Business Development of Coffee Farmers Group Using Triple Layered Business Model Canvas

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ABSTRACT

Objective – Coffee is one of the leading agricultural commodities that has an economic contribution in several countries, including Indonesia. As the fourth largest coffee producer country in the world, Indonesia is still facing problems, especially in some areas that managed by coffee farmer group. The problem starts from upstream to downstream and is related to productivity which is still low compared to other regions. Therefore, the purpose of this research is to describe the business conditions of the farmer group studied, and planning Triple Layered Business Model Canvas (TLBMC) to develop the business of the farmer group. Empirical analysis has been carried out for this purpose.

Methodology/Technique – This research uses a qualitative approach with descriptive analytic methods. Observation, in-depth interviews, and focus group discussion were conducted to collect research data. SWOT analysis is also used to gain insights and inputs used in formulating the right strategy for TLBMC formulation.

Findings – The results show that the business conditions of the coffee farmers group were in a position of growth. Therefore the right strategy for this condition is the harvest strategy or divestiture strategy. The TLBMC design carried out supports the development of sustainable businesses for the coffee farmers group.

Novelty – Business development for coffee farmer group using triple layered business model canvas is expected to help increase business on a broader scale. This study is important for business owners and other related parties who seek to develop the business in various aspect including social and environmental aspects. This study helps create opportunities, develop better potential and integrated with the economic, environmental and social values of the business model being run.

Type of Paper: Empirical.

Keywords: Business Development; Coffee; Business Model Canvas; Triple Layered Business Model Canvas.

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1. Introduction

In many countries, the agricultural sector has a significant role in improving the national economy. Agricultural development must be directed towards sustainable agricultural development which is oriented to three dimensions of sustainability, namely: economic business sustainability (profit), sustainability of human social life (people), sustainability of natural ecology (planet).

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Coffee is one of the leading agricultural commodities that has a significant contribution in the Indonesian economy, namely as a foreign exchange earner, source of income for farmers, producer of industrial raw materials, job creation and regional development (Baso & Anindita, 2018). Based on data from the International Coffee Organization in 2018, Indonesia ranks 4th in the world as a coffee producer country (600 thousand tons), with Brazil in first place (3.3 million tons), followed by Vietnam (1.53 million tons), and Colombia (840,000 tons). Despite being ranked 4th in the world, Indonesia still has some issues.

Previous research shows that the problems faced by the Indonesian coffee agribusiness are quite complex from upstream to downstream. On the upstream side, the level of productivity of Indonesian coffee is lower than that of the world's major coffee producing countries (Rahmi, Marsudi, & Zaiah, 2017). One of the key determinants of successful coffee development is the availability of superior and high quality vegetable availability (Kusumaningsih, Saptaningrum, Maria, & Khalimah, 2018). Coffee processing is very important in determining the quality and taste of coffee. As the fourth largest coffee producer in the world, Indonesia places coffee as one of the leading plantation commodities. In 2016, the value of coffee exports ranked 5th in Indonesia's largest commodity after oil palm, rubber, cocoa and coconut with a trade value reaching US $1.01 billion or contributing 3.94% to the trade value of plantation commodities which reached US $25.58 billion (Data Centre of Agriculture Information System, 2017).

Achievement of coffee production targets must be supported by a variety of supporting factors such as an increase in planting area, use of seeds, application of appropriate cultivation technology, government intervention through rehabilitation activities, and empowerment of farmers (M. Syakir & Surmaini, 2017). In order to support the coffee industry, the Ministry of Industry has facilitated through several policies, namely coffee is included in the category of the food industry which receives priority for development (Government Regulation No.14, 2015). The low productivity of Indonesian coffee is due to the fact that 95% of Indonesian coffee is a smallholder estate that generally do not use superior coffee seeds. Cultivation techniques are still simple and slow in rejuvenating plants, the lack of supporting facilities and infrastructure results in low quality of Indonesian coffee (Rahmi et. al., 2017).

Poverty and the limitations of farmers in rural areas have a correlation with the agricultural system in Indonesia. This relationship clearly states that more than 60% of the population in Indonesia live in the agricultural sector and live in rural areas are low-income people, and this group should be the center of development and agricultural investment targets through programs and the role of organizations and institutions that can accommodate peasant strength (Burhanuddin, Pambudy, & Wahyudi, 2018). The gap between urban and rural areas and poverty in rural areas have led to development efforts in rural areas. Although this has resulted in the occurrence of urban bias, namely the development of rural areas which was initially shown to increase the area of welfare of rural communities, it has the opposite effect, namely the siphoning of the potential of rural to urban areas both in terms of human resources, nature, and even capital. This will have an impact on the growing gap between cities and villages (Iqbal, Ismayani, & Romano, 2018).

