

Research article

Reviewing the Impact of COVID-19 on the Performance of Small Industries in South Sumatra

Mukhlis^{1*}, Bernadette Robiani¹, Nazeli Adnan¹, Hamira¹, Dirta Pratama Atiyatna¹

¹ Department of Development Economics, Faculty of Economics, Universitas Sriwijaya, Indonesia

* Correspondence author email: mukhlis.fe@unsri.ac.id

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Abstract: In early 2020, the COVID-19 virus outbreak spread globally and had a negative impact on the economy. The large-scale social restriction policy implemented by the South Sumatra government to contain the development of the virus has had a negative impact on small industries. This study aims to analyze the impact of COVID-19 on small industries in South Sumatra Province. The data used are primary data from 60 samples of small industries and secondary data sourced from agencies. The analysis technique used is quantitative and qualitative analysis techniques. The results of the Wilcoxon signed test show that the COVID-19 pandemic has caused a decline in profits and labor in small industries in South Sumatra Province. Small industries have felt the negative impact of the presence of COVID-19 but they can still survive and it is easy for their businesses to get back on their feet. For this reason, various policies are needed to develop small industries in South Sumatra Province.

Keywords: COVID-19, impact, small industry, performance

JEL Classification: L10, L26, L60

Abstrak: Pada awal tahun 2020, wabah virus COVID-19 menyebar secara global dan memberikan dampak negative pada ekonomi. Kebijakan pembatasan sosial berskala besar yang dilakukan pemerintah Sumatera Selatan untuk menahan perkembangan virus berdampak negatif bagi industri kecil. Penelitian ini bertujuan untuk menganalisis dampak COVID-19 pada industri kecil di Provinsi Sumatera Selatan. Data yang digunakan data primer dari 60 sampel industri kecil dan data sekunder yang bersumber dari instansi. Teknik analisis yang digunakan yaitu teknik analisis kuantitatif dan kualitatif. Hasil the Wilcoxon signed test menunjukkan bahwa pandemic COVID-19 menyebabkan penurunan keuntungan dan tenaga kerja di industri kecil Provinsi Sumatera Selatan. Industri kecil telah merasakan dampak negatif dari kehadiran COVID-19 tetapi mereka masih dapat bertahan dan bisnis mereka mudah untuk bangkit kembali. Untuk itu diperlukan berbagai kebijakan untuk mengembangkan industri kecil di Provinsi Sumatera Selatan.

Kata Kunci: COVID-19, dampak, industri kecil, kinerja

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1. INTRODUCTION

The development of small industries in South Sumatra is not separated from the factors that drive the growth of the small industry, such as the utilization of technology, information and communication facilities, ease of borrowing of venture capital, decreased final PPH rates. However, the growth is considered still slow because some of these factors are considered not very effective, one of which is in the business taxation section (Dhora, Nairobi & Taher, 2022; Mukhlis, 2020). In the midst of its development, small industry in South Sumatra in early 2020 was again tested in the face of economic impact due to the spread of corona virus or Corona Virus Disease 2019 (COVID-19)

and its impact is increasingly felt in the economy in a massif, especially in terms of consumption, corporations, financial sector, and small industry. Small industry players in South Sumatra have begun to face various business difficulties since the COVID-19 outbreak spread in the country. Based on info from the Indonesian Association of Small and Medium Enterprises (MSMEs), small industry turnover began to fall since February 2020. Even as of March 2020, there are a number of small industries that have no income at all. In fact, there are some small industries that are laying off their employees due to financial difficulties (Rahmi & Sumirat, 2021).

Emergency response status applied in some areas due to coronavirus outbreak, left small industrial workers out of work and forced to return home. The impact of the small industrial sector due to the Coronavirus outbreak has actually been predicted by the Lipi Economic Research Center (P2E LIPI). The slowdown in the global economy due to the Coronavirus outbreak will have a significant impact on the economic viability of the small industrial sector, especially on the food and beverage business unit. If not careful in its handlers, there could be many small industries that will close businesses, both temporary and even permanent. The role of small industry players in the midst of the outbreak to maintain growth is very important. Currently what the government needs to do is to contain the spread of COVID-19. Because, holding back the rate of COVID-19 spread will have an effect on the economy. The question is, how long can it last, and how many industry players can survive?. Therefore, the government needs to take real steps to protect small industries affected by COVID-19. As experienced by some small industries in America that have temporarily closed businesses since the COVID-19 and are still waiting for further policies from its government regarding subsidy policies to small industries affected by COVID-19 (Fairlie, 2020).

