



From Offline to Online: Changes in Vegetable Purchases During COVID-19 in Indonesia

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Abstract. This study aimed to investigate changes in people's preferences for online grocery shopping during the COVID-19 pandemic in Indonesia. The study used a descriptive method, including a questionnaire distributed to people living in the Jakarta area (Jabodetabek) and secondary data analysis. The results showed that people's concerns about their health have led to changes in their behavior towards shopping for daily necessities, with many shifting from offline to online grocery shopping. The study found that the factors influencing the decision to buy vegetables online are the place of domicile, salary, and age group. The findings of this research can help online grocery shopping providers in Indonesia to better understand changes in customer demand and perception during and after the COVID-19 pandemic, and thereby increase sales and customer satisfaction.

Keywords: COVID-19 · online grocery shopping · vegetables · Indonesia · consumer behavior

1 Introduction

The COVID-19 pandemic in Indonesia is part of the COVID-19 pandemic that is also happening all over the world. The number of additions to the COVID-19 virus continued to experience a significant increase in the 2020–2021 period and there was a decrease in cases in 2022. The most spread of COVID-19 cases in Indonesia were in the Greater Jakarta area, East Java, Central Java, South Sulawesi, and West Java., with 6,456,686 confirmed cases. At a time when COVID-19 cases are experiencing a significant increase in 2020, the Indonesian government in collaboration with WHO recommends the public to maintain a safe distance from others to reduce the possibility of spreading COVID-19 which is easily transmitted.

The surge in the increase in COVID-19 cases in Indonesia has had a significant negative effect on household consumption worldwide. However, behind the tragic stories that befell various industrial sectors, there is a positive side that is felt by online service

providers. First, people started shopping online. The existence of government policies to limit activities outside the home causes public places such as schools, recreation areas, offices, restaurants, shopping centers, and others to be closed or limited in their activities. Although places to buy basic necessities such as pharmacies, supermarkets, or minimarkets do not close sales activities, the public's fear of the spread of the virus encourages people to change their offline shopping habits and adopt online shopping habits for all categories of needs. In the end, online shopping activities in Indonesia increased by 40% from pre-COVID-19.

Second, changes in consumption patterns have increased significantly. Following the government's advice to stay at home during the COVID-19 pandemic, people have changed their shopping patterns to meet their daily needs. Nine out of 10 people shop online. The survey results show that 31% of the public experienced an increase in online shopping activities during COVID-19. When viewed based on gender, there is a tendency for people who have a female gender to do more online shopping activities compared to people who have a male gender. The survey results also say that five out of ten people who shop online are millennials. The reason is that they take better care of themselves and their families' health.

The call for activity restrictions has led to an increase in demand for certain products, such as staples. In the end, online shopping for food or grocery needs increased by 35–46% from pre-COVID-19 [1].

The online grocery industry is not a new thing in Indonesia. There are old players such as Sayurbox, Happy Fresh and Tani Hub who have opened an online grocery business before COVID-19. During the COVID-19 pandemic, online grocery players continued to grow due to changes in people's consumption patterns from offline to online [2]. This condition encourages people to use the internet and make it a habit in their daily activities [3]. Based on research conducted by [4], COVID-19 accelerates consumer habits into the digital realm which is marked by increased sales transactions on online grocery platforms. However, online grocery penetration is still low, or only around 0.1%, much lower than countries like China, which have reached 5%. There are still many opportunities to develop the online grocery industry, especially from Indonesia's supportive demographics with more than 65% of the population under the age of 44 and the urban population showing impulsive buying behavior [5].

2 Methodology

During the COVID-19 pandemic's new normal, this study seeks to comprehend Indonesian consumers' basic needs shopping habits. This study examined Indonesian online food. Primary and indirect data were collected for this study. Secondary data and a questionnaire-based analytical method are used in this study. This research aims to (1) study Indonesian consumers' attitudes toward online grocery platforms; (2) analyze which products are most popular on these platforms; and (3) examine how online grocery platform players sustain sales and the industry.

A questionnaire gathered primary data, while online journals, articles, and news collected secondary data. Purposive sampling is limited to Greater Jakarta Indonesian customers in this study. 112 people were sampled for study. In January 2022, Google Forms collected data.

