THE EFFECT OF SERVICE ENVIRONMENT ON CONSUMER LOYALTY WITH CONSUMER SATISFACTION AS A MEDIATION VARIABLE

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Abstract. The aims of this research were to determine the effect of the environment on consumer satisfaction and consumer loyalty, to determine the effect of customer satisfaction on loyalty, and to determine the role of consumer satisfaction in mediating the influence of the service environment on consumer loyalty. This research was conducted on restaurants consumers in Purwokerto. The sample size was 150 respondents. Data analysis techniques were carried out by path analysis in Structural Equation Modeling (SEM) with AMOS software version 22. Mediation analysis between research variables was carried out by sobel t test with the help of online Sobel calc. The service environment was measured by environmental indicators, interior and exterior design and social dimensions of each with two questionnaire items. Variable customer satisfaction was measured by indicators of overall satisfaction with the company that the company always meets consumer expectations, interesting experiences and never forgets the company. Loyalty was measured by indicators namely always using their products/services, willing to make repeat purchases and recommend to other consumers. Consumer satisfaction and consumer loyalty each were determined by one item questionnaire per indicator.

The results of data analysis with AMOS SEM showed that the service environment had a positive effect on customer satisfaction, the service environment influenced consumer loyalty. Consumer satisfaction had a positive effect on consumer loyalty and customer satisfaction mediated the influence of the service environment on consumer loyalty. So the existence of customer satisfaction was an important variable to realize loyal consumers. Future research can be done by adding moderation variables. The moderation variable that can be added in research at restaurants is meal time, which is lunch and dinner. Other moderation variables that can be added are demographic variables. Future research can also add moderation variables in the form of traditional or modern restaurants.

Keywords: Satisfaction as mediation, Service Quality, Customer Loyalty, Customer Satisfaction

1. INTRODUCTION

Consumer satisfaction is an important variable in keeping consumers from being consumers in the long term [1, 2]. This is important because it can determine consumers in making decisions to continue to trust the company as a place of transaction or not in the future [3]. Consumer satisfaction is measured by various measurements, but the value of customer satisfaction from the results of the research may not show the value of behavior to make accurate repurchases. There is a belief that a higher value of satisfaction is likely to lead to stronger repurchase behavior, so that in the long run the company can run the company feeling more comfortable, when in fact it is not [4].

Given the importance of making consumers feel satisfied and hoping to come again in the future, there are studies that examine the direct effects of customer satisfaction with repurchases, as well as repurchase intentions [4]. Repurchase behavior is one form of loyal consumers. Consumer loyalty is a strong willingness to be a consumer of certain products in the future [5, 6]. Maintaining

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old customers is important because companies may be expensive to acquire new consumers in increasingly fierce competition. Consumer loyalty is the willingness of consumers to be strong consumers or buy back products or services that are in demand in the future, so that transactions occur in making purchases of the same brand in the future, even though competitor marketing programs and the influence of competitive situations can make someone switched to another brand [7].

One of the factors that influence loyalty is customer satisfaction [8]. Consumer satisfaction is one of the orientations of small business marketing, because with customer satisfaction will make consumers come back to transaction. This is in accordance with Su, et al. [9], which states that there is a positive influence from customer satisfaction on the intention to repurchase. This shows that the more satisfied a consumer, the stronger the intention to repurchase [10-14].

In addition to strengthening the intention to repurchase, customer satisfaction also makes the willingness of consumers to recommend the same transaction to others. Recommending purchases to other people is an efficient promotion, because entrepreneurs do not spend on promotional costs with a variety of promotional media available at a high cost. Consumer satisfaction has a positive effect on the intention to recommend purchases to others, meaning that the more satisfied a consumer is, the stronger the intention to recommend purchases to others [12-17].

