

Analysis Of Differences In The Productivity Of Msmes Sentra Rajut As A Pandemic Impact Of Covid-19

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Article History: Received: 10 January 2021; Revised: 12 February 2021; Accepted: 27 March 2021; Published online: 20 April 2021

Abstract: The resilience of Micro Small Medium Enterprises (MSMEs) in Indonesia is currently being tested in the face of the impact of the economic downturn due to the Covid-19 pandemic. This condition also resulted in a decrease in the productivity of the knitting centers of SMEs, including the Binong Jati knitting center in Bandung City, as a result of the Covid-19 pandemic. The purpose of this study is to analyze differences in productivity before the pandemic and after the pandemic has hit the world. The method used is to use a different test between two interconnected samples. The population in this study were MSMEs which are members of the Binong Jati Rajut Center with a sample of 9 MSMEs. Result From this study, from 9 MSMEs, only 3 MSMEs experienced an increase in productivity even though the pandemic took place. From the different tests carried out, it was found that there was no change in productivity between before and after the pandemic.

Keywords : Productivity, Knitting Center, Pandemic, UMKM / MSMEs

1. Introduction

Productivity is a form of foreign loanwords taken from English, namely productivity. However, productivity is itself a merger of two nouns (noun), product and activity. Productivity has three important factors, among others: (1) the effectiveness are important values of accuracy in selecting methods to perform and produce something that is able to achieve the target of a business/organization; (2) efficiency will be used to assess accuracy/accuracy in carrying out an activity by saving and managing the resources the company already has; and (3) the quality produced by the company will state and emphasize how far the level of product fulfillment is against various requirements, specifications, to expectations of consumers, and even the general public (Posen and Zettelmeyer, 2019). For this reason, every industry or business that is run by an organization / company or individual, needs to understand and carry out its business activities productively, including businesses at Micro, Small and Medium Enterprises (MSMEs).

MSMEs are a form of productive business owned by individuals and business entities and have met various criteria in running a business, both as micro, small and medium enterprises. This has been regulated in statutory regulations, namely as stipulated in the Law of the Republic of Indonesia No. 20 of 2008 concerning Micro, Small and Medium Enterprises (UMKM), in which the criteria for MSMEs are differentiated separately, namely covering micro, small and medium enterprises. MSMEs have become the driving force for the Indonesian economy, because when talking about business and the economy, especially regarding the business world in Indonesia, the community is faced with a term that plays a major role in current economic conditions, namely MSMEs. One of them can be seen from the business aspect or the management of MSMEs itself, which still has a close relationship or relevance to the state of the economy of society at various levels, but in the form of non-corporate economic enterprises (Tambunan, 2009).

MSMEs have been able to develop into the backbone of the Indonesian economy, even at the ASEAN level. This condition can be observed from about 88.8 to 99.9% form of business in the ASEAN region is in the form of micro, small and medium enterprises with employment able to reach 51.7 to 97.2% (Herwiyanti et al., 2020). In addition, businesses at the MSMEs level have a proportion of 99.99% of the total business actors in Indonesia or as many as 56.54 million units. In Indonesia, the development of the potential for MSMEs has been increasing rapidly and increasing since 2016 because one of them is the support from the banking sector in lending to MSMEs players. According to data from Central Bank of Indonesia, the value of credit to MSMEs players has grown every year. Even though in 2015, around 60% -70% of all MSMEs sectors did not have access to financing through banks, Bank Indonesia has issued regulations requiring banking entities to allocate credit / financing to MSMEs, starting in 2015 at 5%, year 2016 was 10%, 2017 was 15%, even at the end of 2018 until now it was 20% (Wilantara and Susilawati, 2016). This condition is increasingly encouraging and able to motivate people to have high

enthusiasm in running MSMEs productively. One of the MSMEs sectors that experienced rapid growth at that time was the handicraft sector (craft industry).

