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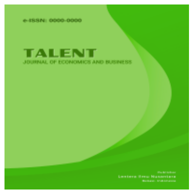

Indonesia–China Spice Trade: Opportunities, Challenges, and Strategic Export Responses

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Abstract
Indonesia is one of the world’s leading spice producers, supported by rich biodiversity, favorable agro-climatic conditions, and a long tradition of spice cultivation. China has become a strategic export destination due to its growing food, pharmaceutical, traditional medicine, and cosmetics industries. This study aims to analyze the opportunities, challenges, and strategic responses in Indonesia–China spice trade. A mixed-method approach was used by combining quantitative analysis of export data from BPS, the Ministry of Trade, and international trade databases with qualitative analysis through literature review. The results show that China accounted for 33.6% of Indonesia’s exports of medicinal, aromatic, and spice crops in 2024, making it the largest export market. The main opportunities include strong market demand, ACFTA tariff preferences, increasing demand for organic products, and Indonesia’s comparative advantage in spice production. However, Indonesia still faces several challenges, such as non-tariff barriers, competition from Vietnam and India, exchange rate volatility, and climate-related production risks. Therefore, this study recommends strengthening economic diplomacy, improving product certification, increasing value-added processing, diversifying export markets, and adopting digital traceability systems to enhance Indonesia’s competitiveness in the Chinese market.

Keywords: spice trade, Indonesia–China trade, export competitiveness, ACFTA, international trade.

Introduction

International trade plays a highly strategic role in driving national economic growth, particularly for Indonesia as an archipelagic nation rich in natural resources (Rosid Efendi et al., 2025). Among Indonesia's various leading commodity sectors, the spice sector holds a particularly special position, not only historically as a commodity that once drove world trade routes from the 15th to 17th centuries, but also from a modern economic perspective as a significant contributor to the country's foreign exchange earnings. Recent studies confirm that Indonesia's spice trade balance consistently records a surplus, reflecting Indonesia's dominance in the global spice supply chain (Anggrasari & Mulyo, 2019).

Indonesia is one of the world's largest producers and exporters of spices. Leading commodities such as pepper (Piper nigrum), nutmeg (Myristica fragrans), cinnamon (Cinnamomum cassia), cloves (Syzygium aromaticum), ginger (Zingiber officinale), and turmeric (Curcuma longa) have long been the mainstay of Indonesian exports to various parts of the world. With its favorable tropical climate, extraordinary biodiversity, and centuries-old agricultural traditions, Indonesia has a comparative advantage that is difficult for other countries to match in the production of high-quality spices (Amri et al., 2024). This superiority is also reflected in the study of the competitiveness of Indonesian pepper in the international market, which places Indonesia in a leading position compared to Vietnam, Brazil, India and Malaysia (Amorita & Daryanto, 2021).

In Asia, China is Indonesia's largest strategic trading partner, particularly as a major spice export destination. China boasts rapidly growing culinary, pharmaceutical, and cosmetic industries, all of which require large volumes of high-quality spices. Furthermore, China is known as Asia's largest trading hub, connecting Southeast Asian markets with the wider global market. This makes China a highly promising and strategic market for Indonesian spice exports (Novianti et al., 2024).

However, the spice trade between Indonesia and China is not without its challenges. Competition with other spice producers, such as Vietnam, India, and Sri Lanka, is becoming increasingly fierce. In addition, constantly changing regional and international trade policies, increasingly stringent quality standards, and fluctuations in global commodity prices also influence the dynamics of bilateral trade between the two countries. An in-depth analysis of the opportunities and threats in the Indonesia China spice trade is crucial to providing a strategic foundation for stakeholders both at the government level and among business actors to optimize the export potential of this sector (Syam, 2025).

