

# The Impact of COVID-19 Pandemic on Online Shopping Behavior

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## ABSTRACT

Large-scale social restrictions (PSBB) or commonly known as lockdown were imposed in Indonesia in 2020 in response to the COVID-19 which has become a global pandemic, including Indonesia. One of the biggest impacts during lockdown is the closing of public facilities such as malls, supermarkets, and restaurants. Since people are not allowed to go out and suggested to stay at home, these days most people buy their needs, from food products, household appliances, to clothes by online shopping. This study aims to know if there is an impact of COVID-19 pandemic on online shopping behavior in Indonesia and the most consumers' consideration in choosing online shopping and e-commerce itself. Based on the research and analysis done in this study, it can be concluded that COVID-19 pandemic throughout 2020 until early 2021 has a significant impact on online shopping behavior in Indonesia and increases rapidly throughout the year until the first quartile of 2021 with the percentage of 62% compared to the third quartile of 2019. This statement is also supported by the report on Badan Pusat Statistik (BPS) that states the public's interest in online shopping is increasing during the COVID-19 pandemic in Indonesia. Consumers choose to shop online as the safest option to avoid physical contact. Furthermore, most consumers' consideration in choosing e-commerce is based on the promotion program from each e-commerce platforms. Also, there are particular categories that have the most transactions, which is fashion category followed by health and beauty category that comes in the second place.

**Keywords:** COVID-19, Online Shopping, E-Commerce, Promotion.

## 1. INTRODUCTION

E-commerce that stands for electronic commerce is the activity of buying or selling products on online services or over the internet. It draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, internet marketing, online transaction processing, electronic data interchange, inventory management systems, and automated data collection systems. Nowadays, modern e-commerce typically uses world wide web (www) or applications to be part of the transaction's life cycle [1]. In short, e-commerce covers all processes of

developing, marketing, selling, shipping, servicing, and payment with the support of a wider network of business partners [2].

Coronavirus or more commonly known as COVID-19 has altered the maps, behavior, and business strategies. Marketing, management, and also business theories have experienced changes during the pandemic. Large-scale social restrictions (PSBB) or commonly known as lockdown were imposed in Indonesia in 2020 in response to the COVID-19 which has become a global pandemic, including Indonesia. These restrictions are implemented by local governments with the approval of the

Ministry of Health, also with the support from educational institutions and companies to enforce learn and work from home policy, restrictions on religious activities, as well as restrictions on activities in public places or facilities.

During the enforcement of the large-scale social restrictions (PSBB), the economic sector is seriously affected due to the restrictions on business activities. Badan Pusat Statistik (BPS) in August 2020 stated that Indonesia's economic growth in the second quartile of 2020 has decreased 5.32%. Previously, in the first quartile of 2020, BPS reported that Indonesia's economic growth only grew by 2.97%, down far from the growth of 5.02% in the same period in 2019 [3].

One of the biggest impacts during lockdown is the closing of public facilities such as malls, supermarkets, and restaurants. Since people are not allowed to go out and suggested to stay at home, these days most people buy their needs, from food products, household appliances, to clothes by online shopping. This statement is also supported by the report on Badan Pusat Statistik (BPS) that states the public's interest in online shopping is increasing during the COVID-19 pandemic in Indonesia.

In addition to e-commerce, several digital business sectors have increased during the COVID-19 pandemic, namely online grocery shopping, food delivery, education and online games [4].

This study aims to know if there is an impact of COVID-19 pandemic on online shopping behavior in Indonesia and the most consumers' consideration in choosing online shopping and e-commerce itself.

