

# Customer Satisfaction in Online Food Delivery Services: An Application of the E-Service quality

**Mr. Nagendra Kumar Turaga\***,

Assistant Professor, Department of Management Studies,

VFSTR Deemed to be University, Vadlamudi, Guntur, India - 522213

**Mrs. Mohana Turaga\*\***,

Assistant Professor, KL Business School, Koneru Lakshmaiah Educational Foundation,

Guntur, Andhra Pradesh, India. – 521180

**Dr. Sabineni Poojitha\*\*\***,

Assistant Professor, KL Business School, Koneru Lakshmaiah Educational Foundation,

Guntur, Andhra Pradesh, India. – 521180

**Mr. Girish Salaka\*\*\*\***,

Assistant Professor, KL Business School, Koneru Lakshmaiah Educational Foundation,

Guntur, Andhra Pradesh, India. – 521180

## Abstract

Aggregator and Cloud Kitchen are the two delivery kinds used for online meal delivery. Consumers can contrast and sort meals from multiple restaurants using a particular app whereas, Cloud kitchens, which are money-making facilities purpose-built to manufacture meals exclusively for deliverance, are more common in India. The parameters that influence E-service quality in online food delivery (OFD) services for customer satisfaction were the subject of the study. The statistical population of this study is made up of customers who have been unsatisfied with services and have complained at least once. A total of 205 people were surveyed in order to create a valid and trustworthy questionnaire. The elements that make up such as security, accessibility, empathy, process, accuracy, availability, honest, delivery assurance, responsiveness, expectations have variability on the Customer Satisfaction.

Keywords: E-service quality, customer's satisfaction, online food delivery (OFD)

## Introduction

The rised use of new interactions has become the norm in many industries, including the online food delivery (OFD) market. This sector has evolved in such a way that recent technological advancements and technology usage have emerged as significant variables for diversifying food services and achieving competitive advantage (Furunes & Mkonu, 2019). (Rodgers, 2007). Currently, there is a lot of innovation in the food delivery industry in India in terms of catering to customer comfort, satisfaction, and long-term retention. As a result, the industry was rife with competition. Young people in India are the most active users of internet marketing and online food delivery (Ullal et al., 2020). In restaurant studies, food and e-service quality have been shown to have a

significant impact on the customer experience (Kedah et al., 2015; Yeo et al., 2017). Early research suggested that e-service quality was only related to website quality (Parasuraman, Zeithaml, & Malhotra, 2005), but as online technology has advanced, scholars have proposed that e-service quality should include both website and application service quality (Pigatto, Ma-chado, Negreti, & Machado, 2017). The literature on services marketing emphasises the importance of closing the gap between customer expectations and actual value delivery (Ozuem et al. 2017). Dissatisfied customers should be satisfied, and a long-term relationship should be established (Holloway and Beatty 2003). Several studies (Bougoure et al. 2016; Keiningham et al. 2014; Brock et al. 2013; Roschk and Kaiser 2013; Gustafsson 2009; Hess et al. 2003) investigated customer satisfaction with complaint handling and discovered that effective complaint handling and efficient offsetting of service failures affects customers' evaluation of the organisation and their satisfaction (Ahmed and Amir 2011). In a nutshell, the Anderson (2003) model tries to explain how a user's positive attitude and loyalty, which might lead to repurchase behaviour, can be influenced by their prior shopping experience. Despite their possible contribution of studies, there is scarcity in understanding the factors that influence E-service quality, in online food delivery (OFD) services for customer's satisfaction. In this context, the remainder of the paper is produced as follows. We begin by reviewing relevant literature, developing a theoretical model, and formulating a set of research hypotheses. Then we'll go over our research methodology, followed by a discussion of our findings. Following that, we discuss the theoretical and managerial implications of our findings. Finally, we discuss study limits as well as future research potential.

## Review of Literature

### E-service quality

“The amount to which a website supports efficient and effective shopping, purchase, and delivery of items and services,” as proposed by Zeithaml and colleagues, is the most widely referenced definition of e-service quality. When making an online purchase, customers expect a high level of service from the website (Caruana & Ewing, 2010). As a result, the quality of a company's website is critical in marketing its products and services. This is especially crucial in online businesses like OFD services, where the only way for companies to engage with their users is through online devices. According to (Jeon and Jeong, 2017), maintaining website quality is critical for retaining customers, persuading them to return to the website, and ultimately securing their loyalty. As a result, maintaining a high-quality website is critical for online businesses' success (Parasuraman, Zeithaml, & Malhotra, 2005; Pee et al., 2018). Studies have gradually taken into account the link between customer interaction with the website and their subsequent behaviours in terms of e-service quality implications. As a result, in the context of OFD, the following hypothetical statement is proposed.