South Sumatra has several small industries that are dominant and are found throughout the district/city which is the scope of the administrative area. These small industry groups include small food industries (to know, crackers, chips); small industries and leather (convection), as well as small industries of chemicals and building materials (furniture). This small industry group does not escape the pressure of not being able to do business activities because there are no community activities. The problems facing small industries due to COVID-19 vary, ranging from falling sales turnover, raw material difficulties, falling demand, to difficulty distributing (Mukhlis et al., 2017). This issue makes the ability to meet credit obligations impaired, not to mention to meet household needs, and salaries, as well as other costs. This will have a profound effect on the inertia of small industries.

However, there are several factors that make the small industry in South Sumatra still able to survive the COVID-19 outbreak. First, generally small industries produce consumer goods and services that are close to the needs of the community. The drastically declining public income does not have much effect on the demand for goods and services produced. Small industries can still move and absorb labor despite limited numbers and in COVID-19 situations; second, small industries generally utilize local resources, both human resources, capital, raw materials, and equipment; and third, generally small industries are not supported by loans from banks, but rather from their own funds (Bartik et al., 2020; Shen et al., 2020).

Based on the phenomenon, this study will examine the effect of COVID-19 on the performance of small industries in South Sumatra. Performance indicators that will be used as a basis for study are economies of scale that will be calculated from several other indicators such as marketing costs, raw material and transportation costs, wages, and profits in small industries. In addition, it will try to formulate a proposed strategy that can be carried out by small industries in an effort to stay afloat during the COVID-19 pandemic (Shafi, Liu, & Ren, 2020).

Crick & Crick (2020) in his study of the collaborative marketing strategy of the pharmaceutical industry in Canada in the COVID-19 pandemic crisis, found: (1) co-marketing can be an effective business-to-business marketing strategy in a pandemic and has the potential to benefit organizations involved in partnerships; (2) cooperative activities consist of cooperative and competitive forces, where decision makers must be careful with which competitors they collaborate with, as there can be adverse results on their performance; and (3) after the COVID-19 outbreak ends, there are questions about whether this existing co-optasi strategy will continue, or be discontinued in the future.

Other research on the decision to reopen businesses and confirm demand during the COVID-

19 pandemic by Balla-elliott, Cullen, Glaeser, & Stanton (2020), against small business owners in the United States found that the reopening of small companies was more driven by their economic need to survive than by their concerns about public health. Several other findings underscore that the reopening decision is closely related to expectations about future demand. If the downstream business is not opened, this will affect the performance of their business. Kawaguchi & Kodama (2020), in its review of the short and medium-term effects on small businesses in Japan as a result of the COVID-19 anti-ultran policy found that: (1) anti-contagion policies in Japan have decreased sales turnover by 5 points each month; (2) government assistance improves the prospects for small businesses to survive, but small industries do not yet expect to use short-term employment compensation, which requires additional review, time, and cost; and (3) business owners expect a medium-term recovery from their business performance and rely heavily on when the infection will end. Thus, strict short-term anti-contagion policies can complement long-term economic goals.

On the other hand, the study of how to help small businesses to survive COVID-19, conducted by Baker & Judge (2020) small businesses in the United States. Small businesses are among the business groups hardest hit by COVID-19. Government intervention is necessary to assist small businesses by cooperating and coordinating with other relevant parties/ institutions to provide full access to adequate financing for small businesses to survive the shock of the COVID-19 pandemic. Study by Papadopoulos, Baltas, & Elisavet (2020), discussed the use of digital technology by small and medium-sized businesses during COVID-19. The role of digital technology has an important role in improving productivity and performance in Small and Medium Enterprises (SMEs). The benefits of digital technology will secure business continuity during extreme disruptions and shocks to the global community.

Other research conducted by Harel (2021), about new evidence of how small business owners are affected by COVID-19, and how these effects have evolved since the restrictions took effect. Found a few things: 9(1) at the time of the restrictions, small business owners surveyed were already severely affected by COVID-19-related disruptions, and most business owners had laid off at least one worker; (2) negatip expectations from the owner about the period of expiration of the pandemic period because it is difficult to predict; (3) the smallest businesses have the lowest awareness of government assistance programs, the slowest growth of awareness after the authorization of restrictions by the government; and (4) small businesses have lost initial funding of the Salary Protection Program due to low basic awareness and different access to information towards larger companies.

