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Market Demand and Economic Performance Analysis of PT. Indonesia Hijau's Cocoa Industry Competitiveness

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ABSTRACT

Cocoa plays a significant role in promoting regional and agroindustrial development, particularly as a raw material for the food and beverage industry. Sulawesi, as Indonesia's largest cocoa-producing region, offers good-quality cocoa beans; however, its processed products have yet to gain a strong foothold in international markets. PT. Indonesia Hijau, a cocoa processing company, faces several challenges in sustaining its business, including market demand fluctuations, production cost efficiency, raw material price volatility, shifting consumer preferences, and competition from imported products.This study aims to evaluate market demand trends, economic performance, and the competitive advantages of PT. Indonesia Hijau. Two main analytical approaches were employed: market demand trend analysis and Policy Analysis Matrix (PAM). The findings show that demand for PT. Indonesia Hijau's cocoa products fluctuated from 2018 to 2023, with a decline during the COVID-19 pandemic (2020–2021) and a recovery afterward. Chocolate bar and cocoa powder products demonstrated consistent growth post-pandemic, indicating promising market potential for processed cocoa. PAM analysis results reveal that PT. Indonesia Hijau holds both competitive and comparative advantages, as reflected by a A PCR of 0.76 and a DCR of 0.79 both falling below the threshold of one indicate that the company's production operations are cost effective and demonstrate strong potential for continued economic development. These findings provide practical insights for cocoa processors and policymakers to enhance supply chain efficiency and strengthen the global competitiveness of Indonesian cocoa products.

Keywords: *Market Demand, Cocoa, Economic Performance*

INTRODUCTION

In the era of globalization, international trade competition has become increasingly intense, including for Indonesia. This situation necessitates the enhancement of export value and volume. As one of the world's leading producers and exporters of plantation commodities, Indonesia holds strong potential to expand the global market share of its key agricultural products—particularly cocoa. Cocoa serves as a primary raw material for chocolate production, and cocoa butter, one of its derivatives, offers high added value due to its wide application in both the food and cosmetics industries (Widiyarini, 2022).

To thrive in competitive and liberalized global markets, commodities must demonstrate strong competitiveness. In this context, plantation products are expected to possess qualities that make them attractive and sustainable in the marketplace (Arsyad *et al*. 2019). Indonesia benefits from favorable conditions for growing cocoa and stands out globally for the volume of its plantation commodities. The plantation sector significantly contributes to the national economy, and cocoa, in particular, plays a crucial role in regional development and agro-industrial growth by supplying raw materials for the food, beverage, cosmetics, and pharmaceutical industries (Zulaihah *et al*, 2025).

The cocoa industry itself is inseparable from the agricultural sector, particularly the plantation subsector,

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which serves as one of the main sources of national revenue and foreign exchange. In 2019, the total export value of Indonesia's plantation commodities reached US$25.38 billion (Ditjenbun. 2021). with cocoa being one of the main contributors. Nationally, Sulawesi accounts for approximately 65–70% of Indonesia's total cocoa production, making it a strategic region in both the national and global cocoa supply chains. (Wahyu *et al*. 2023) Polewali Mandar Regency is the main center of cocoa production in West Sulawesi Province, contributing 55% of the province's total cocoa output in 2021. As the largest cocoa-producing region in the area, the economic structure of Polewali Mandar is also significantly supported by the agricultural sector, which contributed IDR 5,710.08 billion or 41.48% of the Gross Regional Domestic Product (GRDP) in 2022. (BPS. 2022). However, the high contribution of the agricultural sector including the cocoa subsector has not yet fully translated into a significant improvement in the overall welfare of the community.