Table 1. Demographics of Respondents Sample

Gender	Amount	Percentage (%)
Man	32	28.57
Women	80	71.43
Age Group	Amount	Percentage (%)
21–30	90	80.36
31–39	20	17.86
40–49	2	1.79
>50	0	0

All questionnaire items are interpreted using descriptive statistical methods when interpreting primary data on secondary outcomes. This method divides the proportion by questionnaire responses. 112 adults participated in this study. Table 1 shows their demographics.

3 Results and Discussion

In Table 1 is clear that 71.43% of respondents are women and the remaining 28.57% with the following age groups: 80% aged 21–30 years, 18% aged 31–39 years, and 2% aged 40–49 years.

3.1 Indonesian Consumers’ Mindset Towards Purchasing Basic Needs from Online Grocery Platforms During the COVID-19 Pandemic

Based on the survey results that have been carried out, it is known that people tend to avoid activities outside the home during the COVID-19 pandemic, it is known that as many as 92% of people avoid some activities outside the home or in public spaces while as many as 8% of people do not avoid any activities and continue to do activities (Fig. 1).

From Table 2, it is known that mobile apps are the most popular platform used by respondents when purchasing basic necessities online, so the results of the questionnaire show that 87.50% of respondents shop through mobile apps, and 5.36% of respondents shop through websites and whatsapp. The factors behind consumers using online grocery shopping platforms to fulfill their basic needs are that consumers want convenience and practicality in shopping as much as 41.07%, avoiding COVID-19 as much as 29.46%, and the number of discount offers as much as 14.29% (Table 3).

Figure 2 shows that the majority of respondents prefer to use bank transfers and e-wallet or digital payments, while the rest prefer to pay in cash. The delivery courier preference of the majority of respondents is same day delivery, while the rest choose to send their goods via logistics expedition (JNE, TIKI, SiCepat, and J&T) (Fig. 3).

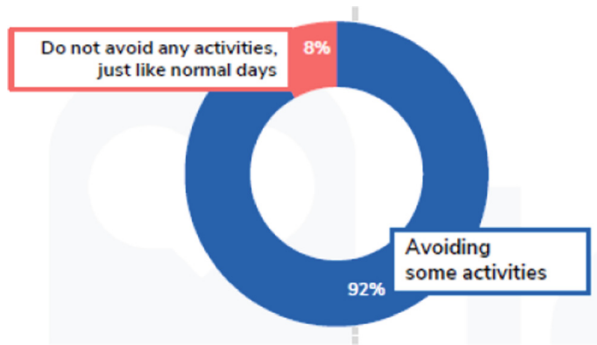


Fig. 1. Avoided Activities During COVID-19 Outbreak

Table 2. The Most Widely Used Online Grocery Platform

The Most Widely Used Online Grocery Platform by Consumers	Percentage (%)
Mobile Apps	87.50
Website	5.36
Whatsapp	5.35
Others	1.79
Total	100

Table 3. Factors Behind Consumers Using Online Grocery Platform

Factors Behind Consumers Using Online Grocery Platform	Percentage (%)
Wants convenience and practicality of shopping	42.41
Avoiding COVID-19	30.80
Lots of discount offers	15.63
Dont have free time	11.16
Total	100

3.2 Consumer Purchasing Preference Towards Online Grocery

During the pandemic, the preference for products purchased by consumers is focused on purchasing basic needs because they are more active at home. For online grocery consumers, Diagram 6 shows that the most frequently purchased items in online grocery shopping are as many as 40% of respondents claiming to buy vegetables the most on

