

# The Effect of the Pandemic on E-Commerce Competition in Indonesia

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**Abstract:- This study aims to determine predictions of e-commerce competition in the future using active user objects amid during pandemic based on data from 2018-2021 for 2022 projections and analyze any e-commerce that is declining, stable, or even increased during the pandemic. This research method uses secondary data obtained from the iPrice website and internet sites with a quantitative approach and forecasting methods to find out future trends towards the number of active e-commerce users ranked in the top five in Indonesia amid the Covid-19 pandemic. Data. The results of this study indicate that there are different effects experienced by the five e-commerce companies due to the Covid-19 pandemic. A positive influence was received by the Shopee and Tokopedia marketplace platforms because during the pandemic, they got many new users as a result of the shift in business activity from offline to online transactions. Meanwhile, the negative influence of the pandemic must be felt by the marketplaces of Bukalapak, Lazada, and Blibli, because throughout 2020 and 2021, the three platforms experienced a drastic decrease, inactive users.**

**Keywords:- Covid-19, Forecasting, Moving Average, E-Commerce.**

## I. INTRODUCTION

The Covid-19 pandemic began to hit the world in 2020. WHO (World Health Organization) announced Corona Virus Disease 2019 (Covid-19) on March 11, 2020. The first time the incident of Covid-19 was reported to the public was on January 31, 2020, in Wuhan, Hubei Province, People's Republic of China (PRC). There are more than 170,000 victims who died, 640,000 recovered from the total who were confirmed positive for more than 1.4 million people recorded in the third week of April 2020 (corona.help).

Indonesia has also been hit by the Covid-19 pandemic. President Joko Widodo announced that on March 2, 2020, Indonesia was affected by the Covid-19 virus as a disaster. The National Disaster Management Agency (BNPB) calls Covid-19 a non - natural disaster with a national scale of coverage. The spread of the Covid-19 virus through human-to-human transmission is increasingly widespread, making the government take policies by carrying out social distancing and physical distancing. The implementation of the physical distancing policy is one of the efforts to prevent the spread of Covid-19.

The existence of several policies implemented by the government has an impact on three things, namely for trading business actors (micro and small businesses), second consumers, and third is property owners such as shop/mall/plaza owners. Therefore, the use of e-commerce by business actors is a solution to concerns about the Covid-19 which can have an impact on visits and consumer orders. (Taufik & Ayuningtyas, 2020). The existence of e-commerce allows entrepreneurs to still be able to sell their products and the public can still fulfill their daily needs amid a pandemic where there are rules to reduce mobility.

E-commerce makes the buying and selling process easier, thereby encouraging business growth opportunities and enabling complete package service offerings to customers (Koe & Afifah Sakir, 2020). Another opinion states that e-commerce is an Internet application that is used for business transactions and maintenance of business relationships (Awa, Ukoha, Emecheta, 2012). E-commerce services are now increasing due to market share and the impetus of the pandemic. This is in line with the report from e-Conomy SEA 2021 which states that all sectors will experience double-digit growth in 2021 with the main driver being the e-commerce platform. According to estimates from a report entitled The Digital Archipelago: How Online Commerce is Driving Indonesia's Economic Development, released by management consulting firm McKinsey, it is stated that the value of the e-commerce market in Indonesia is expected to increase in the range of USD 55-\$65 billion by 2022.

Seeing the market share that is now getting wider, in Indonesia itself, there has been a lot of e-commerce that has sprung up. Based on data from iPrice (2021) there is at least 39 e-commerce in Indonesia. Five e-commerce sites that are ranked at the top according to iPrice (2021) data include Tokopedia, Shopee, Bukalapak, Lazada, and Blibli. Meanwhile, according to SimilarWeb (December 2021), the first rank was won by Tokopedia, Shopee, Lazada, Bukalapak, and Olx. This data proves that the competition between e-commerce is getting tougher. All e-commerce are competing to be ranked first and can win the competition in the market.