So customer satisfaction is important for the company, so variables need to be identified that influence consumer satisfaction. One variable that affects customer satisfaction is the quality of the environment can also affect the quality of service. Kotler [18] conveys the concept of atmospherics as a marketing tool and defines it as the design of a purchasing environment to produce certain emotional effects on buyers that increase the chances of its purchase. Baker [19] discusses how the physical environment influences consumers’ perceptions of service. This phenomenon is an important component of customer satisfaction with services. As a result, the appropriate physical environment produces good behavioral intentions [11]. In a good environment and supporting a business a consumer will feel better served. Ali, et al. [20] conducted research on aviation service companies. The results of the study show the quality of physical liability can affect customer satisfaction. El-Adly and Eid [21] who researched consumers in a modern shopping place stated that the quality of physical income can affect consumer satisfaction. Likewise, Han and Hyun's research [14] stated that the quality of physical inequality can affect restaurant customer satisfaction. Therefore it is necessary to explore environmental variables to identify their effects on customer satisfaction and consumer loyalty.

2. LITERATURE REVIEW AND METHODOLOGY

2.1. Literature Reviews

2.1.1 Customer Loyalty

Marketing management reviews consumer behavior problems. One of the main points of the review is consumer loyalty. Consumer loyalty is defined as a measure of the relationship between consumers and a particular product brand. This allows a consumer to switch to another product or other brand, especially if the product or brand has different prices or other attributes [22].

A consumer who is loyal to a brand will remain loyal even though there are other companies that issue products with other brands and offer better deals. Consumer loyalty to a strong brand, will be able to keep away from threats and attacks on other product brands. Conversely, non-loyal consumers, their purchases are not based on their interest in the brand, but rather are based on product attributes such as price, convenience or other attributes offered by a product [22].

One measure of the success of the company's marketing strategy is customer loyalty. Companies must focus on maintaining, developing, and increasing customer loyalty. [23, 24]. Based on the
definition, loyalty is the strong desire of consumers to repurchase certain products or services in the future [25]. Loyal consumers can make companies more efficient in spending marketing costs, gather more consumers, increase market share effectively, and are willing to pay higher prices [24, 26]. Consumer loyalty is a strong relationship between consumers and companies [27].

The concept of consumer loyalty is often associated with consumer behavior rather than attitude. The positive attitude of consumers can be demonstrated through being loyal to the company's products and willing to refer the product to others, while the negative attitude is shown through negative words to other people and moves to competing companies. Loyalty is something that arises without coercion but arises by itself. Therefore loyalty can be interpreted as forming attitudes and patterns of behavior of a consumer towards the purchase and use of products as a result of their previous experience [28].

2.1.2 Consumer Satisfaction

Many experts provide definitions of customer satisfaction. That consumer satisfaction or consumer dissatisfaction is a consumer respondent to the evaluation of discrepancies / disconfirmations felt between previous expectations (or other performance norms) and the actual performance of the product that is felt after its use [29]. Consumer satisfaction is a post-purchase evaluation where alternatives chosen at least give results (out come) are the same or exceed customer expectations, while dissatisfaction arises if the results obtained do not meet consumer expectations or in other words customer satisfaction is the behavior of someone after comparing performance (or results) that he feels compared to his expectations [29].

Generally consumer expectations are estimates or consumer beliefs about what he will receive if he buys or consumes a product (goods or services). While the perceived performance is the consumer's perception of what he receives after consuming the purchased product [29]. According to [30] in evaluating satisfaction with a product, consumer services generally use several factors or dimensions, including:

a. Performance: Namely the principal operating characteristics of the core product purchased.
b. Additional features: That is a secondary or complementary characteristic
c. Reliability: That is a small possibility of damage or failure to use
d. Compliance with specifications: The extent to which design and operating characteristics meet the standards set beforehand.
e. Durability: Regarding how long the product can continue to be used.
f. Serviceability: Includes speed, competence, comfort, easy repairs and satisfying complaints handling.
g. Aesthetics: That is the product's attraction to the five senses
h. Perceived quality

