

Mapping the Supply Chain System of the Tolaki Coffee Industry in South Konawe Regency

¹Mansyar Lamatungga, ²Ahmad Muhlis Nuryadi*, ²Muhammad Nur

Corresponding Author: * muhlis.nuryadi@umkendari.ac.id

¹ Universitas Muhammadiyah Kendari, Indonesia Indonesia

Article submitted:

4 December 2025

Revised:

26 December 2024

Accepted:

27 December 2025

Abstract

The coffee agribusiness sector in South Konawe Regency has shown gradual growth with the emergence of a regionally distinctive coffee processing industry known as Tolaki Coffee. The name Tolaki Coffee is derived from the Tolaki ethnic group, the largest indigenous community in Southeast Sulawesi Province. However, since its establishment in 2016, the Tolaki Coffee industry has not demonstrated significant development compared to other well-established Indonesian specialty coffees, such as Toraja Coffee in South Sulawesi and Aceh Coffee in Aceh Province. Nevertheless, the existence of the Tolaki Coffee industry is expected to generate economic benefits for local coffee farmers, particularly through improved farm-gate prices and income enhancement. This condition provides the rationale for conducting an analysis aimed at designing a development model for the Tolaki Coffee processing industry using a supply chain approach to increase industry stakeholders' income while strengthening farmer empowerment. This study aims to: (1) identify the supply chain system of Tolaki Coffee, and (2) analyze the performance of the Tolaki Coffee supply chain in South Konawe Regency. The research was conducted in three stages. The first stage involved analyzing the supply chain structure using quantitative descriptive analysis, followed by an assessment of supply chain efficiency using the farmer's share analysis. The results indicate that: (1) the Tolaki Coffee supply chain system in South Konawe Regency consists of two marketing channels, namely Farmer – Collector Trader – Anoa Coffee Industry – Retailer – Consumer and Farmer – Anoa Coffee Industry – Retailer – Consumer, with processed products in the form of ground coffee and ready-to-grind coffee beans; and (2) the most efficient supply chain performance is observed in the Farmer – Anoa Coffee Industry – Retailer – Consumer channel for ground coffee products.

Keywords: Agribusiness; Coffee Industry; South Konawe Regency; Supply Chain; Tolaki Coffee

Introduction

Coffee is one of the most strategic plantation commodities contributing significantly to national economic development and foreign exchange earnings. This condition is reflected in its role in international trade, where Indonesia's coffee export volume in 2022 reached 434.19 thousand tons with a total export value of USD 1.13 billion. The United States was the largest destination country, accounting for 55.75 thousand tons or 12.84% of total national coffee exports [1]. At the regional level, South Konawe Regency ranks as the third-largest coffee-producing area in Southeast Sulawesi Province, with a plantation area of 1,340 hectares, following East Kolaka Regency (1,937.3 hectares) and Bombana Regency (1,725.7 hectares) [1]. This condition indicates that further efforts are required to develop coffee farming and increase production in South Konawe Regency, particularly considering that it is the largest regency in Southeast Sulawesi Province in terms of geographical area.