The knitting center in the Binong Jati area is one of the 10 potential creative industry centers in Bandung City in absorbing labor and has a real contribution to the economic sector in Bandung City. This knitting center can produce handicrafts or various knitting products, such as sweaters, gloves, scarfs, jackets, muslim clothing, and others. The knitting industry is one of the industries that plays a crucial role in the creative sector and has long been developing in the city of Bandung. MSMEs knitting centers in Binong Jati have started since 1975. In early 1975, the number of knitting entrepreneurs was only around 8-10 business units, but because the demand for knitting products was increasing, the surrounding residents were interested in developing knitting businesses. Then, more and more local residents began to develop their own knitting businesses on a small scale, where knitting machines were only simple and manual knitting machines. Over time, this knitting center UMKM in Binong Jati experienced a drastic increase in the 90s. This was indicated by almost all craftsmen being able to modernize knitting machines extensively due to the soaring demand for knitting products at that time, both from within and outside the country.

However, the resilience of MSMEs in Indonesia is currently being tested in the face of the impact of the economic downturn due to the Covid-19 pandemic. This condition also resulted in a decrease in the productivity of knitting centers, including the Binong Jati knitting center in Bandung, as a result of the Covid-19 pandemic. According to Suhaya Wondo, coordinator of the knitting center in Binong Jati, the impact of the Covid-19 pandemic has made the economy of the craftsmen in the knitting center plummet by 70% (quoted from ayobandung.com). This is because one of the shipping centers that accommodate most of the products from the knitting center in Binong Jati, namely the Tanah Abang Market in Jakarta, is often closed temporarily. It cannot be denied, the impact of the increasing number of victims exposed to Covid-19 in Jakarta, including in the Tanah Abang Market, has "forced" market managers to often extend market closures, even being closed indefinitely.

2. Literature Review

Productivity

The term productivity has different meanings for different individuals, and its use is also tailored to the needs of the wearer. In the Production and Operations Management science, the term is used to measure the efficiency of the productivity of the individual, machine, manufacture or alter the system in inputs into outputs desired (Sickles and Zelenyuk, 2019). The meaning of input in terms of productivity can be in the form of resources utilized by the organization, such as capital, labor/employees, materials to energy, while output can be in the form of the number of product units or the income generated. The measure of productivity is usually expressed in the form of a ratio that compares output to input, which is used in a production process / operation or output per unit input.

Measurement of employee or labor productivity is carried out by all company management parties so that they can monitor the performance and achievements that can be achieved by every employee/workforce in a company or organization (Hollnagel, 2020). One of the goals of measuring productivity within a company towards employees is to obtain information and an assessment of the types of ratios that will be applied from several types of existing productivity values, where the value of productivity to added value will be able to assess the increase in productivity and the distribution of results continuously. because added value will be the source of the sharing of production at the economic level (Duvall and Hillis, 2011).

Through productivity measurement, this will help company/organization management to measure and assess the performance of an employee. Then, the results of the performance appraisal and employee performance will become a standard for the management of the company / organization to take appropriate action. If the achievement or performance appraisal process can be carried out objectively and honestly, then this will increase employee motivation to continue working more productively. In addition, the process of assessing or measuring the productivity of these employees will allow employees to receive training, be promoted, be given compensation or incentives, until they are effectively and constructively demoted (Das, 2018).

There are several benefits that an organization/company can get when measuring productivity (Gaspersz, 2000), including:

- a. The company will obtain concrete information and be able to assess the efficiency of various resources owned by the company in an effective and continuous manner.
- b. Efforts or activities in the resource planning process within the company will run more efficiently, effectively, and on target in accordance with the vision and mission of the organization or company.
- c. Companies are able to realign and reinforce economic and non-economic objectives, through prioritization based on productivity values.

- d. The company will be able to change the planning of targets / productivity level targets carried out in the future based on the productivity level of the company at this time (existing conditions).
- e. The company can establish a strategy to improve the productivity condition of the company by referring to the productivity gap contained in the planning stage or level and the factors that can be measured.
- f. Companies can obtain data and information related to the current productivity value, then it can be compared with other competitors accurately and effectively.
- g. Companies can take and establish competitive actions quickly and accurately as concrete steps / steps to increase company productivity in a sustainable and measurable manner.

