Factors Affecting User Satisfaction with Online Food Delivery Service Applications in Indonesia (Gofood, Grabfood, and Shopeefood)

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Abstract
The growth and development of food delivery service applications in Indonesia has occurred very rapidly in the last 4 years. Digitization in the food and beverage sector in Indonesia is supported by the growth and development of food delivery service applications, namely Gofood and Grabfood, which focus on service providers selling, ordering and delivering food and beverages from places of sale to consumers. Gofood and Grabfood are currently the two largest food delivery application services in Indonesia with quite fierce competition between the two. In the midst of the progress of these two food delivery services, a new phenomenon has emerged where there are new players entering the competition in the food delivery service industry in Indonesia, namely from one of the largest e-commerce platforms in Indonesia and Southeast Asia called Shopee, namely Shopee Food. The emergence of ShopeeFood makes the competition in the food delivery service application industry increasingly tight in Indonesia. Application users have more choices to use the application and choose to be satisfied or dissatisfied with the application for the services provided. Among this fairly tight competition, therefore, identification is needed to find out what factors can increase user satisfaction in Indonesia with food delivery service applications.

Keywords: customer satisfaction, Gofood, Grabfood, online food delivery service, Shopeefood

1. Introduction
The growth and development of food delivery service applications in Indonesia has occurred very rapidly in the last 4 years. Digitization in the food and beverage sector in Indonesia is supported by the growth and development of food delivery service applications, namely Gofood and Grabfood, which focus on service providers selling, ordering and delivering food and beverages from places of sale to consumers. Gofood and Grabfood are currently the two largest food delivery application services in Indonesia with quite fierce competition between the two. In 2020, it is known that there are 2 market leaders in the food delivery service application industry in Indonesia, where Grabfood itself is ranked first with a total market share of US$ 1.96 billion and Gofood is ranked second with a total market share of 1.74 billion. US$, each contributing 53% and 47% of the total market share of the delivery service application industry which is at US$ 3.7 billion (Randi Eka, 2021).

In the midst of the progress of these two food delivery services, a new phenomenon emerged where there were new players entering the competition in the food delivery service industry in Indonesia, namely from one of the largest e-commerce platforms in Indonesia and Southeast Asia called Shopee, namely Shopee Food in April 2020 (Desy Setyowati, 2021). The presence of Shopee Food has led to two interpretations that later emerged, namely the potential to be a threat to existing players, especially Gofood and Grabfood as the largest

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market holders today or an opportunity for new players to emerge in the future.

But on the other hand, while Shopee Food can be a threat to incumbent players like Gofood and Grabfood where in business competition, currently Shopee Food is the last mover advantage while Gofood and Grabfood are first mover disadvantage. Shopee Food as the last mover advantage where Shopeefood as a new player has more advantages than Gofood and Grabfood. This is because Shopee Food has a greater opportunity to find out the weaknesses of the two old players so that they can excel in things that may not be favored by the old players. In addition, new players can produce the latest innovations which are the development of products/services that have been produced by old players. The advantages possessed by new players pose a threat to existing players, although at the same time, Shopee Food also needs to be aware of the significant growth of the two old players as well as the biggest player in this food delivery service application.

Based on research by (Anna Rosaria Firdhiani, 2020), during the Covid-19 pandemic, Grabfood users only increased by 4% in 2020, much different from Gofood users who increased by 20% according to Zhafira(2020) where according to a CLSA analysis, Jonathan Mardjuki, Gofood is considered to have more loyal customers (loyal) compared to Grabfood where 60% of survey respondents believe that big discounts are the main advantage in using services (commercialization), in contrast to Gofood where familiarity with the application, dependence on Gopay, and User friendly application is the reason behind customer satisfaction and loyalty. Similar results were also obtained through an online survey conducted by the Katadata Insight Center (KIC) in June 2021 to find out the use of delivery service applications that are most often used by the public, of which 50% use Grabfood the most, 46% use Gofood, and only 3% use Shopee Food the most. Of these three services, Gofood has the most stable and rapid growth in the midst of very tight competition. This is supported by the words of Gojek’s Co-CEO, Kevin Aluwi, who stated that Gofood is one of Gojek's main services that has very solid growth due to the love and loyalty of the Indonesian people towards Gofood which is one of the supporters of this long-term business growth (Tri Apriyani, 2020).

Where Shopee Food users as new players, are encouraged through discounts and massive promotions to attract users' attention and increase their satisfaction in making purchases, such as free shipping and discount vouchers (Rachel Christiana, 2019).

