

Institutional Model of Integrated Cinnamon Agro-Industry Based on Local Wisdom

Afdhal Chatra^{1*}, Firwan Tan², Delfia Tanjung Sari³, Adrimas⁴

¹Doctorate student of Faculty of Economic Andalas University, Padang, Indonesia

Email: afdhalchatra@gmail.com

^{2,3,4} Faculty of Economic Andalas University, Padang, Indonesia

Corresponding author: Afdhal Chatra

Abstract:

Cinnamon is one of the leading commodities in Sungai Penuh City. The problem is that the cinnamon commodity has not been optimally managed. There are still many cinnamon commodities that are marketed in the form of raw materials so that they have not yet been produced in optimal competitiveness and added value. This study aims to design an integrated model of cinnamon agro-industry based on local wisdom in Sungai Penuh City. This research was conducted in collaboration with stakeholders in Sungai Penuh City from March to August 2020. The research method uses the Analytical Hierarchy Process (AHP) with a literature study approach, brainstorming, and in-depth interviews. This study's results discuss the factors, objectives, actors, and an alternative institutional model for an integrated and sustainable cinnamon agro-industry according to local wisdom in Sungai Penuh City. Building an integrated model of an integrated cinnamon agro-industry requires local government support through policies.

Keywords: Cinnamon, Agro-industrial institutional

1. INTRODUCTION

Cinnamon is a leading commodity in the Sungai Penuh city located in the Kerinci region (Balitbang, 2017). Cinnamon from the Kerinci region in Jambi Province is known to have the best quality in Indonesia (Dewi Alimah Hari, 2015). Kerinci cinnamon is a center for producing high-quality essential oil plants with an essential oil content of around 1.9% to 5.8% (Kemenhumham, 2016). Further, the cinnamon plant is considered a high-value plant because in every part of the plant, apart from functioning as a spice, it can also be used for pharmaceuticals and fragrances (Jaya et al., 2009).

Cinnamomum burmannii Blume is a native to Indonesia and known by its commercial name as Koerintji Cinnamon. About 80% of the world's cinnamon exports come from Indonesia, and 60% come from this region (see Figure 1) (Menggala & Damme, 2018). Currently, the potential of the cinnamon commodity in Sungai Penuh City has not been optimally managed, and there are still many of that are marketed in the

form of raw materials so that they have not been produced with an added value and competitiveness (Hariyadi & Ticktin, 2012). If they only rely on primary commodities, the farmers and local communities in Sungai Penuh City will solely act as price takers (Hodijah & Delis, 2018).

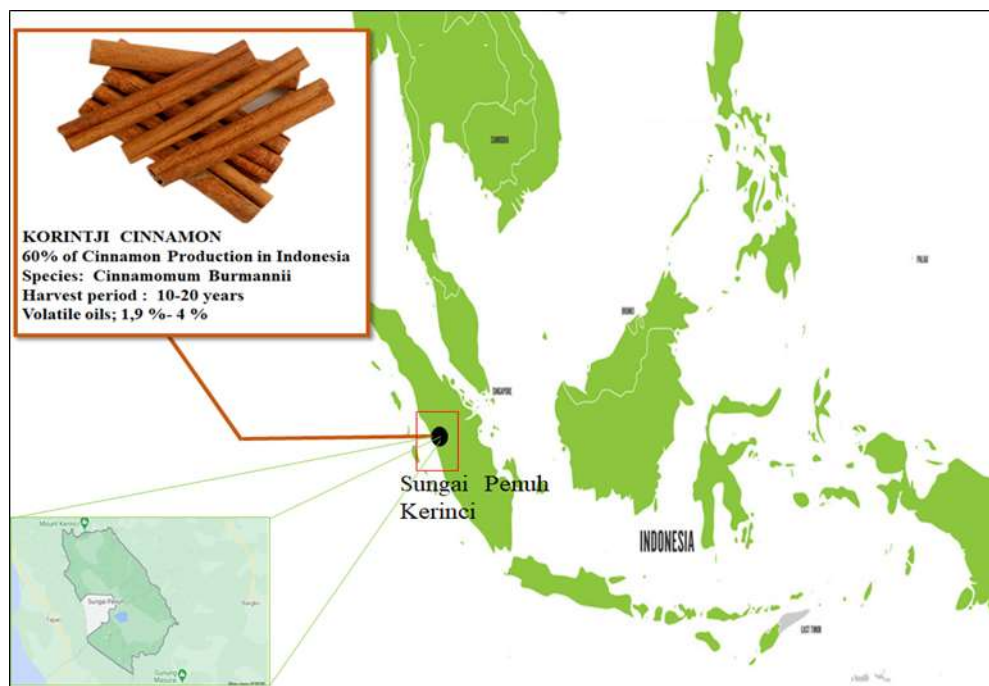


Figure 1. Kerinci region as the largest producer of Cinnamon in Indonesia

Based on the literature review and observation in Sungai Penuh City in 2020, the existing cinnamon agro-industrial system is not integrated and is not yet sustainable (Hahn & Gold, 2014). This agro-industry pattern will obscure the process of maintaining the quality and quantity of cinnamon products (Iryanti, 2017). Each agro-industry subsystem player competes to get high profits from marketing margins (Triwulandari S. Dewayana, 2014). As one of the actors in the agro-industry subsystem, farmers cannot control the dynamics in and of other subsystems, so cinnamon farmers are often disadvantaged since they do not have a bargaining position and only take the price given (Iskandar, 2013).

In the agro-industry system, Cinnamon that is not integrated with other subsystems can cause disparities in implementing innovation and technology development, so that what has been done by other parties, such as the government, non-governmental organizations, and universities, to agro-industry subsystem actors in the form of training, production facilities, and agricultural assistance others, in the end, have not worked properly and there is no known sustainability impact (Triwulandari S. Dewayana, 2014)

In other cases, if there is an overproduction of Cinnamon which causes a decrease in prices, farmers often bear their losses. They can only complain to the government and industry players. Meanwhile, that attempt will not help much (Ike, 2018). It shows that farmers are always in the weakest position due to the absence of market and price guarantees (Anwarudin et al., 2018). For this reason, the government and stakeholders in Sungai Penuh City need to build an integrated and sustainable cinnamon agro-industrial institution to increase the added value and competitiveness of cinnamon products (Menggala & Damme, 2018). Further, the existence of added value and optimal competitiveness will provide benefits for farmers and agro-industry players (Valitov & Khakimov, 2015)

Previous research on Cinnamon in the Kerinci area focused more on the Financial Feasibility Aspects of Kerinci Cinnamon Plants (Suci, 2006), The Role of Land Tenure in the Development of Cinnamon Agroforestry in Kerinci, Sumatra Kerinci (Suyanto et al., 2007), Cinnamon Trade-in Kerinci Regency (Ferry, 2013), Export Prospects and the Processing of Cinnamon Syrup (Iswarini, 2013), Small Industry Analysis on Cinnamon Syrup

(Iskandar, 2013), Cinnamon Value Chain in Kerinci (Theresa, 2017), Value Chain Development Agriculture, Certification & Trade Mechanism Standards (Menggala & Damme, 2018), The Development Strategy Cinnamon Commodity Agribusiness (Eka Maidisa, 2018), Price Allowances and the Export Market Share of Kerinci Cinnamon (Nurhayani, 2019), Power Competitiveness of Cinnamon Farming in the Jambi (Sukris Nopi, 2019), Sustainable harvest Cinnamomum burmannii Blume in Kerinci Regency, Indonesia (Menggala et al., 2019).