Fairlie (2020) in his research on small business owners after the first three months of the enactment of social restrictions in Massachuset, found that most small businesses temporarily shut down their businesses and insanized considerable losses in their business activities. If left behind will have a permanent impact on small businesses and will affect macroeconomic growth. The variable is economies of scale, related to the impact of the COVID-19 pandemic. According to Kim (1995) and Kuncoro (2012), the larger the economies of scale, the better the performance of the small industry. While according to Harel (2021), the COVID-19 pandemic has had a negative effect on the performance of small industries, as a result of declining economies of scale of small industries.

On the other hand, Baker et al. (2020), in their study of economic uncertainty as a result of the COVID-19 pandemic, it found about half of the expected output contraction reflected the negative effects of the uncertainty caused by COVID-19. The COVID-19 pandemic has created a huge shock of uncertainty, even greater than the financial crisis of 2008-09 and more akin to the increased uncertainty during the Great Depression of 1929-1933. Study by Bartik et al. (2020) in its study of how small businesses are adjusting in the COVID-19 era to 5,800 small businesses in the United States found: (1) Mass layoffs and closures have occurred. In our sample, 43 percent of businesses closed temporarily, and businesses - on average - reduced their number of employees by 40 percent compared to January; (2) many small businesses are financially vulnerable; (3) businesses have very diverse beliefs about the possible duration of Covid-related disruptions; and (4) the majority of businesses plan to seek funding through the Corona virus Aid, Relief, and Economic Security (CARES) Act, but are still constrained by bureaucracy and difficulty meeting collateral.

Studies related to the impact of COVID-19 on business units are still interesting to study in depth, therefore the purpose of this study is to examine the impact of COVID-19 on the performance of small industries in South Sumatra in particular. After the introduction, we will present the research methods section in part two of this article. The third part is the results and discussion, and the last part is the conclusion.

2. RESEARCH METHODS

The research is focused on analyzing the impact of the COVID-19 pandemic on the performance of small industries in South Sumatra. The data in this study consisted of secondary data and primary data. Data sources were obtained from the Central Bureau of Statistics of South Sumatra, Bank Indonesia, and the Office of Industry and Trade of South Sumatra Province. Meanwhile, primary data was obtained by distributing questionnaires compiled in the form of an online questionnaire (google form) which were distributed to small business actors based on respondent identity information obtained from a data base of small business actors obtained from the Department of Industry and Trade. South Sumatra Province which includes data on the number of workers, wages, output, raw material costs and marketing costs.

The population in this study is a group of small industries in districts/cities in South Sumatra. Determination of the sample was carried out by purposive sampling by first selecting the dominant industrial group and found in all districts/cities in South Sumatra. Small industries are grouped into two, namely small food industries and small non-food industries, because these two industrial groups dominate in South Sumatra. The sample in this study were 60 people, with details of 40 food industry groups and 20 small non-food industry groups.

The analysis technique uses a qualitative and quantitative descriptive approach. Quantitative analysis using a different test, namely the Wilcoxon signed test aims to analyze the profits and workforce of small industries in South Sumatra Province before and during the COVID-19 pandemic. Then a qualitative descriptive analysis formulates a simple strategy using Strengths, Weaknesses, Opportunities and Threats (SWOT) to analyze how small industries survive in the era of the COVID-19 pandemic.

3. RESULTS AND DISCUSSION

The Wilcoxon test is used to compare two paired samples to perform a paired difference test on one sample. This test aims to compare whether there are differences in profits and labor before and during COVID-19. The selection of the Wilcoxon test is based on data that is not normally distributed (Krishnamoorthy, 2020).

Table 1. Ranking results of the Impact of COVID-19 on small industry profits

Wilcoxon test		N	Mean Rank	Sum of Ranks
Profit During COVID-19 - Profit Before COVID-19	Negative Ranks	52 ^a	16.11	499.50
	Positive Ranks	3 ^b	28.50	28.50
	Ties	5 ^c		
	Total	60		

Note: (a) Profit During COVID-19 < Profit Before COVID-19; (b) Profit During COVID-19 > Profit Before COVID-19; (c) Profit During COVID-19 = Profit Before COVID-19

