



Indonesian MSME E-Commerce among the Covid-19 Pandemic

Elya Kurniawati^{*1}, Immamul Huda Al Siddiq²

¹Universitas Negeri Malang, Jl. Semarang No. 5 Malang, 65145, Malang, Indonesia

²Universitas Negeri Malang, Jl. Semarang No. 5 Malang, 65145, Malang, Indonesia

ABSTRACT

Objective - This study aims to find out (1) how the e-commerce utilization model before and during the pandemic, (2) the influence of the level of education on the tendency to use e-commerce (3) the marketing media used before and after the Covid-19 pandemic, and (4) the average income of MSME actors before and after the Covid-19 pandemic. The research method used is an explanative quantitative method, using a questionnaire, examining theories and policies related to Covid-19 and the application of e-commerce.

Methodology/Technique – This study used a sample of 75 MSME actors and found that there was a significant increase in the use of e-commerce by Indonesian MSME actors during the Covid-19 pandemic. The use of online media in economic activities during the pandemic increased from 21.33% to 54.67%. Meanwhile, the education level of the MSME actors did not influence the decision to change the transaction pattern from offline to online with r score of 0.132.

Finding – This means that this pandemic has changed the way of transactions in economic activity to its roots no matter how high the education level of the MSME actors is. The income of MSME actors has actually dropped dramatically during the pandemic, especially the period when the government implemented the Large-Scale Social Restrictions (PSBB) policy.

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Keywords: COVID-19, E-Commerce, Social Distancing, MSME

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1. Introduction

COVID-19 is a huge storm hitting the world at the end of 2019. Coronavirus 2019 (COVID-19) is a contagious disease that attacks the respiratory system. This disease causes lung inflammation with initial symptoms such as fever, dry cough and difficult breathing. This virus has spread to 196 countries in the world with 414,179 positive confirmed cases and 18,440 of them died [WHO. 2020]. On March 2, 2020, COVID-19 was confirmed in Indonesia for the first time. As of March 25, 2020, there were 790 positive confirmed cases accumulatively, of which 58 people died, 31 were healed, and 701 of them were being treated.

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^{*} Corresponding author: Elya Kurniawati

E-mail: elya.kurniawati.fis@um.ac.id; imamul.huda.fis@um.ac.id

Affiliation: Universitas Negeri Malang, Jl. Semarang No. 5 Malang, 65145, Malang, Indonesia

The largest distribution of COVID-19 cases was in Java (89.75%) covering 463 positive confirmed cases in Jakarta Province, 73 positive confirmed cases in West Java Province and 67 positive confirmed cases in Banten Province (www.COVID19.go.id). The presence of the virus, whose vaccine and drug have not been found, can paralyze almost all sectors of human life, including the economic sector. The government has taken several steps to prevent the spread of COVID-19, including the implementation of physical distancing. Physical distancing is applied by keeping the distance between people at least 1 meter. This policy results in many changes, such as the teaching and learning system that must be done online, the closure of tourist attraction, the prohibition of large scale social events/ activities including those in worship places, the limited-service of cafes and restaurants to delivery/ take away only, the blocking of several roads to the central city, etc. The government also urges people to work, study and worship at home (stay at home) or better known as WFH (Work from Home) (Hamid, 2020).

The government policy results in several negative impacts, including the Indonesian economic sector. The weakening economy is due to people's low purchasing power, the closure of several strategic industrial sectors, the closure of several markets/ shanties/ businesses. Policies made to break the distribution chain of COVID-19 indirectly weaken the economic chain, including the increased wave of layoffs. Business actors must work harder to avoid increasing losses. One of the ways taken by business actors including MSMEs is to use online-based applications, such as the use of e-commerce. The use of technology in this digital era is the best solution to avoiding economic paralysis. E-commerce is a solution for the closure of workplaces, markets, shops, and other facilities due to the existing policies (Hadi, Wijaya, & Utami, 2016).