The cocoa industry includes the business of processing cocoa beans into processed products such as cocoa oil, cocoa powder and cocoa fat. (Haryanata, 2023). The cocoa agribusiness in Sulawesi Island is strongly supported by the availability of extensive plantation land, which facilitates increased production. With proper management of processing facilities and quality control of cocoa seed handling, the region is capable of producing high-quality cocoa beans (A Nixia *et al*. 2022). Sulawesi as the largest producer, with quite good quality of cocoa beans, but in terms of processing the products produced still do not really get a place in the international market, this indicates that Sulawesi's cocoa competitiveness is still weak (Indrayana et a*l,* 2021). So far, cocoa processing has been carried out in a traditional way where the results are in the form of non-fermented cocoa and the marketing is carried out by farmers who are then sold to collectors and then exported to various countries in the world. (C Dwi *et al,* 2024)

One of the agroindustries that is active in processing cocoa beans from upstream to downstream is PT Indonesia Hijau. The company runs an integrated production process, from processing fermented cocoa beans to producing various processed products such as cocoa powder, chocolate bars, cocoa butter, and cocoa paste (N Kautsar *et al*, 2024). The existence of PT. Indonesia Hijau is a concrete example in an effort to build a value-added cocoa processing industry in the country. However, in the face of competitive national market dynamics, companies are required to have a high level of competitiveness in order to be able to survive and develop sustainably in the midst of increasing competition between cocoa industry players, both from the UMKM sector and large companies, The competitiveness of PT. Indonesia Hijau's cocoa industry is influenced by the efficiency of input costs and the value of the output produced. A reduction in input costs and an increase in output value will enhance competitiveness, while the opposite will weaken it. According to the theory of competitive advantage, competitiveness is reflected in a company's ability to outperform others through cost efficiency, product differentiation, or strategic focus. This concept aligns with the Private Cost Ratio (PCR) in the Policy Analysis Matrix (PAM), which indicates financial feasibility, and the Domestic Cost Ratio (DCR), which reflects the efficient allocation of domestic resources in line with the principle of comparative advantage. Therefore, Policy Analysis Matrix (PAM) serves as a relevant analytical tool for evaluating the economic performance and competitiveness of the cocoa processing industry. (Bulkis *et al,* 2019)

Accordingly, a thorough investigation is essential one that examines both market demand trends for processed cocoa products and the company's economic performance and competitive standing using an appropriate analytical framework. This research, therefore, seeks to analyze the market demand and evaluate the economic efficiency and competitive advantage of PT. Indonesia Hijau.

Various studies have been carried out to examine the performance of cocoa production and competitiveness and in Indonesia, among them is the increase in the added value of cocoa products in Sungai Langka Village, Pasawaran Regency (Handayani *et al*. 2023), the competitiveness of Indonesia's cocoa bean exports in the International Market for the period 2011 – 2020 (Rojaba *et al*, 2022), Analysis of the Competitiveness of Processed Cocoa in the World's Main Destination Countries (Haryanata, 2023). However, most existing studies have primarily focused on upstream aspects, particularly production and export performance, without thoroughly investigating the dynamics of domestic market demand and the economic performance of cocoa processing industries factors that are equally crucial in enhancing overall competitiveness. This research distinguishes it self by applying the Policy Analysis Matrix (PAM) to evaluate both competitive and comparative advantages at the enterprise level, using PT. Indonesia Hijau as a case study. By focusing on a downstream processing company that operates within the domestic market, this study provides unique insights that are often overlooked in macro level or exportoriented analysis.

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RESEARCH METHODS

Research Design

This study was conducted at PT. Indonesia Hijau, located in Polewali Mandar Regency, West Sulawesi Province. It employed both primary and secondary data sources. Primary data were gathered through structured interviews, direct observations, and questionnaires administered to managerial personnel and production staff at PT. Indonesia Hijau. Secondary data in this study were obtained from PT. Indonesia Hijau's company reports, including sales data, prices of tradable and non-tradable inputs (domestic factors), export and import data, tax revenue figures, and exchange rates. These data were sourced from the Central Bureau of Statistics (BPS), the World Bank, and supplemented by information gathered through internet searches. This secondary data will be used to support a comprehensive analysis through the Policy Analysis Matrix (PAM) framework.