Those researches show that no study examines the institutional model of the integrated Cinnamon agro-industry. Therefore, to fill the gap, this research aims to design an institutional model for an integrated cinnamon agro-industry based on local wisdom to increase the added value and competitiveness of cinnamon products in Sungai Penuh City. So, this research is expected to contribute to developing an institutional model for the cinnamon agro-industry in Sungai Penuh City and the Kerinci region as the largest cinnamon producer in Indonesia.

2. METHODOLOGY

This research collaborates with stakeholders in Sungai Penuh City from March-August 2020. This research uses primary data to use the Analytical Hierarchy Process (AHP) method. The data were obtained from field observations, interviews, discussions, and filling out questionnaires from experts.

In the Analytical Hierarchy Process (AHP) method, the number of samples/respondents is not used to measure validity (Saaty TL, 2012). The respondents' selection in this is executed by purposive sampling (deliberately), taking into account the respondents' understanding of the research problems. To design and build a system needed, effectively and efficiently, the researchers must collect and determine the amount of information required from the experts (Regattieri et al., 2007). Therefore, the respondents selected in this survey are experts who had long been involved in cinnamon

commodity development in the Kerinci region.

The number of respondents in this study consisted of nine people who are considered competent in representing the entire population, including; one expert from the Sungai Penuh Government, one from the Department of Horticultural and Plantation Food Crops, one from the Jambi Provincial Government, one from the legislator, one from Banking department, one from Agribusiness Companies, one from farmer groups, and the other one from agro-industry.

2.1. RESEARCH STAGES

Figure 3 shows that the institutional model design of the cinnamon agro-industry research process is carried out in four stages (Ascarya et al, 2010): The First Stage is Literature Study and Observation. At this stage, we conducted a literature review, brainstorming process, and discussions with experts regarding the problems and potentials for developing an integrated cinnamon agro-industry based on local wisdom in Sungai Penuh City.

The Second stage is model construction. At this stage, we formulate, design, and prepare a questionnaire. Based on literature review and discussions with experts, several key elements were obtained at each hierarchical level in determining the institutional model of an integrated and sustainable cinnamon agro-industry based on local wisdom in Sungai Penuh City.

The third stage is the quantification model. In this process, we validated the model by conducting an in-depth interview process and filling out questionnaires by experts regarding the factors, objectives, actors, and institutional models of the cinnamon agro-industry in Sungai Penuh city. The fourth stage is Analysis Results. To get the analysis results, we performed calculations with the method Analytical Hierarchy Process (AHP) using Super Decisions 1.6.0 software.

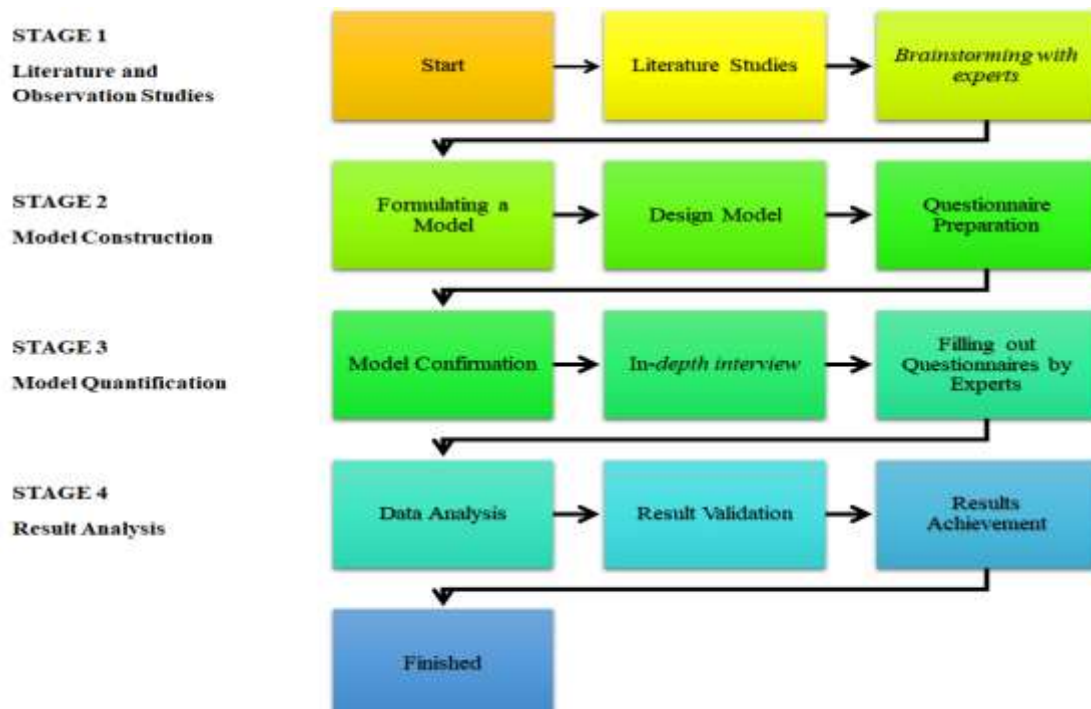


Figure 3: Research Stages with the AHP approach

2.2. RESEARCH DESIGN

Based on literature studies and discussions with experts, several key elements are obtained at

each hierarchical level in the agro-industrial institutional design for the development of local wisdom based on the superior commodity of Cinnamon in Sungai Penuh City. (see Figure 2).

