MSMEs Innovation Strategies during the COVID-19 Pandemic by Tofu Producers in Trunan Village, Magelang City
Panji Kusumo Prasetyanto, Rian Destiningsih, Jalu Aji Prakoso*,
Department of Economic Development, Faculty of Economics, Tidar University, Magelang City, Indonesia

Submitted: September 22nd 2019 ; Revised: April 18th 2021; Accepted: May 11th 2021

Abstract The role of Micro, Small, and Medium Enterprises (MSMEs) as a driving force for the nation's economy has weakened when faced with the COVID-19 pandemic. It is estimated that 50 percent of the total business operators in micro and small businesses went bankrupt during the pandemic. A community service program is needed to encourage MSMEs to survive and develop at this time. No exception, MSME players in Magelang City who are engaged in tofu production in Trunan Village are facing a decrease in production scale due to COVID-19 and need assistance through community service activities. This service activity was carried out with a blended approach between offline and online to reduce the risk of the COVID-19 transmission but still be productive during the pandemic. Field identification was carried out as an initial step to find out the problems faced by tofu producers. The problem faced by tofu producers in Trunan Village is the low innovation of tofu products and the weak use of business information systems, which results in weakening tofu production. The low level of tofu product innovation causes the final product to be marketed only in conventional markets and does not have a target end-consumer. The sales information system was implemented to encourage the sale of tofu and derivative products to the public with a wider market reach. The implementation of this service refers to the two problems faced by MSME players by determining the main achievements in the form of MSME innovation strategies during the COVID-19 pandemic.

1. INTRODUCTION
The important role of Micro, Small, and Medium Enterprises (MSMEs) as a driving force for economic development can be demonstrated through the contribution of productivity generated by MSMEs to the gross regional domestic product (GRDP). This strategic role in the economy is in line with the increasing number of MSMEs each year. The high contribution and the increasing number of MSMEs will have a major impact on improving the economy. In Magelang City, one area in Central Java, the MSME sector contributes 53.3% of the total GDP, with the number of MSMEs in this city reaching 5,000 units spread over three sub-districts. The role of micro-businesses in Magelang City is very effective in strengthening the regional economy if it can be managed properly. However, due to the situations resulting from the COVID-19 pandemic that is currently faced by many business actors, 50% of micro and small businesses in Indonesia have experienced business failures (Thaha, 2020).

The COVID-19 pandemic that has been felt by all social elements of the society has also influenced MSMEs in Trunan Village, Magelang City. Trunan Village, which is located in the South Magelang Subdistrict, is an area that has the largest MSMEs producing tofu products in Magelang City. In Trunan Village, there are 62 tofu MSMEs, and they have and
absorbed a workforce of up to 261 people. When compared with other tofu-producing areas, Trunan Village is in the first position; the second is Tidar Campur Village with 31 units of tofu business units, and the third is Tidar Baru Village with 17 units. The distribution of MSMEs engaged in the tofu product processing industry in Magelang City is spread across the three aforementioned regions. The quality of the tofu produced in Trunan Village is well known even outside Magelang City. The marketing coverage of the tofu products from Trunan Village reaches the Special Region of Yogyakarta Province. The potential of the tofu business in Trunan Village is reflected in the number of the business units, the absorption of the workforce, and the marketing coverage of these MSMEs. This condition is in line with the findings of the research done by Alimudin (2015). Small and medium enterprises (SMEs) can make a significant contribution in spurring Indonesia's economic growth. This is due to the very large workforce absorption of the SMEs and their closeness to the common small people (Jauhari, 2014).

The potential of tofu product development in Trunan Village has a strong a capital amidst a crisis although the strategy that can be devised for now is to survive the pandemic situation through sustainable production. Trunan Village as the center for tofu products of MSMEs has a greater chance if the tofu they produce is developed into processed products or tofu-based foods during the current COVID-19 pandemic. The current pandemic situation requires business actors to take strategic steps to survive and develop because consumer behavior has changed, namely many consumers are reluctant to go to conventional markets and switch to digital markets (Arditama & Lestari, 2020). Efforts that can be made by tofu businesses in dealing with this critical condition are to change their production techniques and market their products using a digital system (online). The factors that influence the development of MSMEs are innovations that are carried out in accordance with market needs (Hartini, 2012). An innovative product is a product that will be able to compete and become a market leader. In addition, innovations carried out by MSME players will have an impact on the continuity of their business activities (Ernani, 2010).