The data analysis in this research was carried out using two main approaches. First, a market demand trend analysis was conducted to identify the pattern of changes in demand for cocoa products produced by PT. Indonesia Hijau during the 2018–2023 period. The sales data analyzed included various cocoa-based products such as cocoa beans, chocolate bars, cocoa powder, and cocoa paste. Second, the Policy Analysis Matrix (PAM) was applied to assess the company's economic performance and competitive position.

The selection of informants in this study was conducted using purposive sampling, a technique where participants are chosen based on specific purposes aligned with the research theme. This method is applied because the selected individuals are considered to possess relevant and valuable information for the study. (Asrulla *et al*. 2023). Informants in this research consist of key individuals who play a significant role in the operation of the cocoa agroindustry at PT. Indonesia Hijau. Data were collected through interviews with the CEO of PT. Indonesia Hijau and members of the company's marketing staff.

The preparation of the PAM method table followed these key steps:

1. Identifying all inputs utilized in the production process
2. Classifying inputs into tradable and non-tradable categories
3. Calculating shadow prices for inputs, outputs, and exchange rates
4. Evaluating both comparative and competitive advantages using the PAM (Policy Analysis Matrix)

Table 1. Components that make up PAM (*policy analysis matrix).*

Component	**Acceptance**	**Cost of Production Factor**		**Advantage**
		Tradable	***Non-tradable***	
Private pricing	A	B	C	D
Social pricing	E	F	G	H
Divergensi	I = A – E	J = B – F	K = C – G	L = D – H

Source: Aznur, 2021

Information:

A : Private revenue (actual market price received by producers)
B : Private cost of tradable inputs (e.g., imported fertilizer, pesticides, seeds)
C : Private cost of non-tradable inputs (e.g., local labor, land rent)
D : Private profit = A - (B + C)
E : Social revenue (value based on economic or world prices)
F : Social cost of tradable inputs
G : Social cost of non-tradable inputs
H : Social profit = E - (F + G)
I : Output transfer = A - E (difference between private and social revenue)
J : Tradable input transfer = B - F (difference between private and social cost of tradable inputs)
K: Factor transfer = C - G (difference in non-tradable input costs)
L: Net transfer = D - H (difference between private and social profits)

Based on the Policy Analysis Matrix (PAM) framework developed by (Monke and Pearson,1990), the Private Cost Ratio (PCR) serves as an indicator of private profitability, reflecting a commodity system's capacity

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to cover domestic resource costs while remaining competitive. A PCR value less than 1 implies that the system is competitive, whereas a value greater than 1 indicates a lack of competitiveness. Meanwhile, the Domestic Resource Cost Ratio (DCR) measures comparative advantage by assessing how much domestic resource is required or can be saved to generate one unit of foreign exchange. A DCR below 1 signifies a comparative advantage, while a value exceeding 1 suggests that the system is not economically efficient in resource use compared to international alternatives

RESULTS AND DISCUSSION

The consumption structure of cocoa beans by the domestic downstream industry is still dominated by domestically produced cocoa beans, but in the next few years the consumption structure of cocoa beans may change, this is due to the downward trend of domestic cocoa bean production. (Satria et al. 2021). Since 2017, PT. Indonesia Hijau as a supply of raw materials in several chocolate industries in several regions. Cocoa Nuts. Indonesia has good quality cocoa beans, namely with the quality of cocoa beans A-A. PT Indonesia Hijau reaches a wide marketing area, both domestically and internationally. Some of the business partners that are the destination of product distribution include PT East Indo Fair Trading, PT Korte Surabaya, Modko Batu Malang Company, PT Crocoa Lampung, as well as international partners such as cocoa companies from Japan.

Overall, the sales volume trends of PT. Indonesia Hijau cocoa based products in Polewali Mandar Regency from 2018 to 2023 have exhibited fluctuations across various product types. This pattern is evident in historical sales data, which reflects shifting market demand for items such as cocoa beans, cocoa paste, chocolate bars, and cocoa butter. These variations are influenced by multiple factors, including dynamics in both domestic and international markets, trade policy changes, and evolving consumer behavior during and after the COVID-19 pandemic. The period 2018–2023 was selected to provide a comprehensive picture of the company's performance during key economic phases, including pre pandemic stability, the market disruptions caused by COVID-19, and the recovery period. This timeframe also aligns with PT. Indonesia Hijau's early operational development, allowing the study to capture strategic business responses and market adjustments during the company's growth stage.