From this data, it can be seen that the competition is quite tight between food delivery service applications for both old players, such as Gofood and Grabfood as well as new players, such as Shopee Food in Indonesia, which makes each of these services increasingly committed to continuously improving customer satisfaction which leads to loyalty. Service users are increasing. User satisfaction is considered to have a very important role in maintaining the sustainability of a business where user satisfaction is closely related to factors directly related to products and services, where if user satisfaction is achieved, it will have a positive impact on user retention and loyalty.

Seeing the very tight competition for incumbent players and new opportunities in the food delivery service industry in Indonesia, it is necessary to know the factors that influence user satisfaction with a food delivery service. These factors need to be reviewed to find out more about what strategy each new and old player should do in increasing user satisfaction so as to be able to keep users loyal in using applications and using services on an ongoing basis.

2. Methodology

This study followed two directions to answer the research questions. First, descriptive analysis was used to measure the level of satisfaction in service based on the research model variables. Second, a relational analysis was conducted to see the relationship and prediction of customer satisfaction using Partial Least Square analysis: Structural Equation Modelling.

2.1 Research Model and Hypotheses

For the purpose of this study, the research model developed focuses on customer satisfaction only which predicted associated with 9 factors. There are hedonic motivations, time saving orientation, price saving orientation, prior online purchase experience, convenience motivation, influence of social networking sites, usability, food quality, and e-service quality. The model shows in Figure 1 hypothesizes that 9 factors that affect customer satisfaction.

H1: Hedonic motivation has a significant impact on customer satisfaction
H2: Time saving orientation has a significant impact on customer satisfaction
H3: Price saving orientation has a significant impact on customer satisfaction
H4: Prior online purchase experience has a significant impact on customer satisfaction
H5: Convenience motivation has a significant impact on customer satisfaction
H6: Influence of social networking sites has a significant impact on customer satisfaction
H7: Usability has a significant impact on customer satisfaction
H8: Food quality has a significant impact on customer satisfaction
H9: E-service quality has a significant impact on customer satisfaction

2.2 Sample and Sampling Process
This study adopted an online survey to collect customer perceptions regarding the independent variables (hedonic motivatons, time saving orientation, price saving orientation, prior online purchase experience, conveniune motivation, influence of social networking sites, usability, food quality, and e-service quality) and dependent variable (customer satisfaction). The questionnaire was designed and divided into 3 sections, the first section is the screening question to eliminate responden that does not fulfill the qualification, the second part is the sociodemographic, and the last part is the questions related to each of the independent variables studied in this research. The factors that formulated in the research model was carefully selected based on the combination on the previous research conducted by Haiyang Liu (2019) on Factors Positively Influencing Customer Satisfaction of Online Food Delivery Services of Customers in Bangkok And Its Vicinity and Dwi Suhartanto (2018) on Loyalty Toward Online Food Delivery Service - The Role Of E-Service Quality And Food Quality.

![Image]

**Figure 1. Research Model**

This survey was designed in Indonesian language Form™ and distributed electronically via a link to all potential respondents across Indonesia. The link was shared through WhatsApp and Instagram to reach all potential respondents. The survey was designed in a way that enable respondent to fill out within 5 up to 7 minutes in total to reduce the nonresponse rate due to time limitation.

Prior to demographic classification, respondents were screened based on their usage towards online food delivery service app. This screening part were asking whether respondent currently a online food delivery app user in minimum 2 out of 3 applications that were studied(Gofood, Grabfood, Shopeefood). Respondens were demographically classified based on their province, age,gender education level, occupation. Post thedemographics section, the survey asked about their agreement or disagreement levels towards each indicators that indicate each of the variables using 5-point likertscale (‘1’ = stronglydisagree, ‘2’ = somewhatdisagree, ‘3 ’= neutral, ‘4’ = somewhatagree, ‘5’ = stronglyagree). Thesurvey questionnaire used to collect the primary data for this study is presented Appendix A. Because this study uses SEM-PLS, for the calculation of the number of samples according to Solimun (2002) in (Setiawati, 2015), where the number of samples is equal to 5 to 10 times the number of parameters (variables) available in the model or equal to 5 to 10 times the number of manifest variables (indicators). of all latent variables.

In this study, the number of indicators is 39, so the researcher determines the sample with a total of 39 x 5, which is 195 samples. However, to prevent and minimize the occurrence of errors and data that do not meet the criteria, the researchers set a minimum sample size of 200 respondents.

