

Predicting Behavioral Intentions to Use OFD Services through The Evaluation of Satisfaction, Food Quality, and Electronic Self-Service Quality

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ABSTRACT

This study aims to examine the effect of perceived control, service convenience, customer service, service fulfillment, food quality on customer satisfaction on behavioral intention in service companies that use online food (OFD) delivery service. Respondents in this study are OFD service users in Indonesia. The internal data for this study was 181 respondents. Data processing in this study used the Statistical for Social Sciences (SPSS) program version 24 and AMOS version 24. The results showed that the influence of customer service, service fulfillment, and food quality on customer satisfaction in food online delivery service was supported. The influence of customer satisfaction on behavioral intention is supported. Meanwhile, the influence of perceived control and service convenience on customer satisfaction is not supported.

Keywords: *e-Service Quality, Customer Satisfaction, Behavioral Intention, Online Food Delivery.*

1. INTRODUCTION

The COVID-19 pandemic has left an undeniable mark on the global landscape by altering the everyday lives of individuals (Ababneh et al., 2022), including how food is accessed and consumed (Hamid et al., 2023). As countries implemented social distancing measures and lockdowns, there was a surge in demand for online food delivery services (OFDS), which became essential for consumers worldwide (Allah Pitchay et al., 2020). As the pandemic subsides and society returns to the pre-pandemic normalcy (Agag et al., 2022), it becomes critical to investigate the long-term implications of the changes in consumer behaviour and factors that motivate consumers sustained use of OFDS in a shared economy beyond the pandemic (Bargoni et al., 2023).

The expected growth of the OFDS market - predicted to reach US\$0.19tn by 2023 with an annual growth rate of 12.33% - attests to its increasing importance in the modern shared economy. It offers both service providers and consumers flexibility and convenience, contributing to a shift in industry dynamics that implicates technology platforms, delivery personnel and restaurant consumers (Sharma et al., 2023). Thus, it becomes crucial to

consumer satisfaction and loyalty become paramount for the industry's continued evolution and success consumer (Meena & Kumar, 2020).

The digital era provides easy access to the internet, especially in the field of information and communication technology. Technological developments provide retail business opportunities in obtaining information efficiently and more broadly. The advancement of the World Wide Web creates retail transactions in a new form, namely electronic tailing (e-tailing) or shopping websites. There are similarities between online and offline-based retail, but differ in the sales media, where online retail sells products and services to customers through internet media (Kolesar & Galbraith, 2000).

In recent years, the food delivery industry has witnessed a remarkable transformation with the rise of online platforms, revolutionizing the way consumers satisfy their culinary desires (Li et al., 2020). Many companies, including small businesses, recognize the potential for selling their products via the Internet. COVID-19 has accelerated the shift towards a digital world. This led to the expansion of e-commerce ranging from goods and services for daily necessities to luxury goods and services. More and more online users are using digital and mobile technologies to search about products or services (Camilleri, 2022).

The outbreak of the 2019 Novel Coronavirus (2019-nCoV) which the World Health Organization (WHO) calls COVID-19 has made people's lives change in various aspects (Jaja et al., 2020). COVID-19 has affected Indonesia significantly as it is the 4th largest country in the world (Djalante et al., 2020). This decrease in mobility resulted in changes in consumer behavior in shopping for food which resulted in a low number of dine-in activities. This has caused the use of mobile food ordering applications to increase during the COVID-19 pandemic (Rahayu et al., 2022). With

safety and health reasons as the main factors, there has been an increase in purchases using food delivery applications (Albirra et al., 2023; Nugroho, 2021).

Rakuten (2020) stated that 41% of 5,664 respondents used food delivery applications more often during the pandemic. Of all internet users, food delivery application users in Indonesia reached the world's highest number of 74.4% (Kemp, 2021). The implementation of health protocols that limit outdoor activities contributes to the increasing use of food delivery applications. Rakuten Insight (2020) found that 71% of 2,303 respondents stated that the reason for purchasing food online was social distancing and minimizing outdoor activity time during COVID-19 in Indonesia (Albirra et al., 2023)

Research by Annaraud & Berezina (2020) shows that Online food delivery (OFD) for the majority of Americans is no longer a new concept. Large food delivery companies generate substantial revenues and are expected to increase. This study aims to investigate customers' intentions in using OFD services through evaluation of satisfaction, food quality, and OFD service quality. OFD service quality is assessed using the eSELFQUAL dimension, and other variables are perceived control, service convenience, customer service, and service fulfillment. The results showed that food quality, control, customer service, and service fulfillment affect customer satisfaction in online food delivery services. Customer satisfaction shows a strong positive impact on behavioral intent to use OFD.