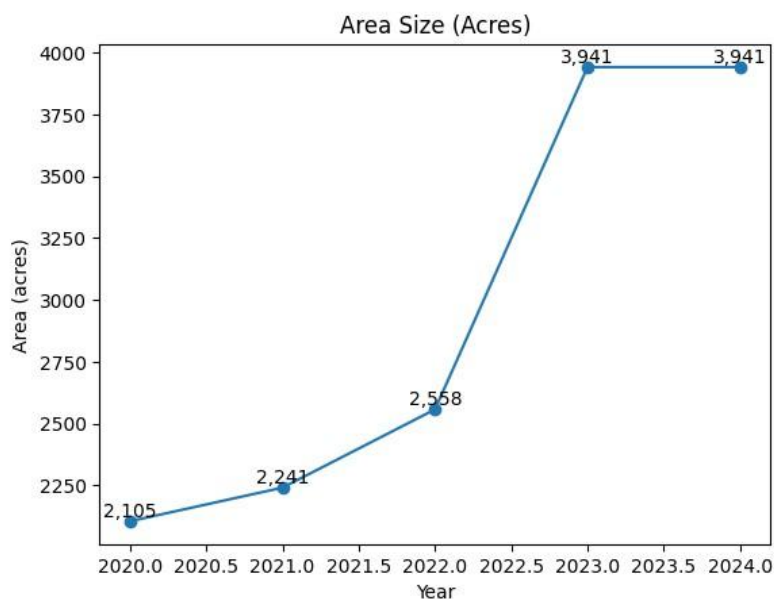


Fig. 1. Coffee Plantation Area in South Konawe Regency, 2020–2024 [2]

Fig. 1 illustrates an increasing trend in the area of coffee plantations in South Konawe Regency from 2020 to 2024 [2]. This trend provides a positive outlook for the development of the coffee industry, as the expansion of coffee processing industries has the potential to increase product value added and enhance the income of stakeholders along the supply chain, thereby generating significant economic impacts at the regional level [3]. In addition, coffee development has become a national priority aligned with the Sustainable Development Goals (SDGs) for the 2021–2024 period, in which coffee is included as part of sustainable agroforestry development programs.

South Konawe Regency hosts a distinctive local coffee processing industry known as *Tolaki Coffee*. The name *Tolaki Coffee* is derived from the Tolaki ethnic group, the largest indigenous community in Southeast Sulawesi Province, which is predominantly located in South Konawe Regency. However, since its establishment in 2016, the Tolaki Coffee industry has not demonstrated significant growth compared to other well-established Indonesian specialty coffees such as Toraja Coffee in South Sulawesi Province and Aceh Coffee in Aceh Province. This situation persists despite the relatively high value added generated by the Tolaki Coffee industry, amounting to IDR 55,949 per kilogram of raw material with a value-added ratio of 62% [4]. Various promotional efforts have been undertaken, including participation in exhibitions organized by local governments and regional research institutions. Nevertheless, challenges related to production processes, raw material procurement, and marketing—key components of the supply chain—are suspected to be the main constraints limiting the industry's development [5].

Previous studies indicate that coffee product flows generally move from farmers to middlemen, collectors, wholesalers, and finally exporters or coffee processing industries, while financial flows among marketing institutions move from downstream to upstream, predominantly through cash transactions [6]. Along the coffee supply chain, several constraints have been identified, alongside potential solutions that require high levels of information accuracy. These challenges include: (1) data

and information sharing, (2) forecasting optimization, and (3) collaborative planning [7]. Research conducted in Kolaka Regency, Southeast Sulawesi Province, further revealed the existence of four Robusta coffee marketing channels involving various combinations of farmers, collectors, intermediate traders, and wholesalers, both within Kolaka Regency and extending to Makassar City [8].

Both public and private sectors play a crucial role in regulating coffee supply chains, negotiating resource flows, and managing risks. However, to date, neither the government nor the private sector has provided adequate intervention to address structural inefficiencies within the coffee supply chain [9]. In some contexts, production and marketing restructuring has been successfully implemented, as demonstrated in Colombia, where business model reorientation enabled the coexistence of traditional coffee production and exports alongside the expansion of specialty coffee production with premium prices that benefit smallholder producers [10].

Based on these considerations, an in-depth examination of the supply chain of the Tolaki Coffee processing industry in South Konawe Regency is essential. Therefore, this study aims to analyze the supply chain structure, supply chain efficiency, and supply chain model of the Tolaki Coffee processing industry in South Konawe Regency.

