

Online Food Delivery Service: The Role of e-Service Quality and Food Quality on Customer Loyalty

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ABSTRACT

Nowadays, the online food delivery service industry is vast and prospective. In this highly competitive business environment, having and developing loyal customers is essential. Unfortunately, research to examine customer loyalty modeling in this industry is not many. This study was designed to examine the relationship between e-service quality, food quality, satisfaction, and loyalty in the context of online-based food ordering. Data obtained from 402 respondents are consumers who order food through online applications in Bandung city. The data were processed and analyzed using SEM-PLS. The result shows that online service quality and food quality affected satisfaction and loyalty.

Keywords: *Online Food, Food Quality, Satisfaction, Loyalty.*

1. INTRODUCTION

Nowadays, online food delivery (OFD) service is becoming popular, the transaction value of this system is quite large and predicted to increase every year. This phenomenon occurs in many countries in this world. The global transaction value from OFD in 2021 reached US\$ 270,317 Million and increased by 10.39% annually [1]. During the COVID-19 pandemic, the OFD transactions value dramatically increased due to the pandemic people's attention to their health. They prefer to buy food using online applications rather than directly visiting restaurants [2]. Ordering food through online applications will prevent being infected by the virus. In addition to preventing transmission of coronavirus infection, restrictions on interacting with others were imposed in many places.

The number of transactions using the OFD system in Indonesia is vast, it reached US\$ 803 Million in 2021, and it showed an annual growth rate of 17,52% [3]. Also, according to the report, small business entrepreneurs dominate the number of business actors who adopt the system. Unfortunately, many small business entrepreneurs are not in line with owners' capability in managing a business. Most of them are not managed in proper business conduct [4]. Culinary is a sub-sector that gets special attention from the government. This sub-sector contributed the most to the Indonesian creative

economy's gross domestic product (GDP) in 2020 [5]. It contributed around 41% of GDP creative economy that year. The report also described that the sub-sector absorbed around 9.5 million workers.

Previous studies have widely discussed the value of understanding customer loyalty and its forming factors for business activities. Of all the factors that contribute to loyalty, it is believed that product or service quality is a factor that affects loyalty [6, 7]. Loyalty formation has been studied for many industry cases, but researchers [8] agree that customer loyalty is unique. It has distinctive characteristics depending on its industry. Unfortunately, studies on consumer behavior towards online-based food ordering are still few.

Based on the explanation, the authors agree that it is crucial to study loyalty formation. The research aims at determining how food quality and e-service quality influence customer loyalty in the OFD context. This study is expected to bring two implications. First, it can enrich the literature on customer loyalty in the context of OFD services. Second, it can provide valuable guidelines for culinary business actors to develop strategies in developing their business activity.

This study was developed based on the quality base model that has been widely adopted by researchers. In this model, product quality is the key to customer satisfaction. The quality of a product is assessed from

customer evaluations of all product elements [9]. Online service quality is a consumer's evaluation of products or services offered electronically or online. Consumers expect good quality websites and online applications when conducting online transactions [10]. Thus, the quality of websites and online applications is a crucial aspect for businesses that sell their products and services through online media. This is especially important for online businesses such as culinary businesses, where the interaction between companies and consumers is solely through online media. Jeon and Jeong [11] argue that quality websites and online applications are significant in maintaining customer loyalty, influencing them to visit the company's website, and making them loyal consumers. Those studies generally conclude that satisfaction with online shopping is shaped by e-service quality.

H2: The quality of online services affects satisfaction.

Literature in restaurant studies has also reported the link between food quality and e-service quality [12, 13]. In previous studies, scholars believe that the Spillover Theory [14] stated that one person's experience of one thing would affect the other. Dwi [15] reveals that service quality is essential in food quality.

H2: E-service quality positively influences food quality

Food quality refers to the overall performance of food to meet consumer needs. It is something that is very vital in the culinary business [12]. Ha and Jang [12] use the taste, nutrition, and variety of food to evaluate consumer experience with food and satisfaction. Liu et al. [16] In a study at casual dining restaurants, researchers [17] found that food quality is the main factor that determines customer loyalty. Another study that examines consumer behavior towards the restaurant environment [13] explains the importance of food quality in influencing delivery service, customer satisfaction, and intention to recommend and repurchase

.H3: Food quality affects satisfaction.