This research on OFD in Indonesia replicates the research of Annaraud & Berezina (2020) which suggests replicating it in various countries in order to describe different research results that can be influenced by different cultural, social, and business norms. The results of this study are expected to be able to illustrate how the dimensions of e-SELFQUAL, and other variables namely perceived control, service convenience, customer service, service fulfillment and behavioral intention are able to describe OFD in Indonesia.

2. RESEARCH METHOD

This research is basic research with a causal type of research (Firdaus et al., 2021). The purpose of this study is to examine the causal relationship between e-selfqual (consisting of perceived control, service convenience, customer service, service fulfillment and shopping assistance) with food quality on customer satisfaction and behavioral intention in online food delivery (OFD) in Indonesia.

The research data came from the distribution of questionnaires to respondents through Google forms. The questionnaire in this study used an interval scale. Alternative answers are arranged on a numerical scale. Statements are measured on a seven-level scale. The measurement indicators in this study come from the research of (Annaraud & Berezina, 2020).

The target population in this study is online food delivery users (Go Food, Grab Food and Shopee Food) in Indonesia. The characteristics of purposive sampling (Firdaus et al., 2021) determined are male or female, have a minimum high school education/equivalent, and conduct their own online transactions through applications at least 3 times in the last 3 months. The reason for choosing respondents with these characteristics is so that respondents can provide accurate and reliable information.

The initial data processing in this study was to test validity and reliability using the SPSS program. Furthermore, data processing is carried out with the AMOS program version 24.0 to carry out SEM data processing, namely testing structural and measuring models and hypothesis testing.

3. RESULTS AND DISCUSSION

3.1. Respondent Identity

The respondents in this study were 181, consisting of 30.4% men and 69.4% women. The dominant respondents in this study were aged 18-25 years by 83.9%, while the remaining 16.1% were aged less than 18 years and over 25 years. In terms of employment, the largest percentage of respondents were students (65.7%), private employees (23.2%) and self-employed (7.2%).

3.2. Validity and Reliability Test

The validity test conducted showed that all indicators of all research variables, namely perceived control, service convenience, customer service, service fulfillment, food quality, customer satisfaction and behavioral intentions, had a significance value of ≤ 0.05 and had a Pearson correlation value above 0.5 so that it was declared valid. All variables also have a Cronbach alpha value ≥ 0.6 . It can be concluded that all indicators used to measure variables in this questionnaire are consistent and reliable so that they can be used (Mohajan, 2017).

3.3. Measurement Model Test

Goodness of fit Index (GoF) in the measurement model test is analyzed with standardized loading to determine the accuracy of each indicator, or you can also use AVE and CR. Table 1 shows that all of the goodness of fit index criteria are good fit, except for the third criterion, namely GFI (marginal fit). Table 2 shows the results of standardized loading where all indicator items for each variable have a value of ≥ 0.5 , so it can be concluded that no variable indicators are wasted.

Table 1. Goodness of Fit Measurement Model

Index	Criteria	Result	Information
CMIN/DF	≤ 3.0	1.781	Good Fit
RMSEA	≤ 0.08	0.066	Good Fit
GFI	0.8 – 0.9	0.836	Marginal Fit
CFI	$CFI \geq 0.9$	0.920	Good Fit
TLI	$TLI \geq 0.9$	0.904	Good Fit

Table 2. Standardized Loading value

Variable	Indicator	Std Loading	AVE	CR	Information
Perceived control (PC)	PC1	0.640	0.565	0.8749	Valid and Reliable
	PC2	0.678			Valid and Reliable
	PC3	0.747			Valid and Reliable
Service convenience (SC)	SC1	0,636	0.695	0.748	Valid and Reliable
	SC2	0,818			Valid and Reliable
	SC3	0,799			Valid and Reliable
Customer service (CS)	CS1	0,709	0.719	0.749	Valid and Reliable
	CS2	0,813			Valid and Reliable
	CS3	0,781			Valid and Reliable
Service Fulfillment (SF)	SF1	0,743	0,624	0,799	Valid and Reliable
	SF2	0,680			Valid and Reliable
	SF3	0,624			Valid and Reliable
	SF4	0,687			Valid and Reliable
Food quality (FQ)	FQ 1	0,712	0,606	0,799	Valid and Reliable
	FQ 2	0,600			Valid and Reliable
	FQ 3	0,660			Valid and Reliable
	FQ 4	0,686			Valid and Reliable
Customer Satisfaction (CSAT)	CSAT 1	0,783	0,830	0,833	Valid and Reliable
	CSAT 2	0,790			Valid and Reliable
	CSAT 3	0,816			Valid and Reliable
	CSAT 4	0,741			Valid and Reliable
	CSAT 5	0,784			Valid and Reliable
Behavioral Intentions (BI)	BI 1	0,824	0,791	0,666	Valid and Reliable
	BI 2	0,876			Valid and Reliable

