

## Community Empowerment Through Utilization of Moringa Plants as a Business Startup

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### Abstract

Moringa plants have the potential as raw materials for value-added products, such as processed foods, beverages, health supplements, cosmetics, and others. Citali Village has the potential to become a Moringa village. However, it has obstacles in the mindset of the community toward Moringa. They still think that Moringa is for magical things. This service aims to change people's attitudes about Moringa and make people able to process Moringa into a product. This service method uses the ABCD (Asset-Based Community Development) approach. As a result of this dedication, the people of Citali village have understood the benefits and how to cultivate and process Moringa into a product; it is hoped that it can improve the welfare of the people of Citali village. The impact of this community service activity is that the people of Citali Village can understand and better understand what Moringa is in a more positive and modern way and can process Moringa into a valuable product.

### Keywords

business startup; competition moringa; empowerment; kelor village



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## 1. INTRODUCTION

Moringa (*Moringa oleifera*) is a plant that has many benefits and great potential. Moringa contains many nutrients, such as vitamins, minerals, protein, and antioxidants (Berawi, Wahyudo, & Pratama, 2019), (Kusmardika, 2020). In addition, Moringa thrives in various environmental conditions, including areas with less fertile soil. This potential makes Moringa an attractive option for development as a source of food, animal feed, and other value-added products.

Using moringa plants can also play a role in maintaining environmental sustainability. Moringa is an environmentally friendly plant because it can grow well in dry land, uses little water, and does not require a lot of fertilizer (Suhastyo & Raditya, 2019). By developing moringa plants, the community can help maintain environmental sustainability while improving their quality of life. Moringa's ability to thrive in arid conditions, low water requirements, and minimal need for fertilizers make it an environmentally friendly plant. Therefore, by promoting the growth and development of moringa plants, communities can actively preserve the environment while benefiting from the plant's various uses and nutritional value.

Moringa plants have the potential as raw materials for value-added products, such as processed foods, beverages, health supplements, cosmetics, and others (Syarifuddin, Rizal, & Riyadh, 2022). By utilizing Moringa as a business startup, communities can increase their income and reduce dependence on the traditional agricultural sector which may be unprofitable. Community empowerment through using moringa plants as a business startup can provide long-term benefits (Rubaidi, Farisia, & Himami, 2020). Communities can be involved in all stages of production, from planting and processing to product marketing. This will enhance their skills and knowledge and provide opportunities to improve local communities' economic well-being and social sustainability.

Many regions in Indonesia, especially rural areas, still face problems related to food, nutrition, and the economy (Quita, 2021). Communities in the rooms may still need adequate access to nutritious food and have not utilized existing local potential to increase their income (Luhulima, Wattimena, & Peilouw, 2023). Addressing the problems of food insecurity, malnutrition, and limited economic opportunities in rural areas in Indonesia requires a focus on leveraging local resources and encouraging community empowerment to increase access to nutritious food and income.

Citali Village is in the Pamulihan District, Sumedang Regency, West Java. Citali Village has the potential to become a Moringa village. However, it has obstacles in the

mindset of the community toward Moringa. They still think Moringa is for magical things (Listyowati, 2022), (Prasetijowati, Karyono, & Winarko, 2020). The realization of the Moringa Village in Citali Village certainly went through various stages, especially in changing the mindset of the village community that Moringa is something that is attached to mystical things and how to cultivate Moringa and how to use Moringa to be processed into products and become BUMDes. Therefore, community empowerment steps are needed so that they can overcome these problems. Based on the results of observations at the initial survey stage, there is one thing that needs to be developed, namely changing the mindset of the local community regarding Moringa stereotypes that are only used for magical things and managing human resources in the village so they can manage Moringa for other useful things that can be sold. So that the goal was achieved to create or compare the location of Citali Village to a place known as "Kampung Kelor Citali Village."

By combining the potential of Moringa plants, community problems, environmental sustainability, business potential, and community empowerment, this service aims to develop initiatives that empower the community by using Moringa plants as business startups. Through this effort, the community can obtain nutritional benefits, increased income, and useful knowledge. Moringa oleifera (Moringa oleifera)-based business development has become an interesting effort in empowering communities in various regions in Indonesia (Seifu & Teketay, 2020), (Horn, Shakela, Mutorwa, Naomab, & Kwaambwa, 2022). Moringa plants have great potential to provide nutritional benefits, improve economic welfare, and maintain environmental sustainability. In this article, we will explore how using moringa plants as a business startup can empower people holistically.

This research explores the potential for community empowerment by using Moringa as a business start. The main theme of this research is community empowerment and the use of Moringa as a new source of income. The novelty of this research lies in the approach that combines aspects of community empowerment and business potential in the context of using moringa plants. This research may explore various factors, such as analysis of potential markets for moringa-based products, development of sustainable business models, skills training for the community, and the social and economic impact of the venture.