The use of e-commerce allows businesses to peddle their products without having to make physical or face-to-face contact following the applicable policies of breaking the distribution chain of COVID-19. E-commerce also has several advantages that can support the survival of business people, including the facilitation of promotions, realtime transactions, an increased number of customers reached, information cost-saving, the short cycle of time and administration, the provision of responsive and satisfying services to customers, and its ability to be the complement of traditional markets (Hastutik, et. al., 2020). These e-commerce advantages do not make it necessarily applied by MSME actors. There are so many obstacles faced in the process of transforming offline into online due to several aspects such as risk and distrust.

The economic condition during the COVID-19 pandemic requires MSMEs to change their business patterns. This research aimed to find out (1) the extent to which the marketing model is influenced by the education level of MSME actors, (2) changes in marketing patterns before and after the COVID-19 pandemic, (3) marketing media used before and after the COVID-19 pandemic, and (4) the average income of MSME actors before and after the COVID-19 pandemic.

2. Literature Review

2.1 Indonesia's E-Commerce and MSMEs

Micro, Small and Medium Enterprises (MSMEs) are one of the integral parts of economic activity in the community. This economic activity is proven to be a pillar of welfare at the grassroots. Some define it as a shadow economy (Suyanto, 2013) because it is not registered as a legal entity (Webb, Bruton, Tihanyi, & Ireland, 2013). However, economic activity positively contributes to the country's economy (Elgin & Erturk, 2019). Besides, some others call it as informal economic activity (Meagher, 2018). This economic sector can develop either in urban communities or rural communities (Perguna, Al Siddiq, & Irawan, 2019). Typology and the geographical origin of communities seem not to be a barrier to Micro, Small and Medium Enterprises (MSMEs) to take root in it (Kumar, Pandey, Wordsworth, & Chauhan, 2018). The historical trajectory has proven that this informal economic sector can survive during the economic crisis happening in Indonesia (Tambunan, 2010) because this sector has no direct relation to global economic activities. The informal economic activity has also been proven to be able to open up employment opportunities for all circles, not only for owners but also groups and workers who do not have capital (Martínez, Short, & Estrada, 2017). Some of

them are vulnerable due to their incapability to access capital (Athaide & Pradhan, 2019), so the only way to save their economy is this informal sector with its various consequences.

In terms of quantity, MSME is the most dominant business sector in Indonesia. 99.9% of Indonesia's business sector is dominated by MSME actors. This condition also applies to the world economy, where 90% comes from MSMEs (Kurniawati, 2020). Its growth always increases dramatically every year (F. Wahyuni, Irwansyah, & Aprilia, 2019). The small capital needed in making such a business makes it can survive and continue to grow (Kurniawati, Chrissendy, & Saputra, 2019). In 2015, there were 55.2 million MSMEs in Indonesia and the number continues to increase from year to year (BPS of East Java, 2017). The increase in MSME growth is directly proportional to the increase in MSME contribution to the state revenue. It is proven that in 2016, MSMEs contributed to Indonesia's GDP of IDR 7,009,283 billion (59.84%) per year. In 2017, the contribution of MSMEs to Indonesia's GDP increased to IDR 7,704,635.0 billion (60%) per year (Ministry of Cooperatives and MSMEs, 2017). The high rate of contribution makes MSMEs the largest business sector that contributes to GDP. Various positive impacts of MSME make it a highly strategic business sector to be developed. In this current Industrial Era 4.0, the majority of Indonesia's MSMEs are still run conventionally. As recorded, 90% of them are still using conventional methods, including in terms of marketing products or services. The process of transitioning offline into online is not easy for MSMEs. In response to this, the Ministry of Cooperatives and MSMEs of the Republic of Indonesia developed several strategic steps to improve the competitiveness of MSMEs and cooperatives to achieve sustainable and independent business and economic growth. In the 2015-2019 National Medium-Term Development Plan, several policy points are outlined, including improving the quality of human resources and increasing product added value and marketing access, one of which is achieved through the application of technology. The policy generated good results. This is proven by the assessment results of Indonesian SME policy in ASEAN SME Policy Index 2018 showing that Indonesia's MSMEs are good enough in terms of productivity, technology and innovation. In the preparation of 2020-2024 National Medium-Term Development Plan, it is hoped that the policies made can encourage the use of technology for MSMEs. Also, MSMEs are expected to be able to optimize their businesses with the use of technology, collaborate on innovation and creativity to produce products that have added value, and provide integrated and real-time information (Ministry of Cooperatives and MSMEs of the Republic of Indonesia, 2019). Technology is an inevitable compulsory program for MSMEs, one of which is the use of e-commerce (Turi, 2020). E-commerce is one application that enables sales and purchases to occur through electronic media (Simpson & Docherty, 2004), namely the internet (Turban, 2010). In the electronic commerce pattern, at the highest level, companies can use the internet to deliver products and services to their customers. They can have a mutually beneficial relationship with customers they have never seen, met, talked to directly. All interaction activities can be carried out in cyberspace. Utilizing the internet can free up resources to provide more value. E-commerce is one of the pillars that can be used by entrepreneurs in developing their businesses. E-commerce can open a wide market and create many business opportunities (Haresankar, Galappaththi, & Perera, 2019). Electronic commerce or better known as e-commerce is part of the business conducted by using electronic transmissions. Globally, e-commerce is defined as all forms of goods or service transactions carried out through electronic media. E-commerce provides a series of business processes using technology and applications that can connect companies with customers and the public in the trade of goods, services, and information electronically (Baum, Locke, & Smith, 2001). Improving marketing both in quality and quantity becomes the main differentiator in the process of developing and applying online marketing through the internet (Darsono, Susana, Prihantono, & Kasim, 2019).

