

Economic Improvement through Mocaf Flour Processing During the Covid-19 Pandemic

Dede R. Oktini^{1,*}, Rahmat Effendi², Yudha Dwi Nugraha¹, Rezi Muhamad Taufik Permana¹

¹ Faculty of Economics and Business, ² Faculty of Da'wah
Bandung Islamic University
Bandung, Indonesia
*dede.r.oktini@gmail.com

Abstract—This Program is aimed at cassava farmers and the village community of Rende-West Bandung. The role of cassava farmers and the community in processed food businesses is very much needed considering the economic conditions, especially in the village of Rende, have decreased since the outbreak of Covid-19, meanwhile the local government has changed the direction of development by prioritizing recovery, especially in the economic sector. Farmers complain that it is difficult to sell their harvests, middlemen only buy part of it at a very low price so that the rest of the harvest is not utilized, then cassava is made as low-priced animal feed. As a result, farmers find it difficult to improve their welfare. The purpose is so that the cassava harvest can be sold in the form of processed products, namely in the form of mocaf with the intention that it is not difficult to sell and so that the price is higher. These target audiences are those who really need and are willing to be fostered to pursue the manufacture of mocaf and are willing to be invited to be more creative and innovative in developing so that mocaf is of higher quality, the goal of which is the establishment of a sustainable mocaf business. The method of activity consists of mocaf flour tutorials & training, online and offline marketing tutorials and Islamic entrepreneurship briefing materials are inserted. The results show that there are 7 participants who doing the mocaf business, with a partnership pattern where 1 participant becomes a producer as well as a container for other production results and is marketed online, so that all harvests are utilized and sold because mocaf can survive for 1 year. The price of cassava did not appear to increase because the production of mocaf still uses cassava material from its own plantation and the amount of production is still limited. Marketing has been done online through the Lazada but has not been able to meet demand due to production constraints.

Keywords—farmers, community, cassava, mocaf, price, welfare

I. INTRODUCTION

Rende village is a relatively fertile area, in the form of plantations and rice fields, and almost every garden is planted with cassava, with good quality [1]. The temperature in Rende village ranges from 20 to 32 degrees Celsius [2]. Cassava plants are very suitable at these temperatures. Since 2017 Rende village has been designated as a community and agricultural-based tourism village [3], in collaboration between SITH-Bandung Institute of Technology and the West Bandung

Regency Tourism and Culture Office number 073/467/DISPARBUD/2017 and number 4467/SPK/I1.CO2/DN/2017. Based on the results research of Oktini [2], it was found that several potentials and environmental conditions in Rende Village were feasible to be developed into a tourist village, to improve the welfare of the community. Several processed products have been developed under this collaboration, such as various preserved spices, cassava chips of various flavors. One product that has the potential to be further developed in Rende village is mocaf flour or flour made from cassava. This product is an alternative diversification that is considered strategic in supporting food security, namely cassava which functions as a food ingredient, used as a basic ingredient for various foods [4].

The purpose of this service is in accordance with the expectations of the community, both cassava farmers and the public. Cassava farmers have long hoped that their harvests will not be difficult to sell and that the price will be higher, while the public hopes to use this cassava into commercially valuable products so that it can help the family's economy and are ready to do business if they judge it is feasible to do business. This PKM is very in line with the problems faced and feels very urgent to find a solution, especially since the Covid-19 pandemic there has been a decrease in overall community income, an increase in the number of poor people, the difficulty of work, etc. The LPPM Strategic Plan 2016-2020 states that PKM activities target and accelerate towards community group development efforts through dynamic and continuous guidance so that they can prepare themselves to take changes towards improvement and progress in accordance with the social values prevailing in their area.