Material and Methods

This study was conducted with a focus on the Tolaki Coffee processing industry in South Konawe Regency, Southeast Sulawesi Province, Indonesia, specifically located in Tridana Mulya Village, Landono District. The research site was deliberately selected using a purposive sampling approach, considering that the area represents the central location of the Tolaki Coffee processing industry and its associated supply chain activities.

Data for this study were collected through field surveys and in-depth interviews with key stakeholders involved in the Tolaki Coffee supply chain, including coffee farmers, farmer groups, traders, and processing industry entrepreneurs. Primary data were obtained directly from respondents to capture information related to production activities, raw material procurement, processing, marketing, and institutional relationships within the supply chain. Secondary data were sourced from relevant government agencies, statistical reports, and previous research to support and complement the primary findings.

The data analysis employed a supply chain efficiency analysis using the Food Supply Chain Network (FSCN) model. This analytical approach was applied by tracing supply chain channels from coffee farmers to all institutions involved along the Tolaki Coffee supply chain. The FSCN framework was used to systematically evaluate the performance and characteristics of the supply chain based on several key elements.

The elements analyzed within the FSCN framework included: (1) supply chain objectives, encompassing both market objectives and development objectives; (2) supply chain management aspects, such as partner selection, contractual agreements, transaction systems, government support, and supply chain collaboration; (3) supply chain structure, identifying the actors and their interrelationships; (4) supply chain resources, consisting of physical resources, technological resources,

human resources, and capital resources; and (5) supply chain business processes, which cover distribution patterns, supporting chain members, risk aspects, and trust-building mechanisms.

The analysis of business process relationships focused on the roles and interactions of supply chain actors, while distribution patterns were examined through three main flows: product flow, financial flow, and information flow. This comprehensive FSCN-based approach enabled an integrated assessment of the efficiency and performance of the Tolaki Coffee supply chain in South Konawe Regency.

Results and Discussions

A. Business Profile of the Tolaki Coffee Processing Industry

The Tolaki Coffee processing industry, commercially known as *Anoa Coffee*, is a small-scale agro-processing enterprise that converts coffee beans into ready-to-grind dried coffee beans and ground coffee products marketed under the brand name “Tolaki Coffee.” The enterprise is located in Tridana Mulya Village, Landono District, South Konawe Regency, Southeast Sulawesi Province. Established in November 2016, the business is managed by Mr. Asri Sape. The establishment of Anoa Coffee was driven by the growing public demand for coffee, both for household consumption and for the expanding hospitality and food service sector, including hotels, restaurants, and coffee shops. In addition, most coffee supplies in Kendari City, the capital of Southeast Sulawesi Province, are sourced from outside the region. This condition motivated the owner to utilize local resources by developing a regionally branded coffee product, namely Tolaki Coffee.

One of the main competitive advantages of Tolaki Coffee lies in its pure processing method, which does not involve the addition of other ingredients, thereby preserving the natural characteristics of the coffee. This attribute has contributed to strong consumer acceptance. In 2018, Tolaki Coffee products were officially registered with the Ministry of Health and the National Agency of Drug and Food Control (BPOM), strengthening consumer trust and market legitimacy. In terms of market reach, Tolaki Coffee has been distributed through various retail channels, including modern retail outlets such as Indomaret and Indogrosir, souvenir centers, and inter-regional markets beyond South Konawe Regency.

The uniqueness of Tolaki Coffee is also reflected in its roasting process, which continues to employ traditional equipment to maintain a distinctive sensory quality. While some processing stages, such as bean grinding, have adopted mechanized equipment, roasting is still conducted using traditional clay pans and stoves. This traditional roasting method is considered crucial in shaping the characteristic flavor, aroma, and color of Tolaki Coffee. Coffee beans naturally contain organic compounds that contribute to flavor and aroma development during roasting. The degree of roast is determined by changes in bean color, which progressively darkens from brown to nearly black as roasting time increases. The roasting process generally takes between 10 and 30 minutes, depending on bean quality and the equipment used.