Micro, Small and Medium Enterprises (MSMEs)

In general, the definition of Micro, Small and Medium Enterprises (MSMEs) is a productive business in the economic field, especially trade, and is run or managed by an individual or a business entity and meets the criteria as a micro, small, or medium-sized business. In more detail, several experts explain the definitions related to this MSMEs, including:

- a. MSMEs are efforts carried out by various levels of society and have an important role in the Indonesian economy, both from the aspect of employment created and from the aspect of the number of concrete businesses (Rudjito, 2003).
- b. MSMEs are the development of 4 (four) main economic activities that have become the motor of development in Indonesia, in the form of the manufacturing industry, agribusiness, marine business, creative industry, and human resources. In addition, MSMEs can also be interpreted as a form of mainstay area development to accelerate economic recovery in order to accommodate priority programs and development of various industrial sectors and economic potentials that have been determined by the government, where MSMEs have become an increase in various community empowerment efforts (Primiana, 2009).
- c. MSMEs is an economic activity for people who have a maximum net worth of IDR 200,000. 000, - (two hundred million rupiah) where the land and building where the business is not taken into account or the business actor who has an annual turnover / value of at most Rp. 1,000,000,000 (one billion rupiah) and belongs to an Indonesian citizen (Kwartono, 2007).

One of the key success factor of MSMEs is able to plan and build competitive advantage continuously, so that SMEs have a role and a function that is very crucial to the economic conditions in Indonesia (Setyawati, 2014), among others:

- a. **Opening Job Opportunities**
MSMEs will open up new job opportunities for the surrounding community, because MSMEs have lighter job requirements and can be fulfilled by various levels of society with low levels of education or without special and high qualifications. In addition, MSMEs can be an opportunity for people to earn income without having to leave their daily activities that cannot be left behind. For example, housewives can join in micro or small businesses and become craftsmen or workers in the culinary field.
- b. **Encouraging the Conditions of Economic Equity in Society**
MSMEs is one of the efforts for a country to be able to realize economic conditions evenly, even through this MSMEs, economic conditions in small cities and rural areas can also be encouraged and increase. People can also access a variety of products and services directly in the area around their residence, without having to go to big cities just to fulfill various needs, so that economic conditions in rural areas are not far behind compared to urban areas.
- c. **Increase Foreign Exchange and State Revenue**
Foreign exchange is one aspect that is able to show the actual economic condition of a country. If the economic value is high, then this country has a high economic condition and can be seen as a developed nation. The presence, management, and massive and extensive increase of MSMEs will indirectly increase foreign exchange and state revenues. For example, advanced MSMEs are able to produce quality goods that attract the attention of international consumers. If MSMEs frequently export goods to various countries (abroad), the country will receive additional income. Moreover, international buying and selling activities can easily be done online .
- d. **Spurring Economic Conditions in Critical Situations**
MSMEs have been proven to be able to revive the economy when the country is experiencing a critical situation due to various factors. In 1997, the monetary crisis that occurred in Indonesia was successfully overcome because the MSMEs sector continued to develop rapidly, so that even though Indonesia was experiencing a monetary crisis, the people were still able to consistently meet their primary needs. The same thing happened again when the Covid-19 pandemic had hit Indonesia, even the whole world. In the midst of suggestions or policies not to do activities outside the home (work from home), MSMEs can adapt through the supply of goods or services by utilizing information technology (online) and still be able to meet people's needs, so that economic conditions will continue and gradually economic conditions can bounce back and improve as before.
- e. **Understanding and Meeting Community Needs**

MSMEs are carried out by the small community themselves, where these businesses generally better understand the needs that are often required by various levels of society. The products produced often accurately meet the needs of the community in the field. In addition, MSMEs players must also obtain raw materials for production from the surrounding environment or local producers. This can provide additional benefits for the surrounding community, as well as become a consumer and increase the cycle of the economy in a more rapid, massive, and continuous manner.

3. Research Methodology

The technique used in analyzing the data that has been obtained is descriptive analysis and verification analysis. This technique is used to obtain a picture of productivity before a pandemic and productivity after a pandemic. The sampling technique used was Purpose Sampling, by taking a sample of 9 (nine) MSMEs who are members of the Binong Jati Rajut Center Community.

The variables studied were the knitting production of each MSMEs and the number of employees who worked during the period before and after the corona pandemic. The stage of the analysis carried out is to find the productivity value using a comparison formula between the output and input of each MSMEs. While the output is obtained from comparing the turnover value with the assumption that the price of each production is IDR 25.000. The next stage of productivity data before and after the pandemic will be compared using a two-sample difference test that is related to determine whether there is a difference or no difference in the level of productivity between before and after the pandemic. Data collection techniques using questionnaires, observation and literature study.

