ESTABLISHING SUSTAINABLE COFFEE BUSINESS PARTNERSHIP AT THE FARM LEVEL

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ABSTRACT

In Indonesia, the agricultural sector still has a significant role in the national economy, such as the plantation subsector, namely the coffee commodity which is able to contribute to the country's foreign exchange aside from meeting domestic industrial needs. Coffee business partnerships are needed to provide added value and profits among market actors. This study aims to provide an overview of the concept of building sustainable coffee business partnerships. This study was carried out in two coffee production centers, namely Pupuan District, Tabanan Regency as a center for Robusta coffee production, and Kintamani District, Bangli Regency, as a center for Arabica coffee production. The key respondents selected were farmers, farmer group administrators, coffee business actors, government and universities. Data was collected using interview techniques, observation, documentation and focus group discussions. Data analysis uses descriptive methods.

The research results show that coffee business partnerships in the Kintamani and Pupuan areas are one of the efforts that can be made to increase the income of coffee farmers. Business partnerships between market actors are based on a business model that is determined in advance. The market actors involved are farmers/coffee farmer groups, coffee entrepreneurs/coffee exporters, universities, financial institutions, government. This coffee business partnership aims to increase coffee production and the income of coffee farmers as producers. All market actors have a harmonious relationship and gain proportional economic benefits in playing their roles in this partnership. This means that developing coffee business partnerships will provide added value and income for coffee farmers as members of farmer groups. There is a need for intensive assistance to farmer groups, as well as monitoring and evaluation activities to realize the sustainability of coffee business partnerships.

Keywords: Partnership, business, coffee, market players, sustainability

I INTRODUCTION

The agricultural sector has a significant role in the economies of developing countries (). The plantation subsector in Indonesia is able to contribute to the country's foreign exchange in addition to meeting domestic industrial needs. One of the mainstay plantation commodities in Indonesia is coffee (Widya, *et al*, 2019; Sedana, 2024). Coffee products in Indonesia have specific flavors and vary according to geographical conditions (Supriadi and Pranowo, 2015; Ayelign *et al*., 2013). Some of the specialty coffees known in Indonesia are Kintamani Coffee, Gayo Coffee, Toraja Coffee, Bajawa Coffee, Manggarai Coffee and other coffees (Sedana and Astawa, 2016). According to the altitude of the coffee plantations, there are two types of coffee that are generally grown by farmers in Indonesia, namely Robusta Coffee and Arabica Coffee. Economically, coffee is an internationally traded commodity where demand is increasing every year with market share in Asia, Europe and America. Indonesia is among the four largest coffee producing countries in the world (Kustari, 2007; Meiri, *et al*, 2013).

In several coffee producing countries, producer farmers manage their coffee plants for various functions such as social, cultural, economic and environmental (Kilian et al. 2006). For small farmers, coffee farming is the main source of income for their families (Mutandwa et al. 2009). Managing coffee farming on relatively narrow land requires good farming management to obtain added value and increase farmers' income. Most of the management of coffee farming at the farmer level is not yet commercially oriented apart from the cultivation technology used is still relatively low so the average production is still low (Gisaro, *et al*, 2013). Several studies show that low coffee productivity is caused by less than optimal business partnerships between farmers and coffee companies that do business at both national and international levels, so that the market supply chain does not run in a balanced manner (Bellemare and Barrett 2006; Key, Sadoulet, and Janvry 2000; Fafchamps and Hill 2005).

Apart from that, the low productivity of coffee and the quality of fruit and coffee beans produced by farmers is due to the limited application of coffee cultivation technology at the farmer level, limited processing technology, low technical skills in coffee storage (Gathura, 2013; Megerssa, 2012). Meanwhile, coffee farmers in several developing countries also often experience problems in managing coffee farming, such as attacks by insect pests and diseases, low coffee prices at the farmer level, and limited facilities and infrastructure used to control pests and plant diseases, as well as a lack of personnel. skilled (Minh et al., 2016; Palmiro and Rossi, 2016; Acharya and Shiva 2014; Poudel, et al, 2009).