After ensuring that all goodness of fit values and standardized loading values are correct, the next step is to test the validity and reliability of all variables using AMOS 24 software. The results of the validity test can be seen through the standardized loading (λ) and average variance extracted (AVE) values. According to Hair et al. (2014) the standardized loading (λ) value is at least 0.5 or more, and ideally is 0.7 or more, which indicates that the validity value is good. The results of the validity test can also be seen from the AVE value. The result of the validity test is said to be good if the value is ≥ 0.5 . The results of the reliability test can be seen from the construct reliability (CR) value. The CR value received is between 0.6 and 0.7 or ≥ 0.7 (Hair, et al., 2013). The results of AVE and CR calculations can be seen in table 2.

3.4. Structural Model Test

The next stage is to carry out a measurement model using the confirmatory factor analysis (CFA) method which is carried out using AMOS software version 24. Analysis using the CFA measurement model was applied to all research

variables and indicators. This measurement model has a goodness of fit (GOF) index value consisting of 5 indices, namely CMIN/DF, RMSEA, GFI, TLI, and CFI (Hair, et al., 2013). Table 3 shows the results of the Goodness of Fit test from the structural model. The values of all indexes are good fit because it meets the criteria, except GFI (marginal fit). Based on the Table 3, it can be concluded that the structural model test meets the criteria of goodness of fit.

Table 3. Goodness of Fit Structural Model

Index	Criteria	Result	Information
CMIN/DF	≤ 3.0	1.765	Good Fit
RMSEA	≤ 0.08	0.065	Good Fit
GFI	0.8 – 0.9	0.835	Marginal Fit
CFI	0.8 – 0.9	0.920	Good Fit
TLI	0.8 – 0.9	0.906	Good Fit

3.5. Hypothesis Testing

Based on Table 4 it can be seen that in this study H1 and H2 were not supported, while H3, H4, H5 and H6 were supported. Whether or not a hypothesis is supported can be seen from the critical ratio (C.R.) value of ≥ 1.96 and p-value ≤ 0.05.

Table 4. Hypothesis Testing Results

Hypothesis	Path	Std. Estimates	CR	P-values	Information
H1 (+)	PC → CSAT	0,119	-0,923	0,356	H1 Not Supported (Insignificant)
H2 (+)	SC → CSAT	0,066	0,701	0,483	H2 Not Supported (Insignificant)
H3 (+)	CS → CSAT	0,059	1.990	0,047	H3 Supported (Significant)
H4 (+)	SF → CSAT	0,110	5,305	***	H4 Supported (Significant)
H5 (+)	FQ → CSAT	0,132	1,968	0,049	H5 Supported (Significant)
H6 (+)	CSAT → BI	0,088	9,798	***	H6 Supported (Significant)

Figure 1 shows the results of hypothesis testing. The following is the final research model. The first hypothesis examined the effect between perceived control and customer satisfaction and the results were not supported. The results of this study are not in line with Annaraud & Berezina's (2020) research. This is because most service users expect the following: higher online interaction, ease of use of OFD services, and some customers find technology less user friendly. Unmet expectations cause service users to feel dissatisfied.

The second hypothesis examines the effect between service convenience and customer satisfaction. On this hypothesis the results are not supported. The results of this study are supported by Annaraud & Berezina (2020) that the reason for service convenience does not affect customer satisfaction, because it is counter-intuitive that customers do not want ordering services to be comfortable. The findings could potentially be explained by the ability of online food ordering companies to provide a convenient ordering process, with easy online registration, selection, change and placement of orders.