2.1.3. Service environment

The environment in business plays a role in business development. Initially the study of the business environment took the basis of [18] who wrote the concept of store atmosphere as a marketing tool by defining it as the design of a purchasing environment to produce specific emotional effects on buyers that could increase the likelihood of making purchases. Furthermore [31], uses the term servicescape to describe the man-made physical environment in the service business. Bitner (1992) further states that the physical environment increases the internal responses of customers and employees and shapes the behavior of customers and employees. This environmental phenomenon is an important component in shaping customer satisfaction by providing services. The physical environment in accordance with the expectations of consumers produces behavioral intentions that are beneficial to the company, namely, loyalty and positive intentions from mouth to mouth [11].
Kotler [18] further discussed the atmosphere or environment associated with marketing. This shows that in addition to price, advertising, personal sales, public relations, and other marketing tools, environmental factors are considered important for future service businesses. The use of the term atmosphere is intended to describe the design of space consciously to create a certain influence on the buyer. The atmosphere is an effort in designing a purchasing environment to produce certain emotional effects on buyers that increase the possibility of making a purchase. Technically, the atmosphere is the air that surrounds the globe. This term is also used everyday to describe the quality of the environment. So, someone hears a restaurant described as having a supportive atmosphere, meaning that the physical environment that exists can evoke pleasant feelings. More precisely the atmosphere is used to describe a restaurant to have a good atmosphere or a sad atmosphere.

The atmosphere of the environment is captured through the senses. Therefore, the atmosphere of a particular set of environments is explained in sensory terms. The main sensory channels for the atmosphere are vision, sound, aroma, and touch. In particular, the main visual dimensions of an atmosphere are color, brightness, size and shape. The hearing dimensions of an atmosphere are volume and tone. The main olfactory dimension of an atmosphere is aroma and freshness. The dimensions related to atmospheric feel are softness, smoothness and temperature [18].

The fifth sense, taste, does not apply directly to the atmosphere. The atmosphere is visible, heard, smelled, but not felt. At the same time, certain artifacts in an atmosphere can activate the taste that is remembered. So certain environmental atmospheres can be explained in sensory terms. For example the typical atmosphere of a disco is bright, noisy, loud, and rough. There are important differences between the intended atmosphere and the perceived atmosphere. The atmosphere in question is a series of sensory qualities sought by artificial environmental designers in space [18].

There are three things related to the atmosphere or atmosphere of the environment can have an impact on buying behavior. First, the environmental atmosphere can function as a media that attracts attention. In this regard, colors, sounds and movements can be used to make the company different from the others. Second, the environmental atmosphere can be used as a message sender to customers where the company expresses various things about the company's establishment to potential customers and actual customers. The atmosphere of the environment communicates the store to customers, the level of concern for customers, and so on. The atmosphere of the environment provides discriminatory stimuli to buyers that allow them to recognize store differences as a basis for choosing the right store to make a purchase. Third, the atmosphere of the environment can be used as a media that creates effects. These effects are derived from the color, sound, and texture of the building can directly evoke deep reactions that contribute to increasing the possibility of a purchase. This incident is similar to research on the sound of a bell that causes Pavlov's dog to think of food, various atmospheric components can trigger sensations in buyers who create or increase their appetite for certain goods, services, or experiences. The atmosphere plays the role of very specific situational factors that can change behavior intentions into actual buying behavior. People walk with a variety of desires and purchase intentions that don't materialize, until situational factors, such as a motivating atmosphere, tip on a scale that supports buying. Atmospheric planning has been used by a number of industries and companies [18].

Consumers consuming food outside the home are mostly consumed by eating in restaurants or cafeterias that provide a pleasant atmosphere, but are rarely a major factor in restaurant choices. In contrast to current developments, there is an increasing number of restaurants that rely on the atmosphere. Restaurant owners argue that the atmosphere can be a major factor in making a successful restaurant. According to the owner of Pier Four in Boston, one of the most successful restaurants in the country: “If it wasn't for the atmosphere, I couldn't do almost all the business I did.” According to another restaurateur: “Customers are looking for a dining experience that is
completely different from home, and the atmosphere may be more attractive to them than the food itself [18].