Many factors have been explained in several previous studies related to problems of coffee business management in Indonesia. However, this study analyzes social and environmental aspects that can be optimized in business development by coffee farmers groups. Therefore, the purpose of this study is to describe the business conditions of the farmer groups under study, and help develop businesses by using the terms of reference of the triple layered business model canvas. The results of this research are pragmatically expected to provide contribution for various parties, especially coffee business entrepreneurs, more specifically to farmer groups when making decision in developing their business. Theoretically, this study is expected to contribute to the development of knowledge related to entrepreneurship, and business economics in general. The initial part of this study discusses the existing problems, the next section examines existing literature, following by a description of the methodology, the results, and a conclusion.

2. Literature Review

In a broader context, this study is related with entrepreneurship and business strategy. The coffee farmer group studied was a group of entrepreneurs. Ideally, they understand the basic concepts of entrepreneurship, and realize the consequences of being entrepreneurs. The entrepreneurship is related, among others, to the ability to face risks and uncertainties, and is oriented towards achieving profit and growth. An entrepreneur is one who creates a new business in the face of risk and uncertainty for the purpose of achieving profit and growth by identifying significant opportunities and assembling the necessary resources to capitalize on them. Although many people come up with great business ideas, most never act on their ideas (Scarborough & Cornwall, 2016). Entrepreneurial mind-set involves the ability to rapidly sense, act, and mobilize, even under uncertain conditions (Hisrich, Peters, & Shepherd, 2017).

Meanwhile the business development referred to in this study refers to the business strategy which is a comprehensive and integrated plan and is designed to ensure the main objectives of the organization can be achieved through proper implementation. The most popular ones related to this strategy are those delivered by Porter, namely three generic strategies which include; cost leadership, differentiation, and focus (David & Forest, 2017).

To review the ongoing business processes and explore various problems that arise in the coffee farmers group, then the main focus is to analyze of how the process of land management, harvesting to postharvest. By using SWOT analysis, it is expected that all ongoing processes can be improved. The Triple Layered Business Model Canvas (TLBMC) design both theoretically and empirically is presented from various sources in order to get good results for farmer groups.

In designing the purpose of this study using The Triple Layered Business Model Canvas (TLBMC) with combined analysis using a SWOT analysis that can be measured from indicators of weaknesses and strengths of external and internal factors that exist in the coffee industry. This analysis is based on each of the elements involved in seeing the business in the future. Osterwalder and Pignur (2017) explicitly developed the business canvas model by integrating environmental (social) and social (social) impacts into the business model, where the addition of layers was placed parallel to the economic layer. TLBMC bridges business model innovation (Spieth, Schneckenberg, & Ricart, 2014) and the development of sustainable business models (Boons & Lüdeke-freund, 2013) to support creative organizations and competitive change-oriented sustainability as a way to overcome the challenges we face when this (Shrivastava & Statler, 2012).

TLBMC can help overcome obstacles to sustainability-oriented change in organizations (Lozano, 2013) by creatively reimagining current business models and the potential for innovation. Sustainability will drive creative innovation for many companies and improving towards sustainability requires innovation of existing business models to create new ways of conveying and capturing value that will change competition (Nidumolu, Prahalad, & Rangaswami, 2009). The Triple Layered Business Model Canvas (TLBMC) is a practical and easy-to-use tool that supports developing, visualizing, and communicating sustainable business model innovation (Stubbs & Cocklin, 2008). It is a tool for exploring sustainability-oriented business model innovation (Joyce & Paquin, 2016). TLBMC follows a triple-bottom line approach to organizational sustainability (Elkington, 1994), which explicitly integrates economic, environmental and social value creation as the core for an organization's business model. The concept design is carried out by first analyzing the factors that influence the coffee industry.

