

Entrepreneurial Ideas, Business Canvas Model and Digital Marketing for Young Farmers of Tangkoro Village in Utilizing Cocoa Waste

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ABSTRACT

In Tangkoro Village, Pitumpanua District, Wajo Regency, 22.54% of the total population of 1,167 people work as farmers or plantation owners. Their main crop is cocoa, in addition to other commodities such as cloves, pepper, and fruit. Farmers cannot process their own cocoa harvest because it has been purchased by PT Cargill. Therefore, to earn additional income, they can only utilize cocoa waste. This community service aims to help farmers identify entrepreneurial ideas for utilizing cocoa waste into finished products and marketing them digitally. This empowerment is carried out through lectures (counseling) and simulations (training) to increase farmers' knowledge in finding business ideas using the Business Model Canvas in utilizing cocoa waste and marketing it digitally. The results of this empowerment study, based on pretest and posttest results, can improve farmers' ability to find business ideas for utilizing cocoa waste and utilizing digital marketing.

Keywords: *entrepreneurial ideas, digital marketing, cocoa commodity, cocoa waste, business canvas model*

1. INTRODUCTION

Indonesia is one of the largest cocoa producers in the world. According to data from the Food and Agriculture Organization, Indonesia is the third largest cocoa producer in the world with a production of 667,296 tons (**FAO, 2023**). Cocoa is one of Indonesia's important export commodities besides oil and gas. In 2022, Indonesia's cocoa production reached 650.6 thousand tons from various provinces including Central Sulawesi (20.11%), Southeast Sulawesi (16.08%), South Sulawesi (13.36%), West Sulawesi (10.73%), Lampung (7.41%), and other provinces (32.31%). Based on this data, South Sulawesi is one of the largest contributors of cocoa to Indonesia with a plantation area of 179,564 hectares, 12.64 percent of the 274,003 hectares of total cocoa plantation area in Indonesia (**Direktorat Statistik Tanaman Pangan Holtikultura dan Perkebunan, 2023**).

South Sulawesi itself, based on the data, produces 13.36%, which means around 87 thousand tons of the total production sourced from various districts. The districts that are the largest cocoa producers are Luwu, North Luwu, East Luwu, Bone, Soppeng, Wajo, and Pinrang. If we look at the cocoa production of Wajo Regency in 2023, the data on Community Plantation Production According to Type of Plant in Wajo Regency 2023 published by the Wajo Regency Central Statistics Agency shows that cocoa production reached 7,885.4 tons. One of the villages that contributed the cocoa was Tangkoro Village, Pammana Village (**Badan Pusat Statistik (BPS), 2023**).

The majority of the Tangkoro Village community, Pitumpanua District, Wajo Regency, work as farmers or plantation workers, namely 22.54% of the 1,167 population (**Desa Tangkoro, 2024**). The main type of commodity they work on is cocoa in addition to other commodities such as cloves, pepper and fruits, as in table 1.

Table 1. Occupations of Tangkoro Village Residents

No	Group	Total	
		People	Percentage (%)
1	Not Yet/Not Working	250	21.42
2	Taking Care of Household	339	16.45
3	Civil Servant	8	0.69
4	Farmer/Gardener	263	22.54
5	Fisherman	2	0.17
6	Transportation	1	0.09
7	Private Employee	2	0.17
8	Honorary Employee	7	0.6
9	Teacher	3	0.26
10	Self-Employed	100	8.57
Total		1167	100

In addition to farmers, those who work as housekeepers (16.45%), and entrepreneurs (8.57%). These three work backgrounds (farmers, housekeepers, entrepreneurs) are quite large human resources that can be empowered so that they can get additional income through entrepreneurship. Given that their village (Tangkoro Village) is a fairly large cocoa producer, this can be a source of inspiration to create or explore entrepreneurial ideas that can be produced from cocoa plants other than cocoa beans. Cocoa beans cannot be downstreamed by the community into finished products because the fruit and cocoa beans from their agriculture have been purchased by PT Cargill with the benefit of coaching and education for farmers, support for organizations, charity programs, local communities such as food aid institutions, school and youth programs, and local environmental projects, as well as child education and nutrition programs to care for and educate future generations to succeed in school, work, and their lives. So that the community can only process waste from cocoa plants into products that have economic value.