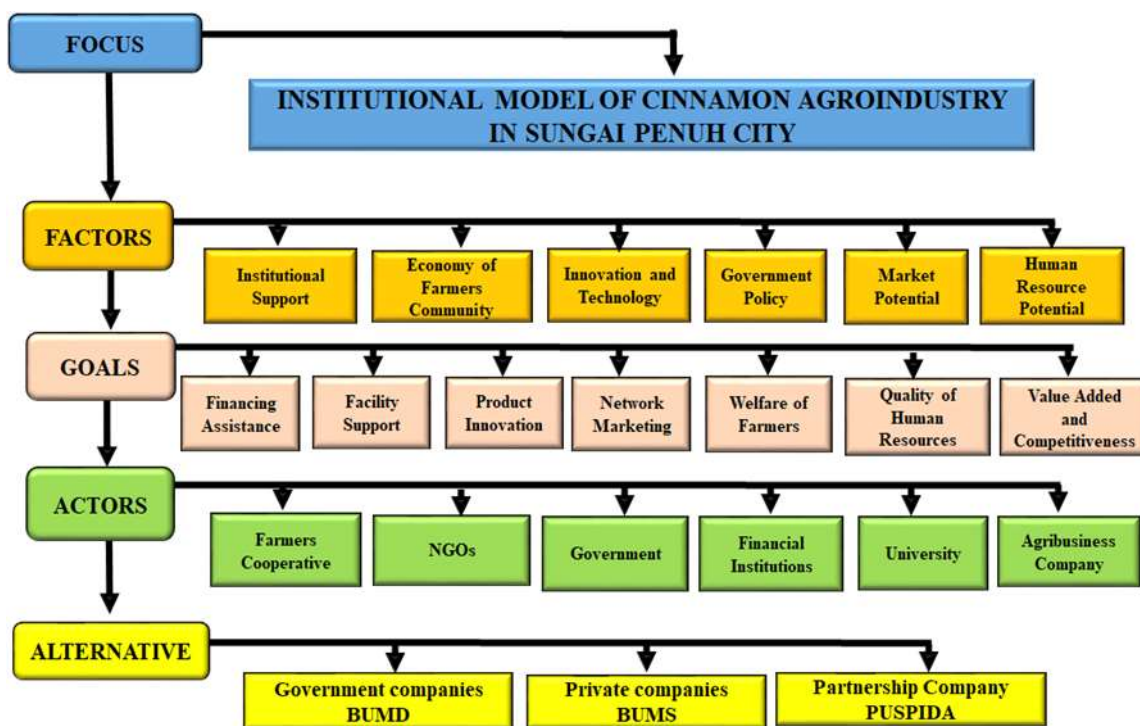


Figure 2: Example of a figure caption (figure caption).

At the first hierarchical level, there are six factors for the development of the cinnamon

agro-industry, namely; (i) Institutional support from various parties in the development of the cinnamon agro-industry; (ii) Opportunities to improve the economic welfare of farming communities; (iii) The ability of innovation and technology to produce derivative products; (iv) Potential domestic and foreign market demand; (v) Local government policies, and (vi) Potential human resources to run the institutional organization that will be built ((Abdullah, Syahfirin, Ma'arif, Husaini, 2012), (Andini, 2013), (Rahmat Fadhil et al., 2017)

At the second hierarchical level, the objective of developing an institutional model for the cinnamon agro-industry consists of seven aspects, namely; (i) aspects of financial assistance; (ii) facility support aspects; (iii) aspects of product innovation development; (iv) network marketing development aspects; (v) aspects of improving the welfare of the farming community; (vi) aspects of developing the quality of human resources and (vii) aspects of increasing added value and competitiveness of commodities (Elizabeth, 2015) (R Fadhil et al., 2017)(Harisudin, 2014) (Yuniati et al., 2017) (Julia Marisa, Rahmat Syahni, 2018)

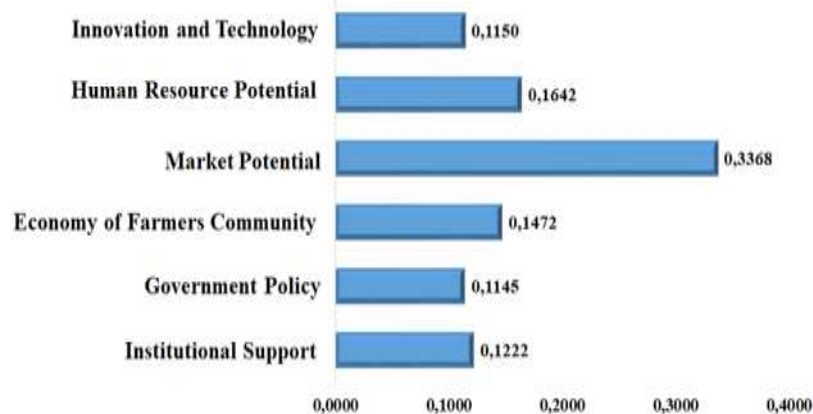
At the third hierarchical level, there are seven actors involved in the development of an institutional model for the cinnamon agro-industry in Sungai Penuh City, including; (i) farmer cooperatives; (ii) NGOs / non-

governmental organizations; (iii) City Government; (iv) Financial institutions; (v) University, and (vi) agribusiness companies. (Ikatrinasari et al., 2011)(Abdullah, Syahfirin, Ma'arif, Husaini, 2012) (Lakitan et al., 2012) (Yuniarti, 2018) (Julia Marisa, Rahmat Syahni, 2018)(Eskarya, 2020) (Ahmad Kharis, 2020)

Meanwhile, at the fourth hierarchical level, three alternatives were selected which would become an institutional model for the cinnamon agro-industry in Sungai Penuh City, including; (i) Regional Owned Enterprises (BUMD); (ii) Private Owned Enterprises (BUMS), and (iii) Partnership Companies (PUSPIDA).

3. RESULTS AND DISCUSSIONS

Based on the results of the priority analysis of the development factors of the cinnamon agro-industry institutional model are; (i). Market potential with a weighted value of 0.3368; (ii). Potential human resources with a weighted value of 0.1642; (iii). The aspect of improving the farming community's economic condition with a weighted value of 0.1472; (iv). The aspect of institutional support with a weighted value of 0.1222;(v). The aspect of innovation and technology with a weight value of 0.1150; (vi). The Sungai Penuh Government policy aspect with a weighted value of 0.1145.



Source: data processed Super Decisions Software (2020)

Figure 4. Development Factor Weight Value Diagram Institutional Agroindustry Cinnamon

The priority of the institutional development goals for the cinnamon agro-industry in Sungai Penuh City are; (i) The increase in added value and product competitiveness with a weighted

value of 0.3147; (ii) The aspect of developing the welfare of the farming community has a weighted value of 0.1756; (iii) The product innovation aspect with a weighted value of

0.1294; (iv) The development of human resources quality with a weighted value of 0.1239, (v) Marketing network development aspect with a weighted value of 0.1010; (vi) The

aspect of financing assistance with a weighted value of 0.0948; (vii) The facility support aspect with a weight value of 0.0606.