Apart from that, support from various stakeholders who are also market actors does not yet have a mutually beneficial relationship. Each party or market actor carries out its market activities without being based on a partnership relationship that shares roles to obtain proportional profits. In developing countries, including Indonesia, farmers have found weaknesses in the marketing process of their products such as coffee. Farmers have a weak bargaining position against other market players (Courtois and Subervie, 2014). They find it difficult to determine the price of their products so they "surrender" to accepting the prices determined by collecting traders, wholesalers, including exporters. There are several factors that result in a situation like this, including production locations that are difficult to reach, limited market information, the quality of the products produced is not optimal, cash needs at the farming family level, and so on. Government intervention is needed to facilitate the participation of small farmers and farmer groups, as well as other business actors in the coffee market chain, so that the products produced have high competitiveness (Arifin, 2013; Webber and Labaste, 2010). To maintain business, coffee producers must have good capacity and capabilities to produce and process their products with added value and high prices in the market. Therefore, efforts are needed to build business partnerships that link market actors in coffee development to ensure an increase in farmers' income. This article aims to provide an overview of the concept of building a sustainable coffee business partnership.

II METHOD

This research was conducted in two districts, namely Bangli Regency and Tabanan Regency, which were selected using purposive sampling, taking into account that these two areas are coffee production centers in Bali Province. The Arabica Coffee production center is in Kintamani District (Bangli Regency), and the Robusta Coffee production center is in Pupuan District (Tabanan Regency). The key respondents selected were farmer group administrators in the two sub-districts, local traders, exporters, government officials, management of the Bali Development Bank (local bank), researchers from universities. The data required is data relating to the coffee production process, post-harvest (coffee processing and marketing) and other relevant data. Data was collected using interview techniques, observation, documentation and focus group discussions. Data were analyzed using descriptive methods.

III RESULTS AND DISCUSSION

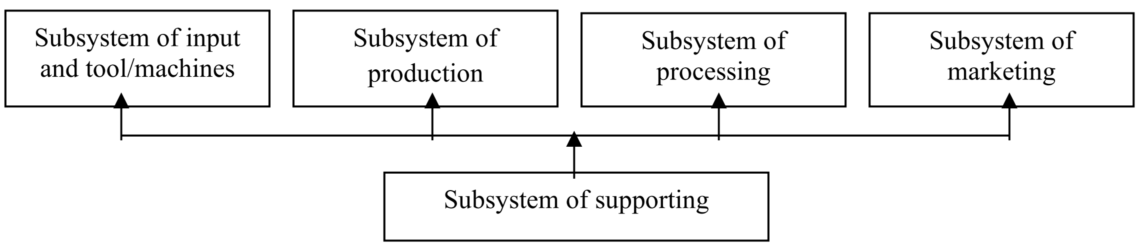
3.1 Agribusiness concept

Conceptually, the agribusiness system can be interpreted as a whole activity starting from the procurement, supply and distribution of production facilities, agricultural tools and machinery to the marketing of products produced by farming and agro-industrial activities which are related to one another. Apart from that, agribusiness can also be interpreted as a complete and comprehensive concept starting from production preparation, production processes, product processing, product marketing and other activities related to agricultural activities. Therefore, agribusiness is all business activities in the agricultural sector (in the broadest sense) where each activity is related and interdependent with each other. These activities fall into several subsystems, namely: (i) sub-system for procurement and distribution of production facilities, agricultural tools and machinery; (ii) farming or on-farm sub-system; (iii) product processing and storage sub-system (agro-industry); (iv) marketing sub-system; and (v) supporting sub-systems. This supporting sub-system includes various sectors that support the implementation of agricultural business activities, such as financial institutions (banks), infrastructure and facilities as well as transportation services, agricultural extension and training, information services (technology, finance/credit, markets), research activities, as well as government policies relating to agricultural business activities. The intended agribusiness system can be seen schematically in Figure 1.