Broadly speaking, electronic commerce is similar to the traditional one, but the application of electronic commerce can provide benefits, one of which is to increase corporate revenue and profits. E-commerce flexibility can reduce operating and marketing costs. Companies can cut shop operating costs such as large place rental premises and employee salary costs. The information about goods and services can be delivered directly. Commitment to products or services, increased competitiveness, entrepreneurial spirit and utilization of opportunities highly affect the sustainability of a business (Darsono et al., 2019).

2.2 COVID-19 and Its Distribution

COVID-19 is a type of virus from the Coronaviridae causing infectious and deadly diseases that attack mammals such as humans in the respiratory tract to lungs. In general, people with COVID-19 will experience early symptoms such as fever, sore throat, influenza, cough, and even pneumonia at its severe stage. This virus can be transmitted through direct contact in close distance with COVID-19 patients, specifically through respiratory fluids coming out of the patient's body when coughing or spitting (WHO, 2020). COVID-19 is the abbreviation of 2019 Corona Virus Disease pandemic. An infectious and deadly disease caused by SARS-CoV-2, a type of coronavirus. Reported by [bbcnews.com](https://www.bbcnews.com) that this virus first emerged on the first of December, 2019 in China, precisely in the Wuhan area of Hubei Province. Some scientists claim that the center of the chain of this virus spread was in livestock and marine fish market in Huanan Wuhan, China. From Wuhan China, COVID-19 then spread to all over the world, including Indonesia. This virus can be transmitted to others through droplets or splashes of water from the respiratory tract when people with this virus sneeze, cough or spit. People can easily be contaminated by this virus because the survival of this virus reaches 14 days and its transmission or spread is so fast ([bbcnews.com](https://www.bbcnews.com), 2020).

The government directly takes actions in preventing the spread of COVID-19, one of which was to make a policy of physical distancing. Physical distancing means doing independent activities by keeping a minimum distance of at least 1 meter from each other. Besides, the government also made modifications by enacting a policy called Large-Scale Social Restrictions (PSBB). This policy was enforced by regions, both provinces and cities/regencies based on the severity of the epidemic whose assessment is determined by the central government through the Ministry of Health. The rules for implementing the PSBB are regulated through Government Regulation Number 21 of 2020 concerning Large-Scale Social Restrictions (PSBB). Also, the rules regarding PSBB are regulated in Presidential Decree Number 11 of 2020 concerning Determination of Public Health Emergency. Both regulations were signed by President Joko Widodo on March 31, 2020 (Muhyiddin, 2020).