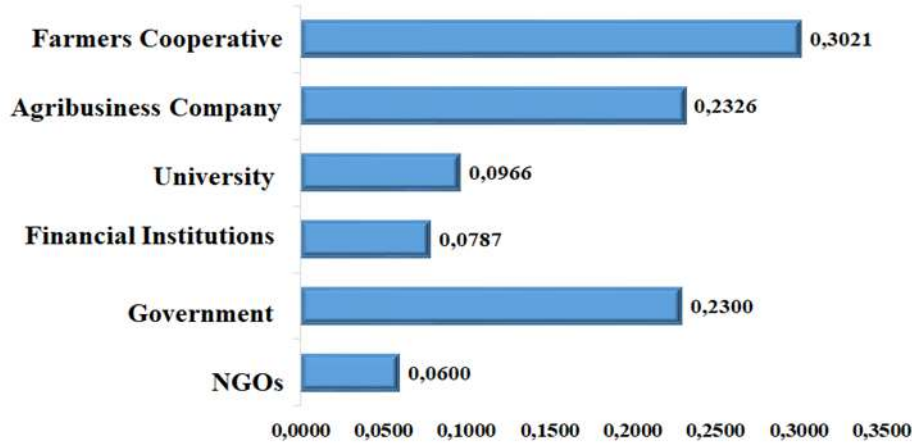


Source: data processed Super Decisions Software (2020)

Figure 5. Development Purpose Weight Value Diagram Institutional Agroindustry Cinnamon

The analysis result shows that the actors in the institutional model of the cinnamon agro-industry in Sungai Penuh City are; (i) Farmers' cooperatives with a weighted value of 0.3021 ; (ii) Agribusiness companies with a weighted value of 0.2356; (iii) Sungai Penuh City

government with a weighted value of 0.2300; (iv) University with a weighted value of 0.0966; (v). Financial institutions with a weighted value of 0.0787; (vi) NGOs / non-governmental organizations with a weighted value of 0.0600.

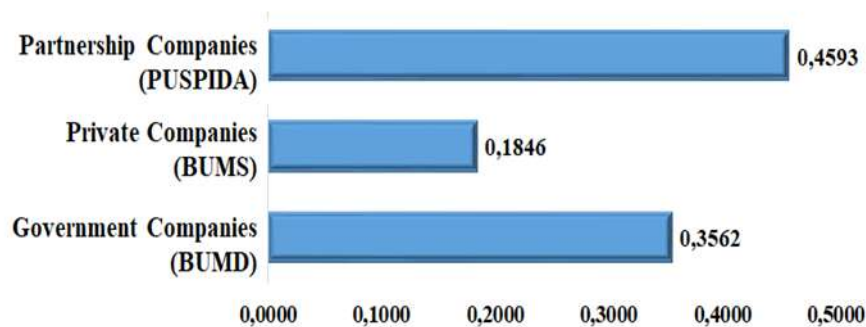


Source: data processed Super Decisions Software (2020)

Figure 6. Development Actor Weight Value Diagram Institutional Agroindustry Cinnamon

Based on the analysis results, the priority of alternative institutions in the integrated model of cinnamon agro-industry is based on the local wisdom in Sungai Penuh City, namely; (i). The PUSPIDA partnership company model is the top

priority with a weighted value of 0,4593 ; (ii). Regional Owned Enterprises (BUMD) is the second priority with a weighted value of 0.3562; (iii). Private Owned Enterprises (BUMS) is the last priority, with a weighted value of 0.1846



Source: data processed Super Decisions Software (2020)

Figure 7. Model Alternative Weight Value Diagram Institutional Agroindustry Cinnamon

3.1. PUSPIDA Partnership Company Concept

The institutional model is a partnership company collaboration between actors who work together to carry out their respective roles with the same goals (Hahn & Gold, 2014). The partnership model itself is a combination of resources owned by each actor optimized to achieve common goals. (Andrews & Entwistle, 2010)(Julia Marisa, Rahmat Syahni, 2018).

The partnership concept focuses more on the role of actors or partners who contribute to achieving a goal with the support of all parties. Furthermore, achieving the goal successfully cannot be done by a single actor but is a collaboration between actors (Cheng Gao, 2017). According to Gouillart, F.J dan Kelly (1995), a partnership collaborates between actors to support the synergy of mutually beneficial activity.

In the context of local wisdom in Sungai Penuh City, the collaboration between these actors uses the stakeholder approach, which shows that the related parties, in this case, are farmer cooperatives, city governments, agribusiness companies, jointly committed and supporting the development of agro-industrial institutions in the city. Sungai Penuh, by building a legal entity in the form of a limited company (PT), is then managed professionally and independently by the institution manager.

To achieve the successful performance of an integrated cinnamon agro-industry institution, the Municipal Government of Sungai Penuh, farmer cooperatives, and agribusiness companies through partnership companies need

to collaborate with other stakeholders. The success of institutional managers in running a partnership company cannot be separated from the quality of the existing human resource (Cheng Gao, 2017) For this reason, human resources who have integrity, loyalty, independence, and an entrepreneurial vision are necessitated to be performed by the management of PUSPIDA partnership companies.

The priority that will be carried out is forming a company core work team consisting of a minimum of management expertise, post-harvest processing agriculture, marketing, and finance, as well as the ability to master the information technology (Kanu et al., 2014). (See Figure 8) Based on the views of the experts, it is necessary to have the role of each actor and the stakeholders including.

a. Farmers' Cooperative

Cinnamon agricultural cooperatives play an active role in providing raw materials for industry according to the agreement, schedule, type of commodity, and quantity required. The consequence is that the cooperatives and farmer groups must be able to provide land and energy to achieve the production target (Kremen et al., 2012). Agricultural cooperatives need to socialize and implement a sustainable agroforestry practice (SAP) based on the sustainable cinnamon cultivation technique program and post-harvest handling based on Good Handling Practice (GHP) so that it will have an impact on improving the quality of Cinnamon produced by farmers and increasing the high price of Cinnamon at the farmer level.