## **2. METHODS**

This service method uses the ABCD (Asset Based Community Development) approach prioritizing valuable things owned by the company or an asset-based approach. The asset-based approach combines acting techniques and ways of thinking

about development (Pusat Penelitian dan Pengabdian, 2020). The concept of Asset Based Community Development is a strategy that is commonly applied in carrying out community development (Al-Kautsari, 2019). Communities that are developed or empowered are people who have various potentials and assets to find solutions to problems. The Real Work Lecture (KKN), which has the theme "Empowerment of Kelor Village as a Pioneering BUMDES," which was held in Citali Village, Pamulihan District, Sumedang Regency, was carried out using 3 (three) types of work programs to make it happen. Each work program has its own materials and work methods to be carried out. The work programs used are;

a. Seedlings and Planting Moringa

Moringa nursery and planting of 1000 Moringa seedlings planted around the Citali village hall. This planting and nursery of Moringa was one of the first steps to create a Moringa Village. Because this moringa plant can later be used for village communities to utilize Moringa. Moringa seeding is done by soaking the Moringa seeds in mantua gold liquid for 2 hours and then planting them in soil mixed with fertilizer in a ratio of 2:1 in polybags. And there is also planting of moringa plants on land around the village hall at a distance of 1-2 meters from other moringa plants. After the Moringa plants and seeds are planted, controlling is carried out to monitor how the Moringa grows during KKN.

b. Socialization of Moringa

The authors and KKN participants carried out the socialization of Moringa to residents and village officials, and Citali village cadets at the Citali village hall. The socialization material consisted of introducing that Moringa has another name *Moringa oleifera*, and its benefits, demonstrating how to plant Moringa seeds properly, and also a demonstration about the processing of processed moringa products, namely moringa tea and then distributing them to villagers who came to try how it tastes like Moringa tea. And the last is the question session. During the question session, residents of Citali village were very interested in what we brought during the socialization by asking lots of questions. This socialization was intended to change the mindset of the village community about the benefits of Moringa in ancient times, which were closely related to mystical matters.

c. Archive Awareness Dissemination

For the area where the Community Service Program lives, the authors and participants conduct awareness socialization on archives because we also realize that libraries have a very important function in life. Here we take the importance

of archives for the family. Because after conducting a survey, it turned out that many residents still need to be made aware and understand what libraries are and the importance of archives for the family. Plus, in the millennial era, which now relies on IT, sometimes many village people, especially women, need help understanding it all and being more active. After receiving archive awareness socialization from us, we hope the village community can understand and use archives properly, manually or online. Because in this archive awareness socialization, we also demonstrated how to group and archive documents.

d. Location branding

The main manifestation in the effort to brand the location that Citali village is Kampung Kelor, apart from planting Moringa around the Citali village hall, is to make placards that provide information that it is a moringa plant in Citali which was created by ourselves using wood and providing trash cans and cleaning tools. The trash can and cleaning tools were then given the writing from Pilox to give our team's identity to the trash can.

e. Films with Moringa Themes

We realize that changing the local community's mindset about Moringa will be difficult if only done through formal socialization. Then we took another more entertaining approach by making films related to Moringa. However, the scenes were still close to the customs of residents so that our system could more easily enter society.

f. Moringa Competition

The Moringa Competition is our work program where, in the event; we provide entertainment for the Citali village community by holding competitions for children and parents there. In the evening, the highlight of the event was holding an MSME bazaar for processed moringa products and showing a film made by our group with the theme of Moringa to change the mindset of the local community about Moringa. And at the end of the event, we gave souvenirs in vandals and prizes to the competition's winners.

Furthermore, regarding the working method or implementation of the Field Work activities as a whole, it consists of 3 (three) stages as described as follows:

Work procedures:

- 1) Conducting surveys at activity locations;
- 2) Cooperate with the local village head;
- 3) Preparation of Thematic KKN team members;
- 4) Distribution of tasks to each member.

Work procedures:

- 1) Execution of all programmed activities (both main and supporting programs);
- 2) Evaluation of each activity carried out;
- 3) Team consolidation for the next activity

Implementation

Work procedures:

- 1) Evaluation of all Thematic KKN programs and activities;
- 2) Preparation of Thematic KKN reports

### **3. FINDINGS AND DISCUSSION**

In-depth analysis of various aspects related to community empowerment through using moringa plants as a business start. The research includes an evaluation of the potential for sustainability of moringa-based businesses, both from an economic and environmental perspective. In addition, social and economic impacts from these efforts and development strategies can sustainably increase community participation and welfare. Through this analysis, the study provides important insights to understand the practical implications and long-term impacts of community service in developing moringa-based businesses in the context of community empowerment.