In general, Arifin (2005) stated that the aim of agribusiness implemented in Indonesia is to encourage and accelerate activities in the agricultural sector; realizing a strong, efficient and dynamic economic structure; creating value added products; opening opportunities and business fields; and increasing the country's foreign exchange, as well as improving the distribution of community income. Simatupang (2002) firmly states that "farming is a business". The implementation of agribusiness in Indonesia is greatly influenced by the off-farm strategic environment such as the input and output marketing sub-system at both domestic and foreign levels, the dynamics of the rupiah exchange rate, domestic fiscal and monetary policies, and various other micro policies. Therefore, agribusiness development requires integrated, sustainable planning accompanied by agribusiness financing policies to strengthen the position of the agricultural sector in national economic development (Ashari, 2009).

Figure 1

System of agribusiness



The agribusiness concept above needs to be translated in real terms by various market actors in the coffee supply chain, namely from upstream (producer level) to downstream (consumer). Considering that coffee beans are an export commodity or international trade commodity, the existence of coffee exporters is a very important market actor, so that their linkages with producers, namely groups of farmers in business partnerships, must be well guaranteed (Fafchamps, and Minten. 2012). The experience of the coffee business which has been running well shows that the mutualistic relationship between farmer groups and farmer cooperatives in Flores and coffee exporters provides proportional economic benefits between them (Sedana and Astawa, 2016). This economic incentive is a profit obtained by each market actor which guarantees the sustainability of the coffee business partnership (Teece, 2010).

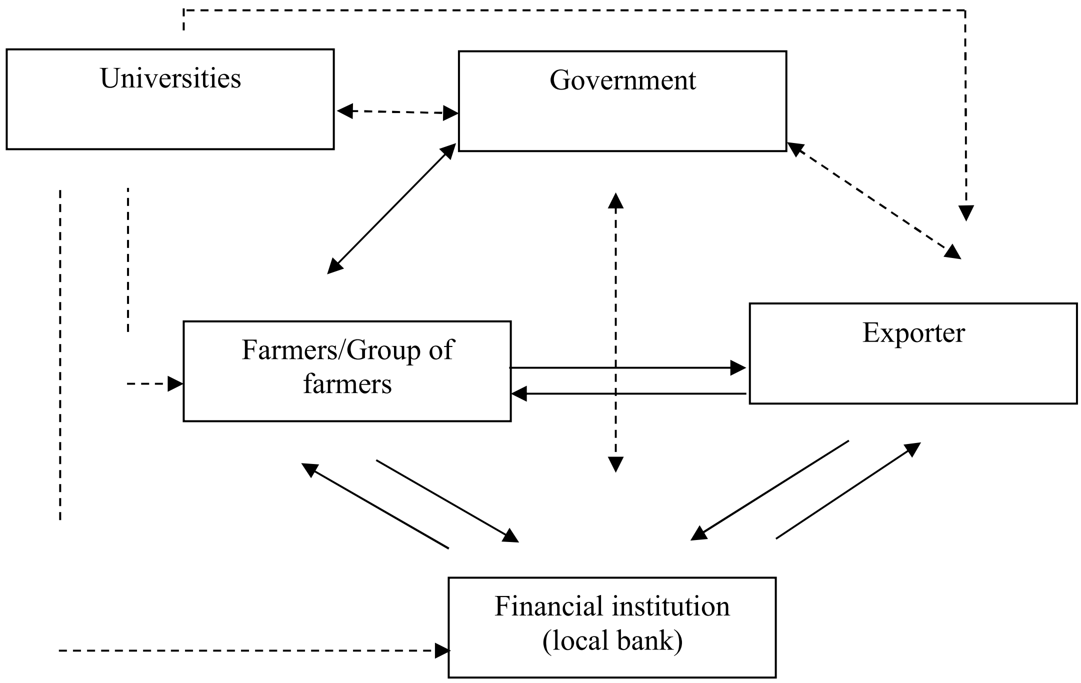
3.2 Building a Coffee Business Partnership in Bali

Coffee business partnerships built between market actors must be preceded by the preparation of a coffee business model. Through the planned business model, market actors know their respective roles, duties and functions in the market supply chain, including the economic and non-economic benefits they receive. The business model that has been formulated is an agreement among all market actors which must be used as a guideline in carrying out coffee business partnerships. Thus, a coffee business partnership based on this business model will provide added value to each market actor (Casapuas-Masanell and Ricart, 2010).

