Oyster Mushroom Business at Pandemic Covid-19 Era (Study on Improving the Working Productivity of the Communities in Kajang Village, Madiun District)

Bisnis Jamur Tiram di Era Pandemi Covid-19 (Kajian Peningkatan Produktivitas Kerja Masyarakat Desa Kajang Kabupaten Madiun)

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Abstract:
This research aims to prove that there is a profit increase in mushroom cultivation and an increase in the work productivity of the community when the Coronavirus (Covid-19) spreads in Indonesia. As is well known, the Covid-19 that has spread in Indonesia has made many workers lose their jobs. The reason is none other than the small amount of income a company gets so that the company or factory cannot provide wages to its workers. The fate of the company or factory was forced to lay off its workers. Apart from the company's difficulty in providing salaries for its workers, the government also gave regulations not to gather more than ten people. This study uses a qualitative method that focuses on increasing the benefits of mushroom cultivation and community work productivity during the Covid-19 pandemic. The results of this study indicate that the enthusiasm of the local community who works in the oyster mushroom cultivation sector increases the productivity of community performance, and the benefits generated from the work productivity of the community also increase. Initially, there were only two workers before the pandemic. Now there are ten workers. Then the production of oyster mushrooms, which usually only produces 55% of the total number of mushrooms, can now produce 70%.

Keywords: Oyster Mushroom Business; Coronavirus Pandemic; Community Work Productivity

Abstrak:

http://jurnalfebi.uinsby.ac.id/index.php/elqist
**Kata Kunci:** Bisnis Jamur Tiram; Pandemi Covid-19; Produktivitas Kerja Masyarakat.

**INTRODUCTION**

Business is an activity starting from the procurement of raw materials, production, marketing, and distribution, which then reaches consumers. Business can be in the form of goods or services that aim to make a profit. Lately, business changes continue to run fast, where the business environment is constantly changing. The impact of these changes is that there is no static business, where the internal business environment must continually be strived to adapt to these changes by determining the company’s business strategy. With this change, every company must plan to adjust business relations between the company and customers through a rational relationship. This rational relationship is intended to increase customer value continuously.¹ So far, the strategy that has been carried out has emphasized more on the transactional marketing strategy (transactional marketing), which is a marketing strategy that aims to acquire new customers and end the process with sales. Companies need to move from short-term transaction-oriented marketing to long-term transactions.²

In building a business, many obstacles might make the business fail, such as lack of capital, limited business locations, and operational obstacles. Many young people have entered the field of business. They were starting from a hobby they can build a business. In doing business, business people must know some ethics in business. Business ethics is a rule about whether or not to run a business covering all aspects of business activities ranging from individuals, companies, and society. An example of business ethics in a company is the company can provide values about the norms and behavior of both employees and leaders at once. In doing business, a business person must be ethical, such as being honest, being mature, behaving well, being polite, and so on.

Oyster mushroom, or in Latin, is called *Pleurotus Ostreatus*, a group of fungi whose body shape and size are familiar to the public. This oyster mushroom is a mushroom that can be consumed or eaten (edible) and has a distinctive taste. Oyster mushrooms grow a lot on rotten wood staples. Oyster mushrooms can grow depending on several aspects, namely the presence of a source of nutrients, temperature, humidity, water, light, air, and acidity. The benefits of this oyster mushroom in the health sector include preventing diabetes Mellitus, tumors, cancer, and blood cholesterol. In addition, the oyster mushroom is also helpful in increasing vitality, facilitating defecation, and increasing endurance. An amur oyster is delicious to eat and has a lot of nutrient content high enough, so do not be surprised if the mildew is now widely cultivated by the community.

The oyster mushroom is grown lined up sideways on a weathered wooden rod. It has a hood (pileus) and a stalk (stipe/stalk). Pileus or hood shaped like an oyster shell with a 5-15cm diameter below the surface of her layered like gills with the color white and soft. At the same time, the stalk can be 2-6cm in size depending on the environmental and climatic conditions that affect its growth. This stalk supports the hood slightly laterally on the edge or eccentric (slightly to the middle).