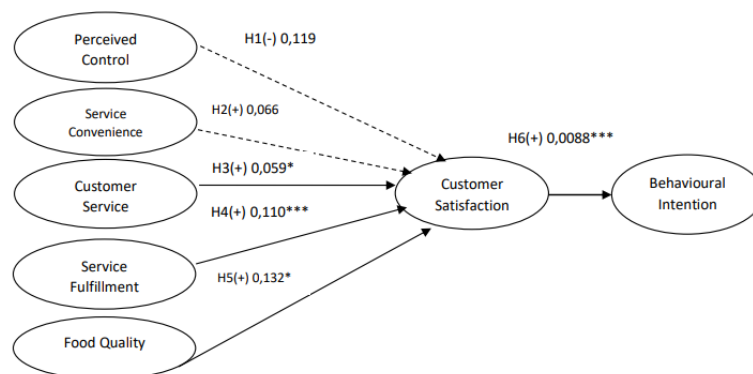


Figure 1 Hypothesis Test Model

The third hypothesis examines the influence between customer service and customer satisfaction and on this hypothesis the results are supported, in line with the research of (Annaraud & Berezina, 2020). Customer service has a

positive effect on customer satisfaction, which means customer service can affect customer satisfaction, because when customers get problems, they definitely want to solve them immediately by reporting them to customer service. Customer service is what will make whether consumers are satisfied with the answers they receive or not.

This fourth hypothesis examines the influence between service fulfillment and customer satisfaction and this hypothesis has supported results in accordance with the research of Annaraud & Berezina (2020). To maintain customer satisfaction in fulfilling services is carried out by continuing to update services such as: product availability, and delivery of consumer orders. Customers should get orders according to the agreement, timely arrival, promised products as stated in the picture, and ease in the navigation system to update their orders. This will make customer satisfaction with the service continue to increase.

This fifth hypothesis examines the influence between food quality and customer satisfaction and this hypothesis has supported results in line with research by Annaraud & Berezina (2020) and Ha & Jang (2010) who say that food quality has a positive and significant effect on customer satisfaction. This shows that consumers are satisfied with the services used because the quality of food obtained matches or even exceeds respondents' expectations. The higher the level of food quality obtained, the higher the level of customer satisfaction with OFD services.

This sixth hypothesis examines the influence between customer satisfaction and behavioral intentions, and the results are supported according to the research of Annaraud & Berezina (2020) and Ha & Jang (2010). To increase customer desire in using this online food delivery service, an important factor that must be considered is to increase the level of customer satisfaction. Several ways that can be done online food delivery service in the form of vouchers or discounts on shipping costs so that consumers are satisfied with the delivery service of their own choice. What is done by the food online delivery service will have an impact on consumers who will use food online delivery service continuously.

5. CONCLUSION

The results showed that of the six research hypotheses, hypotheses 1 and 2 were not supported. While hypotheses 3, 4, 5 and 6 are supported. This shows that it is very important for online food delivery to pay attention to service to customers, meet customer needs, product quality, and customer satisfaction. Product quality that suits customer needs will make customers feel satisfied if supported by good service to customers. When a customer makes a decision to make a transaction through online food delivery, the company must set up a support service that will make the customer feel comfortable. Customers who are well served at the time of transaction and fulfilled their needs will feel satisfaction and desire to make a purchase again.

REFERENCES

- Ababneh, K. I., Ponnaiyan, S., ElMelegy, A. R., & Prybutok, V. (2022). Determinants of customer satisfaction and behavioral intentions in fast-food restaurants among undergraduate students during the COVID-19 pandemic. *Quality Management Journal*, 29(2), 104–124. <https://doi.org/10.1080/10686967.2022.2034491>
- Agag, G., Aboul-Dahab, S., Shehawy, Y. M., Alamoudi, H. O., Alharthi, M. D., & Hassan Abdelmoety, Z. (2022). Impacts of COVID-19 on the post-pandemic behaviour: The role of mortality threats and religiosity. *Journal of Retailing and Consumer Services*, 67(November 2021), 102964. <https://doi.org/10.1016/j.jretconser.2022.102964>
- Albirra, F., Soesapto, M. J., Agata, L., Pribadi, A. M., Istijanto, & Lydia Apriliani. (2023). Factors Influencing Online Food Delivery Usage Intention on Semi-Endemic Period. *TIJAB (The International Journal of Applied Business)*, 7(2), 134–151. <https://doi.org/10.20473/tijab.v7.i2.2023.44104>
- Allah Pitchay, A. Bin, Mohd Thas Thaker, M. A. Bin, Azhar, Z., Mydin, A. A., & Mohd Thas Thaker, H. Bin. (2020). Factors persuade individuals' behavioral intention to opt for Islamic bank services: Malaysian depositors' perspective. *Journal of Islamic Marketing*, 11(1), 234–250. <https://doi.org/10.1108/JIMA-022018-0029>
- Annaraud, K., & Berezina, K. (2020). Predicting satisfaction and intentions to use online food delivery: What really makes a difference? *Journal of Foodservice Business Research*, 23(4), 305–323. <https://doi.org/10.1080/15378020.2020.1768039>
- Bargoni, A., Alon, I., & Ferraris, A. (2023). A systematic review of family business and consumer behaviour. *Journal of Business Research*, 158(June 2022), 113698. <https://doi.org/10.1016/j.jbusres.2023.113698>
- Camilleri, M. A. (2022). E-commerce websites, consumer order fulfillment and after-sales service satisfaction: the customer is always right, even after the shopping cart check-out. *Journal of Strategy and Management*, 15(3), 377–396. <https://doi.org/10.1108/jsma-02-2021-0045>
- Djalante, R., Lassa, J., Setiamarga, D., Sudjatma, A., Indrawan, M., Haryanto, B., Mahfud, C., Sinapoy, M. S., Djalante, S., Rafliana, I., Gunawan, L. A., Surtiari, G. A. K., & Warsilah, H. (2020). Review and analysis of current responses to COVID-19 in Indonesia: Period of January to March 2020. *Progress in Disaster Science*, 6. <https://doi.org/10.1016/j.pdisas.2020.100091>