Although previous studies have discussed Indonesia’s spice competitiveness and export performance in the global market, limited research has specifically examined the strategic position of Indonesia’s spice trade with China. Most existing studies focus mainly on export trends, commodity competitiveness, or general trade performance, while the integration of market opportunities, trade barriers, bilateral policy dynamics, and strategic responses in the Indonesia–China context remains underexplored. This gap is important because China has become one of Indonesia’s most strategic export destinations for spice commodities, but dependence on this market also creates risks related to non-tariff barriers, market concentration, competition, and changing trade regulations. Therefore, this study is urgently needed to provide a more comprehensive analysis of the opportunities, challenges, and strategic responses required to strengthen Indonesia’s spice export competitiveness in the Chinese market.

Method

This study employed a descriptive mixed-method approach by combining quantitative trade data analysis and qualitative literature analysis. The quantitative data were obtained from official and reliable sources, including Statistics Indonesia (BPS), the Ministry of Trade of the Republic of Indonesia, the Ministry of Agriculture, the International Trade Centre (ITC), and UN Comtrade. These sources were selected because they provide authoritative and relevant data on Indonesia’s spice export performance, particularly export volume, destination countries, and market share in 2024.

The qualitative data were collected through a literature review of scientific journals, government reports, policy documents, and relevant articles discussing Indonesia–China trade relations, spice export competitiveness, trade barriers, and market opportunities. This approach was used to strengthen the interpretation of statistical findings and provide a broader understanding of policy, market, and structural factors affecting Indonesia’s spice exports to China.

The data were analyzed using a SWOT framework. The analysis was conducted through several stages. First, export data and relevant literature were reviewed to identify key issues in Indonesia–China spice trade. Second, internal factors were classified into strengths and weaknesses, while external factors were classified into opportunities and threats. Third, these factors were organized into a SWOT matrix to evaluate Indonesia's strategic position in the Chinese spice market. Finally, strategic recommendations were formulated using SO, WO, ST, and WT strategies to strengthen Indonesia's competitiveness and reduce export risks.

Table 1. SWOT Matrix Indonesia–China Spice Trade

Strengths	Explanation
Rich biodiversity	Indonesia produces diverse tropical spices such as cloves, nutmeg, cinnamon, ginger, and turmeric.
Favorable tropical climate	Supports year-round cultivation and high productivity.
Historical reputation	Indonesian spices are globally recognized for quality and authenticity.
Large production base	Indonesia remains one of the world's major spice producers.
Comparative advantage	Unique flavor profiles and active compounds valued by international buyers.
Weaknesses	**Explanation**
Low value-added exports	Most exports are still raw or semi-processed products.
Limited international certification	Many SMEs lack HACCP, ISO, Organic, and Fair Trade certification.
Inconsistent quality standards	Product quality varies among producers and regions.
Weak logistics and supply chain	Transportation and post-harvest infrastructure remain inadequate.
Limited market intelligence	Small exporters often lack information about Chinese regulations and market trends.
Opportunities	**Explanation**
Strong Chinese demand	Growing food, pharmaceutical, TCM, and cosmetics industries.
ACFTA tariff preferences	Lower tariff barriers improve competitiveness.
Rising organic product demand	Chinese consumers increasingly prefer healthy and sustainable products.
Expansion of herbal medicine industry	Creates demand for spice-based raw materials.
Digital trade platforms	Alibaba and other B2B platforms facilitate market access.
Threats	**Explanation**
Non-tariff barriers	GACC registration, SPS measures, and quality standards.

Competition from Vietnam and India	Strong competitors with efficient supply chains.
Exchange rate volatility	RMB–Rupiah fluctuations affect export earnings.
Climate change	Production instability due to droughts and floods.
Market concentration risk	Heavy dependence on China as the primary export destination.

Table 2. SWOT Strategic Recommendations:

Strategy	Recommendation
SO Strategy	Increase exports of certified premium spices to meet growing Chinese demand.
WO Strategy	Improve certification, packaging, and value-added processing to access premium markets.
ST Strategy	Strengthen branding and product differentiation to compete with Vietnam and India.
WT Strategy	Diversify export destinations and improve supply chain resilience to reduce dependency risks.