Table 2. Sales Volume of Cocoa Products of PT. Indonesia Hijau in 2018-2023

Year	Cocoa Bean (kg)	Chocolate Bars (Unit)	Chocolate Powder (Unit)	Paste (kg)
2018	725	1200	250	1800
2019	800	1350	320	2000
2020	0	620	187	0
2021	0	500	165	0
2022	668	1584	375	1500
2023	850	1600	390	1650

Seconder Data, processed, (2024)

Sales data from PT. Indonesia Hijau in Polewali Mandar Regency between 2018 and 2023 reveal considerable volatility in the demand for various cocoa-based products, including cocoa beans, chocolate bars, cocoa powder, and cocoa paste. These fluctuations reflect shifting market dynamics influenced by a range of external factors such as global economic conditions, the impacts of the COVID-19 pandemic, and evolving consumer preferences along with the domestic market's response to cocoa derivative products.

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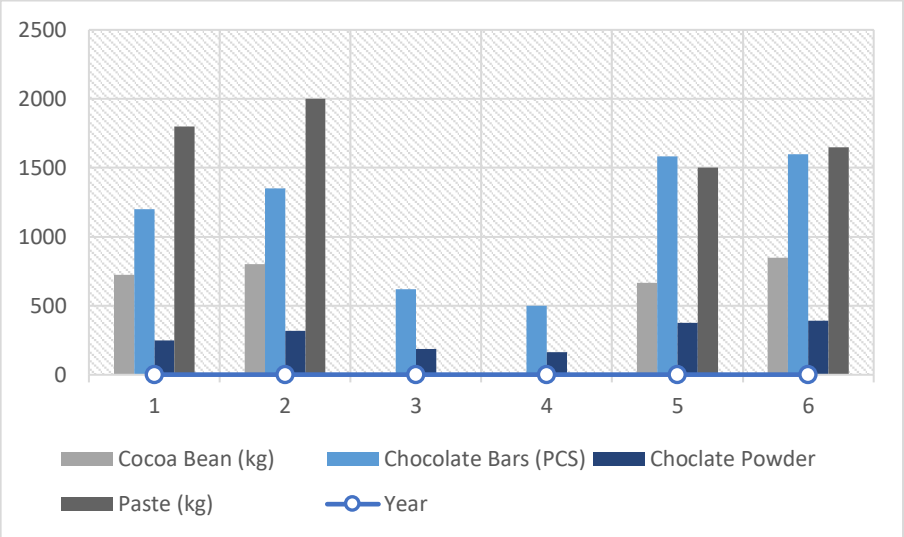


Figure 1. Sales Graph of Pt. Indonesia Hijau in 2018 -2023

Between 2018 and 2023, PT. Indonesia Hijau's sales of cocoa based products in Polewali Mandar showed varying trends influenced by the COVID-19 pandemic and subsequent market recovery. Sales of cocoa beans and cocoa paste dropped to zero in 2020 and 2021 due to supply chain disruptions but rebounded significantly post-pandemic, indicating renewed demand from domestic and international partners. Cocoa bean sales rose to 850 kg in 2023, while cocoa paste recovered to 1,650 kg. Chocolate bars experienced growth from 1,200 unit in 2018 to 1,600 unit in 2023, despite a temporary decline during the pandemic. Cocoa powder showed a more stable upward trend, growing from 250 unit in 2018 to 390 unit in 2023, likely due to its versatility and longer shelf life. Overall, the data reflect shifting consumer preferences and a gradual recovery of the cocoa product market following pandemic related disruptions.

