

Article Number :
360-1324-1-SM
Received :
2022-02-07
Accepted :
2022-07-22
Published :
Volume : 08
Issue : 02
Month, Year
December 2022
pp.1433-1437

Empowering The Magersaren Community: Technology Dissemination For Ground Coffee Added Value Improvement

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ABSTRACT

This paper is aimed to share the community service experiences held at Boro Summersari hamlet which is located at 98A UB forest plot. Boro Summersari hamlet is inhabited by Magersaren community. The Magersaren community are farmers and forest workers who depend on forest for their livelihoods. Magersaren has been practicing agroforestry for a long time. They grow Robusta and Arabica coffee among other forest plants. Currently coffee is a favorite beverage, the number of its consumers continues to increase. Many people are interested in the ground coffee beans made by Magersaren traditionally, but it has not been widely marketed. The purpose of this community service program is to generate an alternative source of Magersaren household income, through the added value improvement of local flavored ground coffee beans they have. The added value of magersaren's ground coffee beans can be increased through product development technologies such as attractive packaging techniques and the creation of new variants ground coffee beans by adding brown sugar and powdered ginger. The execution of community service activities that have been carried out consists of: 1)program socialization; 2)focus group discussion; 3)production, packaging and management training; 4)small-business starting up; 5)program evaluation. These community service activities are held during the social distancing due to the COVID-19 pandemic. This condition becomes an obstacle to the effectiveness of program implementation. The start-up small business needs to be continuously supported in order to survive through a critical period of business development, especially under economic pressure during the pandemic.

KEYWORDS

Magersaren, ground coffe beans, added value, community development, start-up small business, pandemic

INTRODUCTION

Forests are the most productive land-based ecosystem and are essential to life on earth. United Nations (UN) strategic plan for forest 2030 formulated six goals that will be implemented. One of the goals is committed to reinforce economic, social and environmental benefits which are based on forest resources, including by improving the livelihoods of forest-dependent people [9].

UB forest is an educational tropical forest located on the Mount Arjuna slope, which is managed by Universitas Brawijaya. Boro Summersari hamlet, specifically 98A swath of UB Forest area, is inhabited by Magersaren community. Boro Summersari hamlet administratively is the part of Tawangargo village, Karangploso district, Malang regency.

The Magersaren community are farmers and forest workers who depend on forest for their

livelihoods. In other words, Magersaren is one typology of forest dependent people. The term of forest dependent people is used to refer rural people living in poverty, including indigenous and traditional people [4]. People dependence on forest is a multifaceted phenomenon. The degree of reliance on forests varies geographically, overtime and across communities [2].

Local and indigenous communities are important actors in forest governance and conservation. Globally, these communities has become an important contributor to climate mitigation and biodiversity conservation goals as well to rural economies [6]. Agroforestry is one of various forest management practices has been adopted by many forest dependent people in the world, as win-win solution between socio-economic fulfillment and environmental sustainability [5]. This agroforestry practice is also adopted by UB Forest as grand strategy of its forest management approach.

UB Forest implements agroforestry approach by introducing a large scale of coffee and fruit trees planting. It is estimated, that in five to ten years later these coffee and fruits trees can be harvested. Under the conservation policy regime, UB Forest has decided to no longer tapped pine gum nor has cut down pine woods. This means, that magersaren lose several of their income sources. Accordingly, before the harvest time of agroforestry commodities, magersaren and their families need an alternative income generating unit.

The idea of developing an instant ground coffee product arose from a study of market opportunities can be entered. Coffee is one of favourite drinks consumed in the world. Coffee is also the second most traded commodity. Apart from the specific, nature taste and its flavor, coffee contains caffeine and antioxidants such as chlorogenic acid, melanoids, lignin, trigonelline, cafestrol and kahweol [8].

Leading drivers for coffee market growth are innovations in out-of-home consumption, online commerce opportunities and innovative brewed coffee beverage types. Key coffee attributes that

impact on consumers purchasing decision are [7]:

1. Sustainability, including organic and fair trade
2. Intrinsic quality attributes such as roast degree, country of origin and variety
3. Extrinsic attributes viz packaging and brands
4. Coffee types, e.g. espresso, macchiato, cappuccino, decaffeinated coffee, filter coffee, coffee powder, etc.