Source: Authors calculation

The negative ranks value shows the difference between profit during COVID-19 and profit before COVID-19 which has a negative value of 52 data. The average value for a negative sign is 16.11 while the average positive value is 28.50. The positive value of ranks shows the difference between profit during COVID-19 and profit before COVID-19 which has a positive value of 3 data. The test results also show that there are 5 data where profit values before COVID-19 are the same as during COVID-19. Test results show that overall during 2020 small industry profits reduced by more than 70 Percent due to the COVID-19 outbreak. The results of the Wilcoxon signed test on the impact of COVID-19 on small industry workers are as follows:

Table 2. Ranking results of the Impact of COVID-19 on small industry workers

Wilcoxon test		N	Mean Rank	Sum of Ranks
Workforce During COVID-19 – Workforce Before COVID-19	Negative Ranks	39 ^a	10.55	211.00
	Positive Ranks	3 ^b	20.00	20.00
	Ties	18 ^c		
	Total	60		

Note: (a) Workforce During COVID-19 < Workforce Before COVID-19; (b) Workforce During COVID-19 > Workforce Before COVID-19; (c) Workforce During COVID-19 = Workforce Before COVID-19

Source: Authors calculation

Based on the ranks results in testing the impact of COVID-19 on the workforce, the negative ranks value shows the difference between the workforce during COVID-19 and the workforce before COVID-19 which has a negative value of 39 data. The average value for the negative sign is 10.55 while the average positive value is 20.00. The positive rank value shows the difference between the number of workers during COVID-19 and the number of workers before COVID-19 which has a positive value of 3 data. Table 4 also shows the number of workers before and during COVID-19 with the same value of 18 data.

Table 3. Statistical test results for the impact of COVID-19 on small industry profits and labor

Statistical test	Profits during COVID-19 - profits before COVID-19
Z	-4.405 ^b
Asymp. Sig. (2-tailed)	0.000
Workforce during COVID-19 - workforce before COVID-19	
Z	-3.594 ^b
Asymp. Sig. (2-tailed)	0.000

Note: a) Wilcoxon Signed Ranks Test, b) Based on positive ranks.

Source: Authors calculation

Based on the results of the Wilcoxon Signed Rank Test calculations, the Z value for profit during and before COVID-19 was -4,405 with a p value (Asymp. Sig 2 tailed) of 0,000 where this value is less than the research critical limit value of 0.05 so that it can be said there are differences in the advantages during and before COVID-19 in small industries in South Sumatra Province. Likewise, the Z value of the workforce during and before COVID-19 is -3,594 with a p value (Asymp. Sig 2 tailed) of 0,000 where this value is less than the research critical limit value of 0.05 which means that there are differences in the number of workers in small industries during and before COVID-19.

SWOT analysis is useful for generating strategies that can be implemented in planning ahead for small industries. The first step is to make a perceptual analysis of the available strengths and use those strengths to take advantage of opportunities (Wang & Wang, 2020; Lagoudakis et.al, 2020). After that, see the developments, whether these forces can combat the threats that exist in the market. The results of the perception of the SWOT analysis in this study are presented in Table 4.

Based on the perceptions of the SWOT analysis presented in Table 4, four strategies can be formulated that can be implemented in developing small industries in South Sumatra Province, namely:

- (1) Strategy Strength-opportunity (SO), is a strategy that optimizes the strengths possessed to take advantage of existing opportunities and opportunities. The SO strategies that can be formulated are:
 - Improving competitive product quality through improving business incubation programs and building cooperative networks with companies;
 - Improving the quality of small industrial products that are competitive through improving licensing and product certification facilitating programs;
 - Utilization of the use of raw materials optimally to increase production volume which is stagnant and tends to decrease;

- Optimizing government support through training programs to increase knowledge and access to capital for producers;
- Optimizing the role of local communities in business continuity through developing internet networks and transportation access, regional events and optimizing the development of tourist objects;

Table 4. Perceptions analysis of SWOT

Strengths		Weaknesses	
1.	Competitive product quality	1.	Infrastructure Business licenses, halal certification and limited BPOM permits
2.	New product development	2.	Promotion/marketing is still conventional and limited
3.	Availability of raw materials	3.	Limited product innovation (quality, packaging, and variants)
4.	Guaranteed human resources local	4.	Limited company and financial institution support
5.	Government Support		
6.	Characteristics special		
7.	Continuity business		
8.	Availability of adequate physical infrastructure such as water, electricity, facilities and		
Opportunities		Threats	
1.	Become a regional superior product and be sustainable	1.	The selling price of competitors' products from other regions is cheaper
2.	Jobs creating community, welfare & local economic growth	2.	Limited use of digital marketing digital
3.	Increase in the number of small industries	3.	Limited knowledge and capital
4.	Available access to transportation and other public facilities	4.	Stagnant and declining production volume
5.	CSR programs from companies and institutions	5.	Competitors from other regions are more familiar with technology
6.	Local events and attractions	6.	Business continuity due to scarcity of local raw materials
7.	Incubation	7.	Economic uncertainty such as the COVID-19 pandemic