Before roasting, freshly harvested coffee cherries undergo a drying process to ensure bean quality during hulling or milling. If the beans remain slightly moist, hulling can be carried out using a specialized huller machine. For effective removal of the parchment layer, the outer skin must be sufficiently dry,

even though the bean core may still contain moisture. Drying is conducted in two stages: first until the moisture content reaches approximately 25%, followed by further drying to around 12%. After drying, a sorting process is carried out to separate intact beans from broken ones resulting from mechanical friction during milling.

Following roasting, the coffee beans are immediately cooled through manual stirring to accelerate and evenly distribute heat reduction. Rapid cooling is essential to prevent over-roasting, which can negatively affect coffee quality. Manual agitation also serves to terminate the roasting process effectively. Once cooled, the roasted beans are ground using a grinder to produce coffee powder with a specified level of fineness. The fineness of the coffee powder is determined by the size of the sieve installed in the grinding machine; smaller sieve sizes produce finer coffee particles. Finer coffee powder facilitates the extraction of flavor and aroma compounds when brewed with hot water.

Figure 1 presents the transformation stages of Tolaki Coffee, starting from raw coffee beans, continuing through the grinding process, and ending with packaged coffee products. The figure highlights the value-adding process that enhances product quality, marketability, and economic potential within the local coffee supply chain.



Fig. 2. Coffee beans, the grinding process, and packaged Tolaki Coffee products.

The resulting coffee powder is subsequently packaged using specialized plastic packaging labeled with the “Tolaki Coffee” brand. Packaging serves to preserve product quality while enhancing its visual appeal to consumers. Packaged products are then distributed to various marketing outlets, including coffee shops, supermarkets, and direct consumers, forming an integral part of the Tolaki Coffee supply chain.

B. Tolaki Coffee Supply Chain System

The supply chain represents an integrated logistics system in business that manages the flow of products from raw materials to finished goods, moving from upstream to downstream actors. In the case of Tolaki Coffee, the supply chain begins with coffee farmers who sell coffee cherries or dried beans either to collector traders acting as intermediaries or directly to the Tolaki Coffee processing industry. The processing industry subsequently transforms the raw materials into dried coffee beans or ground coffee products, which are then distributed to coffee shops, retailers, and final consumers.

1. Raw Material Procurement System

The raw materials used in Tolaki Coffee processing are sourced from both coffee farmers and collector traders. Each procurement system is described as follows.

- Direct procurement from coffee farmers. Interview results indicate that, to maintain product quality, the Tolaki Coffee processing enterprise prioritizes direct purchases from farmers. This approach allows the industry to ensure that both the coffee variety and quality meet established standards. The purchase prices of coffee as industrial raw material are IDR 8,000/kg for wet coffee cherries, IDR 25,000/kg for dried coffee beans with parchment, and IDR 55,000–60,000/kg for dried coffee beans without parchment.
- Procurement through collector traders. The Tolaki Coffee industry also collaborates with collector traders, currently partnering with two collectors whose product quality has been verified. Coffee procured through collector traders is typically in dried form. The purchase price from collectors is relatively higher, with a price difference of approximately IDR 2,000–4,000/kg compared to direct purchases from farmers. This higher price reflects additional handling and aggregation services provided by collectors, as well as quality assurance.

2. Product Distribution System

The Tolaki Coffee supply chain involves multiple actors, ranging from farmers as primary producers to final consumers. This study identified two main distribution channels within the Tolaki Coffee supply chain.