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The type of oyster mushrooms is widely cultivated by the community, including white oyster mushrooms, gray, and brown. It is easy to air adaptation to the environment and productivity levels high enough. At incubation, it has a temperature higher than the temperature at the time of fungus growth (formation of mushroom fruiting bodies), where the temperature is between 22-28 oC with a humidity of 60-80%. In the trunk formation, the temperature ranges between 16-22 °C with a humidity of 80-90%. To get the temperature and the humidity can be done by way of spraying water. Setting environmental conditions is very essential for the body growth of the fungus. Too high a temperature and too low humidity can cause mold to dry out and die. In addition, light and air circulation factors must also be considered. There must be adequate air circulation; the light intensity required during growth is around 10%. Therefore making mushroom cultivation must be formed lemur (closed mushroom cage).

According to the Central Statistics Agency, consumption of oyster mushrooms in Indonesia increases from 2013-2017 by 1.2 ounces per capita. Increased consumption of mushrooms is met with a decrease in the amount of national production. The average decline in mushroom production from 2013-2016 reached 16.32% per year. So that to meet the needs of domestic consumption, mushrooms are imported from abroad, one of which is from China. In 2018, the consumption level of mushrooms in Indonesia reached around 47,753 tons, with a consumption level of 0.18 ounces per capita per year. Production mushrooms in Indonesia are estimated at 37,020 tonnes. It could be an opportunity to increase mushroom production in Indonesia. The average export of mushrooms to foreign countries is 5,300 tons with a transaction value of up to 9 million USD. It is an income that increases the country’s foreign exchange.

Oyster mushroom is one of the community mushrooms interested in the community in terms of food needs. It can be seen from the demand that mushrooms are growing every year. The oyster mushrooms demand is high enough made still, many consumers have not been fulfilled. Based on this, it is necessary to cultivate oyster mushrooms. Every year, oyster mushrooms demand increases as much as 10% both for the hotel, restaurant, vegetarian, and so forth. Oyster mushroom production is still low due to high consumer demand. For that, we must further increase the production of white oyster mushrooms in meeting people’s needs.

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Oyster Mushroom Nutritional Content

<table>
<thead>
<tr>
<th>Nutrients</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>367 Cal</td>
</tr>
<tr>
<td>Protein</td>
<td>10.5-30.4%</td>
</tr>
<tr>
<td>Fe (Iron)</td>
<td>3.4-18.2 mg</td>
</tr>
<tr>
<td>P (Posfor)</td>
<td>717.0 mg</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>56.6%</td>
</tr>
<tr>
<td>Fat</td>
<td>1.7-2.2%</td>
</tr>
<tr>
<td>'CA (Calcium)</td>
<td>314.0 mg</td>
</tr>
<tr>
<td>K (Potassium)</td>
<td>3,793.0 mg</td>
</tr>
</tbody>
</table>

Oyster mushroom cultivation is an efficient technology that does not require enormous costs and is not so complicated in its implementation that the community can do it. Oyster mushroom cultivation takes 1.5 months to harvest, does not need special fertilizers, and cultivates it was easy so that anyone can participate in cultivation. The remainder of the oyster mushroom product can be used as organic fertilizer or fish food, but it can also be used for worm breeding media.

In oyster mushroom cultivation can use wood dust (sawdust). The use of sawdust as an artistic medium is easy to obtain, relatively inexpensive, easy to mix with other materials, and easy to shape and condition. Sawdust contains carbohydrates, fiber, lignin, and others. From the Sawdust content, some can help the fungus grow, and some can inhibit their growth. The content needed in mushroom growth is carbohydrate, lignin, and fiber. In contrast, factors that can inhibit fungus growth include sap and extractive substances (natural preservatives found in wood). *Good wood powder* is a powder that comes from hardwood and does not contain much oil or sap. However, sawdust that contains oil or latex can also be used as a medium for mold growth by way of immersion longer before further processing.