The market actors involved in coffee business partnerships are farmers (farmer groups or coffee farmer cooperatives), exporters, financial institutions (banks), government, universities as depicted in Figure 2.

Figure 2

Market actors within business partnership



Remarks

Inter-dependency

Coordination

Facilitation

Paying attention to the business model in Figure 2, farmer groups/cooperatives have an interdependent relationship. Farmer groups/cooperatives provide quality coffee products according to exporters' requests, while exporters provide rupiah value for their coffee products, and also provide technical assistance to farmer groups/cooperatives. Exporters will not get quality coffee if farmers are not given technical assistance, especially regarding quality coffee products. Likewise, it will be difficult for farmers to get a decent price if they do not have profitable partnerships with exporters. Between exporters and farmer groups/cooperatives, production plans must be made, the products to be transacted during the harvest season at an agreed price level. This agreement can be facilitated by the government as well as universities or NGOs. . Therefore, farmer groups/cooperatives are expected to have higher bargaining power over the coffee products produced (Sorrentino, et al., 2017). The facilitation provided is directed at providing opportunities for partnering parties to hold negotiations with each other (Alejandra, et al., 2012).

The mutualistic relationship between farmer groups/cooperatives and financial institutions is through credit. Credit distributed by the financial institution, Bali Regional Development Bank, to farmer groups/cooperatives will be used for additional business capital to produce coffee needed by exporters. Farmer groups/cooperatives provide compensation for services in the form of interest to financial institutions

The roles and functions of each actor in the business partnership can be expected to be carried out so that there is no dysfunction in its implementation. The roles that producers (farmer groups or farmer cooperatives) can play are at least: (i) implementing good coffee cultivation technology or good agricultural practices (GAP) on their respective land; (ii) ensuring coffee plants are managed organically; (iii) harvest according to the color of the coffee fruit; (iv) carry out coffee processing in accordance with standard operational procedures as determined by the exporter; (iv) carry out good storage of coffee beans; and (v) providing quality coffee according to exporters' requests.

Meanwhile, coffee exporters have at least duties and roles such as: (i) providing standard operational procedures to farmer groups/cooperatives regarding coffee plant cultivation technology, coffee processing; (ii) providing technical assistance to farmer groups/cooperatives; (iii) supervising coffee management at the farmer group/cooperative level; (iv) assist with technical equipment required in accordance with the agreement; (v) providing freight transportation infrastructure. Exporters provide periodic technical guidance to the farmer level through farmer groups/cooperatives in an effort to ensure that the technical conditions for cultivating coffee plants, harvesting and processing coffee are carried out in accordance with established standards. In this way, the provisions that have been set will be fulfilled, namely farmer groups/cooperatives producing quality coffee, namely specialty coffee which is in demand from exporters. This match between demand and supply provides a reasonable price level at the farmer level, so that the income and welfare of farmers is higher. The effect of increasing farmers' income is encouraging the rural economy through strengthening farmer groups or cooperatives (Astawa and Sedana, 2017).

The government at both provincial and district levels has a role as a regulator and facilitator regarding inclusive coffee management. Regulations or policies issued by the government can be in the form of making it easier to access credit from financial institutions, especially owned banks such as Regional Development Banks, policies on subsidies for production facilities and agricultural machinery, policies on improving infrastructure and transportation facilities. Apart from that, the government also provides facilitation in determining the price of coffee beans which will be determined between groups/cooperatives of farmers and exporters. Exporters also need to provide policies that build a conducive climate for their businesses in the region.