- Distribution Channel 1 (Farmer – Anoa Coffee Industry – Retailer – Consumer). In this channel, products are distributed through retailers that have established partnerships with the producer. Retailers obtain Tolaki Coffee directly from the Anoa Coffee Industry and distribute it to modern retail outlets such as Indomaret and Indogrosir, souvenir shops, and coffee shops. The selling price to retailers is determined by the producer, while retailers earn profits from the sales margin applied to consumers. This distribution pattern contributes to increased demand for Tolaki Coffee due to the presence of loyal customers. Retailers function as both intermediaries and strategic partners responsible for ensuring product availability to end consumers.
- Distribution Channel 2 (Farmer – Collector Trader – Anoa Coffee Industry – Retailer – Consumer). This channel represents a longer distribution structure, where raw materials are first collected by intermediary traders before being supplied to the processing industry. Through this channel, farmers may receive relatively higher prices, particularly when supplying larger quantities of coffee. However, the involvement of additional intermediaries may also influence overall supply chain efficiency and cost structures.

Overall, the identified supply chain system reflects varying levels of coordination among actors, which directly affect procurement costs, distribution efficiency, and value distribution along the Tolaki Coffee supply chain.

C. Tolaki Coffee Supply Chain System Analysis

The supply chain of the Tolaki Coffee processing industry represents an integrated system that encompasses all stages of the production process, starting from coffee bean procurement at the farm level, followed by collection, processing, distribution, and marketing of coffee products to final consumers. Within this supply chain, all business actors, namely farmers, traders, processors, and retailers, are interlinked to ensure product availability, consistent quality, and value addition throughout the chain.

Fig. 3 depicts the production facilities, raw material storage areas, and the implementation of standard operating procedures (SOPs) in the Tolaki Coffee processing industry, highlighting the organized workflow, quality control measures, and operational practices that ensure consistent product quality and efficiency throughout the processing stages.



Fig. 3. The production facilities, raw material storage area, and SOPs applied in the Tolaki Coffee processing industry.

The primary objective of the supply chain system is to achieve operational efficiency, maintain product quality, and enhance the competitiveness of the Tolaki Coffee industry. To comprehensively understand the Tolaki Coffee supply chain system, this study conducted an analysis based on product types and marketing channels. The products examined include ground coffee and ready-to-grind coffee beans, which constitute the main product lines of the Anoa Coffee processing industry and are primarily marketed through retail traders. Based on these criteria, the distribution channels of the Tolaki Coffee supply chain for both ground coffee and ready-to-grind coffee beans are illustrated in Fig. 4 and Fig. 5.

Fig. 4 illustrates the flow pattern of the Tolaki Coffee supply chain, highlighting the movement of raw materials, processed products, financial transactions, and information among farmers, collectors, processors, retailers, and consumers, thereby reflecting the integrated relationships among supply chain actors.

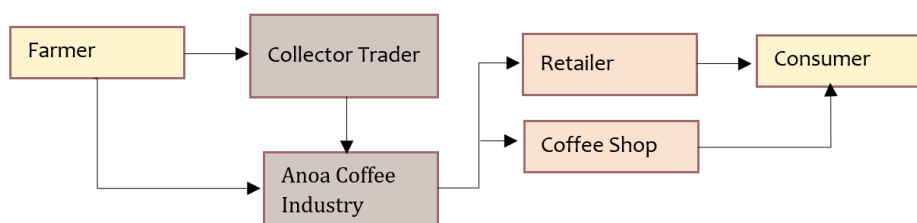


Fig. 4. The flow pattern of the Tolaki Coffee supply chain

Fig. 5 depicts the distribution channels of the Tolaki Coffee supply chain, showing alternative marketing pathways from farmers to final consumers through direct and intermediary-based channels that influence efficiency, value distribution, and market reach.