Some consequences arose from the policies made by the Government, such as the teaching and learning activities in the classroom that have nationally been closed and changed into online-based schools, the closure of many tourist attractions, prohibition of holding Car Free Day activities, festivals and exhibitions in all regions, the blocking of most roads leading to the city center, and the closure of cafes and restaurants. All of these policies are carried out to prevent the crowds or large-scale community gathering in one place. Thus, most people choose to stay at home following the appeal of President Jokowi, "work, study and worship at home" (Situmorang, 2020).

As a result, the economy is weakening due to declining consumer purchasing power. Besides, most markets have been forced to close to avoid the spread of COVID-19. The traders lost their stands due to this government regulation. Like it or not, business people must rack their brains to avoid greater losses due to policies in breaking the chain of the COVID-19 spread. This issue is what we will discuss later, especially regarding how business actors (both large entrepreneurs and MSMEs) are facing the global crisis due to the COVID-19 pandemic by utilizing the existing technological advancement. In our opinion, social media and online shop application can be used as an alternative market, providing a solution to the forced closure of public markets by the government.

3. Research Methodology

This research employed a quantitative descriptive research design, where the research data are specifically obtained without correlating one with another variable (Neuman, 2013). The data in this research were collected using questionnaires distributed to MSME actors in Indonesia. In other words, the objects of this research were MSME actors in Indonesia including East Java, West Java, Central Java, Bali and several other regions. The instruments used in this research included questionnaires and observation guidelines. Primary data are the main data obtained directly in the field through surveys in the form of observations, questionnaire

distribution, documentation, and interviews (Sugiyono, 2012). E-commerce provides several opportunities, including an increase in customer satisfaction and trust, the provision of the best service to customers, the fulfilment of customers' expectations, and even the emergence of threats for MSME actors. The sample was determined incidentally by considering the suitability of the sample with the research object, namely MSME actors in Indonesia. The incidentally sample selection technique was taken because the researcher does not have an adequate sample framework containing a list of population members. Although this sample selection has received a lot of criticism when used in quantitative research that seeks to make generalizations, the researcher believes that the sample selection technique is very appropriate seeing that the up to date data of MSME actors is very limited. After the data were collected, the next stage was editing, coding and tabulating the data.

Meanwhile, the secondary data were sources or information obtained from the Office of Cooperatives and MSME and the National Medium-Term Development Plan. The data collected were analyzed using a descriptive-quantitative data analysis with a scoring method and then presented in the form of tables, graphs, and images. The description of measurement results was used as data support.

4. Results and Discussion

The research entitled "COVID-19 pandemic as a Momentum for the Revival of Indonesian MSME E-Commerce" involved 75 Indonesian MSME actors spread across East Java, Central Java, West Java and several other regions. Data collection was carried out through online questionnaire distribution and interviews with the MSME actors. The respondents were expected to give their answers regarding the education level of MSME actors, marketing patterns before and after the COVID-19 pandemic, marketing media used before and after the COVID-19 pandemic, and the average income of MSME actors before and after the COVID-19 pandemic. A decision can be made directly on several alternative answers provided.

4.1. Marketing Models Influenced by Education Levels of MSME Actors

The educational background of the entrepreneur has a great influence on productivity, individual income and business sustainability (Haresankar et al., 2019). The high ability of human resources can improve the quality of one's life through the process of education, training and development, leading to increased work productivity. That is, the higher the education level of a business actor is, the higher the income generated will be (Nainggolan, 2016). The education level possessed by Indonesian MSME actors can be reflected in the following Table 1.

Table 1. The Effect of Education Levels of Indonesian MSME Actors on E-Commerce Acceptance

		Education Levels						Total
		SD (Elementary School)	SMP (Junior High School)	SMA (Senior High School)	Diploma (Associate's Degree)	S1 (Bachelor's Degree)	S2 (Master's Degree)	
Levels of E- Commerce Acceptance	Not Accepting	1	1	1	0	3	0	6
	Less Accepting	1	0	4	0	1	0	6
	Quire Accepting	0	2	2	5	15	3	27
	Accepting	0	1	7	1	9	4	22
	Very Accepting	0	0	4	3	5	2	14
Total		2	4	18	9	33	9	75