When the environment has become a consideration in business, experts try to formulate a number of dimensions of the physical environment. Not all service business organizations have the same physical environment dimension [32]. In his research [32] identified international airport servicescape constructs and to assess the relationship between services, emotional states, and behavioral intentions. The results of this study indicate that functional factors, aesthetic factors, safety factors, and social factors influence customer positive emotions, while environmental factors and social factors influence the negative emotions of customers. Positive emotions, but not negative emotions, have a significant impact on behavioral intentions.

2.2 Hypothesis Building

a. Effect of service environment on customer satisfaction

Service environment or corporate atmosphere or service scape is part of improving the quality of service to consumers. The hope is that a good service environment will increase customer satisfaction. This is in accordance with the study of Ali, et al. [20], El-Adly and Eid [21] and Han and Hyun [14], which resulted in the conclusion of the study that there was a positive influence on the service environment on customer satisfaction. Therefore, in this study the following hypotheses is formulated:

**H1: Service environment has a positive effect on customer satisfaction**

b. Effect of service environment on consumer loyalty

The existence of a service environment is part of improving the quality of service to consumers. The hope is that the better the environmental improvement, the higher consumer loyalty. This is in accordance with the results of the study [33], which found a positive influence on the quality of service which included physical aspects of customer loyalty. Therefore, in this study the following hypotheses is formulated:

**H2: Service environment has a positive effect on consumer loyalty.**

c. Effect of consumer satisfaction on consumer loyalty

Satisfied consumers will have the desire to repeat purchases in the future. So the higher the customer satisfaction, the stronger his loyalty will be. This is in accordance with the research [34], which concluded that the results of the study contained a positive influence on consumer satisfaction on consumer loyalty. Therefore, in this study the following hypotheses is formulated:

**H3: Consumer satisfaction has a positive effect on consumer loyalty**

d. Consumer satisfaction as a mediation variable that influence the service environment on consumer loyalty

Given the importance of the variable customer satisfaction in each business in order to create consumer loyalty, try to compile a research model in which there is consumer satisfaction and loyalty to the consumer. Based on the relationship between variables used to compile the first hypothesis until the third hypothesis, namely the existence of environmental influences on satisfaction and the influence of satisfaction with loyalty and there is the influence of service environment on loyalty, it is possible that customer satisfaction mediates the service environment
to customer loyalty. The results of the study [33] show that consumer satisfaction can be a mediating variable between service quality and loyalty. Therefore, in this study the following hypotheses is formulated:

**H4: Consumer satisfaction mediates the influence of the service environment on consumer loyalty**

### 2.3 Methodology

This research was conducted in Purwokerto. The population of this research was restaurant consumers in Purwokerto. Sampling was done by systematic random sampling. The study was conducted on 150 respondents who had made repurchases at the restaurants studied. The instrument of this research was a questionnaire to measure variables of customer satisfaction, service environment and customer loyalty. Consumer satisfaction was measured by the indicator from Dimitriades [35], namely overall satisfaction with the company, the company always meets consumer expectations, interesting experiences and never forgets the company. The service environment was measured by environmental indicators, interior and exterior design and social dimensions [11]. Consumer loyalty was measured by always using the product / service, willing to make repeat purchases and recommend to other consumers [25]. Variable measurements were carried out with adjective bipolar ten scales that reflected the strongly disagree answer with score 1 and strongly agree answer with score 10. The data analysis technique was carried out by analysis of Structural Equation Modeling (SEM). Mediation test was carried out by mediation analysis and independent test t test.