This PKM program will begin with counseling/tutorial/literacy activities which are non-formal education processes given to a person or group with the aim of solving their own problems specifically in their field to improve welfare [5] while training is a learning process to get used to or gain certain skills [6]. The tutorial/literacy provided is about creativity and innovation. Creativity can be developed by a person through his ability to create a solution to problems related to the creation of ideas that are *original* and adaptive to environmental changes to develop current conditions into

something better [7] for example in a campus environment, which initially did not have a place for *photocopying*, became available. While innovation is a new work [8]. There are two (2) terms of innovation, the first is related to novelty (*novelty*) or originality. *Novelty* in this case is something new that can be created, it can be in the form of a completely new product, development product in the form of renewal in terms of use value, conditions and applications and others. The second requirement is improvement, which means that products and processes are continuously improved in the most effective and efficient way [9]. Innovation is implemented in agricultural products, namely cassava, which is a tropical plant, its production is abundant (productive) and very easy to cultivate so that it can be used as an alternative food to replace staple food, rice, or substitute for wheat flour, and is expected to increase food security. Cassava itself can be developed through product diversification efforts, one of which is by creating mocaf flour which is flour made from fermented cassava with microbes such as *Acetobacter xylinum*, *Rhizopus oryzae* and *Saccharomyces cerevisiae* and *Lactobacillus casei* [10]. Diversification is an effort made by a company through diversification of business lines with the aim of not only increasing the company's income, but also as a precaution when the company is unable to rely on only one type of business. Diversification efforts can also be carried out through the creation of various products derived from one type of raw material, such as cassava which is processed into various products. These processed products have different markets, so the possible loss can be covered by profits from other business profits [11].

These efforts aim to expand the market and create new markets [12] so that it is hoped that the consumption of food made from mocaf flour will increase, so that the demand for mocaf flour increases and causes the price of mocaf flour to increase and in turn the price of cassava will also increase.

Prices are divided into two, namely objective prices and perceived prices [13]. The objective price is the actual price of a product/service, while the perceived price shows the price encoded/coded by the customer. After cassava becomes mocaf flour, the next step is marketing, which can be done *online* and *offline*. Training on the marketing of mocaf flour is intended to help smooth the transfer of products so that they reach consumers quickly.

The production process of mocaf flour illustrates how the basic ingredients of cassava are processed into useful flour products. The production function shows the relationship between the factors of production and the output, where the output (Y) is determined by the factor of production (X), the relationship between the two variables can be positive or negative. If the higher X, the higher Y, this indicates a positive relationship, whereas if the higher X the lower Y, it shows a negative relationship. According to Pindyck [14], the mathematical form of the production function is shown as follows:

$$Y = f(X_1, X_2, \dots, X_n), \text{ where:}$$

X = Input factors of production

Y = Production Results

Profit is the difference between total revenue (*Total Revenue/ TR*) – Total Cost (*Total Cost/ TC*). Total revenue from farming is the product of the product with the selling price (P_y) which can be described as follows: $TR = Y \times P_y$. The costs used by farmers consist of fixed costs (*fixed costs/ FC*) and variable costs (*variable costs/ VC*). Fixed costs are costs that do not change even though the amount of production changes, for example equipment which in the long run tends not to change, while variable costs are costs that change according to changes in the amount of production, for example labor costs, raw material costs. The sum of VC and FC is the total cost (TC) and if described is $TC = FC + VC$ [15].

Mocaf that has been produced should be marketed through online marketing. Marketing *Online (digital)* is about people, how they use technology, and how we can use it to engage more effectively. Technology only provides *platforms* new and exciting. In the context of social media, social media marketing has attracted increasing attention and interest from brands and businesses big and small alike. Social media networking sites now receive the highest network traffic worldwide [16] and a third of online time is spent on social media [17].

Conventional marketing for mocaf flour is also still needed considering the wide market. Conventional marketing can be in the form of direct sales or through intermediaries by utilizing existing retailers [18]. The marketing mix framework, traditionally known as the 4 Ps (Product, Promotion, Price and Place), is the dominant marketing management theory and widely used managerial tool that helps identify the main components of a product [19].