Various strategies are carried out to win the competition. Some e-commerce companies make programs to be the main ones, such as Tokopedia with Indonesian Shopping Time (WIB), Shopee, Lazada, and Blibli which routinely make programs for shopping on the same date and month. E-commerce is competing to attract customers by offering various

attractive benefits such as discounts, vouchers, free shipping, cashback, pay later, and so on.

Based on the explanation above, this study aims to determine predictions of future e-commerce competition using active user objects during the Covid-19 pandemic based on data from 2018-2021 to 2022 projections. This study is also to analyze what e-commerce is declining, stable or even increased during the Covid-19 pandemic.

## II. LITERATURE REVIEW

E-commerce, also known as Ecom or Emmerce (EC) is a routine business exchange by utilizing electronic data interchange (EDI) transmissions, e-mail, electronic bulletin boards, facsimile machines, and electronic fund transfers related to shopping transactions on the internet. shopping (Laudon, 2007). In another opinion, e-commerce is a commercial activity carried out online that focuses on exchanging commodities using the internet, especially by companies, factories, industrial businesses, and consumers (Qin et al, 2009). E-commerce is an activity of selling or buying products electronically carried out by consumers and companies to companies via computers as a bridge in business transactions (Permana et al, 2021).

Qin et al (2009) explained that there are several categories of e-commerce, namely (B2B) transactions made between businesspeople to business people, (B2C) transactions to consumers directly, (C2C) business activities between consumers to consumers, (B2G) transactions from business to government, (G2G) business activities between government to government.

Some factors cause the rapid growth of e-commerce in Indonesia. First, the use of smartphones and the internet continues to increase. Second, Indonesia's large population and people's purchasing power increase during strong macroeconomic growth. Third, Indonesia's young population is technology literate, so they can quickly adapt to new technologies. (McKinsey (2018) in Permana, et al (2021). In addition, the Covid-19 pandemic that hit Indonesia was a factor in people turning to buying and selling transactions using e-commerce (Permana et al., 2021).

Strengthened by the e-Conomy SEA 2021 report, Roaring 20s: The SEA Digital Decade shows that there were 21 million new digital consumers during the pandemic in 2020 and the first half of 2021. Furthermore, based on the report, there are 28% of digital sellers in Indonesia. stated that these business actors would not survive during the Covid-19 outbreak if there was no digital platform. Seeing the shopping trend of people switching online seems to be an advantage for e-commerce owners. Even so, e-commerce competition in Indonesia is quite tight. It is proven that there is at least 39 e-commerce in Indonesia (iPrice, 2021).

Business strategy is the policies and attitudes taken by business entities in response to the competitive business environment and the set of values or product mix they develop to outperform competitors (Agustia et al., 2020). Meanwhile

(Chen & Keung, 2019) argues that business strategy can be characterized by how companies decide to compete, pursue, achieve, and maintain their competitive advantage in the industrial sector. Digital platforms enable disruption across industry boundaries and thus drive new business forms and strategies (Burgelman and Grove 2007). According to Bharadwaj et al, (2013), the formulation of the digital business strategy includes the design of products and services and their interoperability with other complementary platforms, and their implementation as products and services by utilizing digital resources.

The results of Fridhayanti et al's (2020) research conducted on Shopee e-commerce stated that there is a prediction of an increase in active users in the second quarter of 2021 and the second quarter of 2022. This is due to holidays such as Eid al-Fitr in the second quarter of 2021 and in May in the second quarter of 2022.

## III. METHODOLOGY

This study uses a quantitative approach and forecasting methods to find out trends that occur in the future on the number of active e-commerce users with the top five ranks in Indonesia amid the Covid-19 pandemic. This study uses secondary data obtained from the iPrice website and the internet site. Pandemic as the independent variable and business competition as the dependent variable which is measured using active user data ranked in the top five e-commerce in Indonesia. The research data used is quarterly data from 2018 to 2021 which is expected to be able to predict e-commerce trends and competition amid the Covid-19 pandemic in 2022.