### 3. RESULT AND DISCUSSION

#### 3.1. Test validity and reliability

**Table 1. Test validity and reliability**

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Indikator</th>
<th>Standard Loading</th>
<th>Construct Reliability</th>
<th>Variance Extracted (AVE)</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>Env6</td>
<td>0,766</td>
<td>0,913</td>
<td>0,636</td>
<td>0,912</td>
</tr>
<tr>
<td></td>
<td>Env5</td>
<td>0,788</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Env4</td>
<td>0,846</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Env3</td>
<td>0,824</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Env2</td>
<td>0,782</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Env1</td>
<td>0,775</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Sat1</td>
<td>0,781</td>
<td>0,905</td>
<td>0,706</td>
<td>0,902</td>
</tr>
<tr>
<td></td>
<td>Sat2</td>
<td>0,920</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sat3</td>
<td>0,884</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sat4</td>
<td>0,765</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyalty</td>
<td>Loy1</td>
<td>0,845</td>
<td>0,903</td>
<td>0,757</td>
<td>0,864</td>
</tr>
<tr>
<td></td>
<td>Loy2</td>
<td>0,874</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Loy3</td>
<td>0,767</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 1, it can be seen that the standard loading value is greater than 0.7, the construct reliability is more than 0.7, Variance Extracted (AVE) is more than 0.5 and Cronbach's Alpha reliability is more than 0.6. So the indicators used to measure the variables of environmental quality, customer satisfaction and customer loyalty are valid and reliable. After testing the validity and reliability, it is then used to test the research hypothesis. The results of data analysis to test hypotheses can be seen in Table 1.

Based on Table 2, it can be seen that the path coefficient of the environment quality variable on consumer satisfaction is 0.515 with a t count of 5.547 and a significance of 0.000. This means that environmental quality has a positive and significant effect on customer satisfaction. This shows that the better the quality of the environment the more satisfied consumers are.
3.2 Structural Equation Modeling Analysis

Table 2. Results of Structural Equation Modeling (SEM) Analysis

<table>
<thead>
<tr>
<th>Endogenous variable</th>
<th>Exogenous Variables</th>
<th>Path coefficient</th>
<th>Critical Ratio</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td>Environment</td>
<td>0.515</td>
<td>5.547</td>
<td>0.000</td>
</tr>
<tr>
<td>Loyalty</td>
<td>Satisfaction</td>
<td>0.338</td>
<td>3.504</td>
<td>0.000</td>
</tr>
<tr>
<td>Loyalty</td>
<td>Environment</td>
<td>0.333</td>
<td>3.387</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Variable customer satisfaction path coefficient on consumer loyalty is 0.338 with t count 3.504 and significance 0.000. This means that customer satisfaction has a positive and significant effect on consumer loyalty. This shows that the more satisfied a consumer is, the more consumer loyalty increases.

The path coefficient of the environment quality variable on consumer loyalty is 0.333 with a t value of 3.333 and a significance of 0.000. This means that environmental quality has a positive and significant effect on consumer loyalty. This shows that the better the quality of the environment, the more consumer loyalty increases.

The results of the mediation test with a single t test obtained a value of t count of 2.519 and a value of p = 0.011. This shows that the variable customer satisfaction can be a mediation variable between environmental quality and consumer loyalty.

Based on the Goodness of fit index test listed in Figure 2, it can be seen that the chi square value is 118.790 with a probability of 0.000. This means that there is a difference between the predicted value and the actual value of the endogenous variable. Although there are differences, the differences can still be tolerated because the Cmin / df value is less than 2, which is equal to 1.918. The indicator of the assessment of Goodness of fit index which is in the good category is RMSEA of 0.078 (good because it is less than 0.08). The CFI value is 0.956 and TLI is 0.944, the value is good because they are less than 0.9. There are two indicators of Goodness of fit index included in the marginal category, namely GFI of 0.888 and AGFI of 0.835. GFI and AGFI are marginal because they are less than 0.9. The existence of marginal GFI and AGFI values shows that the model used in this study is still not perfect. Therefore it cannot be used as a model forming consumer loyalty. The model produced in this study can only be used to describe the relationship between variables only.

4. CONCLUSIONS AND SUGGESTIONS

The results of data analysis indicate the influence of environmental quality on customer satisfaction. The results of data analysis also indicate the influence of environmental quality on consumer loyalty. Thus the results of testing between the variables of consumer satisfaction and loyalty, indicate a significant effect of customer satisfaction on consumer loyalty. The mediation test results show the role of consumer satisfaction in mediating the influence of the service environment on consumer loyalty. For the next researcher, they can identify other variables that influence satisfaction and loyalty in order to form a better model, namely the model that has no marginal Goodness of fit index.
REFERENCE