Model 4 Ps by adding three Ps, including Participant (or Person), Physical Evidence, and Process for the service product. Compared to the 4 Ps, the 7 Ps model provides a more comprehensive and detailed framework for analyzing the marketing mix of service products [20]. In addition to its ability to assess the critical marketing elements of a service product, the 7 Ps Model can also be applied to other areas as a generic marketing framework in questions such as qualitative content analysis [20], survey studies [21], and big data analytics for business or marketing intelligence [19]. Conventional channels for marketing mocaf flour can be distributed individually, resold to traders, or consigned through warungs, traditional markets or modern markets. The last hope of Marketing activities is the creation of customer satisfaction.

Through this training, the hopes of farmers, the community and the government can be realized, namely increasing income, in accordance with the change in the direction of government development as stated in the West Bandung Regency RPJMD which focuses more on increasing community economic activities in the face of the COVID-19 pandemic which is a new tragedy in human civilization. and resulting in an ongoing global pandemic [22]. Covid-19 spreads mainly between people who are close and in contact, the spread can be through

coughing, sneezing, or talking [17]. Recent research reveals that the physical distancing policy caused by the coronavirus disease in 2019 has affected socioeconomic [23,24] and supply chains [25].

Rende village has a large cassava plant, consisting of village and community land, but complains about the difficulty of selling its crops, some of which are sold through middlemen for Rp. 500 per kg, while some of the unsold is used as animal feed.

Mocaf flour is flour whose ingredients are cassava, but it is different from tapioca flour, where the main component of tapioca flour is starch so that the protein content is very little or even non-existent [10]. While mocaf flour is because all parts of cassava are processed so that they still contain protein [26]. The calcium content in mocaf is higher than wheat or rice flour, mocaf flour is easier to digest because it does not contain cyanide. Mocaf flour is very good for people with autism because it does not contain *gluten*, mocaf flour can last up to 1 year, mocaf flour can be used as a substitute wheat flour to make various kinds of food such as cakes, various kinds of snacks, a mixture of flour ingredients, fried foods, etc., mocaf flour can be sold and generate income for the community [10].

II. RESEARCH METHODS

The problem approach method is based on the importance of understanding the target audience towards overall aspects related to the activity of PKM.

Methods implementation consists of:

A. Activity Plan

1) *Program socialization*: Provide an overview to Partners about the mocaf flour business with various problems to achieve success, from production to marketing.

2) *Action plan*: Formulate details of coaching activities in detail to Partners, because every step of coaching requires Partner's participation.

3) *Business plan preparation*: Agricultural product business plans need to be prepared as part of the commercial business process. The business plan is prepared as a direction for business activities and will serve as a guide for monitoring and evaluating business development.

4) *Introduction of cassava potential as a source of local material that has the potential to be developed*: Quality cassava is cassava that has just been harvested, it must be directly produced/processed into flour or other processed products. A maximum of 3 days after harvesting does not cause changes in color and taste. The cassava produced in the West Java region is of good quality, which is called butter cassava, has a yellowish color, and is often used as a peuyeum ingredient. However, the price of cassava agricultural products in the village of Rende remains low at Rp. 500, while in Central Java it reached Rp. 1600. This condition occurs because farmers do not know that cassava products can be

developed into mocaf flour products which have more uses, namely as a substitute for flour or flour mixers, can be made as ingredients for various foods, cakes and snacks, but the processing must use this method. Certain products are fermented to produce good flour, which is not bitter in taste, white in color, odorless, does not cause dizziness and bloating after consuming it.

5) *Procurement*: Namely the procurement of good cassava.

6) *Procurement*: Namely the procurement of fermented materials.

7) *Processing*: Namely the manufacture of mocaf flour.

8) *Marketing management*: Marketing of mocaf flour begins with a market test first. The market test is carried out during the PKM program.