In addition to sawdust, in mushroom cultivating on plastic media (logs), several kinds of materials can be used, namely bran (rice bran), lime (CaCO3), gypsum (CaSO4), plastic bag (log) is used aiming to facilitate the conditions of temperature and humidity. The plastic bags used are solid and heat-resistant plastic up to 100° C, usually the selected plastic from the polypropylene (PP) type. The size of the plastic commonly used in mushroom cultivation is 20 x 30 cm, 17 x 35 cm, 14 x 25 cm with a thickness of 0.3 mm - 0.7 mm or even thicker. *Bekatul* items added to improve nutrition in the growing media as a source of carbohydrates, carbon (C), and nitrogen. In addition, lime is also an added ingredient as a source of calcium (Ca). In addition, lime is also used to adjust the pH of the media. The lime used is agricultural lime, namely calcium carbonate (CaCO3). Calcium and carbon elements are used to increase the number of minerals needed by fungus for their growth. Casts (CaSO4)
are also used as a source of calcium and material to strengthen the media. It is hoped that the mushroom growth media will not easily damage this stable condition.  

In 2020, the whole world was shaken by the coronavirus pandemic. Precisely in 2019, the beginning of the coronavirus from Wuhan, China. This outbreak has a reasonably fast transmission rate. In March 2020, exposure to this virus began to colonize Indonesia, starting from Jakarta until now; it has spread throughout Indonesia. Hundreds or even thousands of people around the world have been exposed to this deadly virus. The virus that attacks through this respiration has claimed many victims; a number of them died due to this virus. The government also enforces people to stay at home, work at home, study at home, and worship at home. It makes several companies or factories close their businesses. The government has also always provided rules for the community to wear masks, wash their hands, and always maintain cleanliness.

Not only are the people affected by the coronavirus, but all the activities they carry out daily have an impact. Government rules for social distancing and working even from home, studying from home, and compassionate dah from home make many people comply with the government’s rules. Many companies are closing or reducing the number of employees. Apart from limiting the number of attendances in a place and social distancing rules to reduce the rate of Covid-19 cases, it is also due to free-falling profits. Profits decrease because public consumption decreases. Consumption has decreased due to people preferring to stay at home to prevent the spread of the coronavirus. In addition, people prefer to save money in fulfilling their wishes because there is no certainty when this pandemic will end. The absence of income from a company or factory makes them bankrupt and closes the company. Many workers were laid off because their companies could not afford to pay their workers.

The existence of this coronavirus is affected by many people. Companies and factories were forced to close due to bankruptcy. The absence of income makes them unable to pay their workers. Many workers were laid off. Termination of Employment (PHK) is an unavoidable option, especially in the current global crisis. Companies or factories that were stable and fine before can suddenly go bankrupt. As many as 15.6% of workers experienced layoffs, and 40% of workers experienced a decrease in income, which 7% of workers’ income fell by 50%.

In-Law No. 13 of 2003, which regulates employment, both the entrepreneur’s side as an employer, workers/laborers, and the government. With this Law, it is hoped that industrial relations will be created, which is a system of relationships formed between actors in producing goods and services consisting of elements of Entrepreneurs, Workers / Laborers, and the Government based on the values of Pancasila and the 1945 Constitution. The number of workers who lost their jobs made the number of unemployed in Indonesia increase. Many of them started their own businesses starting from scratch. Their efforts are the production of masks, frozen food processing, daily catering, and so on.