Competitive Analysis

The Importance of Cocoa Agribusiness. Green Indonesia is analyzed through two main approaches, namely: competitive and comparative advantage. These two approaches are used to assess financial efficiency and economic efficiency in cocoa product processing activities. The following are the results of the Policy *Analysis Matrix* (PAM) analysis on the cocoa industry of PT. Indonesia Hijau which measures the structure of costs, revenues and profits both at private and social prices.

Table 4. Policy *Analysis Matrix* (PAM) Results

Component	Acceptance	Cost		Advantage
		Tradable	***Non-tradable***	
	(A)	(B)	(C)	(D)
Private pricing	472.000.000	31.008.888	337.000.000	9.375.000
Social	(E)	(F)	(G)	(H)
pricing	432.234.710	19.784.112	326.822.000	15.459.598
	(I)	(J)	(K)	(S)
Divergensi	39.765.290	12.224.776	10.178.000	-6.084459

Source: Secondary Data processed, 2024.

Table 4 presents the results of the Policy Analysis Matrix (PAM), which compares the profitability of PT. Indonesia Hijau under current market conditions with its economic potential in the absence of policy distortions. The private profit reflecting the actual revenue earned by the producer in the prevailing market is recorded at IDR 9,375,000. In contrast, the social profit, which represents the return in a perfectly competitive and distortion-free market environment, amounts to IDR 15,459,598.

This discrepancy results in a negative divergence of IDR 6,084,459, indicating that the enterprise's real income is lower than what would be expected under efficient economic conditions. A negative divergence such as this reveals the presence of production inefficiencies or market distortions that hinder the agroindustry's ability to realize its full economic potential.hese findings suggest that while the enterprise remains privately profitable, it does not yet operate at maximum economic efficiency.

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The negative profit divergence underscores the need for both internal operational improvements and targeted policy interventions to reduce inefficiencies. Strategic steps might include adopting cost-effective production technologies, strengthening cooperative or partnership-based marketing models, and revisiting government policies that inadvertently suppress profitability. Overall, the PAM analysis highlights that PT. Indonesia Hijau has a latent comparative advantage in its agroindustrial activities. However, realizing this potential requires a concerted effort to minimize production constraints and align market operations with economically efficient practices. Doing so could significantly enhance the firm's contribution to regional economic development, particularly in the cocoa processing sector of Polewali Mandar.

Table 5. The analysis findings regarding private and social profitability, along with the PCR and DRCR indicators, of the cocoa agroindustry at PT. Indonesia Hijau.

No	Parameter	Value
1	Private Advantages	9.375.000
2	Social Advantages	15.459.598
3	PCR	0.76
4	DCR	0.79

Source: Seconder Data, processed, (2024)

Competitive and Comparative Advantage Analysis

Table 5 illustrates that the cocoa agroindustry of PT. Indonesia Hijau in Polewali Mandar Regency demonstrates a competitive advantage, as indicated by a Private Cost Ratio (PCR) value of 0.76. A PCR below 1 signifies that the enterprise possesses competitiveness; in this case, producing one unit of output at private prices requires only 0.76 units of domestic factor costs. This finding underscores the need to further optimize production efficiency. The obtained PCR value confirms that PT. Indonesia Hijau's cocoa agroindustry is operating competitively. This aligns with the findings of Soetrisno (2017), who noted that a producer's ability to deliver quality commodities at relatively low production costs reflects a competitive advantage when the PCR is less than 1.

A DCR < 1 indicates that the cocoa agroindustry holds a comparative advantage, as it is capable of covering domestic factor costs at prevailing social prices.According to (Milla *et al*. 2023) Farming businesses are said to have comparative advantages if the DRC value of the farming is lower than one or DCR < 1. Comparative advantage itself aims to explain the extent to which resources can be saved to provide one unit of foreign exchange. As shown in Table 5, PT. Indonesia Hijau's Domestic Resource Cost (DCR) is recorded at 0.79. A DCR value below 1 implies that producing an additional unit of output requires domestic non tradable inputs equivalent to 0.79 of the output value. This suggests that the cocoa agroindustry utilizes domestic resources efficiently, thereby indicating a comparative advantage an observation that aligns with findings from prior studies. by (Reynaldo *et al, 2022)* This indicates that the farming practices possess a comparative advantage, as reflected by a DCR value < 1. The cocoa agroindustry has demonstrated efficient resource utilization, enabling it to maintain a strong position in a competitive market environment.