Financial institutions that are part of the business model in coffee business partnerships can have roles, including: (i) providing credit to farmer groups/cooperatives; (ii) providing technical assistance regarding financial administration, management, business plans to farmer groups/cooperatives; (iii) providing credit to exporters; and (iv) be a guarantor for farmer groups/farmer cooperatives in coffee bean purchase contracts between farmer groups/cooperatives and exporters.

Meanwhile, universities have roles and duties in facilitating activities related to business models. The simplest facilitation is to bring together actors to carry out business partnerships. Apart from that, the role that can be played is to provide technical training in coffee cultivation, management and administration skills to farmer groups/cooperatives in order to increase the capacity of their management.

Paying attention to the role and function of each market actor, coffee business partnerships require a strong commitment and commercial orientation from farmers and farmer groups/coffee farmer cooperatives in managing their coffee farming businesses. This commitment guarantees that a conducive climate will be created in implementing the established business model. Business partnerships that are built, especially between farmer groups/cooperatives and exporters, are based on business concepts, not charity.

At the farmer level, counseling and training regarding technical aspects (coffee cultivation), harvest and post-harvest techniques are also needed both by agricultural instructors from the government and also from exporters including universities (through theoretical and practical studies). Some of the cultivation and post-harvest techniques needed are starting from nurseries, plant maintenance (fertilizing, pruning, sanitation), grafting techniques (side grafting, top grafting), integrated pest and disease control, making organic fertilizer. Meanwhile, post-harvest technology concerns Good Post-harvest Practices (GPP) and Good Manufacturing Practices (GMP). Counseling and training is carried out directly at coffee processing centers, such as the location of the Product Processing Unit which is usually built in an area that is easily accessible to coffee farmers. At each processing unit, additional information is also required in the form of posters about GAP, GPP and GMP. As a form of partnership, exporters can provide standard facilities/equipment such as pulpers which are used to peel the red skin of coffee berries before further processing. Coffee processing infrastructure and facilities are needed to improve coffee quality (Hariance, et al, 2016). Meanwhile, simple warehouses and drying equipment can be provided by farmer groups/cooperatives. In fact, the government through its policies can provide assistance with infrastructure and other facilities that are really needed in the product processing units.

The results of research conducted in two coffee centers, namely Pupuan District and Kintamani District, obtained information that the exporter which has coffee activities in Bali Province is PT. Indokom Citra Persada is headquartered in Sidoarjo (East Java). Apart from that, there is also an exporter PT. Delta Park whose head office is in Semarang, Central Java. These two exporters also collaborate with local wholesalers in Bali to market coffee products in the form of both wet and dry processed coffee.

III CONCLUSION

Farmers in Indonesia cultivate Robusta and Arabica coffee on relatively limited land. Currently, there is still a fairly large gap between supply and demand for coffee on the international market. Increasing the welfare of coffee farmers is carried out through business partnerships based on business models. This partnership development includes market actors involved in the coffee supply chain. The productivity and quality of coffee at the farmer level is still relatively low due to the limited application of coffee cultivation technology and coffee processing. Apart from that, the market price of coffee is still relatively low so that farmer incomes are low. This gap is also caused by non-performance of business partnerships in the coffee market chain.

Therefore, it is necessary to build coffee business partnerships as one of the efforts that can be made to increase the income of coffee farmers based on a business model that includes market actors. Market actors involved in the business model for inclusive coffee business development in Bali are farmers/coffee farmer groups, coffee entrepreneurs/coffee exporters, universities, financial institutions, government. The aim of this coffee business partnership is to increase coffee production and the income of coffee farmers as producers. All market actors must have a harmonious relationship in playing their roles based on the principle of proportional mutual benefit or business mutualism. This means that developing coffee business partnerships will provide added value and income for coffee farmers as members of farmer groups. There is a need for assistance and monitoring and evaluation activities to ensure the sustainability of the coffee business partnership.