To identify external opportunities and threats affecting Indonesia's spice exports to China, this study adopts a SWOT-based analytical framework. The framework facilitates a systematic assessment of strategic factors influencing export competitiveness and supports the formulation of policy recommendations aimed at strengthening Indonesia's position in the Chinese market.

Results and Discussion

Trade Between Indonesia and China in the Spice Sector

Trade in spices between Indonesia and China has shown significant growth in recent years. According to 2024 data from the Central Statistics Agency (BPS), China is the largest export destination for medicinal plants, aromatic plants, and spices from Indonesia, reflecting the strong demand in the Chinese market for Indonesian spice commodities. Table 3 below presents data on the export volume of Indonesia’s medicinal plants, aromatic plants, and spices to its 10 main destination countries, in metric tons, for the year 2024:

Table 3. Top 10 Export Destinations for Indonesia’s Medicinal, Aromatic, and Spice Crops in 2024 (Metric Tons)

No.	Export Destination Countries	Export Volume (Tons)	Share (%)
1	China	48,027.9	33.6%
2	India	27,466.6	19.2%
3	Bangladesh	21,270.6	14.9%
4	Pakistan	16,028.5	11.2%

5	Vietnam	12,062.4	8.5%
6	United States	11,162.3	7.8%
7	Thailand	4,286.4	3.0%
8	Germany	1,309.8	0.9%
9	Netherlands	1,189.2	0.8%
10	Singapore	980.0	0.7%
	TOTAL 10 Countries	**143,783.7**	**100%**

Source: Central Bureau of Statistics of the Republic of Indonesia, Table "Exports of Medicinal Plants, Aromatic Plants, and Spices by Major Destination Country, 2012–2024"; Compiled by the author.

The export data indicate that China is not only the largest destination for Indonesian medicinal, aromatic, and spice products, but also a highly strategic market that requires careful export management. The 33.6% export share to China shows strong market acceptance of Indonesian spices, particularly due to China's growing food, pharmaceutical, traditional medicine, and cosmetics industries. However, this high concentration also creates strategic vulnerability for Indonesian exporters. If China changes its import regulations, tightens food safety standards, or experiences a decline in demand, Indonesian exporters may face significant market risk. Therefore, the findings suggest that market expansion to China should be balanced with export diversification to other potential markets.

These findings are in line with previous studies which state that Indonesia has a strong comparative advantage in spice commodities due to its biodiversity, tropical climate, and distinctive product quality. However, compared with competitors such as Vietnam and India, Indonesia still faces challenges in product standardization, certification, supply chain efficiency, and value-added processing. This condition shows that competitiveness is not only determined by production capacity, but also by the ability of exporters to meet international quality standards, maintain product consistency, and respond quickly to market requirements.

From a strategic perspective, the results imply that Indonesian spice exporters need to move beyond raw commodity exports. Exporters should strengthen certification, improve packaging, develop processed spice products, and adopt digital traceability systems to increase trust among Chinese buyers. In addition, small and medium exporters need stronger institutional support, especially in market intelligence, regulatory compliance, and access to international trade platforms. Thus, the opportunities in the Chinese market can be optimized not only through higher export volume, but also through better product quality, stronger branding, and higher added value.

China dominates imports of Indonesian spices due to high demand from the food, pharmaceutical, and traditional Chinese medicine (TCM) industries (Lin et al., 2018). The main commodities exported include nutmeg, cinnamon, cloves, and ginger. The rapid growth of China's middle class and increasing public awareness of health issues have also driven up demand for Indonesian tropical spices. (Amri et al., 2024).

Trade Opportunities for Indonesia's Spice Sector with China

Indonesia's spice sector has significant opportunities to strengthen bilateral trade with China due to the high demand for tropical spices in the Chinese market. China's large population, along with the rapid growth of its food, traditional Chinese medicine (TCM), pharmaceutical, and cosmetics industries, creates strong demand for spices such as nutmeg, cinnamon, cloves, ginger, and turmeric. These commodities are not only used for culinary purposes but also serve as important raw materials for health-related and herbal products. The increasing export of spice-based health products from China to the global market also creates greater demand for high-quality spice raw materials from Indonesia (Guerra et al., 2023).