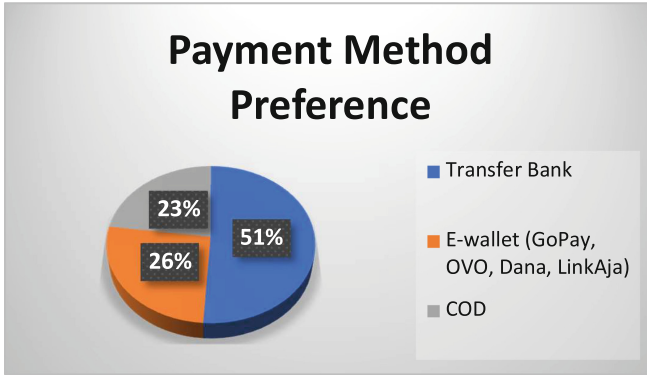


Fig. 2. Payment Method Preference

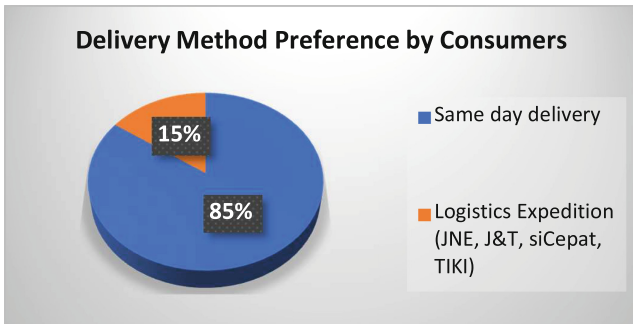


Fig. 3. Delivery Method Preference by Consumers

the online grocery platform. While 29% of respondents most often buy fruit, while the remaining 13% buy household supplies on the online grocery platform (Fig. 4).

Based on shopping frequency, 76% of respondents shop through the online grocery shopping platform once a week, while 15% and 6% of respondents shop 2 and 3 times in one week, and the rest shop more than 3 times (Fig. 5).

3.3 Consumer Preference of Online Grocery Platform Post Pandemic COVID-19

Entering 2022, when the number of COVID-19 cases in Indonesia has decreased significantly, people’s preference for buying basic necessities on online grocery platforms has begun to decline. This is due to the many unpleasant experiences of consumers when they shop through the online grocery platform. The majority of respondents feel that the delivery process is long when shopping through the online grocery platform as much as 36%, 29% and 22% of consumers feel that the quality of the product has decreased due to the length of the delivery process and the portion of the goods that do not match their needs, the rest feel that shopping through the online grocery platform is too expensive.

An important aspect that respondents want when shopping through the online grocery platform is that 51% of respondents are very concerned about product quality, while 23%

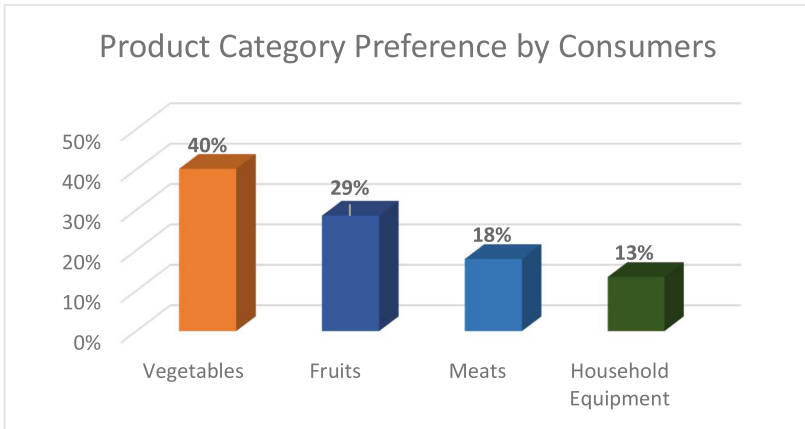


Fig. 4. Product Category Preference by Consumers



Fig. 5. Frequency of Shopping Through Online Grocery

are concerned with price in shopping, while the rest pay attention to promotions, product guarantees, completeness of product variants, delivery methods, choice of delivery time, and convenience in shopping (Fig. 7).

Based on the important aspects that consumers want related to the shopping experience through the online grocery shopping platform, it is better for online grocery shopping players to carry out several strategies to survive in the online retail industry. One of the strategies is to establish a business model in the form of quick commerce. Where this quick commerce provides or promises delivery of groceries, a maximum of one hour. The quick commerce business model combines the benefits of e-commerce and traditional shopping to create a new business model to meet the needs of online consumers. The quick commerce business model distinguishes itself from other business models by providing features including short delivery times, convenience, reliability, affordable prices and a wide variety of product categories.