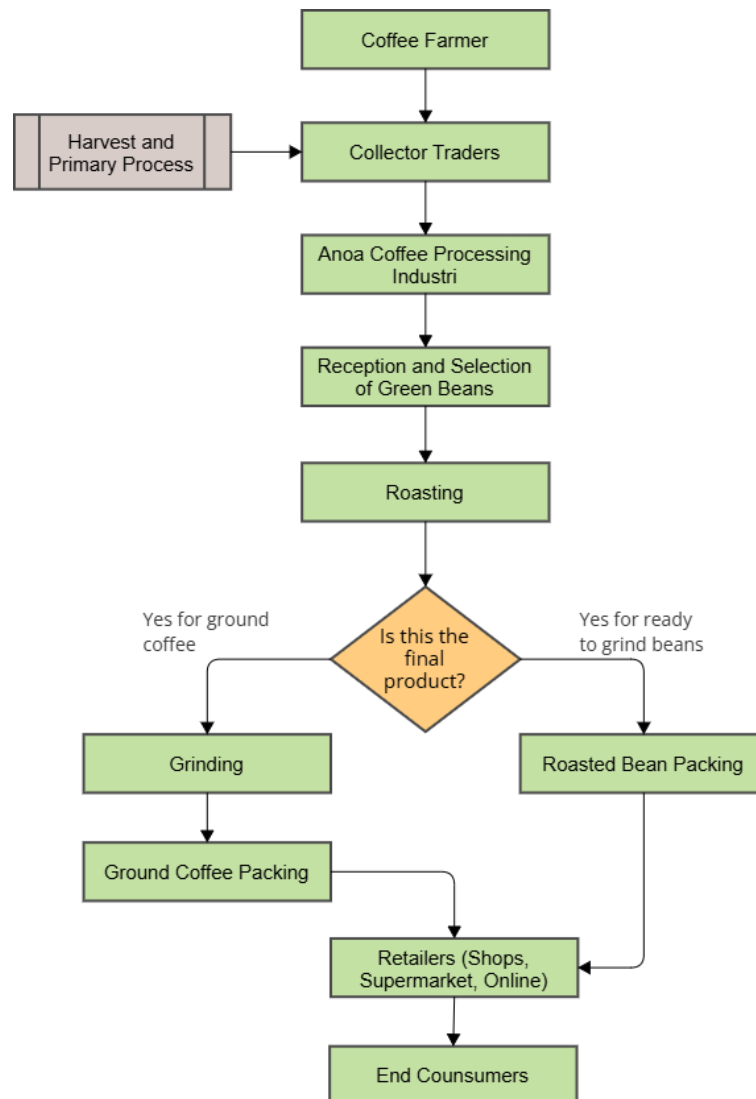


Fig. 5. The distribution channels of the Tolaki Coffee supply chain

The results of the supply chain system analysis indicate that a proportion of coffee farmers in South Konawe Regency sell their harvested coffee directly to the processing industry. This finding reflects a positive development, as on-farm product processing and direct linkage with agro-industries can increase value added, enhance product competitiveness, and potentially improve farm-gate prices. Efforts to strengthen competitiveness include further processing of coffee into ground coffee products, improved promotional strategies, and continuous enhancement of product quality [10].

Industrial organization plays a crucial role in addressing the challenges posed by globalization, technological advancement, and decentralization, while simultaneously encouraging the formation of production and distribution networks that support the development of competitive advantages within an industry [11]. In the context of the Tolaki Coffee industry, a well-organized supply chain enables coordination among actors, reduces transaction costs, and improves market responsiveness.

To ensure that coffee production can be absorbed by agro-industries at fair prices and in quantities and quality that meet industrial requirements, harmonious partnerships between farmer groups and agro-industries are essential. Such partnerships foster mutually beneficial and protective relationships that support the long-term sustainability of both parties. This form of collaboration is particularly critical for agro-industries that rely on agricultural commodities as their primary raw materials. Every firm operates within an interconnected network and is inherently involved in at least one supply chain, allowing parallel processes to occur simultaneously and increasing overall system efficiency [12].

Furthermore, in the development of agro-industries (especially in relation to raw material supply and product marketing) the role of cooperatives remains highly significant and continues to be regarded as a key mechanism for facilitating collaborative partnerships [13]. Agricultural business development not only aims to increase farm production and productivity but also plays a strategic role in improving community income and welfare. Achieving these objectives requires fundamental measures, including strengthening farmer institutional structures, particularly cooperative-based institutions, which are still considered one of the most viable solutions for enhancing bargaining power, market access, and supply chain resilience [14] [15] [16].