Behavioral intention or loyalty intention is a consumer's tendency to act in a certain way towards a product or service [18]. This is widely recognized as the most apparent consequence of customer satisfaction. Behavioral intention indicates a person's behavior that can be predicted in the near future related to consuming a product or service [19].

H4: Satisfaction affects loyalty.

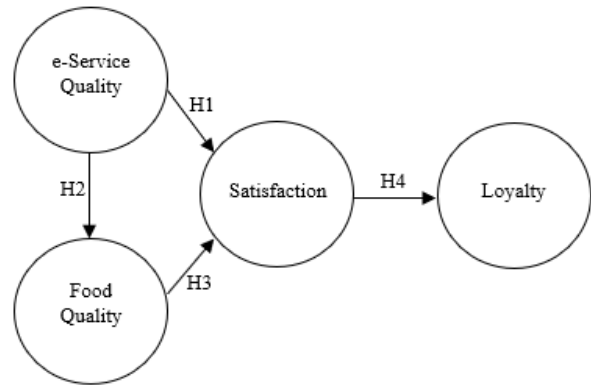


Figure 1. Online food loyalty conceptual model

2. METHODS

This study was qualitative research. All research instruments used were adopted from previous studies. Firstly, online quality adopted the E-S-QUAL model [20], consisting of system availability, reliability, privacy, efficiency, and compliance. Secondly, food quality was assessed by taste, variety, health, and attractiveness [21, 22]. Thirdly, customer satisfaction was examined by comparing experience, expectations, and satisfaction. Lastly, loyalty was assessed by intention to recommend, repurchase, and willingness to pay more [18]. The variables were measured using a 5 points Likert scale (1 strongly disagree to 5 strongly agree).

This research is a consumer perception study of the experience of buying food using online media such as GoFood and Grab food. Data collection was carried out on respondents who had bought food online. Through this technique, respondents were expected to respond to the questionnaire accurately. The number of samples was 402 respondents. The data was taken for three months (August-October 2020). The location of the respondents was in the city of Bandung.

The SEM-PLS approach was used to measure the relationship between variables in this study. Data analysis was put through three stages: analysis of the outer model, analysis of the inner model, and hypothesis testing. The external model analysis was carried out to ensure that the variables and indicators were suitable for measurement (valid and reliable). The outer model was assessed by examining the value of factor loading, the value of Cronbach's Alpha, and AVE, while the analysis of the inner model or analysis of the structural model is carried out to ensure that the structural model built is sturdy and accurate. The evaluation of the inner model can be seen from several indicators, which include: coefficient of determination (R²), predictive relevance (Q²), and Goodness of Fit Index (GoF).

3. RESULTS AND DISCUSSION

The measurement of the model is carried out with three stages of evaluation, evaluation of the outer model, all variables and indicators are valid and reliable, it can be seen from table 1, that loading factor value more than 0.6, composite reliability value more than 0.7 and AVE value above 0.5 [23].

Table 1. Loading factor, CRA, C.R., and AVE values

Variable/ Indicators	*loading	Cronbach Alpha	Composite Reability (CR)	(AVE)
E-Service Quality		0.826	0.877	0.589
Es-8	0.732			
Es-9	0.763			
Es-10	0.768			
Es-11	0.787			
Es-12	0.785			
Food Quality		0.873	0.902	0.569
FQ-18	0.717			
FQ-19	0.688			
FQ-20	0.784			
FQ-21	0.709			
FQ-22	0.805			
FQ-37	0.808			
FQ-38	0.760			
Satisfaction		0.808	0.866	0.722
SA-27	0.864			
SA-27	0.833			
SA-27	0.853			
Loyalty		0.812	0.878	0.646
LO-30	0.858			
LO-31	0.836			
LO-32	0.869			
LO-33	0.628			

