

Increased Productivity Of Empon-Empon Jamu To Meet Demand Due To The Covid-19 Pandemic (Case Study In Dronco Hamlet, Girirejo Village, Imogiri District, Bantul Yogyakarta Regency)

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Abstract

These instant herbs and instant red ginger are much in demand by consumers because they taste good and are fresh, and can also increase the body's immunity. The business of instant herbal medicine and instant red ginger has not been managed professionally. This is indicated by the quality of the product that has not been standardized, which is sometimes too wet and sometimes too dry, resulting in durability and taste of the product. Since the Covid -19 pandemic, demand has increased by almost 400%. Meanwhile, the production of these two business groups is now only able to meet 50% to 60%. Based on the partners' problems, to increase production and improve the quality of herbal medicine, practically designed chopper machines have been used. The chopper machine that is donated to this partner is capable of chopping various types and sizes of herbal medicine with a production speed of around 30 kg of wet herbs per hour or greater \pm 50 times the manual work done by the partner at this time. Production process training and mentoring are also carried out so that the product quality lasts longer, and the taste of herbs does not change. With technological innovation and business training carried out by the service team, the partners feel very useful, that is 1). The organization is able to increase production capacity to fulfill demand 2). The quality of the herbal products will be better 3) Better organizational management 4). The economy of the members of the crafters' group has improved more

Keywords: Covid-19, chopper machine, Ampon-empon, ginger



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I. INTRODUCTION

Dronco hamlet, Girirejo village, Imogiri sub-district, Bantul district, is located 15 km south of the city of Yogyakarta or 0.5 km southwest of the tomb of the kings of the Yogyakarta Sultanate and the Surakarta Sultanate. The tomb of this king of kings is also often referred to by the local community as Pajimatan. The area of Girirejo village is a hilly area where the air is cool, but the land is a little barren due to the location

geographically, it is located in hills that are difficult to water, arable agriculture or plantations only rely on rainfed. Based on the condition of the land, most of the fields or gardens in the Girirejo area and its surroundings are planted with herbs and tubers. In one year, the fields and gardens can only be planted with tubers and herbs once, which is only when the rainy season arrives. Apart from gardening and farming, the livelihoods of the people of Girirejo Village are mostly herbal

craftsmen and traders. Dronco Hamlet, Girireja Village, is one of the centers for making instant jamu empon - empon and instant red ginger where the herbal medicine is made by two groups of women, that is, the "Rekso Lestari" herbal craftsman group and the instant red ginger craftsmen group. "Seger Wars." The types of jamu empon-empon that are produced include temu lawak, temu giring, temu ireng, fennel, galangal, tamarind, turmeric, and ginger. As raw material for herbal medicine, it is taken from the garden of the craftsmen and the garden of the community around the partner's location. So far, the marketing of the jamu empon-empon is sold installs around the Pajimatan graves, and some of it is sold at herbal stalls in the Yogyakarta area. As it is known that the tomb of the king of kings (Pajimatan) in Imogiri is a religious tourism destination that is visited by many from various regions in Indonesia and abroad. The instant herbal empon-empon produced by Dronco Imogiri hamlet is well known and much in demand by tourists because, in addition to its fresh taste it can also increase the body's immune system, such as preventing colds, relieving aches and pains, making the body more energetic and others. Based on interviews with group administrators who are in partners (herbal medicine craftsmen) since the Covid-19 pandemic, the demand for instant empon-empon herbal medicine is very high, that is ± 60 kg per day while the current production capacity is only ± 15 kg per day. The demand for herbal medicine is not only from the city of Yogyakarta but also from almost all parts of Indonesia. So far, the process of making herbal medicine is only done manually, which is not using a machine at all, either in the process of production and packaging. According to the craftsmen, one of the processes of making instant herbal medicine, which is very tiring and tiring, is the process of slicing or chopping. The chopping process takes one hour continuously; the neck, wrists, and whole-body already feel tight and stiff. This slicing or chopping must be done so that the raw material jamu is easily dried in the sun before crushing. The slicing process currently carried out by partners is, as shown in picture 1 below.