Overall, the Tolaki Coffee supply chain system demonstrates strong potential for further development through improved coordination, institutional strengthening, and value-added processing, all of which are essential for enhancing the competitiveness and sustainability of the local coffee industry.

Conclusion

The Tolaki Coffee supply chain in South Konawe Regency consists of two main marketing channels: (1) Farmer – Collector Trader – Anoa Coffee Industry – Retailer – Consumer, and (2) Farmer – Anoa Coffee Industry – Retailer – Consumer, involving key products such as ground coffee and ready-to-grind coffee beans. Among these channels, the most efficient supply chain performance is observed in the Farmer – Anoa Coffee Industry – Retailer – Consumer channel for ground coffee products. This efficiency is attributed to the direct linkage between farmers and the processing industry, which minimizes intermediaries, reduces transaction costs, and enhances value addition. The streamlined supply chain not only ensures better quality control and consistent product availability but also strengthens farmer-industry collaboration, ultimately supporting higher farm-gate prices and competitive positioning in the market. These findings underscore the importance of direct procurement and well-coordinated distribution for the sustainable development and growth of the Tolaki Coffee industry.

Acknowledgment

This research was funded by the Directorate of Research and Community Service, Directorate General of Research and Development, Ministry of Higher Education, Science, and Technology in 2025 through the Master's Thesis Research Grant program. The author sincerely expresses gratitude to the Ministry of Higher Education, Science, and Technology of the Republic of Indonesia for their support, guidance, and funding that made this study possible.

