



The Determinants of Customer Satisfaction and the Mediating Role of Brand Image in the Indonesian Fast-Food Industry in Surabaya

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Abstract. This study aims to shed light on the effects of determinants of customer satisfaction on customer loyalty with a particular focus on the mediating role of brand image in the context of the Indonesian fast-food industry. Based on the literature review of prior studies, the determinants of customer satisfaction in this study are service quality, food quality, physical environment, location, and perceived price. The data of this study were collected through an online questionnaire completed by 200 participants in Surabaya. Data analysis was performed using Partial Least Squares Structural Equation Model (PLS-SEM) through SPSS version 26 and SmartPLS 3. The results show that service quality, food quality, location, and perceived price significantly influence customer satisfaction, improving customer loyalty. On the contrary, the physical environment does not have a significant impact on customer satisfaction. Furthermore, the results also show that brand image functions as a mediator between customer satisfaction and loyalty. The findings from this study can provide implications for strategic planners in the fast-food industry to formulate and develop effective strategies to gain a competitive edge over their competitors by emphasizing these critical determinants of customer satisfaction that can influence customer loyalty most significantly. Thus, fast-food restaurants can make efficient changes to compete and add value to their offerings.

Keywords: Customer Satisfaction · Customer Loyalty · Brand Image

1 Introduction

Notably, the fast-food sector is one of the top three growth drivers for Indonesia's food service market, with an impressive CAGR of 4,4% from 2016 to 2019 in sales value, according to Agriculture and Agri-Food Canada (2020) Market Access Secretariat Global Analysis Report. In fact, it is not surprising to see this phenomenon of rapid growth in the fast-food business phenomenon after considering the market share of the food service industry. Five fast food restaurants in the top ten major food service companies are KFC, McDonald's, Pizza Hut, HokBen, and Richeese Factory dominate

the Indonesian food service industry in terms of sales value and with a significant number of outlets located around Indonesia. A high rate of opening outlets across the country to increase market penetration indicates a high level of competitive intensity among fast food chains in Indonesia. To gain an edge over the competition, it is, therefore, crucial for each fast-food brand, both domestic and international, to improve brand awareness, product and service offerings, store atmosphere, promotion, and price setting to attract consumers' attention and retain loyal customers.

Currently, customer loyalty has become a topic of concern among restaurant owners because it is closely related to business profitability, especially in the fast-food sector, where competition is very intense [1]. A study from [1] supported the argument that building customer loyalty is one of the priorities of any corporation to achieve the ultimate goal of high long-run profitability. Loyal customers are not only willing to choose offerings consistently from one company. However, they are also less price sensitive and more likely to pass on positive recommendations about their favorite brands [2]. Without a doubt, loyal customers are viewed as an important source of company revenue and long-run profitability because they are more cost-effective to serve and more likely to buy an additional product, creating opportunities for cross-selling. In fact, revealed that it is around 3 to 5 times more costly to devote resources to attract new consumers rather than retain existing customers.

Based on the background above, the research problems that this research aims to resolve are listed as follows:

- Does service quality affect customer satisfaction in a fast-food restaurant?
- Does food quality affect customer satisfaction in a fast-food restaurant?
- Does physical environment affect customer satisfaction in a fast-food restaurant?
- Does location affect customer satisfaction in a fast-food restaurant?

Table 1. Comparison Between Relevant Studies

No	Relationships Between Variable	Uddin [1]	Etemad-Sajadi & Rizzuto [3]	Zhong & Moon [4]	Hidayat et. al [5]	Solunoglu [6]
1	Service Quality → Customer Satisfaction (+)	Supported	Supported	Supported	Supported	Supported
2	Food Quality → Customer Satisfaction (+)	Supported	Supported	Supported	Supported	Supported
3	Physical Environment → Customer Satisfaction (+)	Not Supported	Not Researched	Supported	Not Researched	Not Researched
4	Location → Customer Satisfaction (+)	Not Supported	Not Researched	Not Researched	Not Researched	Not Researched
5	Perceived Price → Customer Satisfaction (+)	Supported	Supported	Supported	Supported	Not Researched
6	Customer Satisfaction → Customer Loyalty (+)	Supported	Supported	Supported	Supported	Not Researched
7	Customer Satisfaction → Brand Image (+)	Not Researched	Not Researched	Not Researched	Not Researched	Supported
8	Brand Image → Customer Loyalty (+)	Not Researched	Supported	Not Researched	Not Researched	Not Researched

