EFFECT OF SERVICE THE QUALITY ON CUSTOMER SATISFACTION AT THE A BEAUTY CLINIC

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ABSTRACT

Background: Customer satisfaction is a level of customer feeling appearing because of service performance she obtains compared to her expectation. Unsatisfaction appears in a beauty clinic because she finds the gap between her expectation and service performance felt by her at the time using the services. Based on the presurvey, 18 (36%) of 50 customers interviewed felt unsatisfactory on the service of the A Beauty Clinic. The objective of the study is to find an association between several quality factors and customer satisfaction.

Material and methods: The design type of study was an analytic cross-sectional study. The population of this study was customers > 16 years old who ever visited the A Beauty Clinic in the last year. Based on the analytic cross-sectional study, the result of sample size calculation by using 5% alpha errors and 10% beta errors was 200. The sampling procedure was taking each sample consecutively reaching 200 at the Beauty Clinic. Data analyzed by univariate, bivariate, and multiple logistic regression analysis.
**Result:** Tangible service quality associated with customer satisfaction. Brand image confounding to tangible service quality.

**Conclusion:** Ungood tangible service quality affects unsatisfactory customer at the A Beauty Clinic. Recommended that management of the A Beauty Clinic has to create good brand image especially for tangible service quality to increase the good satisfaction of the customer. Based on the recommendation, suggestions are formulated.

**Key words:** customer satisfaction, tangible, brand image, beauty clinic, Pekanbaru.

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1. INTRODUCTION
Customer Satisfaction at a beauty clinic is a level of customer feeling appearing because of service performance she obtains compared to her expectation. Unsatisfaction appears in a beauty clinic because she finds the gap between her expectation and service performance felt by her at the time using the services. Usually, managers of a clinic prefer to measure satisfaction or unsatisfaction of their customers to assess organization performance (Pohan, 2006).

The one of outcome using the experience of customers is satisfaction or unsatisfaction on product or merit of service. An evaluation of customers may be positive or negative based on their experience. Satisfaction is a decision of evaluation. Whether customers are satisfactory or not satisfactory depends on their attitude on suitable (comfortable or not comfortable feeling) and level of evaluation whether the service is good for them, and more or less than standard (Wiyono, 1999).

The beauty clinic offers dermatology service on health care and beauty of skin, hair, fingernail, toenail, etc. As an economy and technology have developed, and culture has changed in the modern period, beauty care is an important need for the community especially women. It is not only for interesting appearance but also for the healthy skin. This phenomenon supports the appearance of beauty clinics offering product and merit to fulfill the need of a community for beauty care.

The development of the beauty care industry faster and faster in many countries including in Indonesia. The need of customers to keep beautiful appearance continuously give the opportunity of market development in the beauty industry especially in the form of a beauty clinic (Koesherawaty, 2016). The beauty clinic has established more and more in many cities in Indonesia including in Pekanbaru, where 50 beauty clinics have been established.

The next challenge for the development of the beauty industry depends on whether a customer visiting a beauty clinic is satisfactory to receive a given service, and what factors affecting customer satisfaction. The followings are results of a literature review concerning factors affecting customer satisfaction. A study conducted in the B Beauty Clinic located in Surabaya found that there is an association between service quality and customer satisfaction (Nurmalasari, 2013). Another study conducted in the C Beauty Clinic located in Surabaya found the main priorities affecting customer satisfaction namely waiting room facilities and knowledge of providers who can answer the questions from the customer accurately (Kasih and Yahya, 2012). A study conducted in the D Beauty Clinic located in Medan found that customers would like to have clean and white skin, and look beautiful (Fitriani, 2017). After extensive research, Zeithaml, Pasuraman, and Berry found five dimensions of service quality;
they call the five SERVQUAL dimensions namely *tangibles, reliability, responsiveness, assurance*, and *empathy* (Arlen, 2008). *The product* of a beauty clinic may affect customer satisfaction (Cannon, 2008). *Price* is money should be paid by the customer to buy a product of a beauty clinic (Kotler and Armstrong, 2006). *Brand image* from a beauty clinic may affect customer satisfaction (Dennisa, 2016). *The quality of information and outcome of therapy* from a beauty clinic received by customers may affect their satisfaction (Halim et al, 2013).

An exploratory survey shows an association between *age* and customer satisfaction: young customers (17-35 years) are riskier to be unsatisfactory in the service of the A Beauty Clinic (Olga, 2018). A study shows that there was a significant association between *education* and customer satisfaction (Herlina, 2010). Another study shows that there is an association between occupation and customer satisfaction (Anjaryani, 2009). A study shows that income associated with customer satisfaction (Budiman & Herlina, 2010).