The benefits obtained by farmer cooperatives by

being part of a partnership company are; (1) Guaranteed favorable prices and ease of product marketing; (2) Increasing production and land productivity; (3) There is an expansion of job opportunities; (4) Increasing the number of agricultural production facilities; (5) The availability of good cultivation technology and; (6) Increase in income and welfare.

b. Sungai Penuh City Government

To accelerate the process of developing the cinnamon agro-industry, Sungai Penuh City Government needs to provide maximum support in terms of policies for the provision of production facilities and infrastructure, agricultural infrastructure telecommunications, and the ease of bureaucracy (Llanto, 2012)

c Agribusiness Companies

According to experts, the role of agribusiness companies involved in the partnership, namely; (1) Having a commitment to support and participate in building partnership companies in developing local economic resources in Sungai Penuh City; (2) Transferring technology and fostering partnership companies for mastery of the post-harvest processing innovation technology system; (3) Fostering partnership companies in building product marketing networks both nationally and internationally and; (4) Encouraging partnership companies in resource & development capabilities to ensure the birth of innovations and inventions to achieve business excellence (Rankin et al., 2011)

3.2. The Role of Supporting Institutions

a. Financial institutions

According to experts from the banking, the role of financial institutions such as banks ventures capital companies is more emphasized in the early stages of business which aims to provide investment and working capital, especially to farmers (Sonne, 2012). Local government and research development costs for partnership companies (Dahan et al., 2010) The general requirements required for credit management must be simplified because they have received annual payment guarantees through the regional government budget (APBD). Meanwhile, the benefits expected by banks in assisting this partnership company are; (1) Increased credit

extended; (2) Smooth repayment of loans extended; (3) Investment credit security, and; (4) Increased savings for the community and farmers.

b. University

University has an essential role in creating innovation and development of technology and science (Rieckmann, 2012). This can encourage the start of new products, improve product quality and process efficiency, and encourage superior products' competitiveness. Also, universities need to be more sensitive to the dynamics of interaction between farmers and agro-industry players to develop technology that is relevant to the realities of the needs of both parties (Claire Lamine, 2012)

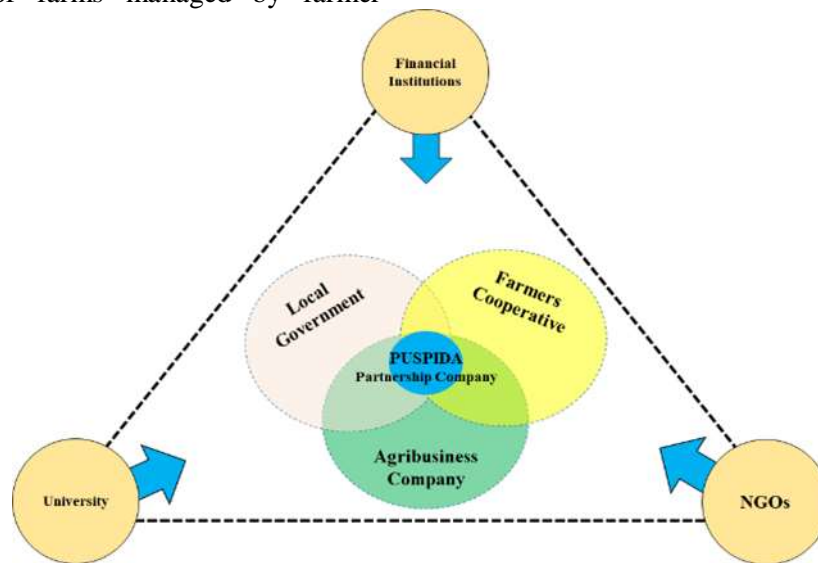
A technology development orientation that is more directed at meeting needs or providing solutions to real problems is a more rational choice to create an effective and productive innovation system, including the agricultural sector (Lakitan et al., 2012). With the synergy between partner companies and universities, it is expected that there will be mutually beneficial relationships, the development of product development from the results of the study, and the existence of related industrial research collaborations (Kharis, 2020)

c. Non-governmental organization

The role of non-governmental organizations in the agricultural sector in the era of regional autonomy is considered essential to support the achievement of the regional autonomy goals (Claire Lamine, 2012). The purpose of regional autonomy is to explore the local potential of an area to improve community welfare (Karsidi, 2001). In general, non-governmental organizations engaged in agriculture implement an agricultural extension by organizing farmer communities, providing advocacy, training, mentoring, and implementing demonstration plots.

According to (2009), the decline in the role of extension and the decline in the image of extension carried out by the government has made NGOs increasingly recognized. The government often builds collaborative cooperation between government agricultural extension workers, the private sector, and NGOs. Collaboration between local governments, partnership companies, and NGOs

in agricultural extension will facilitate the development of farms managed by farmer groups.



Source: Indeph Interview and AHP (2020)

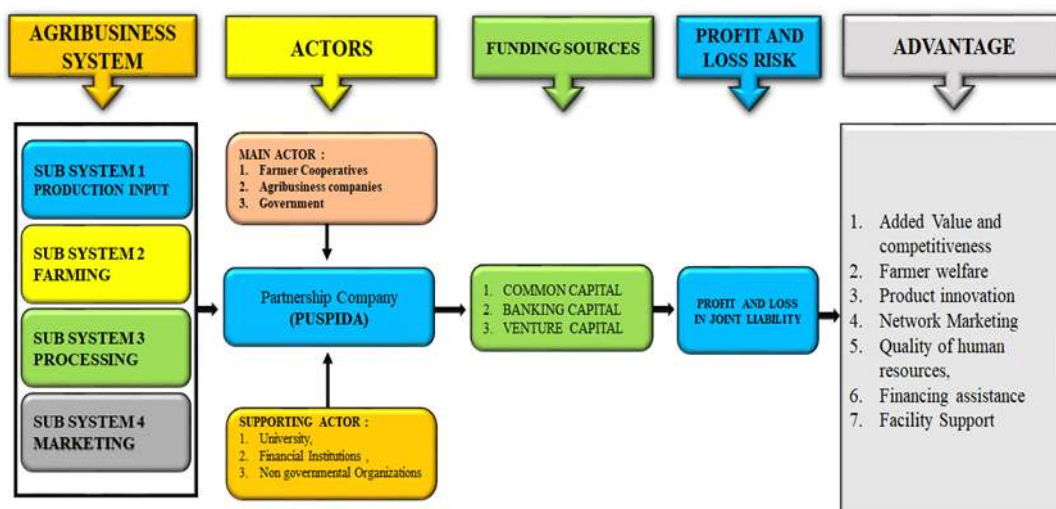
Figure 8: The role of stakeholders of an integrated Cinnamon Agro-Industry based on the local wisdom of Sungai Penuh City

3.3 The Role of PUSPIDA Partnership Companies in an Integrated Cinnamon Agro-Industry System in Sungai Penuh City

It is estimated that in 2026 cinnamon production in the Kerinci region will face an increase in cinnamon production (Department of Agriculture, Plantation, and Forestry of Kerinci Regency 2018). Therefore, stakeholders need to prepare steps in dealing with a spike in cinnamon production, which is balanced by an increase in added value and competitiveness of

the cinnamon commodity. So, the increased added value and competitiveness will impact the increasing price of Cinnamon and improve the welfare of farmers.