The analytical method used is Time Series Analysis and Moving Average based on historical data from the previous year, then predictions can be made for the following year using the forecasting method. Microsoft Excel is used to generate forecasts of trends calculated based on historical data. Moving Average is done by observing the average value that occurred in the last several periods, where the average number is the range. (Albright & Winston, 2013)

## IV. RESULTS AND DISCUSSION

Shopee was launched in Indonesia in 2015. When viewed from a promotional strategy perspective, Shopee focuses on its own media channels to build positioning and is packaged creatively using images, photos, captions, and videos that are presented attractively by brand ambassadors (Suswanto & Setiawati, 2020). According to research by Suswanto & Setiawati (2020), Shopee adopts social media features in its application, for example, timeline features, follow, search, star features for recommendations, live chat, games, and live streaming. Another strategy is to create a shopping campaign on the same day and month or commonly known as the national online shopping day (Harbolnas). Shopee is also actively using domestic and foreign brand ambassadors such as Cristiano Ronaldo who is a soccer player, K-Pop Groups from South Korea such as BLACKPINK, Stray Kids, Red Velvet, and GOT7 where K-Pop Groups are much favored by young people

in Indonesia. . To enter the segment aged 30 years and over, Shopee has also made Didi Kempot, Joe Taslim, Jackie Chan, Arya Saloka and Amanda Manopo as brand ambassadors. Discounts, free shipping, cashback, vouchers, and Shopee coins are also Shopee's strategy to become the No.1 e-commerce in Indonesia. Based on research conducted by Snapcart during the month of Ramadan until Eid al-Fitr in 2020, survey results from 1000 respondents throughout Indonesia showed that Shopee was ranked first as the most remembered marketplace (top of mind) with 66% of research respondents using the Shopee application in shopping.

Furthermore, the survey results show that 16% choose Tokopedia as a marketplace for online shopping. After that, Lazada, Bukalapak, Blibli and others followed. Tokopedia itself is the work of the nation's children which was founded in 2009, Tokopedia also actively uses brand ambassadors such as BTS and BLACKPINK, Tokopedia also has a campaign that is held at the end of every month called Indonesian Shopping Time (WIB). In terms of application features, Tokopedia is considered a bit behind Shopee. Shopee users can now enjoy various games from this application, such as Shopee Tanam and Goyang Shopee. In addition, Shopee also has a feature where users can borrow money called Shopee Pay later. Both features are not available on Tokopedia.

Bukalapak was founded in 2010 and has 90 million active users with 5 million Bukalapak partners in 2017. As a company with unicorn status, Bukalapak always has special attention on empowering and developing Indonesian MSMEs. Quoted from CNBC Indonesia 2020, throughout 2019 Bukalapak always took the third position for an average of 53.86 million visitors per month. In the first position, there is Tokopedia with an average visitor of 75.5 million per month and Shopee in the second position with 61.67 million visitors per month.

Lazada was launched in Indonesia in 2012, Lazada is the number one online shopping platform in Southeast Asia with operations covering Indonesia, Malaysia, the Philippines, Singapore, Vietnam, and Thailand. In 2019, Lazada has assisted more than 135,000 local and international sellers, with 3,000 brands and serving 560 million consumers in the Southeast Asia region. Lazada Group is majority-owned by Alibaba Group Holding Limited (NYSE: BABA). Just like Shopee and Tokopedia, Lazada also uses brand ambassadors to promote its marketplace platform. Some international singers and actors have been Lazada's brand ambassadors, including AgnesMo, Hyun Bin, and Lee Min Ho.