Indonesia also has a strong comparative advantage as a global spice producer. Natalia (2012) explains that Indonesia possesses major geographical and ecological advantages as a tropical archipelagic country with rich biodiversity. Its tropical climate, fertile soil, and diverse ecosystems enable Indonesia to produce spices with distinctive flavors, aromas, and active compounds that are difficult to replicate in other countries. These advantages provide Indonesia with strong bargaining power in global markets, including China, especially for high-quality and premium spice products (Silitonga, 2023).

In addition, the ASEAN-China Free Trade Area (ACFTA) provides tariff preferences that can improve the competitiveness of Indonesian spices in the Chinese market. Under the ACFTA framework, several Indonesian spice products may benefit from lower import tariffs, making them more competitive than products from countries without similar trade preferences (ASEAN Secretariat, 2024). This opportunity is also supported by the growing demand for organic, natural, and sustainable products among Chinese consumers. Therefore, expanding organic certification, eco-labeling, and product standardization can help Indonesian exporters access premium market segments and increase the added value of their products.

China's position as a regional manufacturing and distribution hub also offers strategic opportunities for Indonesia. Spices imported into China are not only consumed domestically but can also be processed into high-value-added products and distributed to global markets. China's strategic role in the global supply chain provides Indonesia with an opportunity to become a stable supplier of raw materials for China's large-scale spice processing industry (Cai et al., 2025). With stronger government support, participation in international trade fairs, and collaboration between Indonesian exporters and Chinese importers, Indonesia has the potential to expand market access and strengthen its position in the Chinese spice market.

Threats to the Spice Trade Between Indonesia and China

In addition to various promising opportunities, Indonesia's spice trade with China also faces a number of threats that must be taken seriously. Table 4 summarizes the main threats and their risk levels:

Table 4. Threat Map for Indonesia's Spice Trade with China

No.	Threat	Potential Impact	Risk Level
1	Non-tariff barriers	Export restrictions	High
2	Competition from Vietnam and India	Market share decline	High
3	Exchange rate volatility	Revenue uncertainty	Medium
4	Climate change	Supply instability	Medium
5	Market concentration in China	Export dependency	High

Source: Author's analysis based on data from the Indonesian Ministry of Trade and the literature (2025)

Indonesia's spice trade with China still faces several significant threats, particularly related to protectionist policies and non-tariff barriers. China applies strict import requirements to protect its domestic agricultural sector, including phytosanitary certification from the

General Administration of Customs of China (GACC), maximum pesticide residue limits, and mycotoxin contaminant standards. These requirements may create obstacles for Indonesian spice exporters, especially small and medium enterprises, because compliance with these standards can increase export costs and administrative burdens.

In addition, Indonesia faces strong competition from other major spice-producing countries in the Chinese market. Vietnam has a strong position in the pepper and cinnamon markets, while India is competitive in ginger and turmeric. Sri Lanka also competes in the cinnamon segment, while Guatemala is known in the cardamom market. These countries often have more competitive prices, efficient supply chains, and stronger distribution networks, making it necessary for Indonesia to improve product quality, consistency, and market positioning (Amri et al., 2024).

Another important challenge is the increasingly strict food quality and safety standards applied to imported products, including spices. Requirements related to maximum residue limits, mycotoxin contamination, and product identification can become barriers for exporters that are not fully prepared to meet international standards. Failure to comply with these requirements may lead to product rejection at the port of entry and cause financial losses for Indonesian exporters.

Bilateral trade between Indonesia and China is also vulnerable to fluctuations in the Yuan–Rupiah exchange rate. An appreciation of the Rupiah against the Yuan can reduce the price competitiveness of Indonesian spice products, while sudden depreciation may create uncertainty in export revenue. This condition is particularly challenging for small and medium exporters that have limited capacity to manage exchange rate risks (Development, 2022).