The institutional model for the cinnamon agro-industry in a partnership company is very relevant to be developed in Sungai Penuh City as a Regional Innovation Development Center (PUSPIDA). Its existence can be a form of institutional innovation for the cinnamon agro-industry in Indonesia (see Figure 9).



Source: Indeph Interview and AHP (2020)

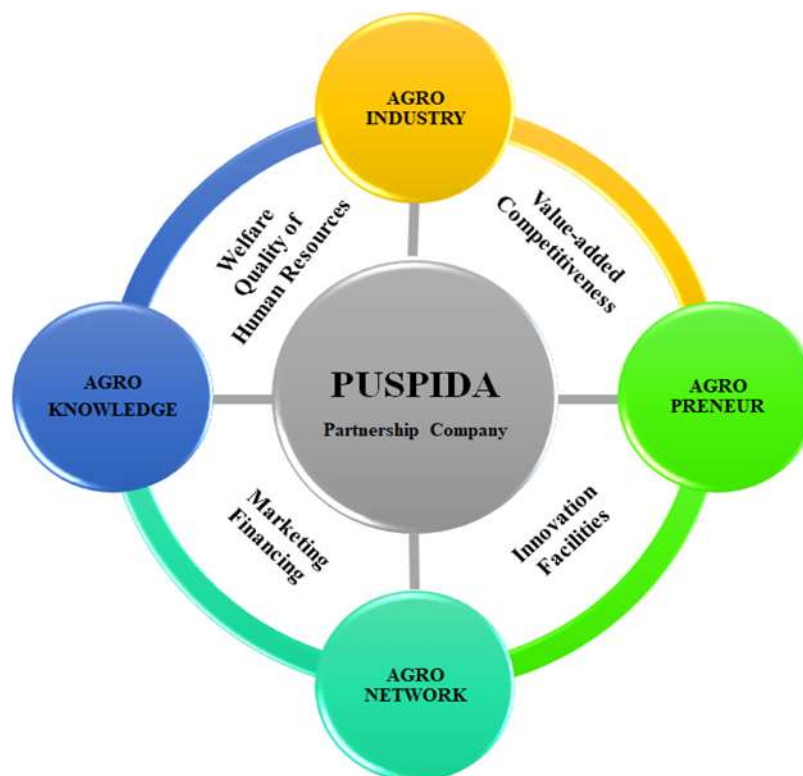
Figure 9: Model of Cinnamon Agroindustry integrated system in Sungai Penuh City

Figure 9 shows that an integrated and sustainable cinnamon agro-industry system emphasizes the importance of cooperation between existing agribusiness subsystem actors such as agricultural cooperatives, agribusiness companies, and local governments. Collaboration between stakeholders is built in the form of a partnership company. The source of funding to build a partnership company comes from joint-stock, banking capital, and venture capital. With a partnership company, the advantages and disadvantages can be managed and shared.

Meanwhile, Meanwhile, PUSPIDA partnership company in providing advantages includes (See Figure 9); (i) Agro-industrial advantages PUSPIDA Partnership Company functions as a business center in processing, developing added

value, and enhancing the competitiveness of cinnamon products; (ii) Agro-knowledge advantages PUSPIDA partnership company functions as a center for knowledge transfer, human resource development, and a center for cinnamon farming education; (iii). Agro-preneur advantages.

The PUSPIDA partnership company functions as a business incubator center, product innovation, technology, and entrepreneurial tenant support in the field of cinnamon agriculture; (iv). Agro-network advantages. The PUSPIDA partnership company advantages as a center for information on the price of Cinnamon and the marketing network, partnerships, and financial support for farmers built by cinnamon product innovation, technology network function.



Source: Indepth Interview and AHP (2020)

Figure 9. Advantages of PUSPIDA Partnership Company as Institutional from Cinnamon Agorindustri

The expected advantages with the existence of an integrated cinnamon agro-industrial system include: (1) The increase in added value and

competitiveness of cinnamon products; (2) The existence of welfare development for the farming community; (3) The existence of

diversification development in the form of cinnamon derivative product innovations; (4) There is a development of the cinnamon marketing network; (5) The development of the quality of human resources, (6) The availability of financial assistance for farmers, (7) Supporting facilities in developing a cinnamon farming business

To achieve this goal, the success of an integrated cinnamon agro-industry model places more emphasis on good cooperation and coordination from stakeholders, namely, agricultural cooperatives, local governments, and agribusiness companies. The higher the coordination level, the more likely it is for smooth physical, process, financial, and information flow. For this reason, the partners of the partnership company must be ready to invest fully on the level of trust, commitment, cooperation, and integrity to create added value from the partnership company

4. CONCLUSION

Based on the analytical hierarchy process (AHP), it is concluded that the main factor for the institutional development of the cinnamon agro-industry in Sungai Penuh City is market potential. Its main objective is to increase added value and competitiveness. The leading actor involved in it is institutional management. This research resulted in a partnership company model that functions as a Regional Innovation Development Center (PUSPIDA) involving the main actors, namely farmer cooperative organizations, agribusiness companies, and the Sungai Penuh city government.

The implication of an integrated cinnamon agro-industry institutional model in the form of a partnership company has a win-win partnership solution concept; In this concept, agricultural cooperatives, Sungai Penuh City Government, and agribusiness companies that are partners are required to complement each other so that a partnership relationship can resolve the limitations of each party. To immediately realize the establishment of this partnership company as an institutional model for developing the local economic resources agro-industry of Sungai Penuh City requires participation from all stakeholders, especially political will and action plans from the representative council of Sungai

Penuh city. If these preconditions are met, this partnership can be established faster

Acknowledgment: This research was funded by the Education Fund Management Institute (LPDP). Recognition: The author would like to thank the Doctor of Economics Study Program, Faculty of Economics, Andalas University, Promoter, and Co-Promoter and the Scholarship for the Education Fund Management Institution (LPDP) from the Ministry of Finance and the Ministry of Research and Technology of Higher Education of Indonesia. They have supported the course of this research.