Figure 1. Chopping empon-empon manually

The results of this incision process or chopping are relatively few every day. This is because the incision process must be careful because, in addition to the risk of wounds, the slices must also be thin and the same in size. The factor of the size and texture constraints of the herbs also determines the length of the slicing; that is, the hard texture of the herbs will make the knife dull easily and must often be sharpened again. The relatively small amount of herbal medicine production results in a low level of economic income for the community, so that efforts to develop production are difficult due to limited costs. Based on interviews with group members, they really want assistance from certain parties who can foster and help their business in the form of training or assistance with chopper machines. The hope is that with the assistance of the chopper machine, it can improve the quality and production capacity of empon-empon and herbal medicine instant red ginger that he makes. The hope that is expected at this time is that the product can immediately meet demand. When the Covid 19 pandemic continues to increase, they are worried that if the demand is not fulfilled, consumers will move to other herbal craftsmen. With the increase in production, the hopes that they can increase their income and grow their business more.

II. LITERATURE REVIEW

The herbs of empon-empon have many health benefits, including increasing the body's immune system, preventing cancer, increasing metabolism, and others. These herbs of the empon-empon plant are easy to grow in dry and wet areas, even in hilly areas where water is difficult. Herbal plants that are often found and thrive in the Yogyakarta area, especially in the sub-district of Imogiri Bantul, are temu lawak, galangal, ginger, puyang, fennel, and temu hitam. These herbal plants are often found in gardens or fields that grow between other shrubs. The herbs, which used to be only allowed to grow without any treatment, are now widely cultivated by the community because they have a high selling value. The benefits of herbal medicine are well known by the Indonesian people before the discovery of drugs with chemical ingredients (Biofarmaka, IPB 2013). According to Mulyani et al. 2016, the Republic of Indonesia has about 20,000 types of plants, of which 7000 have the potential to be used as medicine.

Along with the development of the times, herbs of empon empon, which was previously only consumed by ground and the juice is drunk directly, is now widely processed into dry preparations in the form of instant powder. Currently, herbal products are in great demand by various groups of people, although they are still smaller than the use of chemical drugs; this is because the effect of herbal medicine lasts longer than chemical drugs, which have an instant effect on the body. However, the level of consumption of herbal medicine is still low compared to chemical drugs; however, the growth in the market share for herbal medicine is higher than the growth in the market share for chemical drugs (Lestari, 2007).

In addition to being cheap when compared to chemical drugs, the use of herbal medicine that is not excessive will not cause side effects to health and can even maintain fitness and stamina for the body. (Zulkifli, 2004). Even among adolescents, adults, and the elderly, there is now a trend to maintain stamina in addition to exercising as well as drinking herbs regularly. Coffee shops or beverage stalls in Yogyakarta nowadays also mostly provide instant herbal medicine such as herbs of galangal rice, tamarind turmeric, instant ginger, and others. The tendency of society to go back to nature, encouraging UKM craftsmen of herbal medicine to increase their production. The processing of herbal medicine starts with the selection of raw materials, chopping, drying, refining, and packaging. Good ingredients for herbal medicine are old rhizome, which can be seen at harvest time, marked by yellowing of the leaves, while chopping is carried out with the aim of accelerating drying, the uniformity of thickness in slicing greatly determines the quality of the herbs, the non-uniform thickness will cause the yield of moisture powdered, or instant herbal products are not

evenly distributed. Herbal medicine craftsmen are usually located in rural areas that are close to raw materials. The traditional herbal medicine craftsmen in rural areas are passed down from generation to generation with simple technology (Agus et al., 2014). Most of the herbs products from craftsmen are only sold in the surrounding community; this is because they do not yet understand many of the marketing systems using digital or other more modern information technology, because on average, the craftsmen have a low scientific background.