The A Beauty Clinic in Pekanbaru namely the one among 50 beauty clinics as competitors. The number of customers visiting the A Beauty Clinic is higher than each of another beauty clinic in Pekanbaru. This might be due to the manager of the A Beauty Clinic always study abroad to increase his knowledge concerning medical beauty clinic every year. However, based on a presurvey, 18 (36%) out of 50 customers interviewed felt unsatisfactory on the services delivered by the A Beauty Clinic (Olga, 2018). Based on this information there appears the question: what factors associated with customer satisfaction in the A Beauty Clinic?

To answer the question, the results of literature studies as mentioned above used to formulate the theoretical framework (hypothetic association between several factors with customer satisfaction), followed by more operational conceptual framework (hypothetic association between several independent variables with customer satisfaction); the factor in theoretical framework, which cannot be modified to be independent variable is not included in the conceptual framework, which is followed by formulation of specific research problems namely the question whether each independent variable is associated with customer satisfaction. Data from one or more independent variables in a conceptual framework which cannot be collected in the field will not appear in specific research problem. Based on the specific research problems, the specific research objectives are as follows: To find the association between service quality (tangible, reliability, responsiveness, assurance, and empathy), quality factors (product of beauty clinic, price, and brand image), and characteristics of customer (age, education, occupation, and income) with customer satisfaction.

**2. MATERIAL AND METHODS**

This present study applies Red Thread (Lapau, 2015) or systematic study namely continuation of thinking starting from the title, objective, and methods (type of study design, population, sampling size calculation, sampling procedure and data analysis), results, discussion on quality and accuracy of data, causal relationship, implication, followed by recommendation and suggestion (Lapau, 2013). The implication uses the causal relationship directed to a conclusion and recommendation. The conclusion contains the development of knowledge, while the recommendation contains how to solve the problems. Based on the recommendation, suggestion is formulated through inter and multidiscipline approach producing innovative work for Master degree, and through inter, multi and transdisciplinary approach producing creative and original work for Doctoral degree as written in Indonesian Qualification Framework (Direktorat Jenderal Pendidikan Tinggi, 2011), which was confirmed by the President of Republic of Indonesia in January 2012.
Based on the objective of the study, the design type of present study is an analytic cross-sectional study (Lapau 2015) where data for independent variables and a dependent variable were collected at the same time from customers visiting the A Beauty Clinic in Pekanbaru City. The dependent variable is customer satisfaction namely the gap between what expected and what service performance felt by the customer from the A Beauty Clinic. The dependent variable and each of the independent variables is classified to be a risky category (less than median) and normal category (same or more than the median). The category of the dependent variable namely customer satisfaction: unsatisfactory and satisfactory. Each of independent variable concerning service quality defined and categorized as follows: tangible is appearance of physical facilities, equipment, personnel and communication materials: ungood and good; reliability is the ability to perform the promised service dependably and accurately: incompetent and competent; responsiveness is the willingness to help customers and provide prompt service: ungood and good; assurance is knowledge and courtesy of employees and their ability to convey trust and confidence: not assured and assured; empathy is caring, individualized attention the firm provides its customer: ungood and good; price of beauty clinic is money paid by customer to the beauty clinic: expensive and cheap; brand image is proud and peaceful feeling of customer to use materials from a beauty clinic because of its suitable quality: ungood and good. Characteristics of customer as independent variable classified to be risky category and normal category as follows: age to be young (17-35 years) and old (36 years >), education to be low (high school and below) and high (bachelor, master and doctor), income per month to be low (< IDR 3,000,00) and high (IDR 3,000,00 or more), the duration being customer to be new (< 12 months) and old (12 months or more).

The population of the study was customers visiting the A Beauty Clinic. The sample size was calculated based on the design type of analytic cross-sectional study (WHO, 1986) for each of 12 independent variables. In this case, based on 5% alpha error and 10% beta error, the largest minimal sample size is 194 for the independent variable tangible, product, age, and duration being a customer. Based on the number of independent variables, the sample size is 12 x 15 = 180 (Mitra, 2015). So sample size should be 194, but the sample size is decided to be 200 for this present study. The sample was taken from the community by recording each customer visiting the A Beauty Clinic subsequently until the sample size reaching 200; in this procedure (Ariawan, 1998), the researchers used inclusive criteria namely the customers who like to be respondent ever visited the A Beauty Clinic in the last year, and exclusive criteria namely the customers of less than 16 years old visiting the A Beauty Clinic.