REFERENCES

- [1] Abdullah, Syahfirin, Ma'arif, Husaini, B. (2012). Identifikasi dan solusi dalam pengembangan agrowisata berbasis masyarakat studi kasus di kecamatan tutur, Kabupaten Pasuruan. *Jurnal Teknologi Industri Pertanian*, 22(1), 15–21.
- [2] Ahmad Kharis, S. H. (2020). Model Kemitraan Perguruan Tinggi-Perusahaan Dan Pemerintah Dalam Bingkai Corporate Social Responsibility. *Jurnal Pengembangan Masyarakat Islam*, 11(1), 079–096.
<https://doi.org/https://doi.org/10.20414/jp.k.v16i1.1104>
- [3] Andini, N. (2013). Pengorganisasian Komunitas dalam Pengembangan Agrowisata di Desa Wisata Studi Kasus: Desa Wisata Kembangarum, Kabupaten Sleman. *Journal of Regional and City Planning*, 24(3), 173.
<https://doi.org/10.5614/jpwk.2013.24.3.2>
- [4] Andrews, R., & Entwistle, T. (2010). Does cross-sectoral partnership deliver? An empirical exploration of public service effectiveness, efficiency, and equity. *Journal of Public Administration Research and Theory*, 20(3), 679–701.
<https://doi.org/10.1093/jopart/mup045>
- [5] Anwarudin, O., Satria, A., & Fatchiya, A. (2018). A Review on Farmer Regeneration and Its Determining Factors in Indonesia. *International Journal of Progressive Sciences and Technologies*, 10(2), 218–230.
- [6] Ascarya et al. (2010). The Determinants

- of Net Interest Margin in Conventional and Islamic Banks in Indonesia. *International Conference on Eurasian Economies 2010, January*, 252–257. <https://doi.org/10.36880/c01.00171>
- [7] Balitbang. (2017). *Regional Featured Product Report in Sungai Penuh City 2017*.
- [8] Cheng Gao, T. Z. (2017). Overcoming Institutional Voids: A Reputation-Based View of Long Run Survival. *Strategic Management Journal*, 920(October), 1–43. <https://doi.org/10.1002/smj.2649>
- [9] Claire Lamine, H. R. (2012). Agri-Food systems and territorial development: innovations, new dynamics and changing governance mechanisms. *Farming Systems Research into the 21st Century: The New Dynamic*, May, 1–490. <https://doi.org/10.1007/978-94-007-4503-2>
- [10] Dahan, N. M., Doh, J. P., Oetzel, J., & Yaziji, M. (2010). Corporate-NGO collaboration: Co-creating new business models for developing markets. *Long Range Planning*, 43(2–3), 326–342. <https://doi.org/10.1016/j.lrp.2009.11.003>
- [11] Dewi Alimah Hari. (2015). Pengusahaan Kayu Manis di Hulu Sungai Selatan, Kalimantan Selatan. *Galam*, 1(1), 9–19. https://www.academia.edu/36772385/Studi_Pengusahaan_Kayu_Manis_di_Hulu_Sungai_Selatan_Kalimantan_Selatan_2015_pdf
- [12] Eka Maidisa. (2018). Agribusiness Development Strategy of Cinnamon Commodity In District Around Lake Kerinci Regency. *Jurnal Rekayasa*, 2(3). <https://ejournal.bunghatta.ac.id/index.php/JFTSP/article/view/12927>
- [13] Elizabeth, R. (2015). Pengembangan Agroindustri Bahan Pangan untuk Peningkatan Nilai Tambah melalui Transformasi Kelembagaan di Pedesaan. *Iptek Tanaman Pangan*, 5(1), 102–112.
- [14] Eskarya, H. (2020). The Institutional Role of Farmer Groups To Develop. *Jurnal Edukasi Nonformal*, 1.
- [15] Fadhil, R, Syamsul, M. M., Bantacut, T., & Hermawan, A. (2017). A Review on the Development Strategies of Agro-industrial Institutions in Indonesia. *Asian Journal of Applied Sciences*, 5(4), 747–763. www.ajouronline.com
- [16] Fadhil, Rahmat, Maarif, M. S., Bantacut, T., & Hermawan, A. (2017). Model Strategi Pengembangan Sumber Daya Manusia Agroindustri Kopi Gayo dalam Menghadapi Masyarakat Ekonomi ASEAN. *Jurnal Manajemen Teknologi*, 16(2), 141–155. <https://doi.org/10.12695/jmt.2017.16.2.3>
- [17] Ferry, Y. (2013). Development Prospects Of Cinnamon Plant (*Cinnamomum Burmannii* L) In Indonesia. *Sirinov*, 1(1), 11–20.
- [18] Gouillart, F.J dan Kelly, J. N. (1995). *Transforming The Organization*. McGraw- Hill, Inc.
- [19] Hahn, R., & Gold, S. (2014). Resources and governance in “base of the pyramid”-partnerships: Assessing collaborations between businesses and non-business actors. *Journal of Business Research*, 67(7), 1321–1333. <https://doi.org/10.1016/j.jbusres.2013.09.002>
- [20] Harisudin, M. (2014). Mapping And Development Strategy Of Tempeh Agroindustry In Bojonegoro District, East Java. *Journal of Agroindustrial Technology*, 23(2), 120–128.
- [21] Hariyadi, B., & Ticktin, T. (2012). From Shifting Cultivation to Cinnamon Agroforestry: Changing Agricultural Practices Among the Serampas in the Kerinci Seblat National Park, Indonesia. *Human Ecology*, 40(2), 315–325. <https://doi.org/10.1007/s10745-012-9481-8>
- [22] Hodijah, S., & Delis, A. (2018). Coffee development strategy in the surrounding areas of Kerinci Seblat National Park (case study of Lempur Village). *Jurnal Perspektif Pembiayaan Dan Pembangunan Daerah*, 6(3), 371–376. <https://doi.org/10.22437/ppd.v6i3.6049>
- [23] Ikatrinasari, Z. F., Maarif, S., Bantacut, T., & Munandar, A. (2011). Agro-industry Based Agropolitan Institutional Design With Analytical Network Process. *Jurnal Teknik Industri Pertanian*, 19(3), 130–137.
- [24] Ike, T. (2018). Redesign of the Cinnamon Production Line to Reduce its Total Loss by 5 %. In *Industrial Engineering and Management* (Issue October).
- [25] Iryanti, R. (2017). *Program Interventions To Increase SME Productivity*.
- [26] Iskandar. (2013). Analysis Of Value