References

- [1] Badan Pusat Statistik, *Statistik Indonesia 2023*. Jakarta, Indonesia: BPS, 2023.
- [2] Badan Pusat Statistik Provinsi Sulawesi Tenggara, *Sulawesi Tenggara dalam Angka 2025*. Kendari, Indonesia: BPS, 2025, p. 794.
- [3] M. M. Romdhon, Nusril, and D. Setiawan, "Robusta coffee supply chain system in Kepahiang Regency, Bengkulu Province," *J. Ilmu Pertanian Agric.*, vol. 33, no. 2, pp. 129–142, 2021.
- [4] M. Punde, L. O. Geo, A. Gafaruddin, and Rianse, "Analisis nilai tambah usaha home industry pengolahan kopi Tolaki di Desa Tridana Mulya Kecamatan Landono," *J. Agribisnis dan Ilmu Sosial Ekonomi Pertanian*, vol. 4, no. 5, pp. 121–128, 2019, doi: 10.33772/jia.v4i5.7916.
- [5] M. Azzahra, Abdi, and M. A. Dirgantoro, "Analisis pengembangan usaha home industry pengolahan kopi Tolaki di Desa Tridana Mulya Kecamatan Landono Kabupaten Konawe Selatan," *J. Agribisnis dan Ilmu Sosial Ekonomi Pertanian*, vol. 4, no. 6, pp. 148–153, 2019, doi: 10.33772/jia.v4i6.7925.
- [6] A. S. Noviana, A. Setiadi, and K. Budirahardjo, "Analysis of performance Robusta coffee supply chain in Ulubelu District of Tanggamus Regency," *J. Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, vol. 8, no. 2, pp. 1014–1026, 2022.
- [7] M. Aziz, M. Irjayanti, and D. Rusyandi, "Visibility and information accuracy of coffee supply chain in West Java, Indonesia," in *Modeling Economic Growth in Contemporary Indonesia (Entrepreneurship and Global Economic Growth)*, B. S. Sergi and D. Sulistiawan, Eds. Leeds, U.K.: Emerald Publishing Limited, 2022, pp. 225–236, doi: 10.1108/978-1-80262-431-120221014.
- [8] Jumriah, Nuryadi, A. M., and B. Sufa, "Tataniaga kopi robusta di Kabupaten Kolaka Timur, Sulawesi Tenggara," *Bincang Sains dan Teknologi*, vol. 4, no. 2, pp. 61–70, 2025, doi: 10.56741/bst.v4i02.947.
- [9] M. Benzie and K. Harris, *Transboundary Climate Risk and Adaptation (Science for Adaptation Policy Brief #2)*. Nairobi, Kenya: UNEP–World Adaptation Science Programme, 2020. [Online]. Available: <https://wedocs.unep.org>
- [10] International Labour Organization, *Decent Work Challenges and Opportunities in the Coffee Supply Chain in Colombia*. Colombia: ILO Office for the Andean Countries, 2022, p. 51.
- [11] D. Natalia and Nurozy, "Competitiveness performance of Indonesian fishery products in global markets," *Sci. J. Islamic Econ.*, vol. 8, no. 1, doi: 10.15408/sjie.v8i1.7301.
- [12] M. J. Waits, "The added value of the industry cluster approach to economic analysis, strategy development, and service delivery," *Econ. Dev. Q.*, vol. 14, no. 1, pp. 35–50, 2000.
- [13] A. M. Nuryadi, M. Hartati, and L. O. Alimusa, "Planning model seaweed agroindustry raw materials in Southeast Sulawesi Province, Indonesia," *AACL Bioflux*, vol. 13, no. 6, pp. 3637–3646, 2020.
- [14] A. A. Muthalib, A. Putra, A. M. Nuryadi, and M. N. Afiat, "Seaweed business conditions and marketing channels in the coastal district of Southeast Sulawesi," *Int. J. Eng. Sci.*, vol. 6, no. 10, pp. 35–41, 2017.
- [15] A. Zamroni and Istiana, "Membangun kemitraan dan kelembagaan ekonomi masyarakat pesisir melalui Klinik Ipteks Mina Bisnis di Kabupaten Takalar," *Bull. Ilm. Marina*, vol. 3, no. 3, pp. 53–60, 2017.
- [16] R. A. Sirait, "Penguatan peran koperasi nelayan: Manifestasi ekonomi kerakyatan," *Buletin APBN*, vol. III, ed. 12, Pusat Kajian Anggaran Badan Keahlian DPR RI, 2018, ISSN: 2502-8685.

Authors



Mansyar Lamatungga is a Master's student in Agribusiness at Universitas Muhammadiyah Kendari, Indonesia. He also serves as an Agricultural Extension Officer at the Ministry of Agriculture of the Republic of Indonesia, where he is actively involved in providing field-based agricultural guidance and support to farming communities. His academic and professional interests focus on agribusiness development, agricultural extension, and the application of research-based practices to improve agricultural productivity and sustainability. (email: mansyarlamatungga@gmail.com).



Ahmad Muhlis Nuryadi    is a lecturer in Agribusiness at Universitas Muhammadiyah Kendari, Indonesia. He earned his Doctoral degree (Ph.D.) from Universitas Halu Oleo in 2019, following his Master's and Bachelor's degrees in Agricultural Sciences, which he completed in 2008 and 2005, respectively, at the same university. With a strong academic background and commitment to education, he is actively involved in teaching and research activities in the field of agribusiness. (email: muhlis.nuryadi@umkendari.ac.id).



Muhammad Nur   is a lecturer in the Agribusiness Study Program, Faculty of Agriculture, Universitas Muhammadiyah Kendari, Indonesia. He earned his Bachelor's, Master's, and Doctoral degrees from Universitas Halu Oleo, Southeast Sulawesi. His academic expertise lies in agricultural economics, with a particular focus on farm management and agricultural marketing. He is actively engaged in teaching, research, and community service, and is dedicated to transferring his knowledge and practical insights to students. (email: muhammad.nur@umkendari.ac.id).