The herbs craftsmen UKM in the Dronco sub-district of Imogiri are still using manual methods in the production process. Therefore there is a need for related parties to provide training and assistance in terms of technology to increase production.

III. RESEARCH METHODOLOGY

Based on the partners' problems, that is, the low productivity of the empon empon herbs and the unstable quality of the herbal medicine, through this, the service team has conducted business management training and production process innovation training. Business training is carried out with group administrators and group members while maintaining health protocols in accordance with government regulations. The business management training materials provided have been adjusted to the current resources and market share of craftsmen. The following is the training material presented to partners:

1. Understanding entrepreneurship
2. The form of a business entity
3. Growing entrepreneurial mentality
4. Analysis of potential resources and market share owned
5. Strategy in doing business

This business management training is carried out every 2 weeks with time and place adjusted to mutual agreement. Meanwhile, training to increase herbal medicine production has been given knowledge about appropriate technological innovation in the form of making chopper machines. The design of this machine has been adapted to the functions and conditions of the community as users, which is simply cheap, durable funds. Training and mentoring for members of the herbal medicine craftsman group is also carried out every 2 weeks at the location of the group members. As for the form of training to improve production, a herbal chopper machine has been made using diesel fuel with a power of 3 HP. With diesel fuel, using this diesel engine is more flexible because the place for production activities can be done anywhere, such as in a field in a garden or at home that does not yet exist electricity from PLN.

At this time, the chopper machine has been operated and placed in a place that has been agreed by the partner to be used together alternately between members. By working together and using the same machine, members can communicate with each other, interact, and discuss during the production process. The use of these machines together can produce good quality and the same herbal products. So far, the partner has always provided assistance to the use of chopper machines and also continues to monitor the quality of the product. The activities of the service personnel in mentoring are 1). Conducting machine operation training, 2) providing counseling on higher quality herbal processing methods 3). Provide training in good and attractive packaging methods. The image of the chopper machine can be seen in Picture 2 below.



Figure 2, The empon-empon chopper machine

The step of the jamu chopping process works is as follows:

- Prepare the raw materials for herbs such as temu lawak, temu giring, turmeric, ginger, and others
- Choose the same size and clean using water. This same size selection makes it easy to adjust the thickness of the slices at the blade.
- Start the engine by pulling the rope on the diesel engine
- Set the holes in the feeder for the raw materials according to the type and size
- Adjust the blade according to the thickness of the slices of herbal medicine that you want.
- Adjust the rubber swivel on the pulley to suit the object to be worked on.
- Enter the raw material into the feed place on the machine
- If the raw material that is in the feedlot is only a little pressurized, the raw material uses the existing wooden blocks.
- The addition of raw materials to the chopping place is done one after another until the raw materials to be chopped are finished,
- Turn off and clean the machine after chopping production is considered complete

IV. FINDING AND DISCUSSION

The production process of the traditional herbal medicine empon empon in Dronco, Girirejo, Imogiri, Bantul is still carried out traditionally, it is said to be traditional because the production process is still carried out from generation to generation, that is, chopping the raw material for the ingredients is only sliced using a straight knife, and there is no motivation for development larger production. This method of business management is due to, among others, 1). the level of education of craftsmen is low; that is, more than 50% of the members-only graduate from elementary school and are even illiterate, 2). The average age of crafters is over 55 years, and some are over 60 years old. 3). Most of the herbal medicine business is only used as a side job, which is done while taking care of the household and other activities. 4). Simple lifestyle and no target, 5).