## 2. METHOD

This study is using a quantitative approach. Quantitative approach itself is a research based on the philosophy of positivism to study the population or certain samples and random sampling by collecting the data using

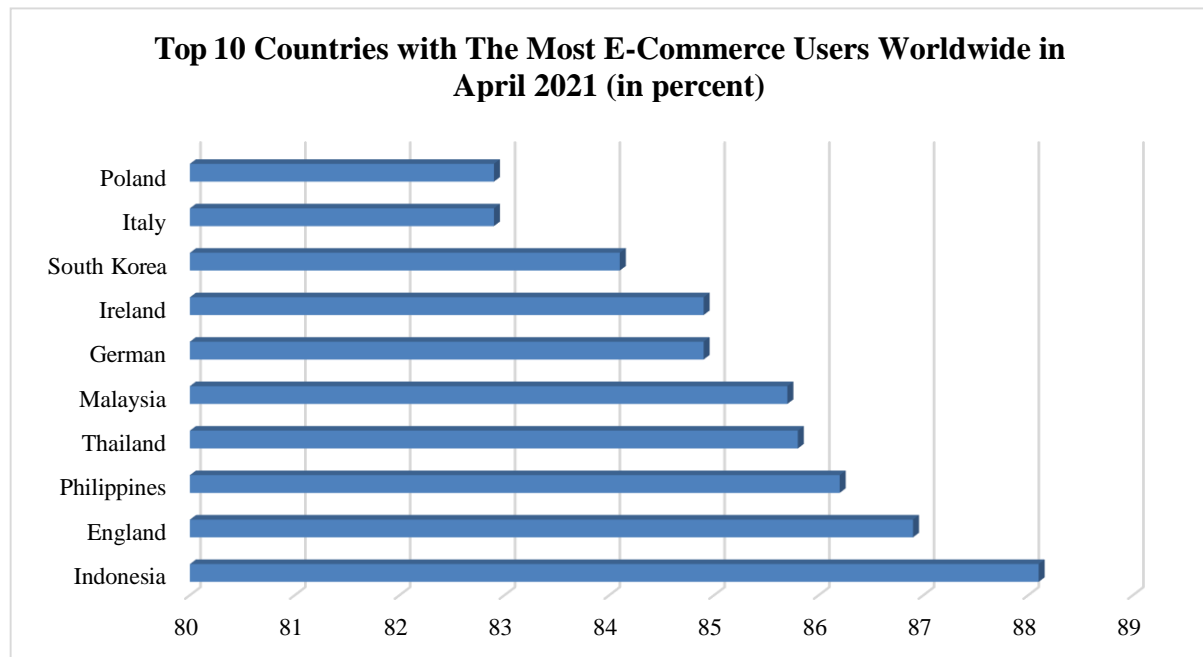
instruments, where the data analysis is statistical [5]. This study is done by doing secondary research through journals, books, and websites. The quantitative data that is collected is used to show the transformation of online shopping behavior in COVID-19 pandemic in Indonesia.

## 3. RESULTS AND DISCUSSION

From a research conducted by Valassis on consumer behavior, it is found that 57% of consumers shop more often online, 51% of consumers take their time more on social media and 55% spend more time on streaming TV platforms compared to the situation before the COVID-19 pandemic strikes [6]. Currently, consumers choose to shop online as the safest option to avoid physical contact. Even at this time, it is more likely that people are getting used to shopping for basic needs online. It is shown the increasing public enthusiasm for material shopping services online staples such as Sayurbox, Happyfresh, as well as the emergence of similar services to meet consumer needs in the midst of the current pandemic [7].

Based on the data provided by Badan Pusat Statistik (BPS), the average increase of products sold on the marketplace within a period of time from April 2020 until June 2020 which happens to be amidst pandemic situation, is increasing 20% from previous months. Products in the care & beauty category, as well as household appliances, have increased drastically. During that period, both products are recorded to gain sales revenue of around 40 million to 50 million units. In fact, in the period of January 2020 to March 2020 when the pandemic has not struck, the amount of products sold are only 10 million to 20 million units [8].

Furthermore, based on the data that We Are Social collected and published by Katadata afterwards, Indonesia has the most e-commerce users worldwide in April 2021. The data is shown below in Figure 1.