The schedule of activities is as follows:

- Divide the training groups based on where they live, where 1 group consists of 5 people who live close together.
- The first meeting begins with a pretest, then continues with the provision of entrepreneurial theory (creativity and innovation), simulations to generate creative and innovative ideas, theory about simple bookkeeping, information about mocaf flour, theory of making mocaf flour using both fermentation and without fermentation, theory Mocaf marketing *online* and *offline*. At the first meeting, several examples of processed mocaf flour that have been processed by the proposer team will also be exhibited. At the first meeting, each group will be given the task of doing an experiment at the group leader's house, then experimenting with making processed foods, where the mocaf flour is brought during the second meeting and bringing the processed products in the form of food.
- At the second meeting, each group presented their processed products in the form of mocaf flour and processed food products, then each evaluated each other and then conveyed their opinions regarding the taste, color, quality, and effects after consuming it. At this second meeting, it will be conveyed to each group to proceed to the stage of offering it to the closest people and neighbors first, where what they offer is mocaf flour, but it will be more effective if it is accompanied by samples of processed products that can be felt by potential consumers. The second meeting had to be quite far from the first meeting because in the middle of that time the participants had to do the task of experimenting with making mocaf flour and making processed food from the mocaf flour produced. It takes time because the making of mocaf flour takes about 1 week.
- The third meeting, the proposing team will evaluate and share about the training in making this mocaf flour. At the 3rd meeting, a post test was also conducted.

III. PROBLEM APPROACH METHODS

The following will describe the problem approach process to help the community as follows: Science and technology transfer carried out by the Unisba PKM Team at each stage uses the principle that every innovation accepted by Partners goes through the process: Listening, Knowing, Trying, Evaluating, Accepting, Believing, Doing. Through these processes, it is hoped that innovations can be adopted on an ongoing basis, and the target audience can analyze the development of their business and are able to develop the innovations they have mastered. For each process to run well, the delivery of innovation to partners is taken through the stages of explanation, discussion, practice, and mentoring.

In general, the approach process to assist Partners in counseling and training on making mocaf flour can be described as follows:

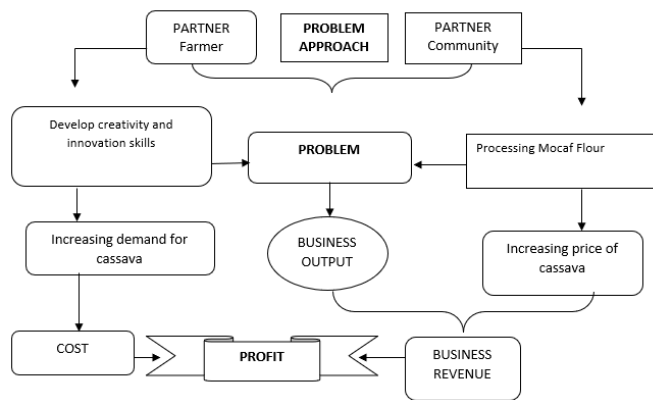


Fig. 1. Problem approach method.

Figure 1 shows that the solution to the problems of cassava farmers in Rende village starts from the approach stage to partners, namely the farmers themselves to explore information that is the cause and other communities to support increasing demand for cassava produced by farmers, where non-farmers will be directed to pursue a cassava-based business. These problems can be overcome through increasing the ability/growing and developing cassava yields into derivative products that are of greater benefit and wider market, one of which is mocaf flour, because the product has a growing market and is supported by easier marketing through online application that can reach widely. Through the mocaf flour business, it can cause demand to increase so that in the long term the price of cassava increases which has implications for increasing welfare. Farmers can save on raw material costs when supplied from their own gardens, resulting in more revenue and profits.

IV. RESULTS AND DISCUSSION

On Tuesday, February 2, 2021, the PKM team held counseling and training on making mocaf flour to cassava farmers in Rw 13, Malingping village. The number of participants exceeded the limit of 40 with various ages, from