Employees are one of the main assets in a company as planners and active actors of every organizational activity. They have thoughts, feelings, desires, status

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and educational background, age, and gender brought into an organization. The quality and quantity of human resources must be following the organization’s needs to be effective and efficient for achieving organizational goals. The large number of employees who have lost their jobs makes them enthusiastic about looking for work that can be done without involving many people to fulfill their daily needs still. Employee productivity is an actual behavior displayed by everyone as the resulting performance following its role in institutions or companies mentioned. Every company always expects its employees to have high worker productivity. Employees with high work productivity will provide an optimal contribution to the company, and the company can increase its work productivity.

In English, product, result, and outcome develop into a word productive, which means producing and productivity, making or creating, creative. In the Indonesian language, those words transformed into productivity, which means the power or ability to produce something in an organization. Work productivity shows that each employee compares the maximum work effectiveness with the efficiency of one workforce, which includes quantity, quality within a specific time. It is essential; productivity includes the attitude that always believes that the work should be better today than yesterday and the results of the work were obtained by tomorrow should be more or better quality than the results obtained today. Productivity is the ratio between work results in the form of goods or services with the resources or energy used in a production process. With the existence of labor productivity, it can describe performance measures through each workforce used to produce output to the company or factory. However, the amount of output cannot show the role of each worker in the work result. Moreover, the high amount of output produced also does not necessarily indicate better work productivity.

The sources of work productivity are the use of the mind, physical energy, and body, the use of time, space, and materials (materials and money), whereas aspects of work productivity include continuous improvement, challenging job tasks, and the physical conditions of the workplace. Apart from that, the aspects of work productivity are work motivation, work efficiency and effectiveness, workability, experience, and knowledge. Factors that affect work productivity include knowledge, skills, abilities, attitude, and behavior. Some factors can reduce work productivity, such as decreased attendance.

Factors that affect work productivity are related to the workforce itself and those related to the company environment and government policies as a whole, such as education, skills, discipline, attitudes and work ethics, motivation, nutrition and health, income levels, social security, the environment, and working climate, industrial relations, investment, licensing, technology, fiscal, price, distribution, and

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10 Gaol, Jummy L. *Human Capital: Manajemen Sumber Daya Manusia*. (Jakarta: PT Gramedia Wijaya sarana Indonesia, 2014)

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54 *el-Qisṭ: Journal of Islamic Economics and Business (JIEB)*
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others. These factors can, directly and indirectly, affect employee productivity. In addition, work productivity is also influenced by the level of attendance of employees in a workplace. Productivity will not be achieved optimally if the employee attendance rate is shallow. The work productivity of its employees can affect the success rate of a company. Work results from employees' work productivity are achieved in quality and quantity by employees in carrying out their duties following the responsibilities assigned to them.

According to the study results, the factors that determine the work productivity of employees are not only large rewards, but there are other factors such as the absence of work, so that they are encouraged to work in mushroom cultivation, as well as curiosity about mushroom cultivation, and excellent and comfortable working environment or atmosphere. Measurement of work productivity of workers can be measured through the use of time by employees, the results of the employees' production that have been done while working.

Research on oyster mushroom cultivation has been carried out, including the effect of seed sources on the growth of oyster mushrooms by Djarwanto and Suprapti. Then there is Nurul Hariadi et al, researching the production of white oyster mushrooms on rice straw and sawdust media. In addition, Nur Fitria also researched oyster mushrooms that grew with the media of rice straw and corn cobs. Also, research that analyzes the growth and productivity of fungi on oil palm husk and durian skin was conducted by Ali and Yusuf. In contrast to these studies, we want to focus on studying the oyster mushroom cultivation business that gets more benefits during the coronavirus pandemic and the increased work productivity of people who have lost their jobs due to the coronavirus.

**RESEARCH METHODS**

The method used is qualitative with interview research design. The subjects of this study were the owners of mushroom cultivation and the participation of new workers in mushroom cultivation itself. Qualitative methods emphasize phenomena and focus more on the substance of the meaning of these phenomena. The analysis and acuteness of qualitative writing are strongly influenced by the strength of the words and sentences used.