### 3. Result & Discussion

#### 3.1 Description of the Respondent

The respondents who participated in this study should are used online food delivery service application. According to the questionnaire that has been collected, the following figure detail demographic from 229 respondents.

| Provinsi      | Frekuensi | Persentase (%) |
|---------------|-----------|----------------|
| Aceh          | 2         | 0.88%          |
| Bali          | 2         | 0.88%          |
| Banten        | 8         | 3.52%          |
| Bengkulu      | 5         | 2.20%          |
| DI Yogyakarta | 4         | 1.76%          |
| DKI Jakarta   | 150       | 66.08%         |
| Jambi         | 1         | 0.44%          |
| Jawa Barat    | 27        | 11.89%         |
| Jawa Tengah   | 10        | 4.41%          |
| Jawa Timur    | 4         | 1.76%          |
| Kalimantan Barat | 2   | 0.88%          |
| Kalimantan Timur | 1     | 0.44%          |
| Kepulauan Riau| 2         | 0.88%          |
| Maluku Utara  | 1         | 0.44%          |
| Nusa Tenggara Barat | 1 | 0.44% |
| Sulawesi Selatan | 1     | 0.44%          |
| Sumatera Barat | 2       | 0.88%          |
| Sumatera Selatan | 1     | 0.44%          |
| Sumatera Utara | 3       | 1.32%          |
| **Grand Total** | **227**   | **100.00%**    |

**Table 2. Respondent Distribution based on Age**
Cronbach’s indicators are factor composite reliability, table result of validity should reliability and discriminant.

Table 4.

| Jenis Pekerjaan | Frekuensi | Persentase (%) |
|-----------------|-----------|----------------|
| Pegawai Swasta  | 87        | 38.33%         |
| Pelajar/Mahasiswa | 66   | 29.07%         |
| PNS             | 18        | 7.93%          |
|Wiraswasta       | 56        | 24.67%         |
| Grand Total     | 227       | 100.00%        |

Table 3. Respondent Distribution based on Occupation

| Jenis Pendidikan Terakhir | Frekuensi | Persentase (%) |
|----------------------------|-----------|----------------|
| Diploma                    | 12        | 5.29%          |
| S1                         | 135       | 59.47%         |
| S2                         | 18        | 7.93%          |
| SDSMP/SMA/SMK              | 62        | 27.31%         |
| Grand Total                | 227       | 100.00%        |

Table 4. Respondent Distribution based on Education Level

| Pilihan Aplikasi | Frekuensi | Persentase (%) |
|------------------|-----------|----------------|
| Go Food, Grab Food | 144     | 63.44%         |
| Go Food, Grab Food, Shopee Food | 36     | 15.86%         |
| Go Food, Shopee Food | 32      | 14.10%         |
| Grab Food, Shopee Food | 15     | 6.61%          |
| Grand Total       | 227       | 100.00%        |

3.2 Measurement Model

Validity test (convergent validity and discriminant validity) and reliability test (composite reliability and cronbach’ alpha) are the first steps should be done before testing the proposed model. The result of validity and reliability test are shown in the table 6 which consist of factor loading, cronbach alpha, composite reliability, and average variance extraction.

On the loading factor calculation, it assessed the value generated by each indicator to measure the variable which need to be higher than 0.7. When loading factor largen than 0.7 it indicates that each of the indicators are valid to measure its independent variable. Cronbach Alpha measures the validation on model been explore if the value larger than 0.7. The Cronbach’s Alpha for this study is already larger than 0.7 for each of variables which means this research model is suitable to be explored. According to experts, the model is said to be feasible for exploratory research if the composite reliability value 0.7. Overall, the model is valid due to its average variance extracted (AVE) larger than 0.5 for each of the variables.

3.3 Structural Model

Evaluation on the structural model is conducted to know the association of each of the independent variables toward the dependent variables. To assess and identify the relationship between each of the independent variables on the dependent variables, path coefficient is suggested to be using the bootstrapping method with 500 repetition procedures. Figure 2 shows the result of bootstrapping on path coefficient.