Climate change also poses a serious threat to the stability of Indonesia's spice production. Weather anomalies such as El Niño, La Niña, prolonged droughts, floods, and shifting rainy seasons can disrupt harvest cycles and reduce supply consistency. If production instability continues, Chinese importers may shift to alternative suppliers that are considered more reliable. Therefore, Indonesia needs to strengthen production resilience, improve quality control, and ensure supply continuity to maintain buyer confidence in the Chinese market.

The Impact of Indonesia–China Bilateral Trade Dynamics on the Spice Sector

The dynamics of bilateral trade between Indonesia and China have had complex and varied impacts on Indonesia's spice sector. On the positive side, China's dominance as the largest buyer of Indonesian spices has driven increased investment in the upstream spice production sector, including the expansion of cultivation areas, the adoption of modern agricultural technology, and the development of post-harvest infrastructure. This has contributed to higher incomes for spice farmers and the creation of jobs in production centers.

However, dependence on the Chinese market also poses a concentration risk that must be closely monitored. Should there be a change in China's trade policies or a sudden drop in demand, Indonesian spice exporters that rely too heavily on the Chinese market will face significant repercussions. Therefore, diversifying export markets remains a strategic priority that cannot be overlooked.

Solutions for Trade in Indonesia's Spice Sector with China

To address various challenges in Indonesia–China spice trade, Indonesia needs to implement integrated strategies involving the government, exporters, industry associations, and supporting institutions. Economic diplomacy with China should be strengthened to reduce non-tariff barriers and create a more supportive trade framework. This can be carried out through bilateral negotiations, optimization of the ASEAN-China Free Trade Area (ACFTA), mutual recognition of spice product certification with the General Administration of Customs of China (GACC), and greater support for Indonesian exporters to register in the CIFER system.

Improving product quality and standardization is also essential to increase the competitiveness of Indonesian spices in the Chinese market. The spice industry needs to expand internationally recognized certifications, such as ISO 22000, HACCP, Organic Certification, and Fair Trade, to build importer trust and access premium market segments. In this context, the Ministry of Agriculture and the Ministry of Trade should strengthen cooperation with GACC to develop quality system equivalence agreements for spice commodities, so that Indonesian products can enter the Chinese market more smoothly.

Although China offers major market opportunities, Indonesia should also diversify its export destinations to reduce dependence on a single market. Potential markets include the Middle East, the European Union, and African countries, which continue to show demand for spice-based, organic, and sustainable products. Export diversification is important to strengthen the resilience of Indonesia's agricultural exports against global trade shocks and reduce the risk of market concentration (Suciadi & Riniwati, 2022).

In addition, Indonesia needs to shift from exporting raw spices to higher value-added processed products, such as essential oils, oleoresins, ready-to-use spices, herbal supplements, and spice-based cosmetic ingredients. This strategy can increase export value, improve profit margins, and reduce vulnerability to raw commodity price fluctuations. Digital transformation should also be strengthened through the use of global B2B platforms, online product catalogs, digital marketing, and better cross-border transaction management to help exporters reach Chinese buyers more directly.

Finally, the adoption of modern agricultural technologies and traceability systems is necessary to improve production efficiency, supply consistency, and buyer confidence. Precision farming, smart agriculture, and integrated traceability systems can help ensure product quality from cultivation to distribution. The use of blockchain-based traceability may also become a competitive advantage because it supports transparency, food safety, and sustainability standards required by international buyers, including Chinese importers.

Conclusion

Indonesia has strong potential to strengthen its position in the China spice market, supported by its comparative advantage in biodiversity, tropical agro-climatic conditions, and long experience in spice production. The findings show that China became the largest destination for Indonesia's medicinal, aromatic, and spice exports in 2024, accounting for 33.6% of total export volume. This indicates strong market opportunities, but also highlights the risk of export dependency on a single major market. To improve competitiveness, Indonesia needs to strengthen product quality, expand international certification, increase value-added processing, and adopt digital traceability systems. Export diversification is also important to reduce market concentration risks and improve resilience against regulatory changes, price fluctuations, and external trade pressures. Practically, these findings imply that exporters should not only focus on increasing export volume, but also improve product standards, branding, and market intelligence to meet the requirements of the Chinese market.