4. Results and Discussion

Descriptive Analysis

The data collected contains information about the average turnover before and after the pandemic and the number of employees before and after the pandemic. The data is processed to obtain productivity values. The amount of production per MSMEs is obtained by assuming the price of each product is IDR 25.000 then the average turnover before and after the pandemic is divided by the assumed price of each product. The productivity value is obtained by comparing the amount of production with the number of employees. In this case the productivity value is obtained for each existing employee.

Table 1. Productivity Value Before and After Pandemic

UMKM/MSMEs	Productivity Before Pandemic	Productivity After Pandemic	Difference
1	25.00	285.71	1043%
2	272.73	100.00	-63%
3	13.33	0.01	-100%
4	30.00	0.00	-100%
5	150.00	20.00	-87%
6	51.43	57.14	11%
7	186.67	213.33	14%
8	200.00	133.33	-33%
9	1333.33	857.14	-36%

Source: Data Processing (2021)

Table 1 provides an illustration that the pandemic has caused a decrease in the level of productivity in most of the Sentra Rajut MSMEs. There are only 3 (three) MSMEs that have experienced an increase in productivity. An increase in productivity of 104.3 times during the pandemic was only experienced by one SME Center for Knitting. The corona pandemic also caused a productivity halt experienced by 2 (two) MSMEs in Sentra Rajut.

Two-Sample Difference Test Correlated

Table 2. Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean	
Pair 1	Productivity Before	251.3878	9	416.09519	138.69840
	Productivity After	185.1844	9	270.33110	90.11037

Source: Data Processing (2021)

Based on Table 2, the productivity value before the pandemic is obtained by an average value of 251.3878, while for the productivity value after the pandemic the value is 185.1844. The number of respondents used as the research sample was 9 MSMEs. The standard deviation value of productivity before the pandemic is 416.09519 and productivity after the pandemic is 270.33110. N use values st a ndar error of the mean for productivity before the pandemic of 138.69840 and to productivity after a pandemic of 90.11037. N use values of productivity before the pandemic 251.3878> after the pandemic 185.1844 descriptive then that means there are differences in average levels of productivity between before a pandemic with the aftermath of a pandemic.

Table 3. Paired Samples Correlations

Pair	Correlation	Sig.
Productivity Before & Productivity After	0.923	0.000

Source: Data Processing (2021)

Table 3 shows the results of the correlation test or the relationship between the two data or the relationship between the productivity variables before the pandemic and the variables after the pandemic. Based on the output above, it is known that the correlation coefficient value is 0.923 with a significance value of 0.000. Because the significance value is $0.000 < \text{probability } 0.05$, it can be said that there is a relationship between the productivity variables before the pandemic and the variables after the pandemic.

Table 4. Paired Samples Test

Pair	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Productivity Before & Productivity After	66.20333	196.30398	65.43466	-84.68926	217.09593	1.012	8	0.341

Source: Data Processing (2021)

Research hypothesis formulation

H0 = there is no average difference between productivity before the pandemic and after the pandemic, which means that there is no effect of a pandemic in reducing the work productivity of MSMEs

Ha = there is an average difference between the productivity before the pandemic and after the pandemic, which means that there is no effect of a pandemic in reducing the work productivity of MSMEs

Guidelines for decision making in paired sample t-test based on significance values, namely:

1. If the value of t count > t table then H0 is rejected and Ha is accepted.
2. Conversely, if the value of t count < t table, then H0 is accepted and Ha is rejected

Based on Table 4 , it is known that the value of t - count is positive, which is equal to 1.012. This positive t-count is because the average productivity value before the pandemic is higher than the productivity value after the pandemic. From the output above, it is known that the df value is 8 and the value $0.05/2$ is equal to 0.025. This value is used as the basis to find the value of t-table on the distribution of t - table statistic. The t - table value is 2.306. Thus the value of t-count $1,012 < \text{t-table } 2306$ then Ho is accepted and Ha is rejected so that it can be concluded that there is no average difference between productivity before the pandemic with after the pandemic, which means there is no effect of the pandemic in a decrease in labor productivity of MSMEs.