Source: Synthesized by authors

(2) Strategy Strength-threat (ST), is a strategy that optimizes strength to avoid existing threats. The ST strategy that can be formulated is:

- Improving competitive product quality through production cost efficiency to create competitive selling prices;
- Utilization of the use of raw materials optimally to increase the quantity of sustainable industrial products;
- Optimizing government support in encouraging job creation and local economic growth
- Increasing promotion of small industry products through optimizing the use of digital marketing;
- Strengthening skilled and potential local human resources to be more familiar with technology to increase competitiveness and economic uncertainty such as the COVID-19 pandemic

(3) Strategy Weakness-opportunity (WO), is a strategy to minimize weaknesses by taking advantage of existing opportunities. The WO strategies that can be formulated are:

- Facilitating business licensing, halal certification and product permits through government programs related to ease of access to product licensing and certification;
- Increased promotion/marketing through incubation programs for producers and expanding internet network infrastructure;

- Facilitating manufacturers to increase competitiveness through product innovation (quality, packaging, and variants);
 - Facilitating manufacturers in the use of modern technology in encouraging increased product competitiveness;
 - Building partnerships and cooperation between companies and financial institutions to increase access to capital through business incubation programs;
 - Strengthening access to information (socialization, government programs) for producers through offline and online mass media.
- (4) Strategy Weakness-threat (WT) is a strategy to minimize weaknesses and avoid threats. The WT strategies that can be formulated are:
- Facilitating training activities and debriefing the use of e-commerce for producers to expand promotion/marketing through business incubation programs;
 - Facilitating producers in implementing product innovation (quality, packaging, and variants) to increase product competitiveness;
 - Facilitating manufacturers in the use of modern technology in encouraging increased product competitiveness;
 - Building partnerships and cooperation between companies and financial institutions to increase access to capital for producers;

The COVID-19 is not only considered a health disaster, but has had a devastating derivative impact on the economy of South Sumatra. This impact spreads to all lines of business, from large businesses to small businesses. Some of the impacts felt by small industries include:

- (1) Difficulty of raw materials. Small industry players will have difficulty raw materials if the material is purchased outside the province or abroad. As we know, some provinces are implementing regional quarantines and some countries are implementing lockdowns. The Indonesian government's social distancing policy has disrupted production activities
- (2) Production and sales declined. Small industry players experience such a drastic drop in income that they struggle to pay fees. These costs include employee salary, venture capital, daily living expenses, and other needs.
- (3) Inhibited distribution activity. Small industry is experiencing obstacles in distributing its produce. The application of work from home, studying at home, worshipping at home and isolating themselves at home, lock down in some areas makes it difficult for small industry players to market their produce. The halt in distribution activity is certainly detrimental to small industry players. They are now confused about how to distribute products, especially for small industries that have begun to expand their market reach beyond the region.

The barriers experienced by small industrial actors as a result of rising raw material prices, declining production and choked disttrbusi have a profound effect on the inerja of the small industry. This is reflected in the decline in profits and efficiencies that are difficult to predict, which has the effect of declining the economies of scale of the small industry.

4. CONCLUSIONS

The impact of the spread of COVID-19 on the small industrial sector in South Sumatra has had a huge impact. One of the difficulties of raw materials, decreased production and sales and cessation of distribution caused the performance of small industries in South Sumatra to deteriorate. The development of small industries is a choice of economic diversification strategy for regions in reducing dependence on natural oil and gas and mineral resources. The potential for developing small industries in South Sumatra Province is capable of creating jobs and local economic growth. However, the existence of the COVID-19 outbreak had an impact on reducing profits and labor in small industries in South Sumatra Province. Small industries have felt the negative impact of the presence of COVID-19 but they can still survive and it is easy for their businesses to get back on their feet. For this reason, various policies are needed to develop small industries in South Sumatra

Province such as improving product quality, improving workforce quality, increasing digital marketing, providing access to transportation and other public facilities, CSR programs from companies and institutions, and establishing business incubations.

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