

# The Impact of the COVID-19 Pandemic on The Consumption of Online Delivery Services For Students of Jenderal Sudirman University

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## ABSTRACT

The covid-19 Pandemic has significantly impacted all aspects of human life. One of the impacts of the Covid-19 Pandemic is encouraging digitalization in all lines of economic activity, including online food and beverage delivery services. Millennials widely use the services. This phenomenon occurs in all regions in Indonesia, including Purwokerto, Central Java Province. In Purwokerto, there is Jenderal Soedirman University, the university with the most students in the area. This study uses descriptive quantitative methods to analyze the impact of the Covid-19 Pandemic on online food and beverage delivery services for Jenderal Soedirman University students (a case study of students living in Purwokerto). The variable is the average expenditure on online food and beverage delivery services. This study uses primary data analyzed by the average difference test method.

The results showed a significant difference in the consumption of online food and beverage delivery services for Jenderal Soedirman University students between before and during the Covid-19 Pandemic, where consumption was higher than before. This finding implies that to increase income from the food and beverage business, they must be able to adapt to technological advances in using digital media in marketing to expand market reach without being limited by space and time. To support this, increasing MSME digital literacy is very much needed, among others, and can be done through the active role of various relevant stakeholders.

**Keywords:** Pandemic *Covid-19*, digitization, delivery services, beverage delivery service, *digital literacy*

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## 1. Introduction

The public increasingly favors online food and beverage delivery services. This service makes it easier for consumers to buy food and drinks. Delivery service is one form of service that provides convenience to deliver orders ordered by customers to a place according to their wishes, especially at busy times or certain hours, which result in restaurants or eating places full of visitors. The ease and speed of access to the delivery service have led to more and more use. This is in accordance with the results of Karunianingsih's research (2020), which found, among other things, that the

existence of online services Grab-food and Go-Food has changed the culture of communicating and interacting with the community and changing the culture of payment transactions.

According to data obtained from *We Are Social* (2021), in 2020, Indonesia occupies the highest position in the use of food and beverage delivery applications in the world. This condition is something that is interesting for anyone who wants to innovate and create creative innovations in online food and beverage delivery services. This condition can be seen in Table 1.

Table 1. Use of Food and Beverage Delivery Applications in the World

| <i>Country</i>       | <i>Percentage Value</i> |
|----------------------|-------------------------|
| Indonesia            | 74.4                    |
| Brazil               | 66.6                    |
| Malaysia             | 66.5                    |
| China                | 66.4                    |
| United Arab Emirates | 65.1                    |
| Singapore            | 63.9                    |
| Saudi Arabia         | 63.7                    |
| Mexico               | 62.3                    |
| Philippines          | 62                      |
| Thailand             | 61                      |

Source: *We Are Social*, 2021 ( <https://databoks.katadata.co.id/> )

The growth of online food and beverage delivery services in Indonesia is experiencing very rapid growth. The continuous advancement of the internet dramatically supports the development of online food and beverage delivery services in the future. Among the massive expansion of online food and beverage delivery services, there are two large companies: Go-Jek and Grab.

Online food and beverage delivery services can use electronic payment systems, digital payments, and debit/credit cards. Furthermore, according to Jogiyanto (2007), if someone thinks the information system is easy to use, he will use it. Conversely, if someone believes that the information system is not easy to use, he will not use it. The convenience of the payment system in food delivery services causes many people to use this service.

COVID-19 Pandemic is affecting economic activity and changing people's consumption patterns. During the Pandemic, many people have switched to online application platforms to meet their basic needs, including food and beverage delivery services. Restrictions during the Pandemic encourage people to get used to online applications. The strict implementation of health protocols and the existence of social distancing have caused activities that should have been carried out by the community to be disrupted, and they prefer to carry out activities instantly. The COVID-19 Pandemic has also caused a change in spending patterns. This condition can be seen in Table 2.