**Figure 1. Top 10 Countries with The Most E-Commerce Users Worldwide [9]**

Data used in this research are top 5 e-commerce visitors in Indonesia from Q3 2019

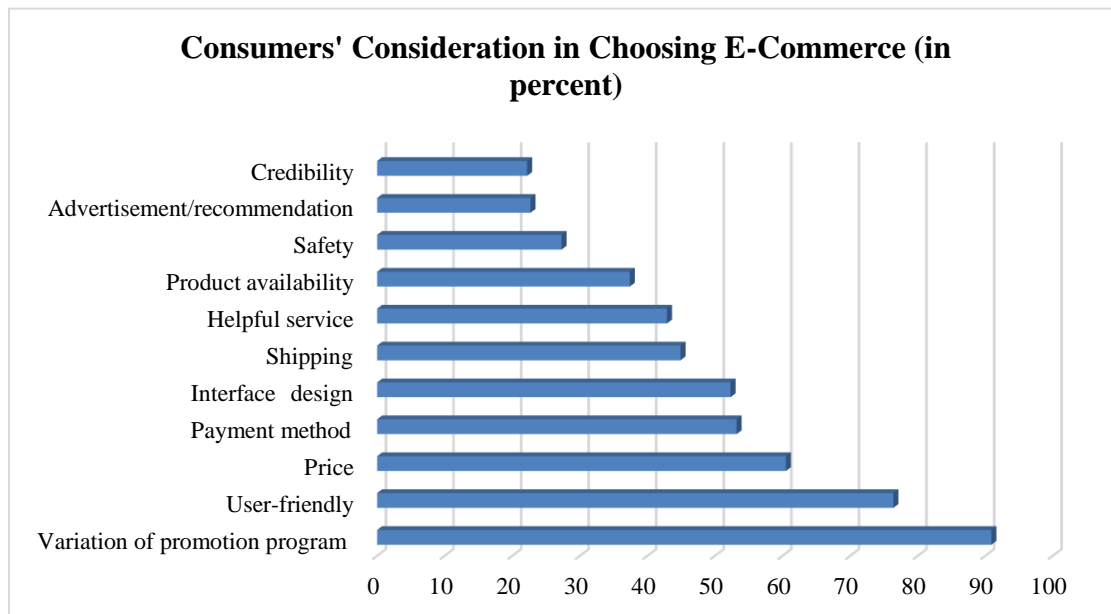
to Q1 2021 which was researched by iPrice. The data is shown in Table 1.

**Table 1. Visitors of E-commerce in Indonesia from Q3 2019 to Q1 2021 [10]**

No.	E-Commerce	Visitors (in thousand)						
		Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021
1	Tokopedia	65,953.4	67,900.0	69,800.0	86,103.3	84,997.1	114,655.6	135,076.7
2	Shopee	55,964.7	72,973.3	71,533.3	93,440.3	96,532.3	129,320.8	127,400.0
3	Bukalapak	42,874.1	39,263.3	37,633.3	35,288.1	31,409.2	38,583.1	34,170.0
4	Lazada	27,995.9	28,383.3	24,400.0	22,021.8	22,674.7	36,260.6	30,516.7
5	Blibli	21,395.6	26,863.3	17,600.0	18,307.5	18,695.0	22,413.1	19,590.0
<b>Total</b>		214,183.7	235,383.2	220,966.6	255,161.0	254,308.3	341,233.2	346,753.4

The table above shows the most popular sites used by shoppers in Indonesia, which are dominated by Shopee, Tokopedia and Lazada, respectively. Following those three, Bukalapak is in fourth place and Blibli takes the last place

among five. Furthermore, most consumers' consideration in choosing e-commerce is based on the promotion program and the visualization is shown as follows.



**Figure 2. Consumers' Consideration in Choosing E-Commerce [11]**

As seen on Table 1, it is clear that the total visitors of e-commerce are increasing rapidly throughout the year until the first quartile of 2021 with the percentage of 62% compared to the third quartile of 2019. The comparison of

top five e-commerce visitors in Indonesia from Q3 2019 to Q1 2021 is plotted in a graphic to show the growth of the visitors and the visualization is shown as follows.



