

Model of Application of Technology to Increase Income in Micro Business Clover Stick in The Face of Covid19 Pandemic Era

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Abstract. The Covid19 pandemic has caused complicated problems for many entrepreneurs, including partners who are micro-entrepreneurs. The Semanggi Stick micro business, which is run by a group of women in Lakarsantri Village, Surabaya City, has been severely affected by the Covid19 pandemic. Even in the first few months of the pandemic outbreak, their businesses did not operate. The clover sticks they produce are not the main choice that must be purchased for communities around the partner's location. This is possible because so far partners have only marketed their products around their area, partners have not taken advantage of the availability of digital technology in marketing. In addition, partners have been carrying out the production process using conventional and simple equipment. This was considered ineffective and resulted in some partner members choosing other activities that were more productive. With the right technology application model, both in the production and marketing processes, partners will experience an increase in sales. Before the pandemic, the sales generated by partners was at 500 thousand to 1 million per month, after using this technology application model partners can get a sales of more than 2 million Rupiah in one month.

Keywords: micro business, women empowerment, COVID 19

1 Introduction

The Covid-19 pandemic is something that is unexpected and will end up in almost all parts of the world in 2020. Data released by WHO (World Health Organization), at the end of March 2020 there were more than 200 countries infected with the Covid-19 virus by World Health Organization [1], including Indonesia identified as being exposed to the Covid-19 virus as of March 02nd, 2020 by World Health Organization [2]. The Covid-19 pandemic has caused complicated problems for many business actors, especially micro and small entrepreneurs. The results of a survey conducted by the Yanmas Team of DKPM Gajah Mada University stated that the Covid-19 pandemic had a negative impact on MSME actors (Micro, Small and Medium Enterprises), which was shown by a decrease in the number of orders to a decrease in sales accompanied by various other obstacles to their business processes by Tim Yanmas DPKM-UGM [3]. This pandemic has hit the sustainability of small businesses badly, many of them even temporarily closed the businesses they manage by Todd & Kathryn [4]. This is also experienced by partners who are micro-entrepreneurs. Partners are a group of housewives in Lakarsantri Village, Surabaya who run micro businesses with Stick Semanggi products, and they have been severely affected by the Covid-19 pandemic. Even in the first few months of the Covid-19 pandemic, their businesses did not operate. The clover sticks they produce are not the main

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choice that must be purchased for people around the partner location. The decline in people's purchasing power is one of the causes, as data reported by BAPPENAS per May 2020 stated that the pandemic has an impact on decreasing household consumption by Kedepatian Bidang Ekonomi Kementerian PPN/Bappenas [5]. Another possible reason is that the partners have only marketed their products around their area by entrusting them to stalls and sometimes peddling them around. Partners have not taken advantage of the availability of digital technology in marketing, such as social media (Facebook and Instagram) and marketplaces (Bukalapak, Shopee, Tokopedia and OLX). With the application of digital technology in marketing, product information can be disseminated to many potential customers without geographical boundaries and allows potential customers to communicate in two directions with product providers, which in turn can increase sales by Purwana ES & Rahmi [6]. In the production process, partners have been carrying out the production process using conventional and simple equipment. Starting from kneading the dough to becoming a ready-to-pack product. This is considered less effective because it requires more energy and time. This resulted in some partner members choosing other activities that were more productive. Seeing this condition, the team provided assistance in the form of procurement of more technological and modern production equipment, as well as providing training regarding the use of these equipment and the use of digital technology in the marketing process.

2 Method

Mentoring activities for partners are carried out in Lakarsantri Village, Surabaya. The activity aims to enable partners to take advantage of the technology available in the production and marketing process to increase income in order to face the Covid-19 pandemic. The details of the mentoring activities are listed in table 1.

Table 1. Mentoring Activities

Production Process	Marketing Process
Procurement of more technological and modern production equipment and training in operation and maintenance, consisting of: <ul style="list-style-type: none">- Electric stand mixer with a capacity of 4 liters with 6 speeds.- A dough roller that also functions as a dough cutter.- Deep fryer with a capacity of 6 liters, with stainless steel material and food grade quality.	Training and assistance for the use of digital technology in marketing in the form of: <ul style="list-style-type: none">- Partners have accounts and can post products on social media Facebook and Instagram.- Partners have accounts and can display products in the marketplace such as Bukalapak, Shopee, Tokopedia and OLX.