Based on the problems, it is necessary to provide socialization and training to find entrepreneurial ideas and digital marketing for Young Farmers of Tangkoro Village in the Utilization of Cocoa Waste in collaboration with the Wadjo Foundation, Cargill, and Save The Children as one of the goals to be achieved from the Empower Program to increase access for young women and men to diverse and safe livelihood opportunities in Cocoa commodities in the implementation of Entrepreneurship Training for Young Farmers.

2. METHOD

This community service activity is carried out using lecture (counseling) and simulation (training) methods to find creative and innovative entrepreneurial ideas for young farmers. This community service research conducted pre-tests and post-tests on all participants (total sampling) by administering a simple questionnaire (yes/no question) to measure changes in their level of understanding and knowledge before and after the socialization (counseling) and training. Yes/no questions are used for accurate, simple and efficient results and to avoid bias to ensure data validity and reliability. This activity was attended by 20 young farmers from Tangkoro Village, Pitumpanua District, Wajo Regency. It took place at the Tangkoro Village Hall on Monday, September 23, 2024, in collaboration with the Wadjo Foundation, Cargill, and Save the Children. Considering that human resource development can be built by increasing knowledge and skills, this activity is carried out in 4 (four) stages, namely:

2.1 Pre-Test Stage

At this stage, a preliminary test is conducted to determine and explore the extent of the community's knowledge and understanding regarding the material to be presented, which is divided into 2 (two) pretests, namely:

a. Counseling and Training Pretest

A preliminary test to explore information on the extent to which they have become entrepreneurs by utilizing cocoa waste, whether they have conducted market research, and have utilized digital marketing in marketing their products.

b. Digital Marketing Utilization Pretest

A preliminary test that aims to find out what social media or marketplaces they use in marketing.

2.2 Counseling Stage

The counseling stage is oriented towards developing human resources in increasing knowledge. Through this extension, young farmers can have additional understanding related to:

- a. Characteristics of cocoa plantation agribusiness. This introduction will help farmers understand cocoa's dependence on environmental conditions, its long production cycle, and its potential for added value through downstream processing.
- b. Opportunities and challenges of cocoa entrepreneurship. Some challenges in the cocoa agribusiness include pest and disease attacks, price fluctuations, and market access. However, there are also opportunities to increase cocoa productivity, quality, and added value through the application of technology and innovation.
- c. Steps to find business ideas. This helps farmers find business ideas that utilize cocoa waste and can provide added economic value.
- d. Utilization of digital-based marketing. This can help farmers market their cocoa waste-processed products, reaching a wider, faster, and more economical market.

2.3 Training Stage

The extension stage is oriented towards developing human resources in improving skills. At this stage, young farmers' skills are trained related to:

- a. Simulation of filling out a list of entrepreneurial ideas from the use of cocoa waste. This is done to stimulate participants' ability to find business ideas through the utilization of cocoa waste, including skin, fruit, stems, twigs, and leaves.
- b. Simulation of filling out the Business Model Canvas form. In the Business Model Canvas form-filling simulation training, participants were trained to plan business strategies and conduct market research.

2.4 Post-Test Stage

At this stage, a post-extension and training test is carried out to explore the extent to which community understanding has increased in finding entrepreneurial ideas and digital marketing in the use of cocoa waste.

3. RESULT AND DISCUSSION

3.1 Pre-Test Stage

Before the counseling and training stage is carried out, an initial test is carried out to determine the extent of the community's knowledge and understanding of the material that will be presented as reference material for enrichment of material that is considered lacking or not yet understood by the participants. At this stage, participants are asked questions about the extent of their involvement in entrepreneurship with the utilization of cocoa waste, market research and the utilization of digitalization in its marketing. And the results of this test are shown in table 2.

Table 2. Pretest of Counseling and Training

No.	Question	Yes	No
1	Have or are currently an entrepreneur using cocoa waste.	2	18
2	Have conducted market research	0	20
3	Have or are currently using digital-based marketing.	5	15

In table 2 of the Counseling and Training Pretest, it shows that 2 (two) participants have done entrepreneurship by utilizing cocoa waste and 18 others have not. In row number 2, it was found that none of the participants did market research before starting their business. Meanwhile, in question number 3, it was found that 5 (five) participants had done digital-based marketing. The digital marketing they do is certainly not just marketing products from entrepreneurship using cocoa waste, but they have also done other product entrepreneurship, considering that only 2 (two) people have done entrepreneurship using cocoa waste.