Blibli is an e-commerce made in Indonesia that was founded in 2011 which focuses on running B2B, B2C, and B2B2C (Business to Business to Consumer) business models. In 2017, Blibli acquired tiket.com to facilitate expansion in the travel sector, starting from booking transportation and accommodation. Then in 2021, Blibli acquired PT Supra Boga Lestari Tbk, to strengthen its omnichannel strategy as a company that manages some supermarkets such as Ranch Market and Farmers Market. Blibli made a famous star from South Korea Park Seo Joon as its international brand ambassador.

Data on e-commerce competition in Indonesia is obtained from iPrice which shows the level of visits. E-commerce taken is ranked in the top five in Indonesia, namely Tokopedia, Shopee, Bukalapak, Lazada, and Blibli. The data obtained is data from the first quarter of 2017 to the third quarter of 2021. The following data has been processed from the data that has been obtained.

TABLE I. DATA ON ACTIVE USERS OF E-COMMERCE IN INDONESIA

e-Commerce	Year	Q1	Q2	Q3	Q4
Tokopedia	2017	46534000	50666667	93783000	115270000
	2018	117000000	111484100	153639700	168000000
	2019	137200900	140414500	65953400	67900000
	2020	69800000	86103300	84997100	114655600
	2021	135076700	147790000	158136700	
Shopee	2017	9100000	9100000	18920000	27879000
	2018	34510800	30843400	38882000	67677900
	2019	74995300	90705300	55964700	72973300
	2020	71533300	93440300	96532300	129320800
	2021	127400000	126996700	134383300	
Bukalapak	2017	28367000	30333333	60542000	80089000
	2018	93589900	85138900	95932100	116000000
	2019	115256600	89765800	42874100	39263300
	2020	37633300	35288100	31409200	38583100
	2021	34170000	29460000	30126700	
Lazada	2017	51134000	58333333	96343000	131848000
	2018	118000000	49990700	36405200	58288400
	2019	52044500	49620200	27995900	28383300
	2020	24400000	22021800	22674700	36260600
	2021	30516700	27670000	27953300	
Blibli	2017	25700000	27333333	49126000	52464000
	2018	45940100	29044100	31303500	43097200

	2019	32597200	38453000	21395600	26863300
	2020	17600000	18307500	18695000	22413100
	2021	19590000	18440000	16326700	

Source: iPrice, 2021



Source: Data Processed, 2021

Fig. 1. Active Users of e-Commerce in Indonesia

Table I shows that the daily users of e-commerce fluctuate greatly. Shopee and Tokopedia e-commerce are e-commerce which experienced a fairly high increase in 2020 and 2021, where the Covid-19 pandemic occurred in that year. Online e-commerce users in the first quarter of 2020 experienced an increase, a decrease, and even tended to be stable. It is known that there are two e-commerce sites, such as Tokopedia and Shopee, which have increased from the previous quarter, although not significantly. Meanwhile, the other three e-commerce sites, namely Bukalapak, Lazada, and Blibli, tended to experience a decline.

It is known that active users of Bukalapak and Lazada during the pandemic, namely throughout 2020 and 2021, were below 40 million, down drastically from the second quarter of 2019 which was still at 89 - 90 million for Bukalapak and the fourth quarter of 2017 for Lazada which reached 120 - 130 million. active user. Meanwhile, Blibli's e-commerce for users in Indonesia since 2017 is still under Tokopedia, Shopee, Bukalapak and Lazada. It is known that in 2017-2018 it had 40-50 million active users, entering the first quarter to the third quarter of 2020 during a pandemic, Blibli increasingly experienced a decrease in users, only under 20 million active users, then in the fourth quarter of 2020 due to the effects of Christmas and New Year, only 2021 Blibli users have increased. However, it will decline again throughout 2021, which is an average of less than 20 million active users.

The existence of Covid-19 which occurred in March 2020 has succeeded in changing business activities and transactions from offline to online (Nurlela, 2021). It was found that with more than one million new e-commerce users during the Covid-19 pandemic, Indonesia's internet traffic experienced annual growth of 73 percent in the first quarter of 2020 and increased to 139 percent in the second quarter of 2020 (Syamruddin et al., 2021).