Qualitative research methods help provide detailed descriptions of phenomena. Qualitative encourages understanding of the substance of an event. Thus

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18 Agung Nugroho, “Analisis Produktivitas Kerja Karyawan Outsourcing pada Pt Santar Putra Mandiri”, OSF
19 Sedarmayanti. Sumber Daya Manusia Dan Produktivitas Kerja. (Bandung: Mandar Maju,2009)

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el-Qist: Journal of Islamic Economics and Business (JIEB)  
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Qualitative research is not only to fulfill the desire of the researcher to get a picture/explanation but also to help get a deeper explanation. Qualitative research begins with the idea that is stated by a research question. These research questions will determine the data collection methods and how to analyze them. This method is dynamic, meaning that it is always open to changes, additions, and replacements during the analysis process.

There are several stages in our qualitative research method; the first step is to compile a research design to find out whether it is true that the benefits are increasing during the corona pandemic and also the increased productivity of the people affected by the pandemic. The second step is to determine the location and research subjects, for the location to be located in Kajang Village, Madiun. While the subjects of this study were the owners of mushroom cultivation and the participation of new workers in mushroom cultivation itself. The third step is to collect the data that has been obtained from the research results and then analyze it. Furthermore, presenting the data from the analysis results. The final step is to draw conclusions from the results of the analysis.

RESULTS AND DISCUSSION

During a pandemic period like what is happening today, people lose their jobs. Many companies have closed their companies due to several factors, one of which is the absence of income from consumers so that profits are not stable. It has forced companies to lay off their employees. Many people also switch to building businesses from scratch or maximize existing business to fulfill their daily needs, like the oyster mushroom cultivation in Kajang Village, Sawahan District, Madiun Regency. In this village, there is the cultivation of oyster mushrooms owned by Mrs. Narsih, the place is not prominent, but the mushroom baglog (the medium where the fungus grows) can reach 2,000 baglogs. He pioneered this mushroom cultivation business since the beginning of 2019, with an initial amount of 500 baglogs of oyster mushrooms.

Mrs. Narsih’s oyster mushroom cultivation only has two workers, whose job is to water the mushrooms every morning and evening, pick mushrooms at night, and sort mushroom baglogs twice every week. The lack of workers has overwhelmed Ms. Narsih to care for the oyster mushrooms, which number in the thousands. In 2019, to be precise, in November, Mrs. Narsih’s mushroom cultivation experienced a decrease in mushroom production. A total of 150 baglogs of mushrooms rot due to neglect. Assisted by 2 of her workers, Ms. Narsih sorted out which mushrooms were rotten.

26 The urge to make ends meet is the primary motive for workers affected by the termination of their work contracts during the pandemic to join and work in oyster mushroom cultivation. In addition to that, the opportunity to join in mushroom cultivation itself is the only concrete opportunity that can be done after termination of employment from the factory. Plus, working in the cultivation of these oyster mushrooms was considered the pay they wanted to cover their needs. This central work motive has also encouraged them to seriously carry out their work so that the productivity of oyster mushrooms increases along with the large number of workers who join in the cultivation of oyster mushrooms and their marketing. From this, workers have experienced three elements in the work motivation process, namely needs, drives, and incentives. We can read these three processes of work motivation in full at Bakhrul Huda, Bisnis Ritel Pesantren (Bojonegoro: Abda Publisher, 2021), p. 140-141.
and which ones were ready to be harvested. Baglogs of mushrooms that are not suitable for production must be discarded. A day can usually pick 10kg of mushrooms now only produce half the average day. “Taking care of it is not difficult, but distributing it to consumers is difficult. If not, the mushrooms will rot immediately,” said Ms. Narsih.