adults to teenagers, but there were more female participants than men. The first session started with training in making mocaf flour first. In this session, the benefits of mocaf flour for health were conveyed, considering that not many people used mocaf flour, generally people use wheat flour, tapioca flour, palm flour which are spread throughout the sales place. Mocaf flour consumers are still limited in Central Java and East Java because these areas have already developed a mocaf flour business, while in West Java there are only a few factories, many consumers are also from segments that pay attention to health, because mocaf flour is especially useful for people with epilepsy and obesity etc. Therefore, it is very important to convey about the benefits of mocaf flour for health so that it can be an alternative to other staple food ingredients. In this session it was also conveyed that it is better to develop staple food ingredients based on local wisdom, in which cassava is an important food ingredient, but its processing is still limited, even though it can be processed like wheat flour which can be used to make various nutritious preparations as well that are nutritious materials, while there are many types of fermented materials, in this activity the example of Bimo-CF is given because the price is cheaper than other brands. 1 kg of cassava can be converted into 3 ounces of mocaf flour. The reason why there is no fermentation activity is because the fermentation process takes 1 day and 1 night, so it is impossible to demonstrate it in the training event.

The fermented chips are then dried in the sun to dry, the drying process can take 2 to 3 days depending on the weather. Furthermore *chips*, the dried are made into flour, which can be ground or using a flour machine. The PKM team brought samples of fermented materials, namely Bimo-CF and ready-made mocaf flour, either made by the PKM team themselves or purchased from existing mocaf flour producers. In addition, as additional insight, various examples of processed products made from mocaf flour were given, such as tarts, *eggrolls*, crackers, chips, cakes, steamed cakes, rasi (cassava rice) as well as *snacks* very varied and interesting. Some are made by order of the PKM team, some are obtained from the cassava processing center, namely the Cireundeu - Cimahi village. It is hoped that farmers and the community will be inspired by seeing these products so that they understand that mocaf flour can be made into various interesting and nutritious foods such as wheat flour, thereby creating interest in the business of mocaf flour and its derivative products.

The training on making mocaf flour was also added with an explanation about making it without a fermentation process but only using water as an ingredient to remove odors. The soaking process takes the same time as using fermented ingredients, which is 3 nights and 3 days, and often replaces the soaking water so it doesn't smell bad. The explanation can be accepted and understood because the community is familiar with making cassava, although the process is different, but it is easy to understand. This is indicated by the active participation of participants in asking questions regarding the manufacture of mocaf flour and its derivative products. At the end of the training session, each participant was given fermented ingredients and carried out experiments on making mocaf flour

in mentoring and given examples of derivative products to broaden their horizons so that inspiration came from each participant.

The following is a description of the analysis of the mocaf flour business using its own land so that there is no land rental fee.

A. Capital Costs

- Building and soaking tub, service life 15 years Rp. 10,000,000
- Chip/flour machine with a service life of 5 years Rp. 1,500,000
- Drying mats 15,000 x 100 pieces = Rp. 1.500.000
- Total Investment Cost Rp. 13,000,000

B. Production Costs

- Raw materials for cassava Rp 500/kg x 5000 kg = Rp. 2,500,000
- Fermented Materials Rp. 100 x 1500 = Rp. 150.000
- Stripping labor costs Rp. 15000/ton x 5 tons = Rp. 75.000
- Cost of cutting (chipping) & washing Rp. 5000/ton x 5 tons = Rp. 25,000
- Drying fee Rp. 25.000/ton x 5 ton = Rp. 125,000
- Electricity Rp. 75.000
- Total production cost = Rp. 2.950.000

If 1 kg of cassava produces 5 ounces of mocaf flour, then 5 tons (5000 kg) of cassava produces 15000 ounces or 250 kg so that 1 kg of costs requires a production cost of around Rp. 11,800. If the desired mark up (profit) is 20% (Rp. 11,800 x 20% = Rp. 3260), then the selling price to consumers is Rp. 14,160 (Rp. 11,800 + Rp. 3,260) or rounded up to Rp. 15,000/kg. Thus, mocaf producers get a profit of around Rp. 3,200 per kg. If 250 kg is sold, then the profit from the 5 tons production is Rp. 800,000. The calculation above uses the assumption that mocaf producers buy cassava raw materials from farmers. If the cassava is produced on its own, then of course the benefits are as follows:

- Production cost 5 tons = Rp. 450.000
- Income that is 250 kg x Rp. 15,000 = Rp. 3.750.000 – Rp. 450,000 = Rp. 3,300,000.