3 Results and Discussion

3.1 Production Process of Kneading Dough

With more technological and modern production equipment, in the form of an electric stand mixer with a sufficiently large capacity of 4 liters and with a speed that can be adjusted in the dough kneading process, partners can carry out the production process more quickly and efficiently. Stand mixer with large capacity and speed control can increase the productivity of food products in terms of quality and quantity by Artiningsih et al. [7]. In the dough kneading process, which was originally done manually (with hands and a basin) which took up to 20 minutes per 2 dough recipes, with the electric stand mixer the kneading can be done automatically and only takes 10 minutes with the same amount of dough. In addition, using an electric stand mixer can help the kneading process more evenly and produce more ready-to-milled dough.



Figure 1. Kneading the dough using an electric stand mixer

3.2 Production Process of Dough Milling and Cutting

The next process is to grind and cut the dough. Previously, the rolling of the dough was done manually using a wood grinder and it took up to 25 minutes for 2 dough recipes. Initially partners need a long time to get the dough that is ready to cut because it takes carefulness to get the dough with the same thickness and width. After getting the suitable dough, the process of cutting the dough using a knife until the dough is ready to fry in the form of a stick which takes up to 40 minutes for 2 dough recipes. With the dough rolling equipment that can simultaneously cut the dough in the form of a stick, the time it takes from grinding to produce pieces of dough in the form of sticks ready to fry is only 30 minutes for 2 dough recipes.



Figure 2. Milling and cutting the dough using an grinding and cutting tools

3.3 Production Process in Frying

In the frying process, which originally used an ordinary frying pan, the time needed to fry 2 dough recipes is 30 minutes. With a deep fryer with a capacity of 6 liters, frying time is reduced to 20 minutes. The use of deep frying methods can indeed minimize frying time by Faizi & Muharnis [8]. In addition, the resulting product has a more even level of cooked and saves less cooking oil and Liquified Petroleum Gas (LPG).



Figure 3. The frying process using a deep fryer

3.4 Marketing Aspects of Social Media

During running their business, partners have never used social media in the marketing process. Whereas the existence of social media such as Facebook and Instagram can help partners promote and introduce products as widely as possible. The use of social media can also expand the network and reach of a business by Srirejeki [9]. The advantages of the business network itself are one of the variables that can significantly influence the sales of SMEs by Fitanto [10].

Moreover, to have a social media account, partners do not need to pay registration fees, aka free. But Facebook and Instagram also have paid services to promote a product (account). And in implementing this technology model, partners are assisted to take advantage of paid services on one of the social media platforms, Instagram. The reason for choosing Instagram, is because marketing with social media Instagram is proven to increase purchase interest in FMCG products by Aji et al. [11]. By using the Instagram service, the result is that more and more people are familiar with partner's products. This is proven by the large number of likes and visits to partner's Instagram accounts that have increased from before using the paid service. Thus an impact on increasing sales.