The tofu products produced in Trunan Village, Magelang City are of better quality than other places. This is certainly a good initial capital to face the COVID-19 pandemic through innovative ready-to-consume processed tofu products that are marketed through digital media. The challenges during the pandemic were in line with the obstacles faced by tofu businesses in Trunan Village. The problem faced by MSME players in Trunan Village, Magelang City, is the lack of product innovation from their manufactured goods. MSMEs, especially tofu producers in Trunan Village, Magelang City, usually do not understand the importance of innovation in their production. This conventional perspective has an impact on people's perceptions that tofu is only used as ordinary food. Other areas, such as Batu City in Malang, an apple-producing city in East Java, have become a producer of local specialties when these apples can be used as materials to produce various types of processed foods. This is the result of ideas and innovations from apple producers. On contrary, the producers in Trunan Village do not have any innovative ideas to develop their high-quality tofu into various types of processed foods that can increase the value of the typical tofu produced. Innovations of processed products made from tofu into various kinds of ready-to-consume processed products will be a strategy to survive the pandemic conditions, so that production capacity does not experience a decline in times like this.

Another problem faced by MSMEs in Trunan Village both during and before the pandemic period has been business development through the sales information system of tofu products. The conventional sales system will cause the production scale to decrease because consumers are reluctant to go to crowded markets or shopping centers to fulfill their basic needs. The importance of marketing information media is that it will increase production, diversification of tofu derivative products, and the number of the marketed tofu products (Siswanto, 2018). Increasing the use of information technology will make producers more competitive (Apulu & Latham, 2011). One of the industrial activities that have succeeded in increasing the use of information technology to improve business services is the banking industry (Adeosun, Adeosun, Adetunde, & Adagusinodo, 2008). Through the application of the sales information system, marketing activity cycles will benefit in terms of a sales mechanism where customers do not have to go through conventional markets, which tend to pose high risks of the COVID-19 transmission. If this is done, the tofu production in Trunan Village will not experience a decline even though during a pandemic situation. Apart from these two problems, the MSMEs in the target community is faced with several problems that can hinder their business development. The problem of inaccessibility to formal financial institutions is an obstacle that needs to be dealt with by MSME entrepreneurs (Ahmedova, 2015).

This community service activity aimed to help the target community solve the problems they faced during the COVID-19 pandemic. First, this activity aimed to help the community in Trunan Village to be able to innovate tofu products, transforming them into ready-to-consume processed products. This is based on the fact that the village has quality tofu products as its
potential initial capital. Therefore, product-processing innovations are needed to maintain production capacity amid the pandemic. Second, the purpose of this community service was to increase the media literacy of the people of Trunan Village by implementing a tofu product marketing information system. The implementation of the sales information system can have a systemic positive impact on the sustainability of production during a pandemic that affects all elements of public life. This also facilitated a renewal process in the MSMEs’ marketing network, which previously was still conventional.

The COVID-19 pandemic demands a pattern of changes in the lifecycle of the MSMEs that include small and medium-sized business players producing tofu products in Trunan Village. The lack of product innovation and sales system experienced by these business actors requires them to make systematic changes through a massive innovation and the implementation of a tofu sales information system to increase the added value of tofu. The description of the problem that has been previously described set the targets to meet. The measurability of this service activity will be very useful when the target community sees the success of the implementation of the community service program.

Problems related to product innovation will be prioritized in the development section of derivative products from tofu in Trunan Village to maintain production capacity during the COVID-19 pandemic. Research by Huang, Soutar, & Brown (2004) shows that the key to the success of MSMEs in Australia is an innovation process to develop their products so that consumers are satisfied with the goods and services they have purchased. The kind of innovations can be in the form of processing tofu into snacks. The community service activity is conducted in the form of tutorials for the community in Trunan Village in producing derivative products from the tofu produced by the community. The expected result of this program is that the people in Trunan Village are expected to be able to produce tofu products and innovate their products, processing them into tofu derivatives. The community took part in a series of training activities to be able to innovate products so that the people in Trunan Village can produce a variety of processed tofu. Through these activities, it is expected that the tofu producers can take part in increasing the community’s welfare through a good mechanism that can facilitate the increase of the community’s income.

In Trunan Village, the conventional product marketing has decreased during the COVID-19 pandemic and demands changes through the application of a tofu product sales information system. The application of a digital sales system is a major need when the conventional market is experiencing a weakening of purchasing power due to the COVID-19 (Awali, 2020). One of the keys to the success of MSMEs today is the ability to use digital media to market their products (Priambada, 2015). The community service program was conducted in the form of introducing a form of sales information system through affordable media but with a big, favorable impact on the production and marketing chain of MSMEs. The people of Trunan Village as the driving force of the economy in Magelang City were given tutorials on media access to a tofu product sales information system and tofu product innovations. The sales information system not only provides benefits in the ease of marketing but also an increase in the production process because the sales of tofu products and the tofu product derivative innovations increase. This is the result of the sales information system that is implemented. Therefore, the economic capacity of the community will be affected in a better direction even though they are facing a health crisis that has resulted in the existing economic crisis.