So, if the farmer only sells cassava, he will get Rp. 2,500,000, but if you sell it in the form of mocaf flour, then there is a chance to get more at least Rp. 3,300,000. In Tokopedia, producers can sell it for up to Rp. 32,000 per kg so the profit can reach Rp. 7,550,000 (Rp. 32,000 x 250 kg – Rp. 450,000). If the cassava is bought from the farmer, the profit from the 5 tons is Rp. 2,950,000: 250 kg = Rp. 11,800. Rp.

32,000 – Rp. 11,800 = Rp. 20,200 so profit = Rp. 20,200 x 250 = Rp. 5.050.000. However, they still must pay fees, the online amount of which vary.

The next stage is counseling about the marketing of mocaf flour through *online* and conventional channels. The explanation is still limited to the background of why marketing *online* is important in running a business. This is motivated because marketing strategies are *online* very important to support sales effectiveness, even though micro businesses usually do it manually, spontaneously, unfocused and improvised. Planning that is detailed and seems convoluted, he considers difficult, so he prefers something more flexible and easier. Through marketing *online* which is a means to introduce widely and globally to consumers in near and far areas and even abroad. Marketing *Online* can also identify consumers so that SMEs can meet consumer expectations, marketing is the core wheel and without a good strategy, sales will be difficult to achieve. Marketing strategies *Online* also play a role in building brands and creating communication with consumers so that they can maintain and maintain business continuity in the long term. Based on observations, it is shown that young people from the participants already recognize applications *online* but have not used them for business, only using them for shopping media.

Conventional marketing is also explained in this PKM activity considering that until now there are still conventional strategies that still exist in use, even these strategies provide effective results. The conventional types of marketing described are the use of business cards, *networking*, using *flyers*, and branding. Especially for mocaf flour, traders in traditional markets can also use for consignment or stalls, as well as fried food traders and cake factories.

The other session was filled with Islamic material relevant to trade, this was done to educate the public so that in doing business they always follow the teachings of the Prophet Muhammad SAW and foster the spirit of work, trying to be part of worship as ordered by Allah SWT so that this PKM is carried out by integrating and internalizing values. - Islamic values as Unisba's vision and mission.

Mentoring is given to participants who take part in training activities, but not to all participants but only to participants who are serious about getting into the mocaf flour business and really doing experiments. Based on observations, there are 5 people who are serious about running the mocaf flour business, as evidenced by their seriousness in conducting experiments. Experimental activities were carried out 5 times, 6 times to 8 times. One participant who intensively communicates with the PKM team, namely Ahmad, this communication runs to carry out monitoring and evaluation. Through this Ahmad, the PKM team found out how the condition of the participants was, whether they were conducting an experiment or not. Based on information, all participants who were given fermented ingredients conducted experiments starting from the fermentation process to making mocaf flour. There are those who do it only up to 1 experiment, after turning it into flour,

they try to make a snack. There are those who experiment and fail and then try again several times, some even experiment 8 times until they consume quite a lot of fresh cassava. Something failed and caused an unpleasant odor so that the smell was felt by the neighbors. After 7 failures, only the 8th time was successful and experimented with making various snacks. The result is that mocaf flour is very suitable to be used as a cake ingredient which is processed through steaming techniques such as apam cake, steamed sponge cake, etc., while the manufacture of fried foods produces a better taste when mixed with mocaf flour.

Based on the experimental results, there are differences in the taste and aroma of mocaf flour made by each participant, this is because the process is slightly different, it will produce different mocaf flour, and depends on the weather. If the weather is good, the sun is hot, it will produce flour with a clean white color and a better taste.

The experimental results that did not fail were then offered to several fried food traders to be used as mixed raw materials, some were sent to Jakarta to cake manufacturers for experiments, and the response was good, so they ordered again even though in small quantities, approximately 20 kg for every order. Meanwhile, fried food traders also place orders in small quantities of approximately 2 kg within 2 days. Marketing of mocaf flour takes quite a long time because it still must educate potential consumers because they don't know much about it, besides that when introducing mocaf it must be accompanied by a sample because generally the potential customers we meet don't know it.