### Customer Satisfaction

According to Kotler, satisfaction is the consequence of an individual's appraisal of the relationship between hopes and seeming act in merchandise or overhaul, and the outcome might be either satisfaction or dissatisfaction. (Bagla and Khan, 2017) conducted research to determine the variables that contributed to the rise in reputation of OF in India, as well as customer expectations and satisfaction with the country's top online food ordering apps. (Suhartanto et al., 2018) investigated the influence of services on customer loyalty

### Research Methodology

The primary data acquired from the questionnaire was used in this investigation. Items from the E-S-Qual, and customer satisfaction were employed in the customer satisfaction model in OFD service. Before sending the questionnaire, a pre-test of 20 respondents is to ensure that each item is clear and consistent.

### Analysis & Findings

**Table: I**

	No of observations	Min	Max	Mean	SD
web can found easily what is need	204	1	5	4.06	0.852
Valid N (list wise)	204				

It is necessary to know the responses from the customers and to determine their accessibility through online food orders. The results are totalled and average is calculated using mean % results to understand the accessibility of information through online food orders. The above table gives a brief idea about ease of use through online food orders., the mean % score (Mean = 4.06; SD = 0.852) indicates that most of the respondents agree that the website provides the information that customer needs. This may be due to the reason that the customers feel that they are able to meet their needs through online food orders.

**Table: II**

	No of observations	Min	Max	Mean	SD
The web makes it easy to get anything	204	1	5	3.92	0.906
Valid N (list wise)	204				

It is necessary to know the responses from the customers and to determine their availability through online food orders. The results are totalled and average is calculated using mean % results to understand the availability of food through online food orders. The above table gives a brief idea about availability through online food orders, the mean % score (Mean = 3.92; SD = 0.906) indicates that most of the respondents agree that the customers are able to get anything through online food orders.

**Table: III**

	No of observations	Min	Max	Mean	SD
The web is uncomplicated to operate	204	2	5	3.96	0.887
Valid N (list wise)	204				

It is necessary to know the responses from the customers and to determine whether the process of placing orders is simple. The results are totalled and average is calculated using mean % results to understand the simplicity through online food orders. The above table gives a brief idea about simplicity through online food orders, the mean % score (Mean = 3.96; SD = 0.887) indicates that most of the respondents agree that the process of placing orders is simple.

**Table: IV**

	No of observations	Min	Max	Mean	SD
Whenever I need the web always available	204	1	5	4.12	0.834
Valid N (list wise)	204				

It is necessary to know the responses from the customers and to determine the responsiveness of websites through online food orders. The results are totalled and average is calculated using mean % results to understand the responsiveness of websites through online food orders. The above table gives a brief idea about responsiveness of websites through online food orders, the mean % score (Mean = 4.21; SD = 0.834) indicates that most of the respondents agree that the website is always available to place the order.

**Table: V**

	No of observations	Min	Max	Mean	SD
The delivering order is as promised	204	2	5	3.90	0.825
Valid N (list wise)	204				

It is necessary to know the responses from the customers and to determine the delivery assurance through online food orders. The results are totalled and average is calculated using mean % results to understand the delivery assurance through online food orders. The above table gives a brief idea about delivery assurance through online food orders, the mean % score (Mean = 3.90; SD = 0.825) indicates that most of the respondents agree that the delivery of order is as promise.

**Table: VI**

	No of observations	Min	Max	Mean	SD
The items ordered is sent out properly	204	1	5	3.88	0.880
Valid N (list wise)	204				

It is necessary to know the responses from the customers and to determine whether the expectations of the customers are met. The results are totalled and average is calculated using mean % results to understand the whether the expectations of the customers are met. The above table gives a brief idea whether the expectations of the customers are met, the highest mean % score (Mean = 3.88; SD = 0.880) indicates that most of the respondents agree that the items ordered are sent properly.

**Table: VII**

	No of observations	Min	Max	Mean	SD
The web offering is honest	204	1	5	3.82	0.946
Valid N (list wise)	204				

It is necessary to know the responses from the customers and to determine their reliability through online food orders. The results are totalled and average is calculated using mean % results to understand reliability through online food orders. The above table gives a brief idea about reliability through online food orders, the mean % score (Mean = 3.82; SD = 0.946) indicates that most of the respondents agree that the website is offering reliable services.