Moringa has several advantages, making it an attractive choice for community business development. First, Moringa is rich in nutrients that are needed by the human body. Moringa leaves contain vitamins A, B, C, and E and important minerals such as calcium, iron, and potassium. The protein contained in Moringa is also complete with essential amino acids (Maga, Sahelangi, Kereh, & Langi, 2023). By utilizing moringa plants, people can increase their access to nutritious food sources, overcome the problem of malnutrition, and prevent various diseases caused by nutritional deficiencies.

Moringa plants can grow well in various environmental conditions, including areas with less fertile soil and dry climates. This adaptability makes Moringa a plant easily planted and cared for by people in different regions of Indonesia (Panjaitan, 2023). Developing Moringa plants will also help maintain environmental sustainability in the long term. Moringa requires little water, not excessive fertilizer, and can resist soil erosion. As a result, Moringa helps maintain soil fertility and reduces negative impacts on the environment.

The business potential associated with Moringa is very diverse. Moringa leaves can be processed into processed foods, such as moringa tea, soup, and chips. Moringa seeds can be extracted into oil used in the cosmetic industry or as a raw biofuel material. In addition, Moringa plants are also used in the manufacture of organic

fertilizers and animal feed. In developing a moringa-based business, the community can carry out various activities such as cultivating, processing, and marketing products. Thus, using Moringa as a business startup allows the community to increase their income and reduce dependence on the traditional agricultural sector which may be less profitable.

Community empowerment through moringa plants also contributes to increasing skills and knowledge. In managing a moringa-based business, the community will learn about sustainable agricultural practices, food processing, product packaging, financial management, and marketing. This knowledge will increase the competitiveness and adaptability of society to economic and environmental changes.

At a social level, community empowerment through Moringa creates job opportunities, collaboration, and community involvement. By involving the entire community in various aspects of business, such as planting, processing, and marketing of products, the community will feel together and support each other. This activity also builds a sense of belonging to the joint venture and increases pride in local products (Kusumodestoni, Sagaf, Setiyowati, & Hidayat, 2023). Collaboration between communities, government, and the private sector can strengthen business networks and expand potential markets.

Empowering the community through the use of moringa plants as a business startup is a challenging thing. Support is needed from various parties, including the government, educational institutions, and the private sector, in assisting, training, financing, and market access. In addition, it is important to put sustainability principles in the management of moringa businesses, such as organic farming practices, waste management, and using renewable energy.

The community can gain nutritional benefits, increased income, and useful knowledge by utilizing the Moringa plant as a business startup. This allows the district to address its food, nutrition, and economic problems. More than that, community empowerment using Moringa as a business pilot creates environmental sustainability, social collaboration, and sustainable economic potential (Rubaidi et al., 2020). With the right support, the development of moringa-based businesses can effectively improve the quality of life and self-reliance of people in various regions in Indonesia.

#### Moringa Planting and Seeding



Figure 1. Moringa Nurseries

This planting and nursery created a color village in Citali Village.



Figure 2. Making Moringa Tea Special

The socialization of Moringa was aimed at Citali villagers to get to know more about Moringa and change their mindset with Moringa being attached to mystical things and the many benefits of Moringa. And they were also demonstrating how to make processed moringa products, namely Moringa drinks.



Figure 3. Submission of Awareness of Archives to the Community

We provide awareness socialization of archives to residents so that residents understand how important family document archives are with today's various technological advances. We branded the location by providing information placards/boards about the information on moringa plant, which our group carried out, and giving trash bins and cleaning tools that we piloted with the identity of our group, which were given to the village hall. This is intended so that residents know that their village is Kampung Kelor.

Making films related to Moringa, but the scenes are still close to residents' habits, so our approach can be more easily entered into society.



Figure 4. Coordination of UMKM Bazaar Preparations

The Moringa Competition is our work program where in the event, we provide entertainment for the people of Citali village and hold a UMKM bazaar for processed moringa products. From the several work programs implemented, there are important points as a summary of the results of community service activities in Citali Village. This discussion will contain the validity of the effects of implementing the work program that has been previously designed.

a. Planting and Seeding Moringa

Overall, around 1,000 (one thousand) Moringa seeds and plants were scattered at certain points. As for the details of the distribution of the trash cans, it is described that the number of Moringa plants we planted was more than 120. Meanwhile, 240 moringa seeds were planted. The number of plants planted was 120 because it adapted to the land around the village hall, where only 120 Moringa trees could be produced. Meanwhile, 240 Moringa seedlings were planted because we also distributed them to Citali villagers so they could also do nurseries in their homes. Respectively.