This PKM produces 7 small mocaf flour businesses. 1 out of 7 entrepreneurs, apart from producing their own, is also a container for mocaf processed by other entrepreneurs. This is done not only because it requires more supplies, but also because it helps entrepreneurs who have not been able to market more broadly. This 1 entrepreneur gave his brand of mocaf flour, namely Adriza mocaf and has been able to sell online through Lazada, serving 1-5 package orders every day.

V. CONCLUSION

Through this PKM activity, the community is given training in making mocaf flour, with the aim that the cassava harvest is not only sold in the form of raw materials because the price is very cheap, but semi-finished processed products are made as a business diversification which is expected through this mocaf product. The market coverage is getting wider so that people can increase their family income. The expansion of the mocaf flour market will have an impact on increasing market demand for cassava, so this will also have an impact on increasing the price of cassava produced by farmers. Thus, farmers can also increase their welfare.

In this PKM activity, counseling was also given about online marketing, given the very importance of digital marketing today, with the aim of accelerating the expansion of market coverage, considering that the mocaf flour market is more specific, namely consumers who are very careful in

maintaining their health, especially in big cities. Other counseling is entrepreneurship, with the aim of providing enthusiasm and inspiration to be creative and innovative. Counseling is equipped with business ethics according to Islam, with the aim that in every business activity it is always guided by the Qur'an and Hadith and imitates Rasulullah SAW to get halal and blessing results.

VI. SUGGESTIONS

Based on the conclusions above, it can be suggested as follows:

- The very low price of cassava needs to be increased through the creation of product diversification, which can be used as semi-finished products or finished products, with the aim that the value is higher, and the consumers are wider.
- The ability of farmers and the community is very limited, both in terms of the ability to generate ideas for developing cassava and in terms of the mocaf flour production process, especially where not all people can easily produce good mocaf flour. Therefore, it is necessary to hold trainings that are more focused on efforts to produce better mocaf flour by bringing in more competent resource persons. Among the participants, there were those who were able to produce mocaf flour that was worth selling even better than the mocaf flour that was already on the market, so these participants could be used as resource persons.

Based on observations, participants still need more intensive assistance, especially participants who are very serious in pursuing the mocaf flour business. For participants who are already able to produce good flour, they still need marketing assistance to a wider market through marketing *online*. Therefore, at the next PKM, marketing training will be provided *online* using the Taniku, Bukalapak, Shope, Tokopedia and Social Media applications including licensing arrangements. Another need is an increase in the number of productions considering that orders are increasing because there is one entrepreneur who has been able to break through the market *online* through the Lazada application, thus requiring a better machine with a large capacity.

REFERENCES

- [1] Kecamatan Cicalongwetan Dalam Angka, Badan Pusat Statistik Kabupaten Bandung Barat. Bandung Barat, 2018.
- [2] D.R. Oktini, "Pembinaan manajemen zooteknis pada kelompok usahatani cidole desa Rende Cicalongwetan Bandung Barat." *Prosiding SNaPP : Sosial, Ekonomi dan Humaniora*, vol. 7, no. 2, 2017.
- [3] M. Alwasilah, *Desa Rende-Desa Wisata Berbasis Pertanian dan Masyarakat*. Berita, 2017.
- [4] W. Marsigit, "Pengembangan diversifikasi produk pangan olahan lokal Bengkulu untuk menunjang ketahanan pangan berkelanjutan," *Agritech*, vol. 30, no. 4, pp. 256-264, 2010.
- [5] A. Agussabti, *Penyuluhan Pertanian Berbasis Syariah*. Syah Kuala. University Press, 2020.