The previous study that is used as a reference in this community service activity is related to innovation in SMEs. Hall, Lotti, & Maireesse (2009) in their research found that innovation in micro and small manufacturing enterprises (SMEs) in Italy had an impact on productivity. This research was conducted in SMEs in manufacturing in Italy from 1995 to 2003. Hall produced a built-in model for information system innovation to be applied by these small and medium enterprises.

Ernani (2010) studied the influence of creativity and innovation on the entrepreneurial attitudes of SMEs. The purpose of this study was to determine the sustainability of SMEs concerning their entrepreneurial attitudes. The findings showed that: 1) the innovations were made in creativity and stimulation of innovation that affected the entrepreneurial attitude of SME actors, 2) creativity that was partially influential on community entrepreneurship, 3) innovation variables that affected entrepreneurship of SMEs, and 4) innovation variables that had a major impact on entrepreneurship.

In their research, Branzei & Vertinsky (2006) examined how SMEs stratized in choosing ways or avenues to define their business concept, business development, product introduction, and new product commercialization. The research was conducted by classifying SMEs based on their abilities and empirical test results related to how different strategies were used by SMEs to produce innovative products. The findings of the study were divided into two categories. First, the innovation ability of SMEs was known based on the type of product they produced. Second, the research observed strategic innovation efforts in the property
sector of the SMEs activities, namely by carrying out acquisitions, transformation, and capacity building.

Studies related to marketing information systems were based on several studies. One of them is research conducted by Apulu & Latham (2011), who identified the use of Information and Communication Technology (ICT) in Micro and Small Enterprises (MSEs) in Nigeria. They revealed that the key to the successful use of ICT adopted by MSEs in Nigeria was that the ICT was beneficial, satisfied consumers, and saved time and cost. The findings showed that the use of ICT in the MSEs in Nigeria could help business actors in the process and convey information or communicate with consumers and business partners so that it could help them in the development process.

The research of Jauhari (2014) was related to efforts to improve the competitiveness of SMEs to obtain export opportunities and other business opportunities by taking advantage of developments in Information and Communication Technology (ICT), especially e-commerce. It means that SMEs actors should not only use the internet as a tool for promotion or looking for business opportunities, but they also should balance its use with good administrative management using the right software. It is necessary to develop a website and e-commerce as means of promotion and marketing of their business products so that it will increase their sales volume and revenues.

Siswanto (2018) conducted a study related to the optimization of social media as the marketing media for SMEs. Siswanto's research findings show that social media as an Integrated Marketing Communication (IMC) was able to provide a competitive advantage for SMEs. The use of information technology is imperative for SMEs to survive during competitions. SMEs as the basis of people's economic strength must be able to market their products through more innovative media. So that SMEs can access the system, it is necessary to increase the understanding of SMEs in the use of social media as the marketing media.

The framework in Figure 1 is prepared to solve the problems faced by tofu businesses amid the conditions of the COVID-19 pandemic through community service activities. The obstacle faced by MSMEs in Trunan Village at this time is the absence of product innovation in tofu production and the conventional sales system, both of which have resulted in a decrease in tofu production during the pandemic. All business actors in Trunan Village produce conventional tofu products. There are no derivative products that have been developed to create added value. The use of an information system is offered to business actors to market their products without having to go through conventional markets, which are more vulnerable to virus transmission. These two main problems are the focus of this community service program. These problems were identified through the stages of activities carried out by the implementation team. Problem identification was done by extracting problems from data collected from the online community service activities. Therefore, at the end of the community service activity, the team was able to offer an innovation strategy for the target MSMEs during the COVID-19 pandemic.

2. METHODS

The implementation of this community service program was carried out using the method of field observations, lectures, tutorials, and discussions with the community, all of which were carried out in a blended approach, combining online and offline activities. The initial stage carried out in community service activities as field observation, which aimed to determine the condition of the problem at the community service location. Observations were made in Trunan Village to observe a community group of tofu craftsmen with the approval of the business actors and carried out following the 3M rules (wearing masks, washing hands, and keeping distance). The purpose of these field observations was to find out the conditions of the target community and their surrounding areas. From the observation, it was discovered that the tofu business actors in Trunan Village had experienced a decline in production during the pandemic because tofu consumption and market demand had decreased significantly. The target community did not yet have sufficient information regarding the innovation of tofu derivative products that are ready for consumption with various types of light preparations.