The data presented in Table 1 above shows that the educational background of the MSME actors is mostly S1 (bachelor's). The number of senior high school graduates and the equivalent employs the second position. The third place was filled by respondents with S2(master's degree) and Diploma(associate's degree). The rest is elementary and junior high school graduates. The highest level of e-commerce acceptance is dominated by MSME actors with a bachelor's degree. This indicates that the acceptance of technology especially e-commerce is influenced by education levels of business actors. These results are consistent with what was written by Kurniawati (2019) and Harensankar, Galappathth and Perera (2019) that education levels affect e-commerce acceptance. A study conducted by Wahyudi, Muafa and Awal (2019) states that education levels affect the ease of access of MSME owners to e-commerce media. Education levels influence the skills and abilities of business owners in managing their businesses. This knowledge is influenced by several aspects, including individual encouragement, analytical skills, creative and strategic thinking, results/ impacts, decision making, leadership, team management, commercial appraisal, adaptability, project management capabilities (Ardiana & Brahmayanti, 2010). Education is highly needed for developing a business (Priminingtyas, 2010). Education meant here is business knowledge or skills as well as other qualifications (Haresankar et al., 2019). The low level of education also influences access to MSME financing originating from other parties such as banks and other financial institutions. Business actors lacking knowledge are likely to be easily ensnared in debt with loadn sharks(Indiwo, 2016).

4.2. Changes in Indonesian MSME Marketing Patterns Before and After the COVID-19 Pandemic

The spread of COVID-19 has a significant impact on the pattern of the world economy, causing various policies emerged, such as the implementation of physical distancing and Large-Scale Social Restrictions (PSBB). This also directly limits the movement of economic actors (Muhyiddin, 2020). The implementation of physical distancing and PSBB is followed up with operational restriction regulations or even the closure of shops, malls, cafes, restaurants, offices, etc. The government urges that all human activities had better be carried out from home (Hamid, 2020). The policy brought operational changes in almost all sectors including MSMEs, as shown in Table 2 below.

Table 2. Changes in Indonesian MSME Marketing Patterns Before and After the COVID-19 Pandemic

Model	Before the Pandemic		After the Pandemic	
	F	%	F	%
Offline	18	24.00	7	9.33
Online	16	21.33	41	54.67
Offline, Online	41	54.67	27	36.00
TOTAL	75	100.00	75	100.00

Data on changes in marketing patterns carried out by MSME actors were obtained by looking at the answers given by 75 respondents. In terms of marketing patterns, before the pandemic, 18 respondents (24.00%) used the offline model, 16 respondents (21.33%) used the online model and 41 respondents (54.67) used the offline-online model. After the pandemic, the numbers changed to only 7 respondents (9.33%) using the offline model, 41 respondents (54.67%) using the online model, and 27 respondents (36.00%) using the offline-online model. Due to this pandemic, the use of the offline model decreased by 14.67%, the use of the online model increased by 33.34% and the use of the offline-online model decreased by 18.67%. These results indicate that the COVID-19 pandemic has caused MSME actors to use the online model in marketing their products and services.

The COVID-19 pandemic resulted in a decrease in the use of the offline method by 14.67%. The increase occurred in the use of online media by 33.34%. Meanwhile, the use of the combined offline and online method

decreased by 18.67%. Many government policies and the COVID protocol implementation have caused Indonesian MSMEs to operate their businesses only by the online method.

This pandemic is also able to change the business behavior of MSME actors in conducting their businesses. Even though the impacts of the COVID-19 pandemic are very much felt by various industrial sectors, this does not mean that MSME actors must stop running their businesses. However, MSMEs can continue to run their businesses through an online system (e-commerce), not violating the government regulations related to social distancing (Awali & Rohmah, 2020). Changes in marketing patterns occur as business actors' reaction in dealing with several government policies made to inhibit the spread of COVID-19. The closure of workplaces is the major obstacle for business actors. They must be able to survive in this very limited condition. Ideally, an entrepreneur has the capacity and competence to innovate and be creative. The changing marketing model aims to enable MSME actors to turn challenges into opportunities that help them survive (Satrio, 2018). Business operations are no longer able to run directly or offline due to this pandemic.