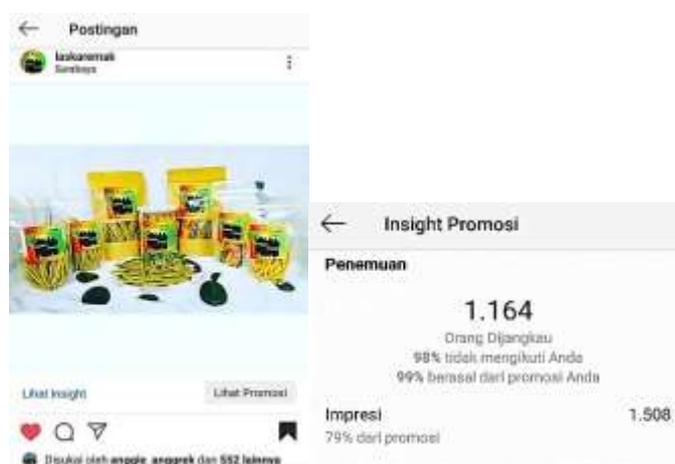


Figure 4. Use of Instagram social media paid promotion services

3.5 Marketplace Marketing Aspects

The existence of marketplaces such as Bukalapak, Shopee, Tokopedia and OLX is something that can help MSME players to market their products widely by Kawa & Wałęsiak [12]. Marketplace existence is to create opportunities for business actors to develop and expand their business with an online sales system by Febriyanto et al.[13]. In addition, partners can display their products and update them regularly in the space provided as needed. Business actors do not need to build a system (website) to support their business by Yustiani & Yunanto [14]. By using the Tokopedia marketplace, for example, partners can display all product variants and all information in their shop space, communicate in two directions with interested prospective buyers, and carry out sales transactions with consumers from inside and outside the city. Partners are also assisted to take advantage of the paid OLX marketplace for more intense and broad promotions. This is quite effective, because traffic on partner stores on OLX is increasing. Prospective buyers not only respond to partner products through the platform, but also purchase partner products.

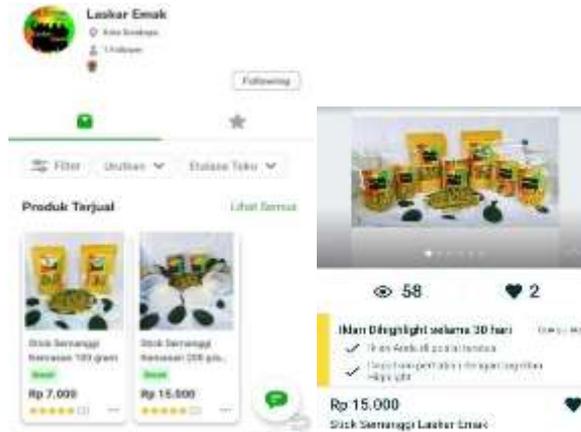


Figure 5. Use of OLX marketplace paid promotion services

3.6 Flow of Technology Application Model to Partners

Based on the previous explanation on the production and marketing aspects, the flow of technology application models to partners can be described as follows:

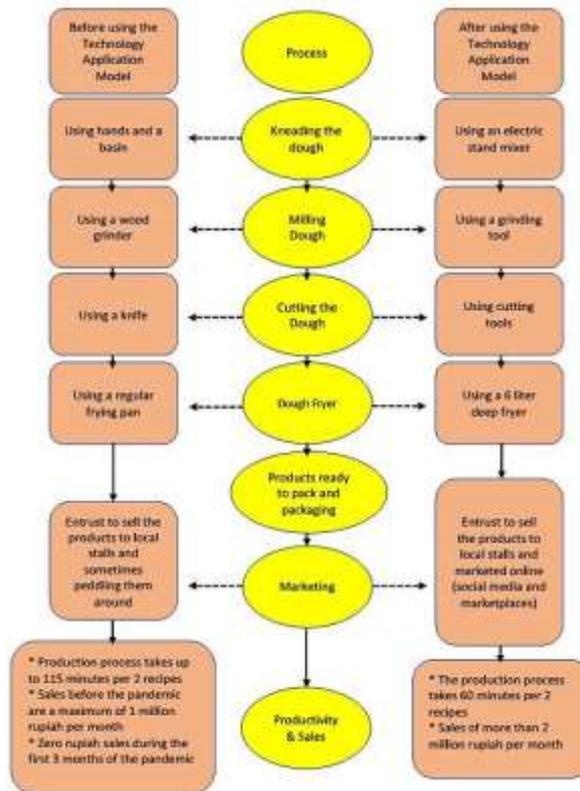


Figure 6. The flow of technology application model to partners

4 Conclusions and Recommendations

Mentoring by using technology application models to partners is proven to be able to increase productivity and sales. Before using the technology application model, the partner's production process took up to 115 minutes per 2 recipes. The maximum sales generated before the pandemic were 1 million Rupiah per month and even zero Rupiah during the initial 3 months of the pandemic. After using the technology application model, partners need 60 minutes per 2 recipes for the production and sales process to increase to more than 2 million Rupiah per month. In the future, partners are expected to apply other technologies to increase productivity. For example, using a motorized grinder (semi-automatic) and utilizing other digital technology applications to increase sales. Like establishing partnerships with grabfood and gofood in marketing. Gofood itself is a digital technology application that is able to increase sales to culinary or food business actors by Prapti NSS & Rahoyo [15].

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