The measurement of discriminant validity is carried out using the Fornell-Larcker Creation criteria value. All latent variables have a greater variance value with the variable itself than other variables [23]. From table 2, it can be seen that the construct meets the discriminant validity requirements

Table 2. Heterotrait-Monotrait Ratio (HTMT)

	Food Quality	Loyalty	Satisfaction	E-Service Quality
Food Quality	0.745			
Loyalty	0.662	0.804		
Satisfaction	0.742	0.730	0.850	
E-Service Quality	0.659	0.624	0.636	0.767

The evaluation of the inner model was done by looking at the values of R², Q², and GoF. The results of these three tests are shown in Table 3. The R² value was 0.518, according to Chin [24]. The three criteria for the R² value were R² of 0.67 was common, 0.33 was moderate, and 0.19 was weak. The results of the Q² test, there were evaluation criteria where the value of Q² 0.02 = small, 0.15 = medium dan 0.35 = large. Meanwhile, the GoF evaluation showed a value of 0.571. Ali [25] stated that there are three GoF evaluation criteria: small for 0.1, medium for 0.25, and large for GoF = 0.38. From the R², Q², and GoF tests, it can be seen that the model formed is robust. So that hypothesis testing can be done.

Table 3. GoF value

	Q ²	AVE	R ²	
e-Service Quality		0.589		
Food Quality	0.236	0.569	0.433	
Loyalty	0.340	0.646	0.533	
Satisfaction	0.418	0.722	0.587	
Average Score		0.632	0.518	
AVExR ²				0.327
GoF = √(AVExR ²)				0.572

Hypothesis testing was carried out using the t value. From the table, all t values are above the cut-off or above 1.96, which indicates that everything is significant. Thus, from table 4, it could be said that all hypotheses are accepted.

Table 4. Hypotheses testing results

Hypothesis	β	t-value*	Test Result
H1 E-Service Quality -> Satisfaction	0.260	5.734	Accepted
H2 E-Service Quality -> Food Quality	0.659	18.497	Accepted
H3 Food Quality -> Satisfaction	0.571	11.629	Accepted
H4 Satisfaction -> Loyalty	0.730	24.771	Accepted

The following is a picture of the relationship between variables

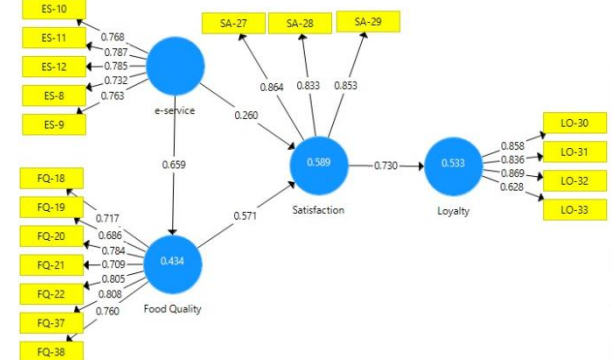


Figure 2. Tested model

The research conducted revealed that in the context of online-based food ordering, the quality of online

services (applications) and food quality has a vital role in the formation of consumer satisfaction and loyalty. This finding is in line with the results of previous studies [15]. The quality of online services plays a role in increasing food quality and consumer satisfaction when ordering food using online applications; consumers can see the appearance of the food to be ordered. Thus, this influences the perception of the food quality to be ordered. The ease of finding and ordering food, payment, and application reliability are essential for consumers because by ordering food using online applications, consumers do everything themselves (self-service). Food quality is an important factor. It can be seen that food quality affects consumer satisfaction. Consumers place food orders using online applications are because they need food, not only because they are interested in using food ordering applications.

The quality of food has a more significant influence on consumer satisfaction than the quality of online services. This provides information to culinary business actors that the core product being sold is the most important, meaning that they offer food so that the quality of the meal must be good.

4. CONCLUSIONS

This study discovers that food quality and e-service quality play a significant role in developing customer satisfaction in the context of online food delivery (OFD) service. Food quality has a stronger influence on satisfaction compared with e-service quality. This finding suggests that the business actor must pay attention to the fact that consumers order culinary products using online media to consume the food.

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