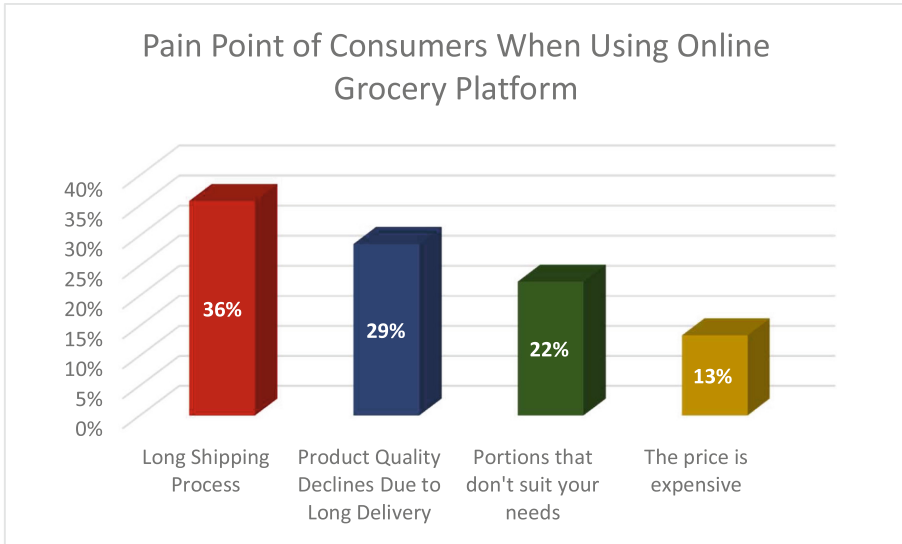


Fig. 6. Pain Point of Consumers When Using Online Grocery Platform

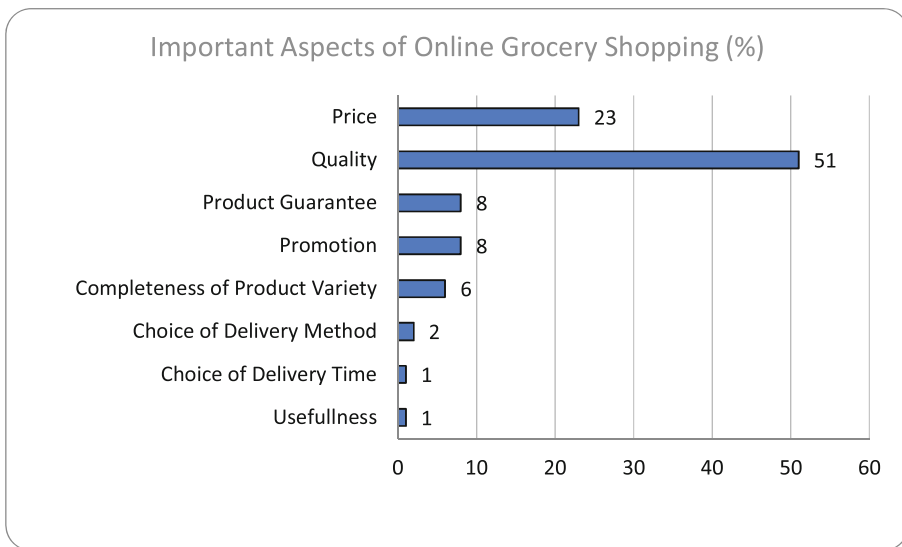


Fig. 7. Important Aspects of Online Grocery Shopping

4 Conclusion

Based on the research results, it can be concluded that the thinking patterns and preferences of online grocery shopping during the Covid-19 pandemic have increased and decreased again when the Covid-19 pandemic has subsided. Indonesian people are more

comfortable shopping for basic goods online through the online grocery platform because of the convenience, convenience, and practicality of shopping. The platforms used by the public when shopping are mobile apps and websites. The delivery that is most widely used by the public when shopping through the online grocery shopping platform is same day delivery. The product categories that are purchased the most by the public are vegetables, fruit, meat, and household items.

When people make purchases of basic goods online through the online grocery shopping platform, they experience unpleasant experiences such as long product deliveries, high prices, and poor product quality causing people to be reluctant to buy basic necessities online. So that when the Covid-19 pandemic has subsided, they prefer to make purchases directly at shops or traditional markets.

Based on this, in order to survive in the retail industry, online grocery shopping platform players need to change their business model into a quick commerce business model. The quick commerce business model combines the benefits of e-commerce and traditional shopping to create a new business model to meet the needs of online consumers. The quick commerce business model distinguishes itself from other business models by providing features including short delivery times, convenience, reliability, affordable prices and a wide variety of product categories.

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