It is important to describe the development of the coffee industry through the application of three layers of the concept of the canvas business model in running a sustainable and sustainable business. Concept development is done by first analyzing the factors that influence the coffee industry. The conceptual framework of this study is shown in Figure 1.
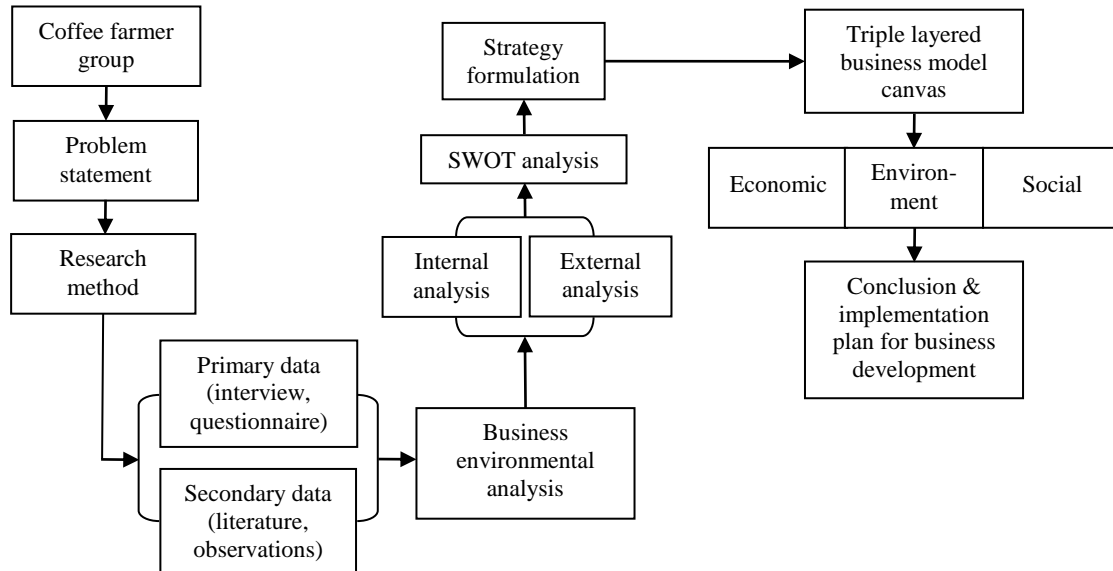
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Figure 1. Conceptual framework of the research

3. Research Methodology

This research is a descriptive study using a qualitative approach, based on the philosophy of post positivism, used to examine the natural conditions of objects, (as opposed to being an experiment) where the researcher is a key instrument, the sampling of data sources is done by purposive and snowball, techniques collection using triangulation (combined), data analysis is inductive / qualitative, and the results of research emphasize more on the meaning of generalization.

The results of this study, among others, describe or construct in-depth interviews with research subjects studied so as to provide a clear picture of the application of the business model canvas in the development of coffee farmer groups. The location of the coffee farmer group studied was in the village of Buntis, north Bandung area, West Java. The number of coffee farmers involved in the focus group discussion activity was 20 people and they were also research informants. Other research informants are experts from large companies such as Malabar coffee, and several other people from relevant agencies.

Data collected from this study came from two sources. Primary data was obtained directly from the field either through observation, documentation or through interviews with informants. Secondary, data in the form of documents or literature from the central statistics agency, internet, journals, and so on was obtained.

The data collection techniques used in this study were observation techniques, in-depth interview techniques and documentation. Observation techniques are used to see the physical state of professional business life. To support good observational work in this study, the study used several SWOT analysis techniques in order to get a clear picture of the strengths of the Coffee Farmers Group, what will be taken for future business development and weaknesses that will not be used for business development, and also opportunities and threats factors associated with business development.

The results of this SWOT analysis will also be used as input in designing the triple layered business model canvas, as well as in determining the right strategy based on the business conditions of the coffee farmer group studied. In-depth interview techniques are used to explore various information and data about the business of coffee farmer groups, business development plans that will be carried out in the future. Likewise

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with the documentation technique used to complete the data found from observations and in-depth interviews, both in the form of activity data that supports the activities of farmer groups.

4. Results

The results of data collection through observation, in-depth interviews, focus group discussions, and various secondary data sources, are used for SWOT analysis, and only then are used to compile the Triple Layer Business Model Canvas (TLBMC). From the results of the SWOT analysis it can be seen that the business conditions of the Coffee Farmers group under study are in a position of growth. The right strategy for this condition is the harvest strategy or divestiture strategy.

