Customer Service (X7)</i> <b>Sahir, Fadhi, Sudirman, Hasibuan, &amp; Chamidah (2020)</b>	1. There is a company system for handling customer complaints 2. The existence of services that can meet customer needs	Likert
<i>Product Quality (X8)</i> <b>Arfah (2022)</b>	1. The ability of the product to perform its function 2. The products provided can satisfy customers	Likert
<i>Brand Image (X9)</i> <b>Erfan Arif, Anggraeni, &amp; Fitri Ayuni (2021)</b>	1. Brand perception by customers 2. There is customer confidence	Likert

## 4 Results

### 4.1 Validity test

The validity test on this study has been obtained by  $r_{count} > r_{tables}$  (0.207) for all items.

### 4.2 Reliability test

The value of Cronbach Alpha for each all variable explains  $> 0.6$  so that the variables are reliable.

### 4.3 Descriptive statistics

#### 4.3.1 Characteristics of Respondents Based on Age

**Table 2.** Respondents based on age.

Age	Frequency	Percentage (%)
17 - 27 Years-old	56	62,2
28 - 38 Years-old	31	34,4
39 - 49 Years-old	3	3,3
50-60 Years-old	0	0
> 60 Years-old	0	0
Total	90	100

Based on the table, it can be seen that respondents aged 17-27 years have the highest number of frequencies with 56 respondents or 62.2%.

#### 4.3.2 Characteristics of Respondents Based on Education

**Table 3.** Respondents based on education.

Education	Frequency	Percentage (%)
Primary School	0	0
Junior High School	0	0
High School/ Vocational High School/ Equal	38	42,2
Diplomas 1 (Associate Degree)	2	2,2
Diplomas 2 (Associate Degree)	0	0
Diplomas 3 (Associate Degree)	8	8,9
Bachelor Degree	36	40
Master Degree	6	6,7
Doctoral Degree	0	0
Total	90	100

Based on the table, respondents with the latest education High School/ Vocational High School/ Equal have the highest number of frequencies with 38 respondents or 42.2%.

#### 4.3.3 Characteristics of Respondents Based on Monthly Income

**Table 4.** Respondents based on income per month.

Income per Month	Frequency	Percentage (%)
< IDR 1,000,000	7	7,8
IDR 1,100,000 to IDR 2,000,000	1	1,1
IDR 2,100,000 to IDR 3,000,000	4	4,4
IDR 3,100,000 to IDR 4,000,000	15	16,7
IDR 4,100,000 to IDR 5,000,000	31	34,4
> IDR 5,100,000	32	35,6
Total	90	100

Based on the table, respondents with a monthly income of IDR 4,100,000 to IDR 5,000,000 has the highest number of frequencies with 31 respondents or 34.4%.

#### 4.3.4 Characteristics of Respondents Based on Occupation

**Table 5.** Respondents based on job.

Job	Frequency	Percentage (%)
Civil Servant	6	6,7
Employee	49	54,4
Entrepreneur	28	31,1
Artist	0	0
Indonesian National Armed Force/ Indonesian Police	0	0
Housewife	5	5,6
Student	2	2,2
Total	90	100

Based on the table, respondents with jobs as employees have the highest number of frequencies with 49 respondents or 54.4%.

#### 4.4 Factor Analysis

- a. Results from Barlett's test of Sphericity and Kaiser-Meyer-Olkin (KMO)

**Table 8.** Barlett's Test of Sphericity and Kaiser-Meyer-Olkin (KMO) Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	Barlett's Test of Sphericity		
	Approx. Chi-Square	Df.	Sig.
.880	812.231	36	.000

KMO value must be  $> 0.5$ ; and if sig. value  $< 0.5$ , then the research can be processed.

- b. The results of factor analysis of 9 variables after testing.

1. Communalities

**Table 9.** Communalities

Variable	Initial	Extraction
Customer Satisfaction (X1)	.797	0.804
Trust (X2)	.821	0.850
Corporate Image (X3)	.786	0.785
Service Quality (X4)	.774	0.795
Price (X5)	.768	0.797
Coverage (X6)	.839	0.901
Customer Service (X7)	.749	0.724
Product Quality (X8)	.731	0.722
Brand Image (X9)	.798	0.801

Extraction can be done because the average communalities obtained are more than 0.6.

## 2. Extraction

**Table 10.** Total Variance Explained

Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative%
5.931	65.895	65.895	5.664	62.937	62.937	4.449	49.438	49.438
1.633	18.149	84.044	1.514	16.826	79.763	2.729	30.325	79.763
0.344	3.820	87.864						
0.322	3.579	91.443						
0.227	2.522	93.965						
0.190	2.113	96.078						
0.137	1.527	97.605						
0.124	1.383	98.988						
0.091	1.012	100.000						

There are two factors formed by the above table, showing eigenvalues  $>1$ . 1<sup>st</sup> Factor has an of 5.644 and variance rates of 62.937%. 2<sup>nd</sup> factor has eigenvalues of 1.514% and variance rates of 16.826%.

## 3. Rotated Factor Matrix

**Table 12.** Rotated Factor Matrix

	Factor	
	1	2
Service Quality (X4)	.882	
Trust (X2)	.879	
Customer Satisfaction (X1)	.841	.312
Customer Service (X7)	.831	
Corporate Image (X3)	.812	.356
Product Quality (X8)	.802	
Coverage (X6)		.917
Brand Image (X9)		.872
Price (X5)	.317	.834

The factor matrix table explains the variable loading of each factor which explains the distribution of the nine variables in the two factors that have been formed.

## 4. Renaming New Factor

The renaming of each newly formed factor is subjective and can be done by selecting the variable with the highest factor loading value as the name of the factor.



**Table 13.** Factor Transformation Matrix

Variable	Factor Name	Eigen Value	Loading Factor	Variance %	Cumulative %
Services Quality			0.882		
Trust			0.879		
Customer Satisfaction	Factor Service	5.931	0.841	62.937	62.937
Customer Services			0.831		
Corporate Image			0.812		
Product Quality			0.802		
Coverage			0.917		
Brand Image	Factor Market	1.633	0.872	16.826	79.763
Price			0.834		

## 5 Discussions

After doing a factor analysis on 9 variables, it was found that 2 factors formed from the results of factor analysis that influence customer loyalty at EL Hana Aesthetic Center Batam are as follows:

### 1. Service Factor

Has contributed a variance of 62.937% so that it can explain the variation of the variables and become the first factor that affects customer loyalty EL Hana Aesthetic Center Batam between the 2 factors that have been formed.

### 2. Market Coverage and Price Affordability Factors

Has contributed a variance of 16.826% so that it can explain the variation of the variables and become the second factor that affects customer loyalty EL Hana Aesthetic Center Batam.

## 6 Conclusion

From the results of the study using exploratory factor analysis on 9 variables, 2 factors were formed as follows:

1. First Factor is Services, namely Services Quality, Trust, Customer Satisfaction, Customer Services, Corporate Image, and Product Quality.
2. Second Factor is Market Coverage and Price Affordability which consists of Coverage, Brand Image, and Price.

These two factors can explain 79.763% of the variation of the factors affecting customer loyalty in EL Hana Aesthetic Center Batam. Factor 1 is a factor that is higher than factor 2 because it can explain a much larger variation with a percentage of the variance of 62.937%, while factor 2 can only explain variation with a percentage of the variance of 16.826%.

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