- Firdaus, F., Zulfadilla, Z., & Caniago, F. (2021). Research Methodology : Types in the New Perspective. *Manazhim*, 3(1), 1–16. <https://doi.org/10.36088/manazhim.v3i1.903>
- Ha, J., & Jang, S. C. (Shawn). (2010). Effects of service quality and food quality: The moderating role of atmospherics in an ethnic restaurant segment. *International Journal of Hospitality Management*, 29(3), 520– 529. <https://doi.org/10.1016/j.ijhm.2009.12.005>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long range planning*, 46(1-2), 1-12.
- Hamid, S., Azhar, M., & Sujood. (2023). Behavioral intention to order food and beverage items using e-commerce during COVID-19: an integration of theory of planned behavior (TPB) with trust. *British Food Journal*, 125(1), 112–131. <https://doi.org/10.1108/BFJ-03-2021-0338>
- Jaja, I. F., Anyanwu, M. U., & Iwu Jaja, C. J. (2020). Social distancing: how religion, culture and burial ceremony undermine the effort to curb COVID-19 in South Africa. *Emerging Microbes and Infections*, 9(1), 1077– 1079. <https://doi.org/10.1080/22221751.2020.1769501>
- Kemp, S. (2021, January 27). *Digital 2021: the latest insights into the “state of digital.”* We Are Social. <https://wearesocial.com/uk/blog/2021/01/digital-2021-the-latest-insights-into-the-state-of-digital/>
- Kolesar, M. B., & Galbraith, R. W. (2000). A services-marketing perspective on e-retailing: Implications for e-retailers and directions for further research. *Internet Research*, 10(5), 424–438. 10.1108/10662240010349444
- Li, C., Miroso, M., & Bremer, P. (2020). Review of online food delivery platforms and their impacts on sustainability. *Sustainability (Switzerland)*, 12(14), 1–17. <https://doi.org/10.3390/su12145528>
- Meena, P., & Kumar, G. (2020). Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID- 19. The COVID-19 resource centre is hosted on Elsevier Connect, the company ’ s public news and information . January.
- Mohajan, H. K. (2017). Two criteria for good measurements in research: Validity and reliability. *Annals of Spiru Haret University. Economic Series*, 17(4), 59-82.
- Nugroho, R. S. (2021). Menelaah kembali perilaku belanja makanan online di era pandemi covid-19. *Jurnal Komunikasi Profesional*, 5(5), 443–450. <https://doi.org/10.25139/jkp.v5i5.4117>
- Rahayu, S., Agatha, C., & Kusumawardhani, P. A. (2022). Determinan Penggunaan Mobile Food Ordering Applications selama Pandemi COVID-19 di Indonesia. *Prosiding Seminar Nasional*.
- Rakuten Insight. (2020). *Behavioral change of food delivery apps usage during COVID-19 pandemic in Indonesia as of June 2020*. Statista. Behavioral change of food delivery apps usage during COVID-19 pandemic in Indonesia as of June 2020
- Sharma, S., Devi, K., Naidu, S., Greig, T., Singh, G., & Slack, N. (2023). From brick and mortar to click and order: consumers’ online food delivery service perceptions post-pandemic. *British Food Journal*, 125(11), 4143– 4162. <https://doi.org/10.1108/BFJ-04-2023-0351>