Until now, there has never been an outside party that has provided counseling or assistance to craftsmen 6). The younger generation is less interested in developing their parents' business because the process is considered complicated and tedious, and the profit is small; that is, even if one workday is calculated for 8 hours, the income is only around 50 thousand rupiahs. With the business training and chopper machine assistance provided by the service team, now the crafters' group has felt helped and is more innovative in pursuing their business. As for the benefits of the chopper machine, the service team's help, have been felt by the group members, which include the following:

- This chopper machine is quite practical, comfortable, safe, and its production capacity can chop \pm 30 kg of herbs per hour so that it increases \pm 50 times compared to the manual method.
- More effective and efficient because one motor can be used to move the knife, which can be used for various types and sizes of herbal medicine.
- The way the machine works is quite simple and easy to operate, and the fuel costs are also cheap, that is Rp 50 / kg
- Diesel-powered engines have the advantage of being more flexible; that is, they can be operated in any place without having to depend on PLN electricity
- If there is damage to the machine, the repair is easy enough without having to invite a special workshop because the work process is quite simple, and spare parts are widely available in the market.
- By working with machines, you will have more free time to take care of the household.
- The level of fatigue is reduced, that is, after working all day slicing herbs, then at night, the body feels stiff and achy, but after the work is done using a machine, the body and other body parts do not have any complaints.

Based on interviews and data in the field, the problem was found that so far, a mapping has not been carried out by the government or related parties regarding the potential of natural and human resources owned by the Imogiri sub-district, especially the hamlet of Girirejo Village. This potential includes the large number of herbal plants that are planted in the fields, and the people's gardens have not been fully processed; it can be seen that some of the herbal products by residents are sold directly in the market at a relatively low price. In addition, in Dronco hamlet, Imogiri village, this is a production center for herbal medicine from generation to generation, which is known to the public. Girirejo villagers are industrious and hardworking people and still have a lot of free time every day. Through this community service training and assistance has been carried out chopper machine for the production of instant herbal empon empon and red ginger, while the results of the increase are as follows:

- Production of instant herbal medicine empon-empon can increase by 400% compared to the previous method so that what was previously unfulfilled demand is now being fulfilled.
 - The herbal medicine production process is not tiring and tedious. They even feel happy because they can gather, chat with the members while doing other activities during the activity.
 - Group members become more aware of the benefits of the quality of herbal medicine, can carry out an effective and efficient production process, and are able to manage the organization well.
 - Citizens are also motivated to advance their organization by holding regular meetings and making monthly dues with the agreed amount of 10 thousand rupiahs. Part of this fee is used to buy diesel fuel and machine maintenance and is also used for social funds between members if one of the residents is affected by a disaster.
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- The members of the craftsmen group are becoming more innovative in managing and developing their herbal medicine business, which was previously only done on a side-by-side basis, and now production starts to be carried out regularly every day.
- The younger generation has become interested in helping out with their parent's businesses, who previously didn't care about their parents' business activities, now started help to market and package their herbal products.
- The income of the residents had increased, if in the past, the work of making herbal medicine was only done when they wanted to, and now it has become routine every day. So that currently, the income of the craftsmen group is increasing.

V. CONCLUSION AND FURTHER RESEARCH

This service that is carried out in Dronco hamlet, Girirejo village, Imogiri Bantul sub-district, brings benefits to the residents of the herbal medicine craftsman group, especially the group of women craftsmen of herbal medicine "Rekso Lestari" and the group of women craftsmen of instant red ginger "Seger Waras." The benefits felt by the members of the group include 1). The production of herbal medicine has increased so that it can fulfill consumer demand during the Covid-19 pandemic 2). The economy of the group members has improved more than before the training and assistance of chopper machines. 3). Community members, especially those around the partners, are more interested in participating in producing herbal medicine. 4) The community members can explore the potential of their resources in the form of agricultural products in the form of herbs to be processed into instant empon empon herbs and quality instant red ginger. 5) The citizens become excited to develop their herbal medicine business; they will be able to support the tourist destinations of the Imogiri area, which are now widely known because of the tombs of the kings of the Yogyakarta Sultanate and Solo Sultanate.

VI. REFERENCES

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