- [6] W. Herwina, *Analisis Model-model Pelatihan*. Madiun: CV Bayfa Cendikia Indonesia, 2021.
- [7] K.K. Tumiwa, *Tetap Kreatif Dan Inovatif Di Tengah Pandemi Covid-19*. Pekalongan: PT. Nasya Expanding Manajemen, 2021.
- [8] N. Nasution, A. Hakin and H. Kartajaya, *Inovasi*. Yogyakarta: Andi, 2018.
- [9] R. Saragih, "Membangun usaha kreatif, inovatif dan bermanfaat melalui penerapan kewirausahaan sosial," *Jurnal Kewirausahaan*, vol. 3, no. 2, pp. 26-34, 2017.
- [10] A. Erismar and P. Putri, "Pembuatan Mocaf (Modified Cassava Flour) Dengan Proses Fermentasi menggunakan beberapa jenis ragi," *Jurnal Pelangi Research of Education and Development*, vol. 6, no. 2, pp. 182-191, 2014.
- [11] R. Hanafie, *Pengantar Ekonomi Pertanian*. Yogyakarta: Andi, 2010.
- [12] D. Syah, *Riset untuk memberdayakan potensi lokal*. Bogor: IPB Press, 2018.
- [13] N.D. Setiawina, *Harapan Rasional Ekonomi Makro*. Yogyakarta: Andi, 2016.
- [14] R.S. Pindyck, *Sunk costs and risk-based barriers to entry (No. w14755)*. National Bureau of Economic Research, 2009.
- [15] S. Sukirno, *Mikro Ekonomi Teori Pengantar*. Jakarta: P.T Raja Grafindo Persada, 2011.
- [16] Alfarizi, Moh Khory., Amri Mahbub. *Tempo.Co*. 08 Mei 2018.
- [17] Global Web Index, *Gwi Social*. WHO (2020) Q&A on Coronavirus (COVID-19), 2018.
- [18] P. Kotler and K.L. Keller, *Marketing Mangement*. New Jersey: Pearson Edition Limited, 2016.
- [19] S. Fan, R.Y.K. Lau and J.L. Zhao, "Demystifying Big Data Analytics for Business Intelligence Through the Lens of Marketing Mix," *In Big Data Research*, vol. 02, no. 006, 2015.
- [20] P.T. Loo and R. Leung, "A service failure framework of hotels in Taiwan: Adaptation of 7Ps marketing mix elements," *Journal of vacation marketing*, vol. 24, no. 1, pp. 79-100, 2018.
- [21] R.J. Harrington, M.C. Ottenbacher and S. Fauser, "QSR brand value: Marketing mix dimensions among McDonald's, KFC, Burger King, Subway and Starbucks," *International Journal of Contemporary Hospitality Management*, vol. 10, no. 06, pp. 215-300, 2017.
- [22] D.S. Hui, I.E. Azhar, T.A. Madani, F. Ntoumi, R. Kock, O. Dar, G. Ippolito, T.D. Mchugh, Z.A. Memish, C. Drosten, A. Zumla and E. Petersen, "The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health — The latest 2019 novel coronavirus outbreak in Wuhan, China," *In International Journal of Infectious Diseases*, vol. 1, no. 9, pp. 1016, 2020.
- [23] N. Fernandes, "Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy," *SSRN Electronic Journal*, vol. 10, no. 2139, 2020.
- [24] M. Nicola, Z. Alsafi, C. Sohrabi, A. Kerwan, A. Al-Jabir, C. Iosifidis, M. Agha and R. Agha, "The socio-economic implications of the coronavirus pandemic (COVID-19): A review," *In International Journal of Surgery*, vol. 78, pp. 185-193, 2020.
- [25] D. Ivanov, "Predicting the impacts of epidemic outbreaks on global supply chains: A simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case," *Transportation Research Part E: Logistics and Transportation Review*, vol. 136, pp. 101922, 2020.
- [26] V.I. Rosmeri, B.N. Monica and C.S. Budiayati, "Pemanfaatan tepung umbi gadung (*dioscorea hispida dennst*) dan tepung mocaf (modified cassava flour) sebagai bahansubstitusidalam pembuatan mie basah, mie kering, dan mie instan," *Jurnal Teknologi Kimia dan Industri*, pp. 246-256, 2013.