**Figure 3. Visitors of E-commerce in Indonesia from Q3 2019 until Q1 2021**

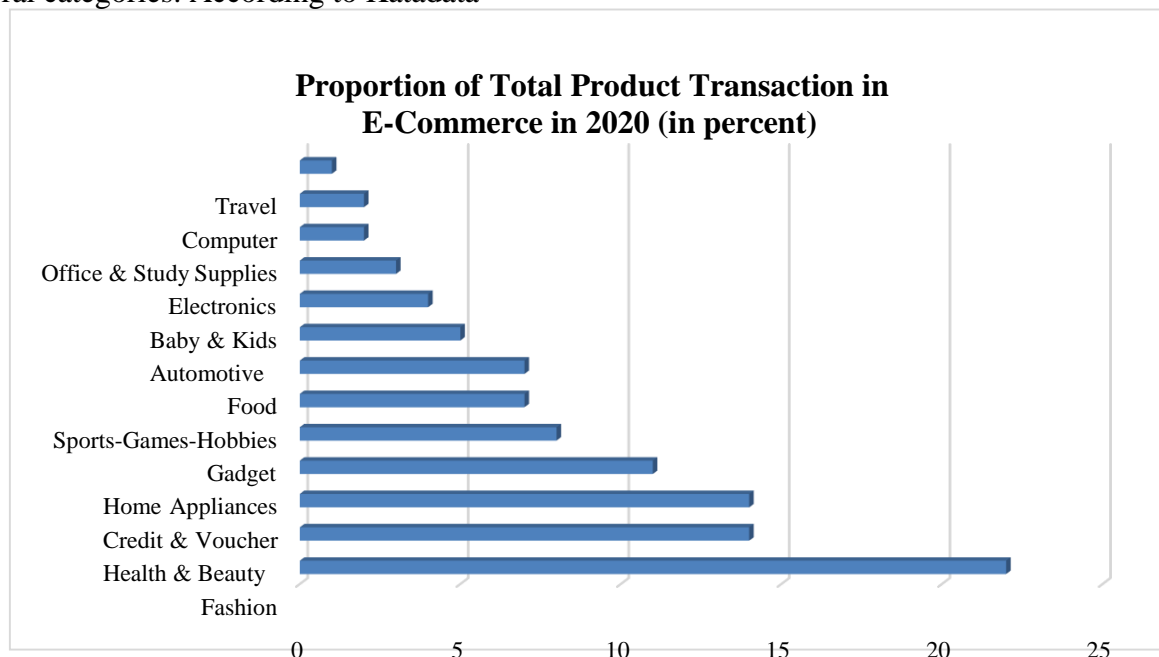
From the data that is plotted in Figure 2, it can be seen that e-commerce visitors are increasing, especially in Q2 2020 until Q1 2021

when the pandemic situation is getting worse and the government released a regulation where the public are suggested to stay at home

to cut down the COVID-19 cases. This stay-at-home situation leads to the increase of online shopping behavior and causes the numbers to grow.

All of the top five e-commerce varies in general categories. According to Katadata

Insight Center (KIC), the category that has the most transactions is the fashion category. The proportion of total product transactions in e-commerce is shown below.



**Figure 4. Proportion of Total Product Transaction in E-Commerce in 2020 [12]**

#### 4. CONCLUSION

Based on the research and analysis done in this study, it can be concluded that COVID-19 pandemic throughout 2020 until early 2021 has a significant impact on online shopping behavior in Indonesia. The increase of online shopping behavior that results in the increase of e-commerce visitors is clearly seen in the second quartile of 2020 when the COVID-19 pandemic suddenly strikes in Indonesia and increases rapidly throughout the year until the first quartile of 2021 with the percentage of 62% compared to the third quartile of 2019.

Consumers choose to shop online as the safest option to avoid physical contact. Furthermore, most consumers' consideration in choosing e-commerce is based on the promotion program from each e-commerce platforms. Also, there are particular categories that have the most transactions, which is fashion category followed by health and beauty category that comes in the second place.

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