As a result, some of them inevitably switch to using the online method by using technology. This method must be used to adjust to new technological innovations (Keh, Nguyen, & Ng, 2007). Through the role of technology, business activities and goods distribution can still be done (Awali & Rohmah, 2020).

New technology such as e-commerce is a type of innovation that can strengthen management in the fields of marketing, human resources, finance, business operations in the current pandemic (F. Wahyuni et al., 2019). Digital marketing or e-commerce is appropriate to be developed to reach the community on a wider scale (Tasruddin, 2015). This stage is an answer to the restrictions on business operations and also changes in consumer shopping models. It can be said that e-commerce is the online commerce process through electronic technology both in marketing and promoting products and services to reach a wider market, build a closer relationship with customers, and provide satisfaction to consumers (Chaffey & White, 2010). Today consumers are smarter and more demanding. They expect more in terms of quality, renewal, and price. Innovative skills are therefore needed to satisfy consumer needs to maintain them (Keh et al., 2007).

4.3. Marketing Media Used Before and After the COVID-19 Pandemic

The current technological advancement encourages humans to do activities faster and easier, which is seen in the telecommunication sector. Telecommunication advancement makes the relationship between people in terms of communication borderless and easy (without obstacles, especially distance). The internet is one of the advancements in the field of communication technology that is growing rapidly. The internet provides convenience in communication and certain interests. The revolution of information technology and information is always changing from day to day, automatically changing the way people do business today. This digital era can be a crucial point for all human activities that can support business activities. This is an indicator influencing the rising costs of digital marketing and smartphone sales that provide ease of service (Chaffey & White, 2010).

Table 3. Indonesian MSMEs' Marketing Media Before and After the COVID-19 Pandemic

No	Name of Media	Before the Pandemic		After the Pandemic	
		F	%	F	%
1	Whatsapp	51	68.0%	64	85.3%
2	Instagram	37	49.3%	45	60.0%
3	Facebook	38	50.7%	41	54.7%
4	Cooperation with Gojek	17	22.7%	19	25.3%
5	Cooperation with Grab	11	14.7%	13	17.3%
6	Cooperation with Nugek	0	0.0%	0	0.0%
7	Lazada	1	1.3%	1	1.3%

8	Shopee	10	13.3%	10	13.3%
9	Blibli	0	0.0%	0	0.0%
10	Tokopedia	8	10.7%	9	12.0%
11	Bukalapak	8	10.7%	7	9.3%
12	Developing personal website	4	5.3%	3	4.0%
13	Other media	1	1.3%	3	4.0%

The table above shows some marketing media used by the MSME actors before and after the pandemic. The use of Whatsapp as a marketing tool was chosen by 51 respondents (68.0%) before the pandemic and chosen by 64 respondents (85.3%) after the COVID-19 pandemic. Meanwhile, Instagram was applied by 37 respondents (49.3%) before the pandemic and it increased to 45 respondents (60.0%) after the pandemic. The other media experiencing increased use was Facebook, which was applied by 38 respondents (50.7%) before the pandemic and 41 respondents (54.7%) after the pandemic. From these results, we can categorize media selection based on 4 groups, namely social media, collaboration with inter-service providers, marketplaces, and web creation. From the fourth groups, the use of social media is the most preferred and interesting choice of MSME actors to be used as a marketing tool for their products and services.

Social media is the easiest-to-use digital marketing tool, stimulating the development and sustainability of MSMEs. In addition to the low cost and needlessness for special expertise in conducting initiation, social media is considered capable of directly engaging potential customers. Therefore, it is not surprising that business actors precisely emphasize the use of social media compared to the development of a website.