This shows that most participants have not done entrepreneurship using cocoa waste, namely 90% (18 people), have not done market research 100% (20 people), and have not done digital marketing as much as 75% (15 people). Therefore, in counseling and training, it is necessary to provide material on how to find entrepreneurial ideas using cocoa waste, how to do market research, and how to use digital-based marketing. After the pretest, a second preliminary test was conducted in the use of digital-based marketing, to obtain deeper information regarding the marketing media used by the participants so far in carrying out business or entrepreneurial activities as in table 3.

Table 3. Pretest of Digital Marketing Utilization

No	Media	Total
1	Website	0
2	Email Marketing	0
3	Facebook	3
4	Instagram	0
5	Tiktok	0
6	Tokopedia	1
7	Shopee	1
8	Bukalapak	0
9	Ebay	0

In table 3 of the Pretest of Digital Marketing Utilization, it was found that there were 3 (three) participants who used Facebook as a marketing medium, and 1 (one) person each used their product marketing through Tokopedia and Shopee. Judging from the results of the second pretest that had been conducted in the utilization of digital media, counseling was needed in introducing other marketing media besides those they had commonly used so far.

3.2 Counseling Stage

At this stage, four counseling rounds were carried out, namely 1) counseling on the Characteristics of Cocoa Plantation Agribusiness Businesses, 2) counseling on the Opportunities and Challenges of Cocoa Entrepreneurship, 3) counseling on Steps to Find Cocoa Business Ideas, 4) counseling on Utilization of Digital-Based Marketing.

Characteristics of Cocoa Plantation Agribusiness: Cocoa (*Theobroma cacao*) is one of the agricultural commodities that has high economic value, especially in the chocolate industry. In addition to cocoa beans, waste produced from the cocoa processing process also has significant potential to be utilized. In the context of entrepreneurship, the utilization of cocoa waste can be an attractive business opportunity, especially with the support of increasingly developing digital marketing.



Figure 1. Counseling on the Characteristics of Cocoa Plantation Agribusiness

This review will discuss the characteristics of cocoa plantation agribusiness, opportunities and challenges of cocoa entrepreneurship, steps to find business ideas, and the use of digital-based marketing. Cocoa plantation agribusiness is one of the important sectors in the economy, especially in tropical countries. The main characteristics of this business include several interrelated aspects, such as natural resources, production processes, supply chains, and market demand. Each of these aspects plays a significant role in determining the success of the cocoa agribusiness.

Opportunities and Challenges of Cocoa Entrepreneurship: With increasing awareness of sustainability and technological innovation, the cocoa sector offers various possibilities for product diversification and business development. However, challenges such as limited knowledge, market access, and tight competition must also be faced.



Figure 2. Counseling on the Opportunities and Challenges of Cocoa Entrepreneurship

In this discussion as seen in figure 1 and 2, the opportunities and challenges of cocoa entrepreneurship are presented in more depth.

- a. Opportunities for product diversification. Namely the utilization of cocoa waste, such as seed skins and pulp to create new products with high value. Utilizing cocoa waste can increase farmers' profits by up to 30% if managed properly **(Yamoah et al., 2021)**.
- b. Increasing environmental awareness among consumers provides great opportunities for cocoa waste-based products. Currently, many consumers prefer environmentally friendly and sustainable products. Research shows that products that have added environmental value can increase consumer loyalty and expand market share **(Panda et al., 2020)**.
- c. The use of modern technology in the processing and marketing of cocoa products can increase efficiency and competitiveness. Research shows that entrepreneurs who adopt information and communication technology can increase their sales by up to 50% within one year **(Gupta et al., 2021)**.
- d. Unique product innovation with higher quality, attractive design, or environmentally friendly packaging. Research shows that product innovation can be the key to winning competition in a crowded market **(Kim & Huarng, 2011)**.