CONCLUSION

The findings from the market demand analysis and the assessment of the economic performance of PT. Indonesia Hijau's cocoa industry reveal a fluctuating demand pattern for its cocoa products between 2018 and 2023. A significant decline occurred during the COVID-19 pandemic (2020–2021), followed by a notable recovery in subsequent years. Notably, sales of chocolate bars and cocoa powder have shown a steady increase post-pandemic, indicating sustained market opportunities, particularly for value-added processed cocoa products.

The Policy Analysis Matrix (PAM) results further indicate that PT. Indonesia Hijau possesses both competitive and comparative advantages, as reflected by a Private Cost Ratio (PCR) of 0.76 and a Domestic Resource Cost (DCR) ratio of 0.79. These values, being less than one, suggest that production is both financially viable and economically efficient.

It is recommended that PT. Indonesia Hijau continue innovating its value-added derivative products in alignment with evolving consumer preferences to further boost market demand. Additionally, reviewing and

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optimizing non tradable input costs such as labor and asset depreciation can help improve private profit margins, bringing them closer to the corresponding social benefits. Nevertheless, this study has several limitations that should be acknowledged. The scope of the research is limited to a single case study, namely PT. Indonesia Hijau, which restricts the generalizability of the findings to the broader national cocoa industry. Further more, the analysis does not comprehensively cover the supply chain aspects such as the role of farmers as raw material suppliers, distributors, and logistics systems which significantly influence production efficiency and the overall competitiveness of the cocoa industry. There fore, future research is recommended to expand its scope by involving multiple companies and incorporating supply chain dimensions to provide a more in depth and representative analysis.

REFERENCES

A Nixia, Tenriawaru. 2022. "Autoregressive Integrated Moving Average for Cocoa Production in Sulawesi Island 2021-2030." *Jurnal AGRISEP: Kajian Masalah Sosial Ekonomi Pertanian dan Agribisnis* 21(2): 425–36. http:// doi.org/10.31186/jagrisep.21.2.425-436.

Arsyad, M, S Bulkis, A Amiruddin, and R Khaerati. 2019. "Competitiveness analysis of cocoa commodities in South Sulawesi Competitiveness analysis of cocoa commodities in South Sulawesi. http:// doi.org/ 10.1088/1755-1315/343/1/012106.

Asrulla, Risnita, M. S Jailani, and Firdaus Jeka. 2023. "Populasi Dan Sampling (Kuantitatif), Serta Pemilihan Informan Kunci (Kualitatif) Dalam Pendekatan Praktis." *Jurnal Pendidikan Tambusai* 7(3): 26320–32.

Aznur, Tifany Zia. 2021. "Analysis of Competitiveness and Impact of Government Policy on People's Palm Oil Commodity." *Jurnal Akuntansi dan Pajak* 22(1): 69–77. http://jurnal.stie-aas.ac.id/index.php/jap

Informan Kunci (Kualitatif) Dalam Pendekatan Praktis." *Jurnal Pendidikan Tambusai* 7(3): 26320–32.

BPS, K. P. M. (2022). Kabupaten Polewali mandar Dalam Angka 2022. xlii+312.

Bulkis, S. et al. 2019. "Competitiveness Analysis of Cocoa Commodities in South Sulawesi." *IOP Conference Series: Earth and Environmental Science* 343(1).

ClaraDwiPurnama Sari, BernadetteRobiani, Mukhlis, MuhammadTeguh. 2024. "Analisis Daya Saing Industri Pengolahan Dan Hasil Olahan Kakao Indonesia." 5(2): 206–13. http://repository.ipb.ac.id/bitstream/handle/123456789/14355/H09rra.pdf?sequence=2&isAllowed=y.