The results of compiling the Triple Layer Business Model Canvas will be explained next. TLBMC is an easy-to-use tool to support the creation of innovation, creativity and sustainable business models, where there are 3 layers in the business model, namely Economic, Social and Environmental. In this paper we design and provide recommendations regarding the Coffee industry in the North Bandung Region which are not only oriented to economic aspects, but also social and environmental aspects as described in Figure 1, Figure 2, and Figure 3.

Key Partners	Key Activities	Value Proposition	Customer Relationships	Customer Segments
❖ Agricultural Extension and Human Resource Development Agency ❖ Research Institute for Industrial Plants and Refresher ❖ Integrated partnership involving large businesses, small businesses, by involving banks as lenders in a cooperative agreement as outlined in the memorandum of agreement	❖ Refers to: Regulation of Ministry of Agriculture No.49/Permentan/OT.140/4/2014 about: Technical guidelines for good coffee cultivation **Key Resources** ❖ The land, a strategic community location, has around 50,000 coffee trees	❖ Characteristic of coffee with manual roasting or traditional roasting ❖ Different coffee flavors, strong and distinctive aroma ❖ Competitive price	❖ Personal assistance, making promos, discounts, or special offers **Channels** ❖ Market place: (Agromaret, TaniHub, Lima Kilo, Pantau Harga, Petani) ❖ Social Media (IG, FB, etc) ❖ Word of Mouth (WOM)	❖ Demographic: newly established coffee shops. In the city of Bandung there are almost 100 new coffee shops over the past 4 years (2016-2019) ❖ Geographic: Dense population of Bandung City is a large market potential ❖ Psychographic: Coffee lovers
Cost Structure			**Revenue Streams**	
❖ Costs for seeds, manure, medicines, labor (pickers)			❖ Honey coffee, roasted coffee, ground coffee/ powder coffee, processing coffee cherry peels into cascara	

Figure 2. Economic-Based Business Development Model

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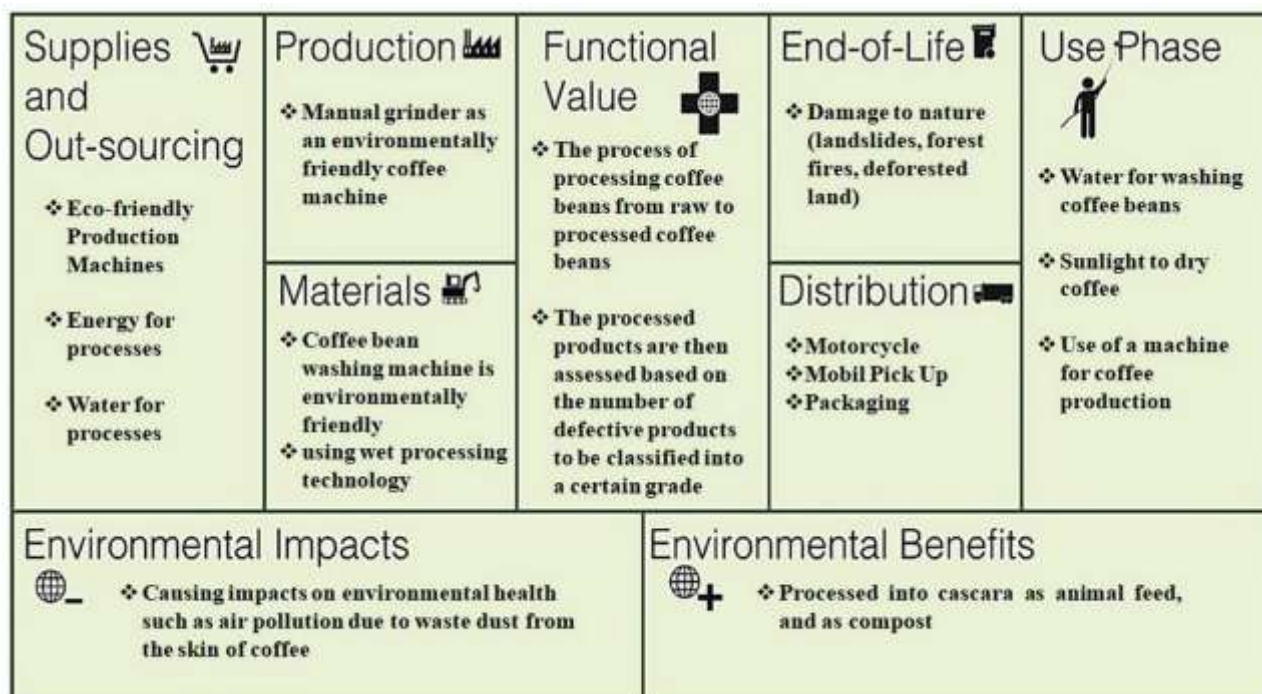| Supplies and Out-sourcing	Production	Functional Value	End-of-Life	Use Phase
❖ Eco-friendly Production Machines ❖ Energy for processes ❖ Water for processes	❖ Manual grinder as an environmentally friendly coffee machine **Materials** ❖ Coffee bean washing machine is environmentally friendly ❖ using wet processing technology	❖ The process of processing coffee beans from raw to processed coffee beans ❖ The processed products are then assessed based on the number of defective products to be classified into a certain grade	❖ Damage to nature (landslides, forest fires, deforested land) **Distribution** ❖ Motorcycle ❖ Mobil Pick Up ❖ Packaging	❖ Water for washing coffee beans ❖ Sunlight to dry coffee ❖ Use of a machine for coffee production