REFERENCES

Acharya, B., and C.D. Shiva. 2014. “Profitability and Major Problems of Coffee Production in Palpa District, Nepal.” *International Journal of Applied Science Biotechnology* 2 (4): 460–463.

Aknesia, V., A. Daryanto, K. Kirbrandoko. 2015. Business Development Strategy for Specialty Coffee. *Indonesian Journal of Business and Entrepreneurship, Vol 1, No 1*: 12-22

Alejandra, M., G. Perez, and S. Viana. 2012. Cooperation in coffee markets: the case of Vietnam and Colombia. *Journal of Agribusiness in Developing and Emerging Economies* 2(1): 57–67.

Arifin, B. 2005. Pembangunan Pertanian, Paradigma Kebijakan dan Strategi Revitalisasi. Jakarta: Grasindo.

_______. 2013. On the competitiveness and sustainability of the Indonesian agricultural export commodities. *ASEAN Journal of Economics, Management and Accounting* 1(1): 81–100.

Ashari. 2009. Optimalisasi Kebijakan Kredit Program Pertanian di Indonesia. Analisis Kebijakan Pertanian Vol. 07 No. 01 tahun 2009.

Astawa, N.D., dan G. Sedana . 2017. Kearifan Lokal Bali dan Pembangunan Ekonomi: Suatu Model Pembangunan Ekonomi Bali Berkelanjutan. Denpasar: Pstaka Larasan.

Ayelign, A., K. Sabally. 2013. Determination of Chlorogenic Acids (CGA) in Coffee Beans Using HPLC. *American Journal of Research Communication*. Vol 1 (2), halaman 78-91.

Bellemare, M.F., and C.B. Barret. 2006. An Ordered Tobit Model of Market Participation: Evidence from Kenya and Ethiopia. *American Journal of Agricultural Economics*, *88*:324-337.

Casadesus-Masanell, R., and J.E. Ricart. 2010. ‘‘From Strategy to Business Models and onto Tactics.’’ *Long Range Planning* 43 (2): 195–215.

Courtois, P. and J. Subervie. 2014. Farmer Bargaining Power and Market Information Services. *American Journal of Agricultural Economics*: 1-25.

Fafchamps, M., and R.V. Hill. 2008. Price Transmission and Trader Entry in Domestic Commodity Markets. Economic Development and Cultural Change 56: 729-766.

Fafchamps, M., and B. Minten. 2012. Impact of SMS-Based Agrricultural Information on Indian Farmers. *World Bank Economic Review*, *26*: 383-414.

Gathura M N. 2013. Factors affecting small-scale coffee production in Githunguri District, Kenya. *International Journal of Academic Research in Business and Social Sciences* 3(9): 132–149.

Gabriele, A. and D. Vanzetti. 2008. Long black: Export controls as a means of addressing coffee price instability. *Journal of Economic Integration* 23 (2): 411-433.

Gisaro, M.Y.B., L. Philippe, B. Philippe, and Deo. 2013. “Role of KOPAKAMA in Promoting Socio-economic Development of Coffee Farmers. *International NGO Journal* 8 (3): 61–67.

Hariance, R., R. Febriamansyah., & T. Faidil. 2016. Strategi Pengembangan Agribisnis Kopi Robusta Di Kabupaten Solok. *Jurnal AGRISEP, Vol.* 15, No.: 11–26.

International Coffee Organization. 2018. Trade Statistics Tables. http://www.ico.org/trade_statistics.asp?section=Statistics.

Kanaka, S. and M. Chinadurai. 2012. A Study of comparative advantage of Indian agricultural exports. *Journal of Management and Science* 2 (3): 1-9.

Key, N., E. Sadoulet, and A.D. Janvry. 2000. Transactions Costs and Agricultural Household Supply Response. American Journal of Agricultutral Economics, 82: 245-259.