Source: [1, 3–5], and [6]

Does perceived price affect customer satisfaction in a fast-food restaurant?
 Does customer satisfaction affect customer loyalty in a fast-food restaurant?
 Does brand image mediate the relationship between a fast-food restaurant's customer satisfaction and customer loyalty?

2 Literature Review

Westbrook [7] defined the concept of customer satisfaction as the favorability of the individual's subjective evaluations of the outcomes and experiences associated with his or her consumption activities. Findings from [8] showed that a positive correlation exists between customer satisfaction and customer loyalty, which is related to profitability as a consequence of repeat purchase behavior among loyal customers. Several studies have demonstrated that service quality, food quality, physical environment, location, and perceived price can be recognized as critical determinants of customer satisfaction, especially in the hospitality industry where products and services are provided at the same time [1, 3–6].

Several studies, concluded that quality of service is closely and positively associated with customer satisfaction. Customer perception about the service quality is likely to be formed immediately after receiving or consuming service, and then customers will compare the experiences and their expectations [1].

Studies by Susskind and Chan [9] insisted that food quality must be prioritized as the primary factor in determining customer satisfaction as it has a positive association with customer satisfaction. Several studies have proven there is a significant positive effect on customer satisfaction when restaurant owners invest in interior designs, decorations, floor cleanness, and other accessories to create a pleasant atmosphere, enhancing financial performance and higher customer retention in restaurants [10].

This study aims to investigate the effect of customer satisfaction determinants on customer loyalty and examine the mediating effect of brand image in the context of the Indonesian fast-food industry with the seven proposed hypotheses, from H1 to H7 (Fig. 1).

Findings from Hyun [11] demonstrated that location is a determinant factor that can significantly affect customer satisfaction. Love [12] indicated that location is a key

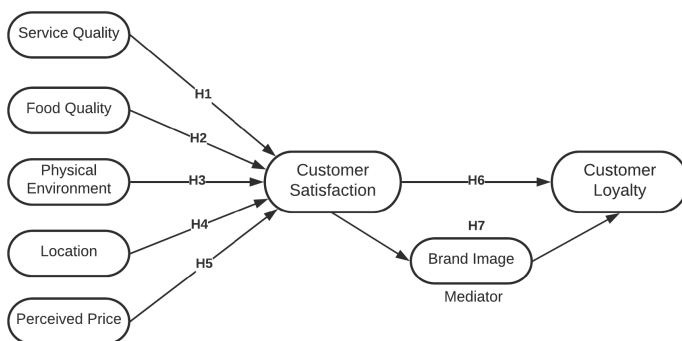


Fig. 1. Hypothesized Research Model

element to the success of the fast-food operation as it can overcome operation challenges to satisfy customers. Anderson et al. [13] indicated that prices play a significant role in affecting the degree of satisfaction among customers because the price is always their consideration to assess the value of an acquired product or service.

A favorable brand image acts as a barrier to switching behavior and supports creating customer satisfaction which drives customer loyalty [14, 15].

H1: Service quality has a positive influence on customer satisfaction in a fast-food restaurant.

H2: Food quality has a positive influence on customer satisfaction in a fast-food restaurant.

H3: Physical environment has a positive influence on customer satisfaction in a fast-food restaurant.

H4: Location has a positive influence on customer satisfaction in a fast-food restaurant.

H5: Perceived price has a positive influence on customer satisfaction in a fast-food restaurant.

H6: Customer satisfaction has a positive influence on customer loyalty in a fast-food restaurant.

H7: Brand Image mediates the relationship between customer satisfaction and customer loyalty in a fast-food restaurant.