**Table: VIII**

It is necessary to know the responses from the customers and to determine the information accuracy through online food orders. The results are totalled and average is calculated using mean % results to understand information accuracy through online food orders. The above table gives a brief idea about information accuracy through online food orders, the mean % score (Mean = 3.92; SD = 0.711) indicates that most of the respondents agree that the website provides accurate information.

**Table: IX**

	No of observation	Min	Max	Mean	SD
The web keeps my shopping behavior information	204	3	5	4.06	0.699
Valid N (list wise)	204				

It is necessary to know the responses from the customers and to determine the empathy of website in maintaining past data of customers placing online food order. The results are totalled and average is calculated using mean % results to understand the empathy of website in maintaining past data of customers placing online food order. The above table gives a

brief idea about empathy of website in maintaining past data of customers placing online food order, the mean % score (Mean = 4.06; SD = 0.699) indicates that most of the respondents agree that the website keeps the customers shopping behaviour information.

**Table: X**

	No of observations	Min	Max	Mean	SD
My personal information is not shared by the web	204	1	5	3.69	1.132
Valid N (list wise)	204				

It is necessary to know the responses from the customers and to determine the customer’s personal information security while placing online food orders. The results are totalled and average is calculated using mean % results to understand the customer’s personal information security while placing online food orders. The above table gives a brief idea about customer’s personal information security while placing online food orders, the mean % score (Mean = 3.69; SD = 1.132) indicates that most of the respondents agree that the personal information of customers is not shared by the websites.

**Table: XI**

	No of observations	Min	Max	Mean	SD
Presentation	204	1	5	3.82	0.925
Variety	204	1	5	4.10	0.800
Taste	204	1	5	4.00	0.865
Healthy option	204	1	5	3.80	0.866
Valid N (list wise)	204				

It is necessary to know the responses from the customers and to determine the food quality while placing online food order. The results are totalled and average is calculated using mean % results to understand the prime reasons for placing the food order through online websites. The above table gives a brief idea about food quality while placing online food order. There are 4 items relating to food quality while placing online food order that were asked to the respondents and descriptive analysis (Mean & Standard deviation) has been applied to the responses obtained from customers regarding their preferences. The results arrived there are shown in the Table-given above. Out of 4 items in this variable, the highest mean % score (Variety) (Mean = 4.10; SD = 0.800) indicates that most of the respondents agree that there is variety of food available through online food orders.

**Table: XII**

	No of observations	Min	Max	Mean	SD
Are you satisfied with the quality of the product	204	2	5	3.92	0.765
Are you satisfied with the prices	204	2	5	3.69	0.920
Are you satisfied with the usage of the web	204	2	5	4.02	0.756
Valid N (list wise)	204				

It is necessary to know the responses from the customers and to determine their satisfaction through online food order. The results are totalled and average is calculated using mean % results to understand the prime reasons for the satisfaction through online food order. The above table gives a brief idea about satisfaction through online food order. There are 3 items relating to satisfaction through online food order that were asked to the respondents and descriptive analysis (Mean & Standard deviation) has been applied to the responses obtained from customers regarding their preferences. The results arrived there are shown in the Table-given above. Out of 3 items in this variable, the highest mean % score (Are you satisfied with the usage of the web) (Mean = 4.02; SD = 0.756) indicates that most of the respondents agree that they are satisfied with the usage of the website. The next highest mean % score (Are you satisfied with the quality of the food) (Mean = 3.92; SD = 0.765) indicates that most of the respondents agree that they are satisfied with the quality of the food.

**Table: XIII**

Explanatory Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
CS	Equal variances assumed	2.093	0.149	1.155	202	0.249	0.11774	0.10194	-0.08326	0.31874
	Equal variances not assumed			1.143	163.006	0.255	0.11774	0.10297	-0.08558	0.32107

The above table is used to establish the differences between groups in Gender with respect to degree of satisfaction. There is no significant difference between groups in Gender with respect to degree of satisfaction. Hence it can be concluded that Gender holds little relationship on Customer Satisfaction.

**Table: XIV**

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.849 <sup>a</sup>	.721	.707	.677	.721	49.882	10	193	.000

a. Predictors: (Constant), SECURITY, ACCESSIBILITY, EMPATHY, PROCESS, ACCURACY, AVAILABILITY, HONEST, DELIVERY ASSURANCE, RESPONSIVENESS, EXPECTATIONS

b. Dependent Variable: SATISFACTION

The above table provides the R, R square which can be used to determine how well a regression model fits the data. The R column represents the value of R, the multiple correlation coefficients and is considered to be a quality measure in prediction of dependent variable. The value of 0.849 indicates a good level of prediction. The R square column represents the R square value (0.721) also known as coefficient of determination which is the proportion of variance in the dependent variable that can be explained by the explanatory variables. In other words, R square is the explained variance. In this case explanatory variables such as security, accessibility, empathy, process, accuracy, availability, honest,

delivery assurance, responsiveness, expectations explain 72.1% of variability in the dependent variable, Customer Satisfaction.