Kilian, B., C, Jones, L. Pratt, and A. Villalobos. 2006. Is Sustainable Agriculture a Viable Strategy to Improve Farm Income in Central America? A Case Study on Coffee. *Journal of Business Research* 59: 322–330.

Kustiari, R.. 2007. *Perkembangan Pasar Kopi Dunia dan Implikasinya bagi Indonesia.* Jurnal Forum penelitian Agroekonomi Vol. 25 No. 1 :43–55.

Meiri, A., R. Nurmalina, dan A. Rifin . 2013. Analisis Perdagangan Kopi Indonesia Di Pasar Internasional, *Buletin RISTRI 4 (1):* 39-46.

Minh, H.T., Trang, D.T.N. and Chen, J.C. 2016. Input Factors to Sustainable Development of Coffee Production in the Dak Lak Province. *Open Ac-cess Library Journal*, **3**: e3187.

Megerssa, B., Michael, G., and Teshome D. 2012. Knowledge and attitude of small holder coffee producing farmers to coffee quality: the case of Oromiya and South Nations Nationalities and peoples regional states, Ethiopia. *Journal Application Science Technology* 3(2): 31–44.

Mutandwa, E., T.K. Nathan, R. Emmanuel, K. Theophile, M. Patrice, G. Ignatius, and F. Richard. 2009. Analysis of Coffee Export Marketing in Rwanda: Application of the Boston Consulting Group Matrix. *African Journal of Business Management* 2 (4): 210–219.

Palmiro, P. and F. Rossi. 2016. Challenges in Specialty Coffee Processing and Quality Assurance. *Challenges* 2016, *7*(2):1-22.

Rika, H., R. Febriamansyah, dan F. Tanjung. 2016. Strategi Pengembangan Agribisnis Kopi Robusta Di Kabupaten Solok, *AGRISEP* Vol 15 No.1: 111 – 126.

Sedana, G. and N.D. Astawa. 2016. Panca Datu Partnership in Support of Inclusive Business for Coffee Development: The Case of Ngada District, Province of Nusa Tenggara Timur, Indonesia. *Asian Journal of Agriculture and Development, Vol. 13, No.2:* 75-98.

________________________. 2018. Institutional Adjustment of Subak (Traditional Irrigation System) Orienting Business: Case of Cooperative Of Subak Guama, Bali Proviince, Indonesia. International Journal of Current Research, Vol. 10, Issue, 06, Pp.70418-70423.

Sedana, G. 2024. Mitigation and adaptation of local organization to achieve food security: Case of traditional irrigation system in Bali, Indonesia. *International Journal of Science and Research Archive*, Vol. 11, Issue 1: 1486-1495.

Simatupang, P. 2002. Reformasi Agraria Menuju Pertanian Berkelanjutan: Komentar Terhadap Makalah Profesor Mubyarto. *Jurnal Ekonomi Rakyat. Artikel - Th. I - No. 8 - Oktober 2002*

Sorrentino, A., C. Russo, and L. Cacchiarelli. 2017. Strengthening Farmers' Bargaining Power in the New CAP. *Proceedings in System Dynamics and Innovation in Food Networks 2017*.

Supriadi, H., dan D. Pranowo. 2015. Prospek Pengembangan Agroforestri Berbasis Kopi Di Indonesia. *Perspektif Vol. 14 No. 2*: 135 -150.

Teece, D. J. 2010. ''Business Models, Business Strategy and Innovation.'' *Long Range Planning* 43 (2-3): 172–194.

Widya Ariyanti, W., A. Suryantini, dan Jamhari. 2019. Usaha Tani Kopi Robusta Di Kabupaten Tanggamus: Kajian Strategi Pengembangan Agrobisnis. Jurnal Kawistara, Vol.9. No.2: 179-191.

Wulandari, I. S. 2010. Perbandingan ekspor kopi dua pemasok utama dunia Indonesia dan Brazil: Sebuah analisis ekonomi data panel 2001-2006. *UNISIA* 33 (73): 3-16.