Primary data concerning a dependent variable and 12 independent variables as mentioned above collected from 200 respondents. The technique of data collection was a structured interview using the questionnaire consisting of close-ended questions (Fisher et al, 1983). Planning of data collection consists of 3 phases namely 1) Phase 1: permission for the process of data collection, 2) Phase 2: a collection of data, and Phase 3) handling of data (Varkevisser et al, 1970)

Analysis of data consists of univariate, bivariate and multivariate analysis. The objective of the univariate analysis is to describe the frequency distribution of each risk category of the independent variable and to detect homogeneous independent variable where one of its categories is less than 15%. The objective of the bivariate analysis is to find a significant association between one independent variable and one dependent variable by calculating the prevalence odds ratio (POR) at a confidence level of 95% (CI 95%). If CI 95%: > 1 - > 1), there is significant association between one independent variable and one dependent variable; if (CI 95%: POR = > 1 - , < 1), there is no significant association; if (CI 95%: POR = < 1 - <
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1), there is reversely significant association. The objective of multiple logistic regression analysis is to detect confirmed independent variables associated with customer satisfaction by conducting two phases namely bivariate selection and multivariate modeling, which may find the confounding variable.

An ethical review has been carried out by the Pekanbaru Hang Tuah Health Institute’s Ethics Commission with a Letter of Ethics No.056 / KEPK / STIKes-HTP / VIII / 2018

3. RESULT OF STUDY

The customer felt unsatisfactory in the service of the A Beauty Clinic was 40%. Univariate analysis shows the proportion of risk category of each independent variable is as follows: 46.5% ungood tangible, 22% incompetent, 42.5% late responsiveness, 34.5% not assured, 49.5% ungood empathy, 36% ungood product, 44% expensive price, 36.5% ungood brand image, 61% young age, 53% low education, 49.5% low income, and 63% new customer (duration < 12 months). Bivariate analysis shows that each of 6 independent variables namely tangible, assurance, empathy, product, brand image, and duration being customer associated with customer satisfaction. The result of multiple logistic regression analysis shows in the following last modeling: Tangible associate with customer satisfaction: Ungood tangible is riskier 3.5 times customer felt unsatisfactory on service of the A Beauty Clinic compared to good tangible (CI 95%; POR= 1.7 – 7.3). In this case brand image confounding to tangible: ungood brand image associates with ungood tangible. Negelkerke R square is 0.173; it means that tangible explains 17.3% association with customer satisfaction. The multivariate model that is formed already fit, because the model is significant (p-value omnibus test <0.001).

Table 1 Association Between Several Independent Variables and Customer Satisfaction

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Customer Satisfaction</th>
<th>Total</th>
<th>P Value*</th>
<th>OR (% CI) Crude</th>
<th>P Value**</th>
<th>OR (95% CI) Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Satisfaction</td>
<td>n=80 (%)</td>
<td>Unsatification</td>
<td>n=120 (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tangible</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ungood</td>
<td>51 (54.8%)</td>
<td>42 (45.2%)</td>
<td>93 (100%)</td>
<td>107</td>
<td>0.000</td>
<td>3.266 (1.810-5.894)</td>
</tr>
<tr>
<td>Good</td>
<td>29 (27.1%)</td>
<td>78 (72.9%)</td>
<td></td>
<td>(100%)</td>
<td></td>
<td>0.001</td>
</tr>
<tr>
<td><strong>Reliability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incompetent</td>
<td>23 (52.3%)</td>
<td>21 (47.7%)</td>
<td>44 (100%)</td>
<td>156</td>
<td>0.088</td>
<td>1.902 (0.968-3.738)</td>
</tr>
<tr>
<td>Competent</td>
<td>57 (36.5%)</td>
<td>99 (63.5%)</td>
<td></td>
<td>(100%)</td>
<td></td>
<td>0.743</td>
</tr>
<tr>
<td><strong>Responsiveness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late</td>
<td>34 (40%)</td>
<td>51 (60%)</td>
<td>85 (100%)</td>
<td>115</td>
<td>1.000</td>
<td>1</td>
</tr>
<tr>
<td>Fast</td>
<td>46 (40%)</td>
<td>69 (60%)</td>
<td></td>
<td>(100%)</td>
<td></td>
<td>1.772</td>
</tr>
<tr>
<td><strong>Assurance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Assured</td>
<td>35 (50.7%)</td>
<td>34 (49.3%)</td>
<td>69 (100%)</td>
<td>131</td>
<td>0.036</td>
<td>1.967 (1.086-3.563)</td>
</tr>
<tr>
<td>Assured</td>
<td>45 (34.4%)</td>
<td>86 (65.6%)</td>
<td></td>
<td>(100%)</td>
<td></td>
<td>0.094</td>
</tr>
<tr>
<td><strong>Empathy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ungood</td>
<td>48 (49%)</td>
<td>50 (51%)</td>
<td>98 (100%)</td>
<td>102</td>
<td>0.017</td>
<td>2.100 (1.180-3.736)</td>
</tr>
<tr>
<td>Good</td>
<td>32 (31.4%)</td>
<td>70 (68.6%)</td>
<td></td>
<td>(100%)</td>
<td></td>
<td>0.268</td>
</tr>
<tr>
<td><strong>Product</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ungood</td>
<td>36 (50%)</td>
<td>36 (50%)</td>
<td>72 (100%)</td>
<td>128</td>
<td>0.044</td>
<td>1.909 (1.060-3.439)</td>
</tr>
<tr>
<td>Good</td>
<td>44 (34.4%)</td>
<td>84 (65.6%)</td>
<td></td>
<td>(100%)</td>
<td></td>
<td>0.130</td>
</tr>
</tbody>
</table>