Table 2. Types of digital spending during the Pandemic in Indonesia

| Output Type | Percentage |
|-------------|------------|
|-------------|------------|

|  |    |
|--|----|
| Drug purchase                                      | 46 |
| Subscribe to content ( GoPlay / Netflix / Disney+) | 50 |
| Donation   | 54 |
| Shopping for daily necessities                     | 74 |
| Transportation                                     | 75 |
| Delivery service                                   | 76 |
| Order food   | 97 |

Source: Demographic Institute of the Faculty of Economics and Business, University of Indonesia (2020) (<https://databoks.katadata.co.id/>)

Based on research data from the Demographic Institute of the Faculty of Economics and Business, University of Indonesia (2020), as seen in Table 2, it can be seen that ordering food and beverages became the highest digital expenditure during the Pandemic, beating delivery, transportation, and shopping for daily necessities. Based on this, it can be concluded that food and drink orders were massive during Indonesia's COVID-19 pandemic. This is because food and drink are basic needs that must be met daily, so, with limited community activities, online food and beverage delivery services have the highest demand.

For the community, especially millennials, including students, online food and beverage delivery service applications are a solution during when COVID-19 Pandemic. In addition, service performance and ease of access make these applications or delivery services more widely used (Maretha et al., 2020).

Purwokerto is a city that has many universities, including Jenderal Sudirman University, Purwokerto Muhammadiyah University, Purwokerto Telkom Institute of Technology, and others. One indicator that determines whether the university is the largest is the number of students. According to data obtained by the Directorate General of Higher Education of the Ministry of Education and Culture of the Republic of Indonesia in 2021 through [www.pddikti.kemdikbud.go.id](http://www.pddikti.kemdikbud.go.id), Jenderal Soedirman University is the largest university with the highest number of registered students in Purwokerto. It can be seen in Table 3.

**Table 3. Number of University Students in Purwokerto**

| University in Purwokerto            | Number of Students |
|-------------------------------------|--------------------|
| IAIN Purwokerto                     | 12572              |
| Wijaya Kusuma University Purwokerto | 4147               |
| Muhammadiyah University Purwokerto  | 14827              |
| ITT Telkom Purwokerto               | 6642               |
| Sudirman University                 | 21987              |

Source: [www.pddikti.kemdikbud.go.id](http://www.pddikti.kemdikbud.go.id)

Based on the data in Table 3, it can be seen that the number of students at Jenderal Soedirman University has the highest number of students in Purwokerto. Based on the data, it can also be concluded that Jenderal Soedirman University is the largest campus in Purwokerto City. Therefore, it is interesting to study the impact of the Covid-19 Pandemic on online delivery consumption for Jenderal Sudirman University students.

## 2. Research Methodology

The method in this study uses the mean difference test (t-test). The mean difference test is a test that is used to test whether a specific value (given as a comparison) differs significantly or not from the average of a sample. Before the mean difference test is carried out, a normality test must first be carried out using the Kolmogorov Smirnov test. The Kolmogorov Smirnov test is a non-parametric statistical test and uses a cumulative distribution function (Suliyanto, 2011). The normality test results will show that the data is normal or not normally distributed. The t-test will be used if the data is normally distributed, and if the data is not normally distributed, then the average difference test is followed by the Wilcoxon test. The Wilcoxon test was carried out by taking into account two data groups.

### 3. Results

#### 3.1 Normality Test

The normality test using the Kolmogorov Smirnov formula aims to determine whether the data being studied and processed comes from a normally distributed population. Normality test results will select the following method used in assessing the significance of differences in student consumption behavior in ordering food and drinks *online*. The results of the normality test can be seen in Table 4.

Table 4. *Kolmogorov Smirnov . test*

|                                       | Kolmogorov-Smirnov |     |      | Shapiro-Wilk |     |      |
|---------------------------------------|--------------------|-----|------|--------------|-----|------|
|                                       | Statistics         | df  | Sig. | Statistics   | df  | Sig. |
| Before the Pandemic                   | .304               | 101 | .000 | .598         | 101 | .000 |
| During the Pandemic                   | .271               | 101 | .000 | .454         | 101 | .000 |
| a. Lilliefors Significance Correction |                    |     |      |              |     |      |

Based on the normality test with Kolmogorov Smirnov in Table 4, significance value before and during the Pandemic *Covid-19* was  $0.000 < 0.05$ , so it can be said that the data is not normally distributed. Therefore, the hypothesis testing will use the Wilcoxon test.

#### 3.2 Wilcoxon test

In this study, the *Wilcoxon test used the SPSS 20 Software* application. The test results are described in Table 5.