This growth traffic seems to be an important factor in the e-commerce competition in Indonesia, especially in the top five e-commerce which is the subject of this research. This can be seen in active e-commerce users based on iPrice 2021 data, where Tokopedia and Shopee are e-commerce that can capture and take advantage of changes in business activity amid this pandemic by providing features that make it easier for consumers and aggressively promote. Meanwhile, Bukalapak, Lazada, and Blibli were even more negatively impacted by this pandemic, causing active users on the three e-commerce platforms to experience a decline during the pandemic.

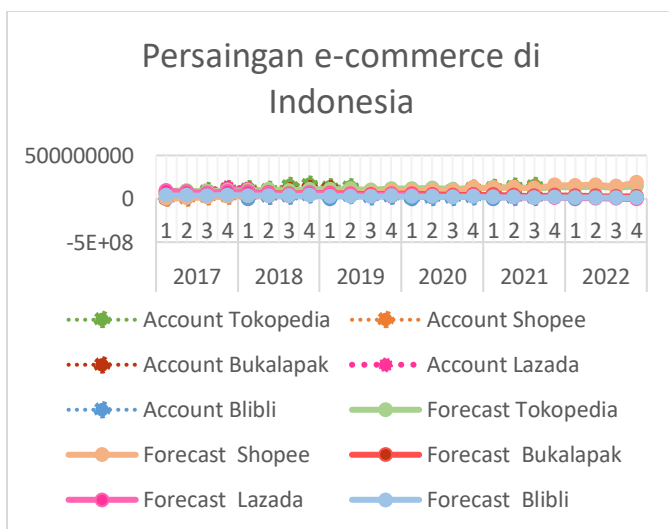
Table 1 also shows that in the third quarter of 2021, Tokopedia and Shopee are the two e-commerce sites that have the highest number of visits, both e-commerce being the most dominating in Indonesia. The first rank is occupied by Tokopedia with the number of visits in the third quarter of 2021 as many as 158.1 million, the second position is occupied by Shopee as many as 134.3 million, the third position is achieved by Bukalapak at 30.1 million, e-commerce which occupies the fourth position is achieved by Lazada with the number of visits of 27.9 million, and the last occupied by Blibli with the number of visits of 16.3 million.