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### Quality and accuracy of data:

Quality of data consist of relevancy dan validity of data; the accuracy of data consists of relevancy, validity, and reliability of data (Lapau, 2013). In this present study, data are relevant because collected and analyzed data are able to achieve the objective of this present study. Validity consists of external and internal validity. In this present study, there is no external validity because the researchers did not take a representative sample from the certain population. Internal validity opposite to random error and systematic error. The random error consists of alpha error and beta error. This present study using 5% alpha error and 10% beta error, and another information found that sample size is 194 modified to be 200. The systematic error consists of selection bias, information bias and confounding bias. In this present study, selection bias could not be avoided because the sample was not taken from the certain population, information bias may happen, and there is confounding bias namely brand image is confounding to tangible service quality. Reliability of data cannot be measured in this present study because the collection of data conducted only one time.

**Causal relationship:** Based on the result of multiple logistic regression analysis, tangible associated with customer satisfaction. The causal relationship is based on Hill criteria (Beaglohole et al, 1999). Table 2 shows as follows: 1) the temporal +, because tangible came first before customer satisfaction; this is due to the respondent of this present study was someone who ever visited the A Beauty Clinic last year before she became respondent; 2) Plausibility +, because statement of association between tangible and customer satisfaction is based on theory written in the chapter on literature review; 3) Strength of association (POR)

### 4. DISCUSSION

**Quality and accuracy of data:** Quality of data consist of relevancy dan validity of data; the accuracy of data consists of relevancy, validity, and reliability of data (Lapau, 2013). In this present study, data are relevant because collected and analyzed data are able to achieve the objective of this present study. Validity consists of external and internal validity. In this present study, there is no external validity because the researchers did not take a representative sample from the certain population. Internal validity opposite to random error and systematic error. The random error consists of alpha error and beta error. This present study using 5% alpha error and 10% beta error, and another information found that sample size is 194 modified to be 200. The systematic error consists of selection bias, information bias and confounding bias. In this present study, selection bias could not be avoided because the sample was not taken from the certain population, information bias may happen, and there is confounding bias namely brand image is confounding to tangible service quality. Reliability of data cannot be measured in this present study because the collection of data conducted only one time.

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=prevalence odds ratio) = 6.1 based on multivariate analysis; 4) Consistency +, because there is an association between tangible and customer satisfaction in previous same study, 5) Dose-response relationship -, because level of measurement of tangible is categorical; and 6) Design type of study -, because the inference of analytic cross-sectional study is weak. Based on the information shown in Table 2, there is a causal relationship between tangible service quality and customer satisfaction.

Table 2 Hill Criteria List On Causal Relationship Between Tangible and Customer Satisfaction

<table>
<thead>
<tr>
<th>No</th>
<th>Hill Criteria</th>
<th>Independent Variables</th>
<th>Tangible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Temporal</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>2</td>
<td>Plausibility</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>3</td>
<td>Strength of Association (OR)</td>
<td>3.493 (1.662-7.339)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Consistency</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>5</td>
<td>Dose Response Relationship</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Type of Research Design</td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

Explanation:
+ means causal relationship
– means there is no causal relationship

The implication of the study: Tangible has a causal relationship with customer satisfaction. Ungood tangible 3.5 times affects customer satisfaction compared to good tangible. In this case brand image confounding to tangible: ungood brand image associates with ungood tangible (see Figure 1).

Figure 1 Association Between Tangible Customer Satisfaction and Brang Image as Confounding Variable at the A Beauty Clinic

Based on information from Figure 1, the recommendation is as follows: To prevent unsatisfactory customer, the management of the A Beauty Clinic has to create good brand image especially for tangible service quality. Based on the recommendation, the researchers formulate suggestions.

5. CONCLUSION, RECOMMENDATION, AND SUGGESTIONS

Conclusion
Ungood tangible service quality affects unsatisfactory costumer in the A Beaty Clinic. Brand image confounding to tangible service quality.

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Recommendation
The management of the A Beauty Clinic has to create a good brand image, especially for tangible service quality to increase good customer satisfaction.

Suggestions
The image of the A Beauty Clinic is able to create the value of trust in the community by giving a message of brand image that can be looked at media issued by the A Beauty Clinic such as advertisements, brochures, catalog, etc. The A Beauty Clinic should keep other service quality such as reliability, responsiveness, assurance, and empathy running as usual, and increase the service quality especially tangible dimension of clinic such as the design of building aesthetic.

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