Entering March 2020, Indonesia was attacked by the Coronavirus. Government regulations to stay home only and stop all outside activities have caused some markets and restaurants to close. As a result, the marketing of oyster mushrooms is hampered and makes many mushrooms wasted. Entering May 2020, many workers in Kajang Village lost their jobs. Four residents from the area where their mushroom cultivation decided to work in this mushroom cultivation owned by Mrs. Narsih. They divided the tasks in cultivating this mushroom. A total of 2 people are in charge of watering the mushrooms every morning and evening. At night the workers harvest the oyster mushrooms and wrap the mushrooms in plastic. The next day the workers market the mushrooms to vegetable sellers in markets, restaurants and sell processed mushrooms such as crispy mushrooms and mushroom satay. Within a week, this kind of division of labor allows mushroom cultivation to produce 50kg.

The profits gained during this pandemic have increased very rapidly. The number of restaurants that were still open during the pandemic has started presenting a menu of processed mushrooms or household products that process various foods such as crispy mushrooms and mushroom satay, increasing profits by up to 50% from previous months. The increased work productivity of residents who have lost their jobs due to the coronavirus has made them enthusiastic about working to meet their daily needs. The high productivity of people’s work has made mushroom production also increase rapidly. Adequate care for the mushroom baglogs makes the mushrooms grow and harvest at the right time. Sorting baglog mushrooms that are rotten and not feasible was done twice a week, now three times a week. It makes the dry fungal skin can be replaced with fungal skin that is ready to grow.

In June, we observed that the number of workers in this mushroom cultivation increased to 10 workers, initially only two people. The high productivity of their work has made Ibu Narsih’s oyster mushroom cultivation sell up to 75 kg of mushrooms per week.

### Production Increase Data

**Table 2**

<table>
<thead>
<tr>
<th>Date</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 2019</td>
<td>50-55kg / week</td>
</tr>
<tr>
<td>March 2020</td>
<td>40kg / week</td>
</tr>
<tr>
<td>May 2020</td>
<td>55-60kg / week</td>
</tr>
<tr>
<td>August 2020</td>
<td>75-85kg / week</td>
</tr>
</tbody>
</table>

**CONCLUSION**

The impact of the coronavirus pandemic has been that many companies and factories have been forced to close due to a deficit in the balance sheet and
restrictions on the number of workers who have to work. Many workers were laid off. Dismissal of workers is an unavoidable option, especially in the global crisis that has hit most companies. Companies or factories that were healthy and fine before can suddenly go bankrupt. As many as 15.6% of workers experienced layoffs, and 40% of workers experienced a decrease in income, of which 7% of workers’ income fell by 50%.

Many people also switch to building their businesses from scratch or maximizing existing businesses to meet their daily needs as to how to cultivate oyster mushrooms in Kajang Village, Sawahan District, Madiun Regency. In this village, there is the cultivation of oyster mushrooms owned by Mrs. Narsih, the place is not large, but the mushroom baglog can reach 2,000 baglogs. He pioneered this mushroom cultivation business since the beginning of 2019, with an initial amount of 500 baglogs of oyster mushrooms. Entering May 2020, many workers in Kajang Village lost their jobs. Four residents from the area where their mushroom cultivation decided to take part in the cultivation of Mrs. Narsih's mushroom cultivation. They divided the tasks of cultivating this mushroom. A total of 2 people are in charge of watering the mushrooms every morning and evening. At night the workers harvest the oyster mushrooms and wrap the mushrooms in plastic. The next day the workers market the mushrooms to vegetable sellers in the market, restaurants and sell processed mushrooms such as crispy mushrooms and mushroom satay. Within a week of cultivating, this mushroom can produce 50 kg.

The results of this study indicate that the local community's enthusiasm to meet their economic needs has also increased the productivity of community performance, from two workers to ten workers. Oyster mushroom production, which usually only produces 55% of the total number of mushrooms, has now also increased by producing 70%. The increased work productivity of residents who have lost their jobs due to the coronavirus has made them enthusiastic about working to meet their daily needs. The high productivity of people’s work has made mushroom production also increase rapidly.

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