Environmental Impacts
⊕_ ❖ Causing impacts on environmental health such as air pollution due to waste dust from the skin of coffee

Environmental Benefits
⊕₊ ❖ Processed into cascara as animal feed, and as compost

Figure 3. Environmental-Based Business Development Model

Local Communities	Governance	Social Value	Societal Culture	End-User
❖ The Mitra Malabar Cooperative, accommodates cash harvests at reasonable prices for farmers on the principle of Fair Trade	❖ Independent business unit ❖ Transparency in decision making **Employees** ❖ realizing the social and economic life order of farmers with education that is open and independent	❖ Promote cooperation between farmers in managing natural resources and developing human resources for food security and sustainable income	❖ The establishment of independent, sustainable, responsible Peasant Farmer groups through program & gathering points **Scale of Outreach** ❖ Assist the government in alleviating poverty and reducing unemployment in the Buntis Village area	❖ taste, warmth, and caffeine

Social Impacts
👥_ ❖ The potential for caffeine dependence, the potential shifting of agricultural activities and traditional crops

Social Benefits
👥₊ ❖ Community involvement that can improve the stakeholders' quality of life, personal development of farmers through training programs

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Figure 4. Social-Based Business Development Model

5. Discussion

In order to maintain sustainability and existence, we need an innovation and development of coffee products, both in terms of quality, caffeine, and so forth. Innovation can be achieved through the process of a research and development of market needs. The coffee industry needs to do a partnership or cooperation with various parties in achieving the roadmap that has been prepared. Partnerships with coffee farmers are needed to improve coffee quality standardization as the main raw material that can be done through empowerment and training.

Coffee farmers should be encouraged to utilize land and organic waste that can be used as fertilizer in maintaining soil structure and fertility, thereby reducing the use of chemicals that pollute the environment. Aside from the farmers' point of view, efforts to reduce environmental pollution must also be done in terms of the production process of the coffee industry not to be confined to traditional methods.

Innovation, technology and development need to be done to respond to the dynamic coffee market. It also aims to call global economic competition, where barriers to accessing trade between countries have diminished. This phenomenon must be well understood by the domestic coffee industry so that the existence of Indonesian coffee in the international market is maintained.

The TLBMC-based coffee industry development model is one of the answers to meet these challenges. The development of economic, social and environmental based business models is also in line with the vision of sustainable development that is carried by various countries in the World.

6. Conclusion

Based on the objective conditions of the research results, business development using the Triple Layered Business Model Canvas (TLBMC) can be applied more broadly to conditions that are almost similar in the form of climate in several countries where coffee can grow well, as well as economic conditions, and other conditions related thereto. The design of TLBMC for the development of the coffee industry provides an illustration that the pattern of developing the coffee industry in the future needs to be oriented not only to economic aspects, but also social and environmental aspects. This is important to do to strengthen social benefits for the community, as well as to reduce the negative environmental impacts of the coffee industry.

The development of the coffee industry must also be oriented towards Sustainable Development Goals (SDGs) to be in line with the current direction of global economic development. Environmental and social issues are the main concern at this time, so it needs strong integration between the management company, the government, coffee farmers and all stakeholders involved. Various innovations and other improvement efforts are carried out, ideally referring to the roadmap for the development of the coffee industry so that the increase can be measured, and on a broader scale is expected to contribute to economic growth and employment.

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