Steps to Finding Cocoa Business Ideas (figure 3): In an increasingly competitive business world, finding innovative and sustainable business ideas is key to success. One sector that is attracting attention is the cocoa industry, which not only has great economic potential but also contributes to environmental sustainability and community welfare. In this counseling, the steps to find a business idea are presented, namely:

- a. Market Analysis. Market analysis will provide an overview of the potential demand and competition in the market. Business actors can reduce risks and increase the chances of success. This process involves identifying self-potential and consumer needs and wants **(Bezhovski et al., 2024)** through surveys and analysis of market trends **(Valenciano et al., 2019; Wirtz & Daiser, 2018)**.
- b. Feasibility Study. In this stage, it is important to conduct technical, financial, and market feasibility analysis to ensure that the business idea can be practically implemented.
- c. Technical analysis includes an assessment of the resources needed, such as raw materials, equipment, and labor.
- d. Financial analysis involves calculating production costs, revenue projections, and return on investment.
- e. Observation is a step that is often overlooked, but is very important in finding cocoa business ideas. Through observation, business actors can observe consumer behavior, their interactions with products, and their experiences in using cocoa products. By

collecting data through observation, business actors can create more effective strategies in marketing their products.

- f. Product Innovation (**Benazzouz, 2019**) is an important step that can differentiate a cocoa business from competitors. In this context, the development of new products from cocoa waste that have high selling value becomes very relevant.
- g. Trial is the last step before launching a product widely. Conducting a product trial in a small market can provide valuable feedback from consumers. By conducting a trial, business actors can minimize the risk of failure when launching a product widely.



Figure 3. Counseling on Finding Cocoa Business Ideas

Utilization of Digital-Based Marketing: In this socialization, the material presented was about 1) digital marketing strategies, 2) creating creative content, 3) data analysis, and 4) collaboration with Influencers were presented.

3.3 Training Stage

The extension stage is oriented towards human resource development in improving skills. At this stage, young farmers' skills are trained related to simulations of filling out lists of entrepreneurial ideas by utilizing cocoa waste and simulations of filling out Business Model Canvas forms (figure 4).



Figure 4. Completing the Entrepreneurial Idea List and Completing Market Research

In the simulation training for filling out a list of entrepreneurial ideas collected from all participants, a number of entrepreneurial ideas were found in utilizing cocoa waste, such as those in table 4, which were found by participants either through online search sites, existing business realities, or the possibility of original ideas.

Table 4. Finding Entrepreneurial Ideas from Cocoa Waste

No	Cocoa Waste	Business Ideas	No	Cocoa Waste	Business Ideas
1	Cocoa Skin	1. Crackers 2. Cookies 3. Compost Fertilizer 4. Nata Substrate 5. Drinks 6. Cosmetics (lotion) 7. Flour 8. Liquid Soap 9. Animal Feed 10. Handicrafts 11. Briquettes 12. Paper	2	Cocoa trunk wood, branches	1. Compost 2. Handicrafts 3. Briquettes 4. Biomass 5. Fiberboard 6. Paper
			3	Cocoa Leaves	a. Compost Fertilizer b. Handicrafts c. Briquettes d. Nata
			4	Cocoa Fruit Flesh Waste (pulp)	Nata

After participants found various business ideas as in table 4, they were trained on how to test the feasibility of these ideas so that they could carry them out by conducting simple research related to each business idea which was poured into a business model canvas form that had been prepared for them to fill in according to the results of the entrepreneurial ideas they conveyed. In the Business Model Canvas form filling simulation training, participants were trained to plan business strategies and conduct market research (**Toro-Jarrín et al., 2016**) based on the form that had been distributed to participants as in the figure 5.