To capture market share and consumers, it is clear that business actors should be able to understand the role of the digital world or online media-based sales which today has a big impact amid conditions where people cannot travel. By utilizing online media, people will be easier to meet their needs, given that the digital world is currently preferably by the wider community. The most often used online platform in digital marketing is social media. The available social media sometimes has different characteristics. Some media are only intended to make or connect with friends such as Facebook, Instagram and Twitter while some others have a specific purpose to find and build business and career professionals' network such as LinkedIn. There are also more personal media such as electronic mail (e-mail) and text messages. In addition to the use of these media, business actors can also utilize other media, such as blog and personal websites. Data reported by We Are Social, an agency of digital marketing in America, states that the most widely used social media in Indonesia as of January 2017 is Youtube (49%) and Facebook (48%). The next positions are occupied by Instagram (39%), Twitter (38%), Whatsapp (38%), and Google (36%). The rest are occupied sequentially by FB Messenger, Line, LinkedIn, BBM, Pinterest, and Wechat (Kemp, 2017). The importance of business management for business actors in the MSME sector can be seen in several management strengthening areas, namely marketing, human resources, finance and operations (E. D. Wahyuni & Wibawani, 2020). In the marketing area, business actors should develop a digital marketing system that is on target and able to reach a wider community (Rangkuti, 2013; Tasruddin, 2015), for example, by distributing brochures in strategic locations, and conducting promotions through radio, newspapers, social media such as Facebook, Instagram, Whatsapp, and so on. In terms of strengthening human resource management, developing knowledge, insight and skills so that they can manage their businesses to be more planned and well organized (Sandiasa dan Widnyani, 2017). Strengthening in financial management includes effective and efficient financial management related to capital access and bookkeeping/ financial administration (Putri, 2017; Setyawardani, Widayaka, Sularso, & Wakhdiati, 2019). Finally, strengthening in operational management covers quality improvement, cost efficiency and appropriate distribution targets (Fitriyani, Sudiyarti, & Fietroh, 2020).

4.4. Average Income of MSME Actors before and after the COVID-19 Pandemic

During this pandemic, the world economy including Indonesia experienced a slowdown (Muhyiddin, 2020). The COVID-19 pandemic has a large impact on the sustainability of Micro, Small and Medium Enterprises (MSMEs). Due to the policy of Large-Scale Social Restrictions, offices and most industries are prohibited from operating, for a relatively long period, automatically causing economic losses (Hadiwardoyo, 2020). Based on the survey results, as many as 96% of business operators claimed to have experienced the negative impact of COVID-19 on their business processes (Soetjipto, 2020). Table 3 below shows changes in the income of Indonesian MSME actors before and after the COVID-19 pandemic.

Table 3. Average Income earned from each MSME Marketing Model in Indonesia before and after the COVID-19 Pandemic

No.	Marketing Model	Average Income (Before the Pandemic)	Average Income (After the Pandemic)
1	Offline	Rp 1,867,547	Rp 733,333
2	Online	Rp 640,467	Rp 490,320

After the emergence of the COVID-19 pandemic, the Indonesian MSMEs' average income using offline and online marketing models both experienced a decline. With the offline marketing model, the average income of Indonesian MSME actors decreased by IDR 1,134,214 (60.73%) after the pandemic. Meanwhile, with the online marketing model, the average income of Indonesian MSME actors decreased by IDR 150,147 (23.44%) after the pandemic. The decreased income resulted from the decision of some MSME actors to stop their business operations after the government officially appealed people to work from home, close public service agencies, and obliged people to wear masks and do physical distancing, and even in mid-May 2020 implemented the PSBB (Large-Scale Social Restrictions). Loss of income is mainly due to no sales obtained but some expenses still occur. Real losses will vary depending on what type of expenditure is still being made. Among the relatively fixed expenses are rent of premises (or depreciation of buildings if it is self-owned) along with routine costs that accompany it, staff salaries that are not possible to be laid off due to various reasons, security, payments to suppliers that can no longer be delayed, etc.

5. Conclusion

From the results of the research above, it can be concluded that the marketing model is influenced by the education background of MSME actors. The higher the MSME actors' education level is, the higher their acceptance of the use of e-commerce. There are changes in marketing patterns before and after the COVID-19 pandemic. After the emergence of the COVID-19 pandemic, MSME actors prefer to use the online method in marketing their products and services. Social media is the most-often used marketing media both before and after the COVID-19 pandemic. This is because social media is the easiest digital marketing tool to use. However, the average income of MSME actors in all marketing models has decreased after the COVID-19 pandemic. The results of this study are expected to be able to provide additional knowledge for MSME actors so that they can take advantage of e-commerce more in managing their business.

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