3 Research Methodology

This study is considered basic research aimed at expanding current scientific knowledge and gaining a better understanding of factors that can influence customer loyalty through the levels of customer satisfaction and the mediating role of brand image in a low-switching cost, the fast-food industry. This study adopted a quantitative research approach with relevant and measurable data. The data was collected through an online survey method using Google Forms. Numerical data were gathered using a 5-point Likert-type scale; the close-ended questionnaire was constructed using a 5-point numerical scale that ranges from 1 = strongly disagree to 5 = strongly agree.

The respondents of this study were chosen based on three criteria: 1. Customers with dining experiences in both international and local fast-food chains; 2. Aged 18 to 60 and above, and 3. Domiciled in Surabaya.

This study adopted a Partial Least Square Structural Equation Modeling (PLS-SEM) approach using the analysis tool, SmartPLS 3 software which is one of the prominent software applications for PLS-SEM. A questionnaire item is considered valid if the value of Pearson correlation $\geq R_{table}$ at the significance level < 0.05 , whereas it is considered reliable when the value of Cronbach's Alpha ≥ 0.7 [16]. After that, confirmatory factor analysis (CFA) was conducted through SmartPLS 3 software to evaluate the outer model. The value of both standardized factor loading of all items and the Average Variance Extracted (AVE) of each construct should ≥ 0.50 to indicate good convergent validity [16]. As for the discriminant validity, it was evaluated through the

Fornell-Larcker criterion, where AVE's square root of each construct should exceed the correlation value. In addition, composite reliability (CR) was included in this research as the criterion to evaluate the internal consistency reliability of the outer model. The value of CR should be equal to or greater than 0.70 to indicate that all items constantly measure the same construct [16]. To evaluate the fitness of the model, the inner model test was applied using fit indices, including standardized root mean square residual (SRMR), Normed fit index (NFI) and Chi-square/degrees of freedom ratio (χ^2/df).

4 Results and Discussion

Validity and reliability tests were carried out on 30 respondents. The survey questionnaire continued to be distributed to more respondents until meeting the sample size requirement. In total, 213 volunteers participated in this study. However, only 200 of the 213 responses are complete and usable for data analysis.

The remaining 200 responses were further analyzed for the assessment of the outer model using confirmatory factor analysis (CFA through SmartPLS 3 software. The results from CFA regarding factor loading (l), AVE the factor loadings (l) of all items were greater than the threshold of 0.5, ranging from the lowest of 0.698 to the highest of 0.889 and the values of CR of all variables exceeded the threshold value of 0.7, ranging from the lowest of 0.854 to the highest of 0.920.

In SEM-PLS research, the assessment of the inner model is also associated with the collinearity issue, capabilities of the model's predictive ability, predictive relevance, and the interrelationships between variables. The following tables present the results of the Variance Inflation Factor (VIF), R2, and Q2 from PLS algorithm and Blindfolding procedure in SmartPLS 3 software.

Table 1 shows that all VIF values of the items are below the tolerance threshold of 5, ranging from the lowest of 1.389 to the highest of 2.998. As a result, this demonstrates no collinearity issue in the inner model. On the one hand, Table 2 shows that all R2 values are over 0.1, indicating that the predictive capability is established. Apart from that, the values of Q2 are all significantly greater than 0. As a result, these findings show that the model has predictive relevance and significance in predicting endogenous variables. After assessing the outer and inner models of the research, the next step is to confirm the hypothesized paths in the research framework (Table 3).

In this study, hypothesis testing was carried out with the 5000-subsample bootstrapping procedure in SmartPLS 3 software.

The results of hypothesis testing are summarized in the following table.

Hypothesis 1 (H1), Hypothesis 2 (H2), Hypothesis 4 (H4), Hypothesis 5 (H5), and Hypothesis 6 (H6) are accepted. Hypothesis 3 (H3) is not accepted, and it is safe to conclude physical environment is negatively associated with customer satisfaction. This result opposes the findings from [4]. However, it does correspond with the previous research from [1], which stated physical environment does not significantly affect customer satisfaction.