References

Amorita, C., & Daryanto, A. (2021). Competitiveness Analysis of Indonesian Pepper in International Market. 8(May), 38–52.

Amri, M. I., Tahir, R., Haris, A., Agusanty, H., & Saleh, M. S. (2024). Tren Ekspor Komoditas Perikanan dan Rempah Indonesia. Jurnal Ekonomi Dan Bisnis, 8, 44–62.

Anggrasari, H., & Mulyo, J. H. (2019). The Trade Of Indonesian Spice Comodities In International Market. 30(1).

Cai, H., Liao, Z., & Li, T. (2025). Impacts of RCEP ' s trade barrier reductions on China ' s agricultural trade : A GTAP simulation. 1–29. https://doi.org/10.1371/journal.pone.0328060

Permana, B. L. D. I., Suharno, & Rifin, A. (2022). The exchange rate volatility impact on agricultural trade: An evidence from Indonesian pepper export. 19(1), 12–23.

Rosid Efendi, A. F., Saleh, M., & Hanim, A. (2025). Determints of Indonesia's exports to BRICS countries: A gravity model approach. 13(1955), 59–72. https://doi.org/10.29121/granthaalayah.v13.i3.2025

Guerra, M., Danvila-del-valle, I., & Mariano, M. (2023). Technological Forecasting & Social Change. 188(December 2022). https://doi.org/10.1016/j.techfore.2022.122291

Lin, A. X., Chan, G., Hu, Y., Ouyang, D., Oi, C., Ung, L., & Shi, L. (2018). Internationalization of traditional Chinese medicine : current international market , internationalization challenges and prospective suggestions. Chinese Medicine, 1–6. https://doi.org/10.1186/s13020-018-0167-z

Natalia, D. (2012). Kinerja Daya Saing Produk Rempah Indonesia di Pasar Global. Buletin Ilmiah Litbang Perdagangan, 6(1).

Novianti, T., Sari, A. M., Sari, L. K., & Asikin, Z. (2024). Competitiveness of Indonesia ' s Agricultural Exports to China : Trends and Strategic Insights. 21(3), 374–386.

Prameswari, S. R., & As, M. (2025). Border trade effect on indonesia's export: gravity model analysis. 10(1), 79–103. https://doi.org/10.24198/intermestic.v10n1.4

Ministry of Marine Affairs and Fisheries of the Republic of Indonesia. (2025). Siaran Pers No. SP.156/SJ.5/IV/2025: Urai Hambatan Ekspor, KKP Jalin Perjanjian Kesetaraan Mutu dengan 38 Negara. https://kkp.go.id/

ASEAN Secretariat. (2024). ASEAN Trade in Goods Agreement (ATIGA): Annual Review. https://www.asean.org/

Silitonga, T. (2023). Analisis Faktor yang Mempengaruhi Volume Ekspor Rempah-Rempah Indonesia ke Negara-Negara ASEAN Periode 2010–2022. Universitas Pendidikan Indonesia.

Badan Pusat Statistik [BPS]. (2024). Ekspor Rempah-Rempah Indonesia menurut Negara Tujuan Utama, 2019–2023. https://www.bps.go.id/

Badan Pusat Statistik [BPS]. (2025). Tabel Ekspor Tanaman Obat, Aromatik, dan Rempah-Rempah menurut Negara Tujuan Utama, 2024. https://www.bps.go.id/id/statistics-table/1/MjAxOSMx/

Suciadi, F. S., & Riniwati, H. (2022). Analisis Ekspor Komoditas Pertanian Indonesia ke Tiongkok dengan Metode Dinamika Sistem [Universitas Brawijaya]. https://repository.ub.ac.id/

Syam, S. H. (2025). access : a political economy analysis of non-tariff measures and Indonesian cinnamon exports. January, 1–14. https://doi.org/10.3389/fpos.2025.1692028