**Table: XV**

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	228.593	10	22.859	49.882	.000 <sup>b</sup>
	Residual	88.446	193	.458		
	Total	317.039	203			

a. Dependent Variable: SATISFACTION

b. Predictors: (Constant), SECURITY, ACCESSIBILITY, EMPATHY, PROCESS, ACCURACY, AVAILABILITY, HONEST, DELIVERY ASSURANCE, RESPONSIVENESS, EXPECTATIONS

The F ratio in the ANOVA table tests whether the overall regression model is a good fit for the data. The table shows that the explanatory variables statistically significantly predict the dependent variable.  $F(10,193) = 49.882$ .  $p < 0.005$  which is the regression model is a good fit for the data.

**Table: XVI**

Coefficients							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF

1	(Constant)	6.16 0	.533		11.5 62	.00 0		
	ACCESSIBILIT Y	.029	.053	.024	.556 9	.57	.780	1.28 2
	AVAILABILIT Y	.072	.076	.048	.939 9	.34	.555	1.80 3
	PROCESS	.380	.085	-.189	- 4.47 3	.00 0	.812	1.23 1
	RESPONSIVE NESS	.047	.072	-.033	-.648 7	.51	.546	1.83 1
	DELIVERY ASSURANCE	.208	.070	.141	2.98 8	.00 3	.654	1.53 0
	EXPECTATIO NS	.024	.085	-.018	-.287 5	.77	.373	2.67 8
	HONEST	.002	.069	.001	.023 2	.98	.631	1.58 6
	ACCURACY	.021	.064	.014	.325 5	.74	.822	1.21 7
	EMPATHY	.035	.042	-.032	-.819 4	.41	.928	1.07 7
	SECURITY	.861	.045	-.865	- 19.2 37	.00 0	.714	1.40 0
a. Dependent Variable: SATISFACTION								

From the above table Unstandardized Coefficients specify the variation in observed variable with a change in explanatory variable when all the other explanatory variables are held constant. Considering the Accessibility, the Unstandardized Coefficient Beta value equals.029, which is for each 100 percent rise in Accessibility factor there is a rise in customer satisfaction by 2 percent. Considering the Availability, the Unstandardized Coefficient Beta value equals.072, which is for each 100 percent rise in Availability factor there is a rise in customer satisfaction by 7 percent. Considering Process, the Unstandardized Coefficient Beta value equals.380, which is for each 100 percent rise in simplicity of process factor there is a rise in customer satisfaction by 38 percent. Considering the responsiveness, the Unstandardized Coefficient Beta value equals.047, which is for each 100 percent decrease in responsiveness factor there is a rise in customer satisfaction by 4 percent. Considering the delivery assurance, the Unstandardized Coefficient Beta value equals.208, which is for each 100 percent rise in easy-to-use factor there is an rise in customer satisfaction by 20 percent. Considering the expectations, the Unstandardized Coefficient Beta value equals.024, which is for each 100 percent rise in expectations factor there is an rise in customer satisfaction by 2 percent. Considering the honest, the Unstandardized Coefficient Beta value equals.002, which is for 100 percent rise in honest factor there is an rise in customer satisfaction by .02 percent. Considering the security, the Unstandardized Coefficient Beta value equals.8, which is for each 100 percent rise in security factor there is an rise in customer satisfaction by 80 percent.

Multi collinearity is tested to check whether there is high correlation between or among explanatory variables by using Collinearity Statistics (Tolerance & VIF) from the above table. The tolerance value for all the variables is between 0 and 1(acceptable value). Variance inflation factor (VIF) is a measure of the amount of multi collinearity in a set of multiple regression variables. VIF for all the variables is less than 3 which is Min acceptable value. Hence it can be concluded that there is no problem of Multi collinearity.

### Conclusion & Implications

Providing quality services is a crucial element in online food services. The factors (explanatory variables) representing service quality explanatory variables such as security, accessibility, empathy, process, accuracy, availability, honest, delivery assurance, responsiveness, expectations explain 72.1% of variability in the dependent variable, Customer Satisfaction. E-Service Quality has no influence on satisfaction towards online food delivery (OFD) services is rejected as the p value (0.000) is less than the significant value (0.05) in the study. In the study the results show that the service quality is directly impacting the customer satisfaction. In further studies, researchers can adopt perceived quality and its impact on customer satisfaction.

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