Discussion

The description shows that a pandemic causes a decrease in productivity per person in the workforce . However, not all MSMEs have experienced a decline, there are 3 MSMEs that have experienced an increase even though a pandemic is hitting the world. After doing a difference test between two interconnected samples, it was found that there was actually no change in productivity during the pandemic. This means that the level of productivity of MSMEs between before and after the pandemic is stagnant and constant. In other words, MSMEs do need guidance to further increase productivity, especially during this pandemic.

5 . Conclusion and Suggestion

Conclusion

Based on the results of data processing and analysis that have been carried out, the following causes can be concluded:

a. The pandemic that has hit the world has caused a decrease in the level of productivity in most of the MSMEs in Sentra Rajut. Of the 9 (nine) MSMEs studied, there were 3 (three) MSMEs that experienced an increase in productivity. This pandemic also led to a halt in productivity experienced by 2 (two) MSMEs Rajut Centers. During this pandemic there is a difference in the average level of productivity compared between before the pandemic and after the pandemic. And there is a relationship between productivity before the pandemic and after the pandemic.

b. There is no effect of a pandemic on decreasing the work productivity of MSMEs s, this is indicated by no difference in the average productivity between pre-pandemic and post-pandemic productivity.

Suggestion

MSMEs need to increase their productivity through various aspects of management, both operational / production, marketing, finance, and human resources. To improve its performance in these aspects requires great attention and guidance from various parties, both from the government, the private sector through various corporate social responsibility programs, and academics. Various trainings and workshops need to be provided and attended by MSMEs to improve their abilities in operational / production, marketing, financial and human resources aspects as well as strategic management to prepare these MSMEs to face changes in the business environment whose dynamics are very fast and unpredictable such as the Covid-19 pandemic. this. Various trainings or workshops that need to be provided and attended by MSMEs include the Procurement of Raw Materials, Effective and Efficient Production Processes, Digital Marketing Strategies and Techniques, Increasing Entrepreneurial Motivation in Various Economic Conditions and so on.

Reference

1. Das, Deb Kusum. 2018. Productivity Dynamics in Emerging and Industrialized Countries. 1st Edition. New Delhi: Routledge India.
2. Duvall, Barry and David Hillis. 2011. Manufacturing Processes: Materials, Productivity, and Lean Strategies. 3rd Edition. Tinley Park: Goodheart-Willcox.
3. Gaspersz, Vincent. 2000. Manajemen Produktivitas Total: Strategi Peningkatan Produktivitas. Jakarta: PT. Gramedia Pustaka Utama.
4. Herwiyanti, Eliada, Margani Pinasti, and Novita Puspasari. 2020. Riset UMKM: Pendekatan Multiperspektif. Purwokerto: Universitas Jenderal Soedirman.
5. Hollnagel, Erik. 2020. Synesis: The Unification of Productivity, Quality, Safety and Reliability. 1st Edition. Philadelphia: Routledge.
6. Kwartono, Adi. 2007. Analisis Usaha Kecil dan Menengah. Yogyakarta: Andi Offset.
7. Posen, Adam and Jeromin Zettelmeyer. 2019. Facing Up to Low Productivity Growth. Washington: Peterson Institute for International Economics.
8. Primiana, Ina. 2009. Menggerakkan Sektor Riil UKM dan Industri. Bandung: Alfabeta.
9. Rudjito. 2003. Strategi Pengembangan UMKM Berbasis Sinergi Bisnis. Jakarta: Lembaga Pertahanan Nasional Republik Indonesia.
10. Setyawati, Amelia. 2014. Keunggulan Bersaing dan Kinerja UMKM: Tinjauan Empirik terhadap Pengembangan Usaha. Jakarta: MNC Publishing.
11. Sickles, Robin C. and Valentin Zelenyuk. 2019. Measurement of Productivity and Efficiency: Theory and Practice. Cambridge: Cambridge University Press.
12. Tambunan, Tulus. 2009. UMKM di Indonesia. Bogor: Ghalia Indonesia.
13. Wilantara, Rio F. and Susilawati. 2016. Strategi dan Kebijakan Pengembangan UMKM: Upaya Meningkatkan Daya Saing UMKM Nasional di Era MEA. Bandung: Refika Aditama.