Table 5. *Wilcoxon table*

|  |                | N   | Mean Rank | Sum of Ranks |
|--|----------------|-----|-----------|--------------|
| During the Pandemic -<br>Before the Pandemic | Negative Ranks | 14a | 68.92     | 965.00       |
|  | Positive Ranks | 69b | 93.47     | 6450.00      |
|  | Ties           | 18c |           |              |
|  | Total          | 101 |           |              |
| a. During the Pandemic < Before the Pandemic |                |     |           |              |
| b. During the Pandemic > Before the Pandemic |                |     |           |              |
| c. During the Pandemic = Before the Pandemic |                |     |           |              |

Based on the results of the Wilcoxon test in Table 5, it can be described as follows:

The negative difference or negative ranks between before and during the COVID-19 Pandemic is 14. That means there are around 14 students who experienced a decrease in the average amount of consumer spending on online delivery services during the COVID-19 Pandemic compared to before the COVID-19 Pandemic. The average value or mean rank of the data is 68.92. This means that the average amount of decline in student consumption between before and during the pandemic *Covid-19* amounted to 68.92, which came from 14 students of Jenderal Soedirman University, while the total value or sum of ranks was 965, meaning that the amount of the decrease was Rp. 965,000.00 came from the total respondents who experienced a decline in consumption. This could have happened because of many things that resulted in this decrease in consumption. Decreased income and savings are one of the factors that many people feel during the COVID-19 Pandemic.

The positive difference or positive rank between before and during the COVID-19 Pandemic is 69. That means there are about 69 students who experienced an increase in the average amount of consumer spending on online delivery services during the COVID-19 Pandemic compared to before the COVID-19 Pandemic. The average value or mean rank of the data is 93.47. This condition means that the average increase in the amount of consumption issued by students is 93.47. There is a very significant difference between the negative rank value and the positive rank value, while the total value or *sum of ranks* is 6450. This means that the total value of student consumption that has increased is Rp. 6,450,000. This number shows that the amount of student consumption has increased very high.

Similar values or ties between before and during the COVID-19 Pandemic is 18. This means that there are about 18 students who have not changed or have not experienced a decrease or increase in the average amount of spending on online delivery service consumption during the pandemic *Covid-19* compared to before the COVID-19 Pandemic.

Table 6. *Wilcoxon Uji test*

|                        | During the Pandemic - Before the Pandemic |
|------------------------|---|
| Z                      | -4.789b                                   |
| Asymp. Sig. (2-tailed) | .000                                      |

a. Wilcoxon Signed Ranks Test  
b. Based on negative ranks.

Table 6 shows that the Z-test is -4.789 while the Z-table obtained with an *alpha of 5%* is -1.645. Since  $Z\text{-test} > Z\text{-table}$  (analyzed in absolute value), then,  $|-4.789| > |-1,645|$  means  $4.789 > 1.645$  with *p-value (Asym. Sig 2 tailed)* of  $0.000 < 0.05$ . Thus, it can be concluded that there are significant differences in the consumption of online food and beverage delivery services before and during the COVID-19 Pandemic. The average consumption expenditure of Jenderal Soedirman University students during the COVID-19 Pandemic is higher than the average value of consumption expenditure before the COVID-19 Pandemic. The pandemic period makes consumers order food and drinks online repeatedly. This is in line with the research results of Nurbayti (2019) and Khuong & Tran (2015), which state that when consumers are satisfied with online food delivery, consumers will repeatedly order through the application. This condition shows that with many consumers using online applications for food and beverage delivery, it opens

up opportunities for business development and increased income for food and beverage businesses that can adapt to technological developments.

#### **4. Conclusion**

##### *4.1 Conclusion*

Based on the results of this study, it can be concluded that there are significant differences in the consumption of Jenderal Soedirman University students by using an online food and beverage delivery service application between before and during the COVID-19 Pandemic.

##### *4.2 Implication*

This study shows a significant difference between before and during the COVID-19 Pandemic in the consumption of Jenderal Soedirman University students by using an online food and beverage delivery service application. Therefore, the acceleration of digitalization and adaptation to changing situations will impact the economy. Respondents carry out economic activities during the COVID-19 Pandemic differently, namely through digital. This also implies an opportunity for economic recovery for MSMEs that can adapt to changing conditions. A golden opportunity for business actors who easily adapt to technological changes, especially business actors in Purwokerto City, Banyumas Regency. Therefore, the digital literacy process for MSMEs needs to be continuously improved to reach a broader market, so that the economic recovery process can be achieved more quickly.

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