The second step was a lecture, which was conducted online through the digital media Zoom meeting, in which participants were given an overview of product innovation and motivation to have creative innovation ideas in their business activities. This lecture was given to tofu craftsmen in Trunan Village to provide an overview of the importance of innovating

Figure 1. Community service framework in Trunan Village
tofu products during the COVID-19 pandemic and in times when there is no pandemic or crisis. Innovation becomes an effort to adapt to constantly changing conditions. Cultivating the spirit of entrepreneurship was done towards the target community in Trunan Village as a basis for fostering enthusiasm for work during the pandemic. This was because the conventional tofu products sold in the people’s market had decreased in demand due to people's reluctance to go to the center of the crowd. Therefore, tofu product innovation efforts were needed to create types of processed products made from tofu.

The third method was a tutorial, in which training participants were presented with Sales Information System (SIS) materials and an illustration of its application to their business. Online tutorials that were conducted for the tofu craftsmen in Trunan Village contained materials on how to sell processed tofu products through the help of a sales information system. Like any social media, this information system can help tofu producers to expand market coverage for the sale of their tofu and processed products. During a pandemic like this, the digital system is a solution to the general weakness of people’s purchasing power. The use of social media is very effective when it is used as the media for selling, which can minimize the risk of the transmissions of the COVID-19 virus.

The fourth step was the online discussion with the target community. The training participants were given opportunities to discuss problems related to product innovation and information systems for selling MSME products. The discussions with tofu craftsmen in Trunan Village were aimed at measuring the ability of tofu producers after receiving training on innovation and the use of the sales information systems. Through this activity, the programs that have been implemented could be evaluated by measuring the community's understanding of the activities that had been carried out. Continuous assistance is needed so that the community can enjoy the benefits of these activities. A series of activity stages were used to increase the competitiveness of tofu business actors in Trunan Village. The success of these community service activities needs support from the target community in taking active roles in the community service activities carried out by the implementation team.

3. RESULT AND DISCUSSION

3.1. Innovation strategy in tofu product development in Trunan Village during the COVID-19 pandemic

Tofu producers in Trunan Village, Magelang City are facing the COVID-19 pandemic like other MSMEs in Indonesia. One of the weaknesses that the tofu producers have is low innovations in tofu products that they produce. This weakness has made tofu production activities experience a decrease in production scale, especially during the COVID-19 pandemic. The level of production, which tends to decline, will have an impact on the income of the tofu craftsmen, which will decrease if they continue to carry out conventional production techniques. On the other hand, the tofu products produced by the people in Trunan Village have good quality. This is a strength for the tofu producers so that they will be able to increase their production capacity through tofu product innovation, transforming it into ready-to-consume processed products.

Building up a strength that comes from within is a step towards creating a competitive entrepreneur. The pattern shown in Figure 2 below shows that entrepreneurial actions will grow and motivate an entrepreneur to innovate, and this requires encouragement in the forms of 1) capacity to innovate, 2) capacity to plan, and 3) ability to take risks. The people of Trunan Village have a strength that comes from the conditions in their business activities. This strength is in the form of a good quality product and can be used as a capacity for innovation. Building an entrepreneurial spirit is a provision to foster this entrepreneurial spirit in the future. Strengthening an intention to run a business and have the courage to face risks will provide optimal results and motivate business actors to manage crises.

![Figure 2. Entrepreneurial process, innovation, and business performance](image)

The steps taken were motivating and introducing business actors to produce innovations that can increase their community’s income. There are three important things that an entrepreneur must have for him to be able to innovate. These comprise the desire to improve business performance, product or service innovation efforts, and entrepreneurial actions. The desire of a producer to improve his business performance is the basis for him to consider implementing innovation. An increase in business performance will increase the producer’s income. This means that an increase in welfare will be achieved. Second, product or service innovation efforts mean the desire to innovate on the
resulting business products or services. Third, entrepreneurial action is a concrete step towards realizing the desire of producers to innovate. This mechanism was conveyed through the presentation on product innovation to the community who are members of tofu craftsmen in Trunan Village.

A series of product innovation activities carried out according to the description above were manifested in the form of tofu derivative processed products. The processing of tofu-based products in Trunan Village produced various kinds of food that have higher selling values than conventional tofu products. The tofu-processed products are expected to be distributed to end-users or end-consumers and ready for consumption; they do not require further reprocessing or preparation. The types of tofu-based foods consist of a variety of types, including tofu satay and shredded tofu as shown in Figure 3.