Ditjenbun. 2021. "Statistik Perkebunan Unggulan Nasional 2019-2021." *Direktorat Jendral Perkebunan Kementerian Pertanian Republik Indonesia*: 1–88. https://ditjenbun.pertanian.go.id/template/uploads/2021/04/BUKU-STATISTIK-PERKEBUNAN-2019-2021-OK.pdf.

Handayani, Sri et al. 2023. "Added Value Of Cocoa Products Of Sungai Langka Village." 4(2): 91–108. https://jurnal.polinela.ac.id/index.php/JPN/index

Haryanata, R G A. 2023. "Competitiveness Analysis of Indonesian Processed Cocoa in Main Export Destination Countries." *Repository.Ipb.Ac.Id* 8(1). https://repository.ipb.ac.id/handle/123456789/111113.

Indrayana, Ketut, and Hesti Rahasia. 2021. "Acceleration of Cocoa Production Technology Community Supports Increased Productivity of Export Commodities in West Sulawesi." *Jurnal Agrisistem : Seri Sosek dan Penyuluhan* 17(1): 16–25. https://doi.org/10.52625/j-agr-sosekpenyuluhan.v17i1.179p-ISSN

Milla, A. N. et al. 2023. "Comparative and Competitive Advantages of Shallot Farming Region and Season Based." *Agromix* 14(1): 20–27. https://doi.org/10.35891/agx.v13i2.3320.

Monke, Erick A., and Scott R. Pearson. 1990. "Review: The Policy Analysis Matrix for Agricultural Development." *Development Southern Africa* 7(1): 133–40.

Natasya Kautsar, Muthia, Muhammad Arsyad, and A. Nixia Tenriawaru. 2024. "Existing Performance of Cocoa Agroindustry: Learn From Pt. Indonesia Hijau, Polewali Mandar, Indonesia." *BIO Web of Conferences* 96: 1–13. https://10.1051/bioconf/20249607012

Reynaldo Alka Pratama, Novira Kusrini, & Maswadi. 2022. "Competitiveness Analysis of Corn Farming in Rasau Jaya Village." *Jurnal Ekonomi Pertanian dan Agribisnis (JEPA)* 6(4): 1439–49. https://jepa.ub.ac.id/index.php/jepa/article/view/1358

Rojaba, Milhatu, and Gentur Jalunggono. 2022. "Competitiveness of Indonesian Cocoa Bean Exports in the International Market Period 2011-2020." *JISMA: Jurnal Ilmu Sosial, Manajemen, dan Akuntansi* 1(4): 501–8. https://doi.org/10.59004/jisma.v1i4.187

Satria, Faris Maulana, Adi Nugraha, Eka Purna Yudha, and Ernah Ernah. 2021. "Factors Affecting Domestic Downstream Industry Demand for Cocoa Beans." *Agricore: Jurnal Agribisnis dan Sosial Ekonomi Pertanian Unpad* 5(2). https://doi.org/10.24198/agricore.v5i2.30800

Wahyu Maulid Adha, Mujirin M. Yamin, and Rahmat Ghazali. 2023. "Pengaruh Sertifikasi Mutu Biji Kakao

This work is licensed under a Creative Commons Attribution 4.0 Internasional License

Terhadap Peningkatan Pendapatan Petani Kakao Di Kecamatan Luyo Kabupaten Polewali Mandar." *MANDAR: Management Development and Applied Research Journal* 6(1): 20–28.

Widiyarini, Ahmad Rodoni, and Said Latuconsina. 2022. "Determinants of Fisheries Sub-Sector Performance to Support Economic Resilience in Riau Islands Province." *Jurnal Ketahanan Nasional* 28(2): 222–40. https://jurnal.ugm.ac.id/jkn/article/view/74691

Zulaihah, Syafiuddin, Mohammad Natsir. 2025. "Analysis of Cocoa Commodity Market Equilibrium in South Sulawesi Province." 9: 38–49. https://jepa.ub.ac.id/index.php/jepa/article/view/3063/866

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