Value addition can be described as the economically adding values process to raw commodities that result intrinsic value in their original state by changing their current place, time and form utilities to improve their economic value and preferred by consumers in the market place. Based on this definition, value addition can be achieved in two ways, through innovation and coordination. Value addition that is achieved through innovation focuses on improving the existing processes, procedures, products and services or creating the new ones. Whereas value addition which is reached by coordination involves partnership arrangement among the value chain actors and product market [3].

The existing Magersaren's ground coffee beans production processes is traditionally home made. Usually they use clay pan called nanangan to roast coffe beans. Besides that, Magersaren use dry pine branches firewood to fuel the stove when they roast the coffee beans. The combined use of nanangan and dry pine firewood, produces roasted coffee beans with a special taste. Roasted coffee beans and ground coffee produced by Magersaren already have loyal customers. So far, Magersaren sell their coffee products in bulk, either as coffe beans, roasted coffee beans or ground coffee.

In order to reach a wider market, the competitiveness of Magersaren's coffee needs to be improved. Extrinsic attributes of coffe products can be enhanced through packaging strategy. In addition, the coffee product competitiveness can also be developed by diversifying the types of coffee. Based on these two approach, Magersaren's ground coffee added value improvement is conducted by means of two strategies:

1. Designing single serve packaging in order to intensify its extrinsic attributes.
2. Diversifying ground coffee produced by adding ginger powder and palm sugar

Packaging design is broadly defined as the relation of form, structure, materials, colors, imagery, typography, and regulatory information with ancillary design elements to make a product suitable for marketing. Its primary objective is to create an instrument that can be used as a package, protector, carrier, dispenser, and at the same time can be function as store display, product identity, and differentiator in the marketplace. At the end, the goal of packaging design is to satisfy marketing objectives by exclusively communicating a consumer product's personality or function and generating a sale [1].

Coffee types diversification is a business strategy can be implemented to develop new products in order to expand the market. On the basis of type, the global instant coffee market can be broadly segmented on the basis of its packaging type into jar, pouch, sachet and others. Nowadays, instant coffee producers are offering new coffee flavours in the market, such as Italian roast, ginger-bread cookie, cardamon bun, French vanilla, and chocolate caramel to broaden their consumer-base. Moreover, single serve packaging formats are also gaining popularity due to increasing focus on convenience and health-consciousness, which in turn, is creating a positive impact on the market growth..

RESULTS AND DISCUSSION

The engagement program socialization was conducted through world café approach. World café is a different type of meeting pattern designed to bring people together in an informal setting to have conversation about questions that matter. The basis belief is that Magersaren community as a targeted group of the engagement program, will feel more comfortable and become creative in a less formal environment. This condition is needed to stimulate a good conversation.

Furthermore, world café conversation is able to connect people with diverse styles and perspectives and encourages contributions from everybody because of its naturalistic settings. World café approach also requires minimal preparation and cost. The documentations of the world café held during engagement program socialization are illustrated below:



Figure 1. World Café: Bring Magersaren in an Informal Setting Conversation

The results of the training of product development has been carried out with 3 types of manufacturing processes, i.e:

1. Mixing Product 3 in 1
This product is also known as an aromatic coffee product. Made from a blend of arabica/robusta coffee and spices that is ginger and sugar.
2. Mixing Product 2 in 1
Made from coffee powder and sugar.
3. Original flavour
Ground coffee made from arabica/robusta, which is not added with any additives product.

Three kinds of products will be tested organoleptically with flavor and aroma tests, each of these products has a fairly strong metallic taste, this is because during the production process using a tool from metal, the ginger flavor is less strong and less sugar. To reduce the metallic smell in coffee, the roasting technique uses a traditional tool called nanangan.

Product	Flavor	Scent
Original Flavor	Metal	Coffee
2 in 1	Metal, less sugar	Coffee
3 in 1	Metal, less ginger flavor, less sugar	Less ginger flavor



Figure 2. Trial Product

This product will then be packaged using aluminum foil, we can call it Mangestu Coffee, this name gives a strong branding, namely the presence of Javanese elements.

CONCLUSION

The development of the Magersaren Summersari coffee product is carried out in three processes, namely mixing 3 in 1, 2 in 1 and original flavors. The product is packaged using aluminum foil and the product name is "Mangestu Coffee"

ACKNOWLEDGEMENT

We are very grateful to Research and Community Service Institution (LPPM) Brawijaya University as funding agency that bring through our engagement proposal to be implemented as determined in the engagement agreement.

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