Table 4 reveals that Hypothesis 7 (H7) regarding the mediating effect of brand image on customer loyalty was accepted due to the reason that total effect ($\beta = 0.819$, t-value = 22.570, p-value < 0.001), direct effect ($\beta = 0.659$, t-value = 11.404, p-value < 0.001)

Table 2. Variance Inflation Factor (VIF)

Variable	Item	VIF	Variable	Item	VIF
Service Quality	SQ1	1.968	Perceived Price	PP1	2.059
	SQ2	1.539		PP2	2.067
	SQ3	1.873		PP3	2.206
	SQ4	1.728		PP4	1.574
	SQ5	1.490	Customer Satisfaction	CS1	2.805
Food Quality	FQ1	1.436		CS2	2.225
	FQ2	1.622		CS3	2.006
	FQ3	1.389		CS4	2.537
	FQ4	1.562	Customer Loyalty	CL1	2.998
	FQ5	1.654		CL2	1.930
Physical Environment	PE1	1.795		CL3	2.187
	PE2	1.709		CL4	2.906
	PE3	1.744	Brand Image	BI1	1.594
	PE4	1.756		BI2	1.753
Location	LO1	1.616		BI3	1.746
	LO2	1.589		BI4	1.621
	LO3	1.626			

Table 3. R² and Q² Results

Variable	R ²	Q ²	Effect Size
Customer Satisfaction	0.714	0.511	Strong
Customer Loyalty	0.699	0.509	Strong
Brand Image	0.480	0.286	Medium

and indirect effect ($\beta = 0.160$, t -value = 3.784, p -value < 0.001) were all statically significant.

Accordingly, this result proves that partial mediation exists between customer satisfaction and loyalty when the mediating variable is the brand image. These findings are in line with [17] (Table 5).

5 Conclusion and Recommendation

Based on the results of hypothesis testing, the following conclusions can be written as follows: (1) Service quality has a positive influence on customer satisfaction in a fast-food restaurant; (2): Food quality has a positive influence on customer satisfaction in

Table 4. Hypothesis Testing Results

	Hypothesis	Std. Beta (β)	t-value	p-value	Results
H1	Service Quality \rightarrow Customer Satisfaction	0.260	4.164	***	Accepted
H2	Food Quality \rightarrow Customer Satisfaction	0.238	3.422	0.001	Accepted
H3	Physical Environment \rightarrow Customer Satisfaction	-0.027	0.602	0.547	Not Accepted
H4	Location \rightarrow Customer Satisfaction	0.134	2.709	0.007	Accepted
H5	Perceived Price \rightarrow Customer Satisfaction	0.425	6.870	***	Accepted
H6	Customer Satisfaction \rightarrow Customer Loyalty	0.659	11.404	***	Accepted

Table 5. Mediation Test Results

H7	Customer Satisfaction \rightarrow Brand Image	Brand Image \rightarrow Customer Loyalty	Effects		
			Indirect Effects (CS \rightarrow BI \rightarrow CL)	Direct Effects (CS \rightarrow CL)	Total Effects (CS \rightarrow CL)
Std. Beta (β)	0.693	0.231	0.160	0.659	0.819
t-value	13.448	3.933	3.784	11.404	22.570
p-value	***	***	***	***	***

a fast-food restaurant; (3): Physical environment does not have a positive influence on customer satisfaction in a fast-food restaurant; (4): Location has a positive influence on customer satisfaction in a fast-food restaurant; (5): Perceived price has a positive influence on customer satisfaction in a fast-food restaurant; (6): Customer satisfaction has a positive influence on customer loyalty in a fast-food restaurant; and (7): Brand Image mediates the relationship between customer satisfaction and customer loyalty in a fast-food restaurant.

There are several recommendations to the owners or managers of fast-food restaurants, particularly Indonesia's Top 5 fast-food chains. The positive impact of food quality on customer satisfaction prompts fast-food restaurants to pay great attention to diversifying the menu through product innovation and localization strategy to satisfy different customer needs. High food quality can also be maintained by applying and maintaining the same standards in all of their outlets.

Future studies could include more factors of customer satisfaction and loyalty, such as delivery service, perceived value, and customer trust to widen the implications.

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