![Figure 3. Processed products made from tofu a) tofu satay; b) shredded tofu](image)

The success of this community service program is that MSMEs have started producing innovative tofu products with various variations of tofu-based foods that are ready for consumption. Through these product innovations, tofu MSMEs at Trunan Village were able to maintain their normal production scale even though they are facing a downturn in the economy as it is today. In addition, the benefits of tofu product investment are expected to increase the annual selling value, so that it can provide benefits to business actors in the form of increased revenue from the sales of derivative products.

3.2. Implementation of an information system as a means to increase sales

The absence of an information system in the tofu business group in Trunan Village was one of the findings in this community service program. This absence has caused the target community to market their tofu products conventionally in the conventional market. To build an information system in their business activities, several things need to be considered to create an information system network. Business actors must determine who are the senders and recipients of the information. This activity took place via exchanging messages in the information system media. This interconnected information will generate feedback from the sender and responses from the recipient of the message. Therefore, information will be built through a business information system roadmap that will minimize the risk of contracting the virus by reducing crowds (Figure 4).

![Figure 4. Business information systems](image)

Implementation of information systems is very important when carrying out business activities during the COVID-19 pandemic. Entrepreneurs in Trunan Village must be able to utilize the business information system adapted to the regional peculiarities of their area. Sellers must be the sender of messages containing information about the quantity of tofu production to consumers (receivers) through digital information media. It is a fact that many consumers have used their telecommunication devices to buy goods and services without having to meet the seller face to face. Therefore, producers must be aware that providing good feedback to consumer responses must be given through a digital system. One of the most effective trading media for marketing products is the social media Instagram. The community service program in Trunan Village provided training to the tofu producer community in setting up their Instagram account.

![Figure 5. Utilization of social media as sales media](image)

The training program regarding the tofu product sales information system given to the target community was specified in utilizing the social media Instagram through sharing seven interesting tips as shown in Figure 5. The targets who are expected to be able to utilize this technology are young entrepreneurs who are familiar with and regular users of social media. One of the training materials presented to the participants is seven ways to attract organic traffic from Instagram.
social media. Steps that must be considered and taken seriously to create an attractive social media are the following: a) creating an attractive business profile, b) displaying tofu products with good image quality, c) using video media product testimonies, d) using the hashtag #tahutrunan, e) becoming active users, f) post contents very frequently, and g) having to have a structured strategy. The purpose of the training is that the participants are expected to be able to become business actors who can compete in the current digital era. The use of sales information systems will certainly have a positive systemic impact in the form of increased production, the desire to innovate products and services, increased quality of production, and favorable impacts.

4. CONCLUSIONS
The COVID-19 pandemic is not an obstacle for Micro, Small, and Medium Enterprises (MSMEs) to develop innovations. This community service activity is aimed to successfully encourage the target community (tofu producing MSMEs in Trunan Village, Magelang City) in increasing their competitiveness through an innovation strategy and an information system to market their tofu products during the COVID-19 pandemic. An interesting phenomenon found in the field is the lack of understanding of the MSMEs owners in understanding the importance of implementing tofu product innovation and tofu sales information systems in their business activities. This has led to their inability to develop innovations for their tofu products and apply tofu product sales information systems to increase both the value of the tofu and their profits. As a result, it has had an impact on their welfare in addition to their low level of knowledge. The first achievement of this community service program is the increase in the target community’s awareness that entrepreneurs must foster their self-motivation regarding their desire to innovate, their desire to achieve future targets, and their courage to take risks. The second achievement of this program is the utilization of a business information system management by the tofu-producing community in Trunan Village. Through the social media Instagram, the community is trained in how to use this application and how to create good content to attract social media users to see their products, which are the different types of foods made from tofu. The success of this community service has encouraged tofu producing MSMEs in the face of the COVID-19 pandemic.

Mapping efforts and solving problems faced by tofu-producing MSMEs in Trunan Village, Magelang City still require other supporting activities. Further assistance is needed to improve and develop tofu producing MSMEs in Trunan Village, especially in the areas of simple bookkeeping system, their organizational structure and the main functions of its members, and the marketing of their tofu products. In addition, people who have concerned about the development of tofu MSMEs in Trunan Village can take part in solving the problem regarding service access to financial institutions. If this is solved, the MSMEs’ owners can increase their production capacity to improve their welfare.

REFERENCES