TABLE II. FORECASTING FIVE ACTIVE USERS OF E-COMMERCE

Year	Quarter	Account					Forecast				
		Tokopedia	Shopee	Bukalapak	Lazada	Blibli	Tokopedia	Shopee	Bukalapak	Lazada	Blibli
2017	1	46.534.000	9.100.000	28.367.000	51.134.000	25.700.000	89.202.949	3.016.087	86.456.904	91.189.239	40.274.984
	2	50.666.667	9.100.000	30.333.333	58.333.333	27.333.333	94.146.337	10.495.617	76.132.734	74.407.454	39.803.813
	3	93.783.000	18.920.000	60.542.000	96.343.000	49.126.000	84.845.382	15.414.802	65.544.953	61.349.059	35.342.146
	4	115.270.000	27.879.000	80.089.000	131.848.000	52.464.000	98.155.236	27.823.504	76.373.889	88.032.343	44.678.133
2018	1	117.000.000	34.510.800	93.589.900	118.000.000	45.940.100	98.698.750	33.378.615	76.429.625	74.838.360	34.839.093
	2	111.484.100	30.843.400	85.138.900	49.990.700	29.044.100	103.908.567	40.540.105	67.039.186	60.439.531	34.243.912
	3	153.639.700	38.882.000	95.932.100	36.405.200	31.303.500	93.420.874	41.134.607	57.475.071	49.265.392	30.226.832
	4	168.000.000	67.677.900	116.000.000	58.288.400	43.097.200	107.831.483	60.582.634	66.672.131	69.794.946	37.968.784
2019	1	137.200.900	74.995.300	115.256.600	52.044.500	32.597.200	108.194.550	63.741.142	66.402.346	58.487.480	29.403.202
	2	140.414.500	90.705.300	89.765.800	49.620.200	38.453.000	113.670.798	70.584.594	57.945.638	46.471.608	28.684.010
	3	65.953.400	55.964.700	42.874.100	27.995.900	21.395.600	101.996.367	66.854.413	49.405.190	37.181.725	25.111.518
	4	67.900.000	72.973.300	39.263.300	28.383.300	26.863.300	117.507.730	93.341.764	56.970.374	51.557.549	31.259.435
2020	1	69.800.000	71.533.300	37.633.300	24.400.000	17.600.000	117.690.351	94.103.669	56.375.068	42.136.600	23.967.312
	2	86.103.300	93.440.300	35.288.100	22.021.800	18.307.500	123.433.029	100.629.082	48.852.090	32.503.684	23.124.109
	3	84.997.100	96.532.300	31.409.200	22.674.700	18.695.000	110.571.859	92.574.219	41.335.308	25.098.059	19.996.204
	4	114.655.600	129.320.800	38.583.100	36.260.600	22.413.100	127.183.977	126.100.895	47.268.616	33.320.152	24.550.086
2021	1	135.076.700	127.400.000	34.170.000	30.516.700	19.590.000	127.186.151	124.466.197	46.347.789	25.785.721	18.531.421
	2	147.790.000	126.996.700	29.460.000	27.670.000	18.440.000	133.195.260	130.673.571	39.758.541	18.535.761	17.564.208
	3	158.136.700	134.383.300	30.126.700	27.953.300	16.326.700	119.147.352	118.294.025	33.265.426	13.014.392	14.880.890
	4						136.860.224	158.860.025	37.566.858	15.082.755	17.840.737
2022	1						136.681.951	154.828.724	36.320.511	9.434.841	13.095.530
	2						142.957.490	160.718.059	30.664.993	4.567.838	12.004.306
	3						127.722.844	144.013.831	25.195.545	930.726	9.765.576
	4						146.536.471	191.619.155	27.865.100	-3.154.642	11.131.388

Source: Data Processed, 2021

Table 2 shows the forecasting results based on the data obtained with the help of Microsoft Excel for the projection for the period 2021-2022. Furthermore, the data will be used for projections using the moving average method, analyzing forecasts for the fourth quarter of 2021 to 2022. To make it easier for readers to know trends (increases and decreases) and competition among the five e-commerce objects used in this study, then the results of forecasting table 2 above are presented in figure 2 below.



Source: Data Processed, 2021

Fig. 2. Users Forecasting of E-Commerce in Indonesia

Based on table 2 and figure 2, it can be seen that the predictions of active users of five e-commerce objects that have become objects have increased and some have decreased. Tokopedia and Shopee experienced significant improvements during the pandemic. In contrast to Tokopedia and Shopee, Bukalapak, Lazada, and Blibli tend to experience a decline during the pandemic. Figure 2 also shows that the competition between Tokopedia and Shopee is quite fierce. These two e-commerce are the most dominating in Indonesia. From early 2017 until the third quarter of 2021, Tokopedia was the most dominating, but based on graph 2, it was predicted that Shopee would dominate Indonesia's market share in the fourth quarter of 2021 and throughout 2022. According to the forecasting data, Tokopedia, which will be in second place, won the third position, by Bukalapak, Blibli will be in the fourth position, and Lazada will be in the fifth position. Figure 2 shows that Shopee will become the No. 1 in Indonesia, which peaked in the fourth quarter of 2021, far behind Tokopedia, Bukalapak, Blibli, and Lazada with a total of 191,619,155 visits.