b. Socialization of Moringa

In this work program, we invite all village officials, youth organizations, and residents of Citali village from RT 1-7, which is targeted to be around 100 people,

to take part in our outreach about Moringa, which is aimed at changing their mindset about the magical things attached to this Moringa. However, while this program was running, not all of the invited residents attended the invitation. The percentage of residents' attendance is illustrated in the diagram below. From the chart above, it can be obtained the validity of the data that 45% or 45 out of 100 villagers chose not to attend the health socialization and the importance of Moringa that we held. This indicates a need for more public awareness of the importance of knowledge about Moringa, or it is based on several other factors, such as the weather.

c. Archive Aware Submission

In our work program, which was delivered regarding archive awareness, we invited residents of Citali village around residents' homes. We target the family as our socialization target because homemakers in the town usually need to be made aware of the importance of archives. We invite around 15-20 homemakers to join our outreach. Of the participants who attended, only two people did not participate in our activity. The residents of Citali Village were interested in the archive awareness socialization material we presented.

d. Location Branding

In our current work program, we do location branding by cleaning around the village hall and providing cleaning tools and trash bins piloted with our KKN identity written on them. Because when we surveyed this village, we saw that the Citali village hall did not have a proper trash can to be used as a trash can, so we provided a new one. Then we made placards or information boards that read "Moringa Plant Citali Village KKN No. 11," placed in front of the Citali village hall near where we planted our moringa plants. The goal is for the local village community to know where we will try to make their village "Kampung Kelor."

e. Moringa Film

We realize that changing the local community's mindset about Moringa will be difficult if only done through formal socialization. Then we took another more entertaining approach by making films related to Moringa. However, the scenes were still close to the customs of residents so that our system could more easily enter society.

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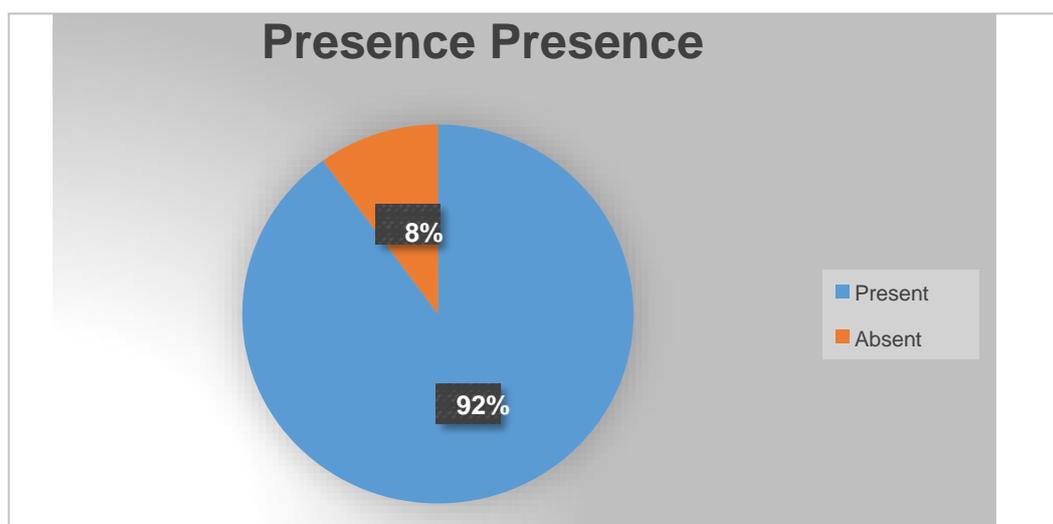


Figure 5. Diagram of participant absent results

It can be seen that eight people out of the 100 people who were invited did not attend our event. This shows that the people of Citali village are interested in our event, while the other 10% cannot participate due to other factors. Seeing the high % attendance rate of 90% at the event in Citali village indicates strong interest from the community, even though a small number of individuals were unable to participate due to other circumstances.

#### 4. CONCLUSION

All work programs can be carried out properly and smoothly even though a few obstacles; can be overcome. Group program activities are carried out in the morning, afternoon, evening, or outside of that time. The implementation of this program is inseparable from the collaboration between the community and the partnership between Thematic KKN students in Citali Village. The thematic KKN physical and non-physical working hours activities in Citali Village were conducted well, and the community was very cooperative. The success of Thematic KKN programs will ultimately provide mutual benefits between students and the community. The positive side for students is increasing concern for the surrounding environment both in society and expanding student activity in social life, for people to understand and be more aware that Moringa has various benefits. For further dedication, we recommend skills readiness and planning that is more mature and programmed with good results before the implementation of KKN, as well as more frequent coordination with other participants in a group with residents or village heads.

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