Table 5 shows the results of nine hypothesis tests in this study. Based in the hypothesis test, among eleven independent variables, it is known that convenience motivation, influence of social networking sites, price saving orientation, time saving orientation, and usability are considered not significant towards affecting customers satisfaction. It means these variables have no significant influence on customer satisfaction because T-statistic values are smaller than 1.96 and P-value are bigger than 0.05. Then H2, H3, H5, H6, H7 are rejected. On the other hand, the relationship between food quality, hedonic motivation, prior online purchase experience, and service quality are considered significant towards customer satisfaction because significant influence on customer satisfaction becauseт statistic values are bigger than 1.96 and P-value are smaller than 0.05. Then H1, H4, H8, and H9 are accepted. Furthermore, between all variable relationships with customer satisfaction, it is identified that food quality and service quality have the most significant impact on the customer satisfaction. Both of the independent variables have T-statistic 5.257 and 4.775, respectively.

4. Discussion

Previous research has been conducted to identify the relationship between certain factors towards customer satisfaction of online food delivery service
app in many countries, but rarely conducted in Indonesia. Therefore, this study wants to deep dive research or conducted a study on influence of certain variables towards customer satisfaction of online food delivery service app (Gofood, Grabfood, and Shopeefood) in Indonesia.

Table 6. Validity & Realiability on Measurement Model

| Construct/Item                  | Loading | Cronbach alpha | CR   | AVE  |
|--------------------------------|---------|----------------|------|------|
| Convenience Motivation         |         |                |      |      |
| CM1                            | 0.938   | 0.973          | 0.881|      |
| CM2                            | 0.939   |                |      |      |
| Customer Satisfaction          | 0.876   | 0.915          | 0.729|      |
| CS1                            | 0.868   |                |      |      |
| CS2                            | 0.867   |                |      |      |
| CS3                            | 0.845   |                |      |      |
| CS4                            | 0.835   |                |      |      |
| Food Quality                   | 0.818   | 0.880          | 0.648|      |
| FQ2                            | 0.709   |                |      |      |
| FQ3                            | 0.754   |                |      |      |
| FQ4                            | 0.889   |                |      |      |
| FQ5                            | 0.855   |                |      |      |
| Hedonic Motivation             | 0.751   | 0.889          | 0.801|      |
| HM1                            | 0.894   |                |      |      |
| HM2                            | 0.895   |                |      |      |
| Influence of Social Network    | 0.804   | 0.871          | 0.630|      |
| IS1                            | 0.724   |                |      |      |
| IS2                            | 0.822   |                |      |      |
| IS3                            | 0.866   |                |      |      |
| IS4                            | 0.755   |                |      |      |
| Prior Online Purchase          | 0.790   | 0.904          | 0.826|      |
| PO1                            | 0.926   |                |      |      |
| PO2                            | 0.891   |                |      |      |
| Price Saving Orientation       | 0.796   | 0.875          | 0.702|      |
| PS1                            | 0.745   |                |      |      |
| PS3                            | 0.884   |                |      |      |
| PS4                            | 0.877   |                |      |      |
| E-Service Quality              | 0.832   | 0.882          | 0.599|      |
| SQ4                            | 0.721   |                |      |      |
| SQ5                            | 0.775   |                |      |      |
| SQ7                            | 0.784   |                |      |      |
| SQ8                            | 0.761   |                |      |      |
| SQ9                            | 0.825   |                |      |      |
| Time Saving Orientation        | 0.817   | 0.890          | 0.729|      |
| TS1                            | 0.832   |                |      |      |
| TS2                            | 0.862   |                |      |      |
| TS3                            | 0.867   |                |      |      |
| Usability                      | 0.812   | 0.876          | 0.639|      |
| U1                             | 0.868   |                |      |      |
| U2                             | 0.814   |                |      |      |
| U3                             | 0.747   |                |      |      |
| U4                             | 0.763   |                |      |      |
This study has provided the primary factors that make customer of online food delivery service app in Indonesia satisfied is not price saving orientation, time saving orientation, convenience motivation, usability. Instead, it is proved that food quality, service quality, hedonic motivation, prior online purchase experience has significant impact to customer satisfaction based on customer perception.

5. Conclusion

The user satisfaction model that was developed and tested has a value of 0.501 where this value is above 0 so it can be said that this value has a good observation value on the research object. In addition, the developed user satisfaction model has a fit value of 70.4% where the existing model is considered good for research. User satisfaction factors that have a significant influence on user satisfaction based on Partial Least Square Structural Equation Modeling analysis, namely that food quality, service quality, hedonic motivation, prior online purchase experience. In addition, the overall factors in the user satisfaction model of 71.2% can affect user satisfaction on food delivery service applications in Indonesia. In this study, food quality and service quality have the highest values as values that affect user satisfaction both positively and significantly, respectively +0.350 and 5.257 for food quality and +0.315 and 4.775 for service quality.

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