When viewed from the increase in Tokopedia and Shopee, there was a not too significant increase in the second quarter of 2021. At that time there was a big day like Ramadan so there was a surge in active users because Tokopedia and Shopee held Ramadan promos. However, there was a significant decline in the third quarter of 2021 at Shopee and Tokopedia. The third quarter of 2021 will occur in July, August, and September which is in line with Indonesia's

economic conditions. According to data from Badan Pusat Statistik (BPS), the Indonesian economy continued to grow positively in the third quarter of 2021 although it slowed down compared to the previous quarter, in line with the spread of the Covid-19 delta variant. Indonesia's economy in the third quarter of 2021 grew by 3.51% (YoY), lower than the previous quarter's achievement of 7.07% (YoY). Meanwhile, Bukalapak, Blibli, and Lazada did not increase and even tend to decrease.

Forecasting for five e-commerce sites in 2022 is based on user trends over the past five years. For the past three years, the first and second positions of the largest e-commerce in Indonesia have always been occupied by Tokopedia and Shopee. Bukalapak, Lazada, and Blibli are always below it, therefore the trend forecasting for 2022 for these three e-commerce is expected to decline until the end of the quarter.

Meanwhile, tough competition is expected to continue between Tokopedia and Shopee throughout 2022. In the first quarter, Shopee is estimated to be above Tokopedia with a projection of more than 150 million users. This is in line with the big target of 1.1 New Year Sale by Shopee and the planned expansion of the European market starting with the goal of Poland for the beginning of the year (Ruhlessin, 2021). Meanwhile, Tokopedia's strategy to face the first quarter of 2022 is to hold an IPO.

Entering the second quarter, both Shopee and Tokopedia are expected to experience an increase in visits. This can happen because the moments of Ramadan and Eid al-Fitr are in April – May 2022. The increase in the second quarter is estimated to continue even though the pandemic is still engulfing the Indonesian economy.

In the third quarter, according to BPS trend data in the last three years, every third-quarter economic growth tends to experience a sluggish trend. So it is estimated that Tokopedia and Shopee users in July – September will also experience a decline. Even though both have experienced a decline, Shopee is still above Tokopedia with an estimated average of 140 million active users.

By implementing plans and strategies for 2022, both Shopee and Tokopedia entering the fourth quarter of 2022 are expected to increase. Tokopedia's GoTo Pre-IPO plan, which is valued at up to US\$ 2 billion, and Shopee's ambition to enter the European market and is consistent with the Ramadhan Sale activities in 2022, project Shopee's trend at the end of 2022 shoot up.

## V. CONCLUSION

The results of this study indicate that there are different effects experienced by the five e-commerce companies due to the Covid-19 pandemic. A positive influence was received by the Shopee and Tokopedia marketplace platforms because during the pandemic, they got many new users as a result of the shift in business activity from offline to online transactions. Meanwhile, the negative influence of the pandemic must be felt by the marketplaces of Bukalapak, Lazada, and Blibli, because

throughout 2020 and 2021, the three platforms experienced a drastic decrease inactive users. Other results show that there is a prediction of an increase in frequency in the second quarter of 2021 and the second quarter of 2022. This can happen due to Ramadan moments and holidays such as Eid al-Fitr in April – May for 2021 and 2022. Tight competition between Shopee and Tokopedia is expected to continue throughout 2022. Both have the largest market share in Indonesia. Based on iPrice data, Tokopedia is in the first position with average traffic reaching 158.1 million visits per month during the third quarter of 2021. An increase of 7% from the previous quarter of 147.8 million visits. While the second place is occupied by Shopee with average traffic of 134.4 million visits. This figure increased by 5.8% from the previous quarter of 127 million visits. The results and projections in this study are expected to be the basis for consideration by the government and various marketplace stakeholders in Indonesia in reading the trends of e-commerce competition in the future and assisting the recovery of the Indonesian economy amid the Covid-19 pandemic. The data used in this study only involves data in a fairly short time, so it is necessary to carry out further research with a wider research design and scope and a longer forecasting period. Suggestions for further research are to add sales transaction variables to produce a more mature forecast of future trends.

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