- Added Of Cinnamon Syrup Processing In Kerinci Regency Jambi Province. *Societa*, 2(2010), 72–77.
- [27] Iswarini. (2013). The Prospect of Cinnamon Exports And Factors Behind the Processing of Cinnamon Syrup In The District of Mount Kerinci Kerinci Regency Jambi Province. *Societa*, 2(2), 48–52.
<https://core.ac.uk/download/pdf/229337126.pdf>
- [28] Jaya, A., Rustiadi, E., Gonarsyah, I., Bratakusumah, D. S., & Juanda, B. (2009). The Cinnamon Commodity Development Effect to Regional Economic: Case Study of Kerinci Regency Jambi. *Forum Pascasarjana*, 32(1), 67–79.
<https://core.ac.uk/download/pdf/230368692.pdf>
- [29] Julia Marisa, Rahmat Syahni, R. A. H. dan N. (2018). Model Kelembagaan Bisnis Pengolahan Ikan Air Tawar Di Kabupaten Tobasa Sumatera Utara. *Jurnal Ilmiah Abdi Ilmu*, 1(1), 32–41.
- [30] Kanu, B. S., Salami, A. O., & Numasawa, K. (2014). “Inclusive Growth; An imperative for African Agriculture.” In *African Development Bank Group. Temporary Relocation Agency*. <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/>
- [31] Karsidi. (2001). *Membangun Institusi Masyarakat Pedesaan Yang Mandiri*.
- [32] Kemenhumham. (2016). In *Handbook of Koerintji Geographic Indications. 2016 Available online*. 2016.
https://dgip.go.id/images/ki-images/pdf-files/publikasi/publikasi_ig/2016/brig3.pdf
- [33] Kremen, C., Iles, A., & Bacon, C. (2012). Diversified farming systems: An agroecological, systems-based alternative to modern industrial agriculture. *Ecology and Society*, 17(4).
<https://doi.org/10.5751/ES-05103-170444>
- [34] Lakitan, B., Hidayat, D., & Herlinda, S. (2012). Scientific productivity and the collaboration intensity of Indonesian universities and public R&D institutions: Are there dependencies on collaborative R&D with foreign institutions? *Technology in Society*, 34(3), 227–238.
<https://doi.org/10.1016/j.techsoc.2012.06.001>
- [35] Llanto. (2012). The Impact of Infrastructure on Agricultural Productivity. *Philippine Institute for Development Studies*, 12, 1–53.
- [36] Mardikanto, T. (2009). Sistem Penyuluhan Pertanian. *Universitas Sebelas Maret*, 467.
- [37] Menggala, S. R., & Damme, P. V. (2018). Improving Cinnamomum Burmannii Blume Value Chains for Farmer Livelihood in Kerinci, Indonesia. *European Journal of Medicine and Natural Sciences*, 2(1), 23.
<https://doi.org/10.2478/ejmn-2018-0004>
- [38] Menggala, S. R., Vanhove, W., Aji Muhammad, D. R., Hendri, J., Speelman, S., & Van Damme, P. (2019). Sustainable harvesting of Cinnamomum burmannii (Nees & T. Nees) Blume in Kerinci Regency, Indonesia. *Sustainability (Switzerland)*, 11(23).
<https://doi.org/10.3390/su11236709>
- [39] Nurhayani, R. (2019). Price Shock and Market Share of Cinnamon Export Kerinci Regency. *Jurnal Sains Sosio Humaniora*, 53(9), 1689–1699.
<https://doi.org/https://doi.org/10.22437/js.sh.v3i2.8420>
- [40] Rankin, A., Gray, A. W., Boehlje, M. D., & Alexander, C. (2011). Sustainability strategies in U.S. Agribusiness: Understanding key drivers, objectives, and actions. *International Food and Agribusiness Management Review*, 14(4), 1–20.
- [41] Regattieri, A., Gamberi, M., & Manzini, R. (2007). Traceability of food products: General framework and experimental evidence. *Journal of Food Engineering*, 81(2), 347–356.
<https://doi.org/https://doi.org/10.1016/j.jfoodeng.2006.10.032>
- [42] Rieckmann, M. (2012). Future-oriented higher education: Which key competencies should be fostered through university teaching and learning? *Futures*.
<https://doi.org/10.1016/j.futures.2011.09.005>
- [43] Saaty TL. (2012). *Decision Making for Leaders: The Analytic Hierarchy Process for Decisions in a Complex World* (3rd ed., Issue 2003). RWS Publications.
- [44] Sonne, L. (2012). Innovative initiatives supporting inclusive innovation in India:

- Social business incubation and micro venture capital. *Technological Forecasting and Social Change*, 79(4), 638–647.
<https://doi.org/10.1016/j.techfore.2011.06.008>
- [45] Suci. (2006). *Financial Feasibility Analysis Conversion Of Cinnamon To Cocoa In Gunung Raya Subdistrict, Kerinci Regency, Jambi Province* [Institut Pertanian Bogor].
<http://repository.ipb.ac.id/handle/123456789/1311>
- [46] Sukris Nopi. (2019). Analysis of The Competitiveness of Jambi Cinnamon Commodities (Policy Analysis Matrix Approach). *Sosio Ekonomika Bisnis*, 22(2), 81–88.
<https://doi.org/https://doi.org/10.22437/jiseb.v22i2.8705>
- [47] Suyanto, S., Tomich, T., & Otsuka, K. (2007). The role of land tenure in the development of cinnamon agroforestry in Kerinci, Sumatra. In *Voices from the Forest: Integrating Indigenous Knowledge into Sustainable Upland Farming* (pp. 743–753).
<https://doi.org/10.4324/9781936331840>
- [48] Theresa. (2017). *From the Fragrant Highlands to the Netherlands A Case Study on the Evolution of the Adoption of Ethical Value Chains for Kerinci Cinnamon* [University of Wellington].
<http://researcharchive.vuw.ac.nz/xmlui/handle/10063/6447>
- [49] Triwulandari S. Dewayana, D. S. and D. H. (2014). Identification Of Selection Criteria For Green Automotive Component Industry. *Proceeding International Conference on Green Technology*, 9–11.
- [50] Valitov, S. M., & Khakimov, A. K. (2015). Innovative Potential as a Framework of Innovative Strategy for Enterprise Development. *Procedia Economics and Finance*, 24(July), 716–721.
[https://doi.org/10.1016/s2212-5671\(15\)00682-6](https://doi.org/10.1016/s2212-5671(15)00682-6)
- [51] Yuniarti, D. (2018). Analysis of Market Integration and Price Transmission from Grain to Organic Rice of Boyolali. *Jurnal Pangan*, 7(2).
<https://doi.org/https://doi.org/10.33964/jp.v27i2.370>
- [52] Yuniati, S., Susilo, D., & Albayumi, F. (2017). Penguatan kelembagaan dalam upaya meningkatkan kesejahteraan petani tebu. *Prosiding Seminar Nasional Dan Call for Paper Ekonomi Dan Bisnis*, 2017(2017), 498–505.