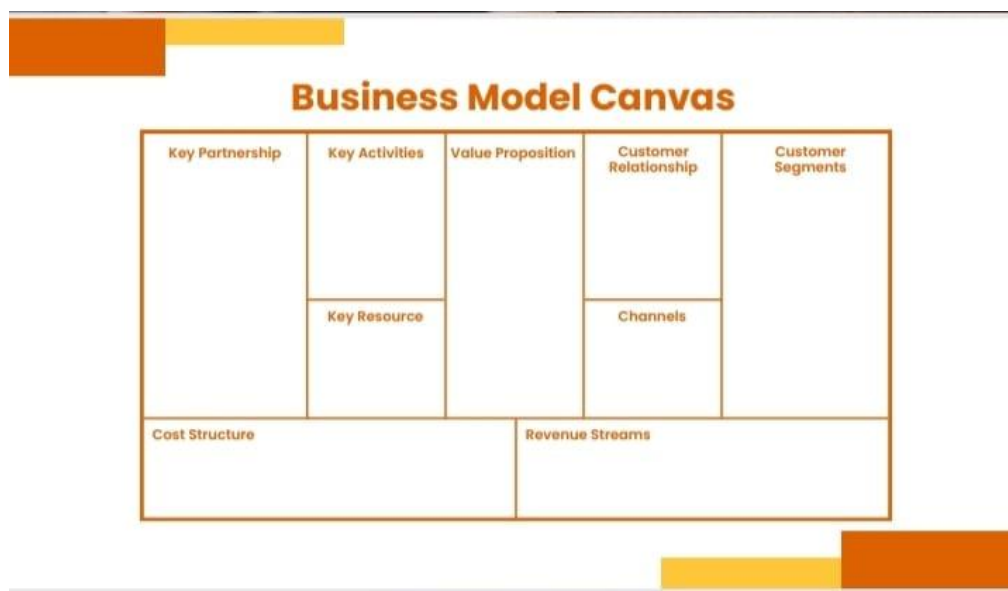


Figure 5. Business Model Canvas

Key Partnership: This section includes external parties or organizations that work with the business to create value or support business operations. For example: Raw material suppliers, Strategic partners, Business alliances, Technology platforms.

Key Activities: Core activities that must be carried out by the company to run its business model and create value for customers. For example: Production of goods or services, Marketing and promotion, Research and development (R&D), Product distribution.

Key Resources: All resources needed to run the business. These resources can be:

- a. Physical: buildings, equipment.
- b. Intellectual: patents, trademarks.
- c. Human: experts or experienced workers.
- d. Financial: capital or investment.

Value Proposition: The main reason why customers choose the company's products or services. The value proposition explains the benefits or solutions that the business offers to customers, such as:

- a. Competitive prices.
- b. Better quality.
- c. Ease of access.
- d. Product innovation.

Customer Relationship: The strategy or way a business interacts with customers to build and maintain long-term relationships. Examples:

- a. Customer support.
- b. Loyalty programs.
- c. Communication via social media.

Channels: The way or media used to reach customers and deliver value propositions to them. These channels can be:

- a. Online: website, application, social media.
- b. Offline: physical stores, exhibitions, distributors.

Customer Segments: Groups of customers targeted by a business. Usually divided based on their needs, characteristics, or behavior, such as:

- a. Millennial youth.
- b. Small and medium enterprises (SMEs).
- c. Premium (high-end) customers.

Cost Structure: The costs incurred to run a business model. This section includes all operational expenses, such as:

- a. Production costs.
- b. Marketing costs.
- c. Technology development costs.
- d. Employee salaries.

Revenue Streams: How a company earns revenue from customers. Examples of revenue streams:

- a. Sales of products or services.
- b. Subscription models.
- c. Advertising costs.
- d. Partnerships or licenses.

Each element in the Business Model Canvas is interconnected and aims to build an effective and sustainable business model.

3.4 Post-Test Stage

At this stage, a post-extension and training test was conducted to measure the extent to which community understanding in finding entrepreneurial ideas and digital marketing in the utilization of cocoa waste had increased after being given counseling.

Table 5. Post-test of Counseling and Training

No	Question	Yes	No
1	Already have an entrepreneurial idea by utilizing cocoa waste.	20	0
2	Able to conduct market research using Business Model Canvas	20	0
3	Able to market entrepreneurial products using various digital media.	20	0

Table 5 of the Post-test of Counseling and Training shows that all training participants experienced an increase in knowledge and understanding of how they can implement entrepreneurial ideas, were able to use the Business Model Canvas method before starting a business, and were able to implement various digital-based marketing systems.

4. CONCLUSIONS

This community empowerment activities through lecture (counseling) and simulation (training) method, young farmers in Tangkoro Village (participants) demonstrated significant improvements in their knowledge and understanding. This was demonstrated by post-test results, which showed that all participants (100%) understood the steps for identifying viable entrepreneurial ideas, understanding how to select a business, conducting pre-business research using the Business Model Canvas, and utilizing various digital tools and social media to market their products.

Utilization of cocoa waste in entrepreneurship offers significant opportunities, especially with the existence of the business model canvas method and digital marketing support. The unique characteristics of cocoa agribusiness, coupled with the right market analysis, can help entrepreneurs find innovative business ideas. Although there are challenges to be faced, the right approach to digital marketing can increase product competitiveness and reach wider consumers. Thus, the development of cocoa-based businesses not only provides economic value, but also contributes to environmental sustainability.

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