ANALYSIS OF THE COMPETITIVENESS AND COMPLEMENTARITY OF FOOTWEAR TRADE BETWEEN CHINA AND INDONESIA

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ABSTRACT

This research analyzes the competitiveness and complementarity of footwear trade between China and Indonesia, two major players in the global footwear market. The research examines the dynamics of the footwear trade between these countries, focusing on the comparative advantages, trade competitiveness, and market complementarities. China, as the dominant footwear producer, has faced challenges such as rising labor costs and trade tensions, leading to a decline in its global market share. In contrast, Indonesia has been capitalizing on its lower labor costs and government incentives to increase its export capacity, particularly in leather and textile footwear. By analyzing trade data from 2005 to 2023, the study identifies key trends in export values and the structure of trade between the two nations, illustrating how their distinct strengths create opportunities for collaboration. The findings offer valuable insights for policymakers and stakeholders seeking to enhance bilateral trade strategies and strengthen the competitiveness of both nations in the evolving global footwear industry.

Keywords : *Footwear trade, China-Indonesia trade, Global supply chain, competitiveness*

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CHAPTER I

INTRODUCTION

1.1 Background

The global footwear industry has continued its robust trajectory into 2024, shaped by evolving consumer behavior, technological innovations, and geopolitical realignments. According to the latest Statista (2024) report, the market size reached USD 388.3 billion in 2023 and is projected to surpass USD 560 billion by 2030, driven by a CAGR of 4.9%. The primary growth drivers include surging e-commerce adoption, heightened health consciousness boosting demand for sports and athleisure footwear, and growing environmental awareness pushing for sustainable production.

Asia remains the manufacturing powerhouse, producing over 86% of the world's footwear in 2023 (World Footwear Yearbook, 2023), with China, Vietnam, India, and Indonesia as key contributors. However, this dominance is under increasing pressure. Rising labor costs, digital supply chain disruptions, and geopolitical tensions—particularly U.S.-China decoupling and trade realignments—are pushing global brands to diversify sourcing strategies (McKinsey, 2023).

China still leads in production, manufacturing 5.5 billion pairs in 2023, but its global share declined to 54%, continuing a downtrend from 73% in 2010 (Global Trade Atlas, 2023). Factors such as rising wages, environmental compliance costs, and escalating tariffs (e.g., up to 25% from the U.S.) have compelled manufacturers to shift operations toward ASEAN economies (USTR, 2024). In response, China is reorienting toward high-value products, domestic consumption, and greater automation (China Daily, 2024).

Indonesia has capitalized on this shift. It became the fourth-largest global exporter in 2023, with footwear exports valued at USD 6.7 billion—an 8.9% increase from 2022 (BPS, 2024). The country leverages lower labor costs (USD 275/month vs. China's USD 620/month), favorable trade agreements (ASEAN, EU GSP+), and strategic FDI incentives (Ministry of Investment, 2024). However, key constraints remain: overreliance on imported raw materials (e.g., 68% of leather), bureaucratic red tape, and infrastructure limitations (World Bank Indonesia Economic Update, 2024).

A comparative lens reveals China's strength in synthetic and mass-produced footwear (HS 64.03), while Indonesia has carved a niche in leather footwear (HS 64.04) and eco-conscious production, aligning with global trends (WTO, 2024). Trade complementarity between the two has increased, with the Trade Complementarity Index (TCI) rising from 0.66 in 2020 to 0.71 in 2023 (CEPII, 2024), suggesting collaborative potential despite intensifying competition.

Geopolitically, the U.S.-China trade war and COVID-era supply chain shifts have catalyzed the reconfiguration of footwear value chains. Indonesia benefited, with U.S. footwear imports from Indonesia growing 21% between 2019 and 2023 (U.S. Census Bureau, 2024). Simultaneously, China's Belt and Road Initiative (BRI) has funneled infrastructure and industrial investments into Indonesia, including in footwear manufacturing hubs like West Java and East Java (BRI Monitor, 2024). The ASEAN-China Free Trade Agreement (ACFTA) continues to shape tariff structures and production relocation strategies.

Table 1

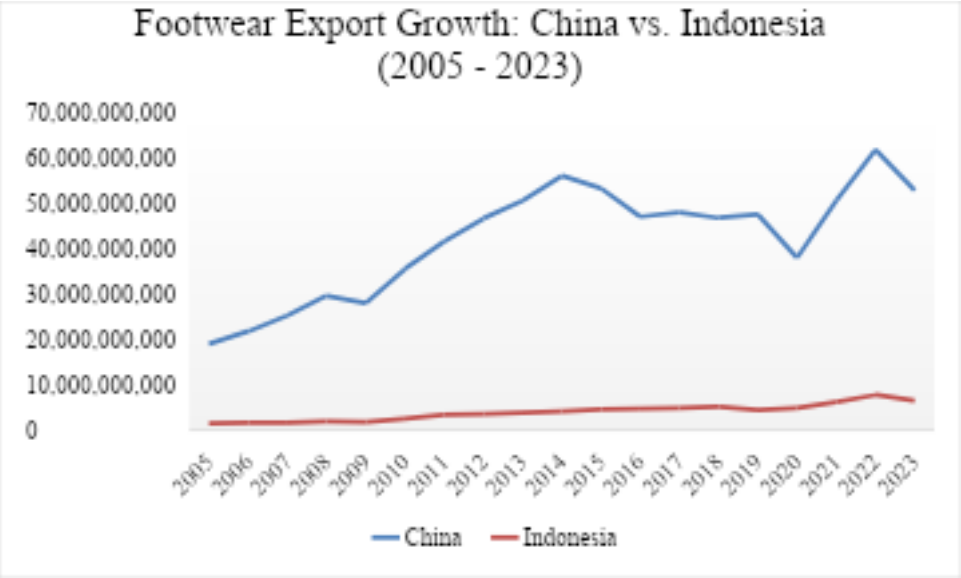
Top 5 Footwear Exporters (2023)

Country	Export Value ($B)	Global Share (%)	Key Strengths
China	53.01	49.1%	Mass production, integrated supply chain
Vietnam	20.77	19.2%	Low labor cost, strong FDI, fast delivery to global brands
Italy	14.46	13.4%	Luxury design, leather craftsmanship
Germany	11.36	10.5%	Branded sportswear, EU logistics hub
Indonesia	6.44	6.0%	Rubber & leather access, sustainability, rising quality

Source: UN Comtrade (processed, 2025)

To further illustrate the footwear trade dynamics between China and Indonesia, Figure 1 presents the export growth trends of both countries from 2010 to 2022. The figure shows that China consistently maintained a dominant position with significantly higher export values, although its growth trajectory experienced slight fluctuations. In contrast, Indonesia's

exports, while much smaller in absolute terms, demonstrated steady growth throughout the period, reflecting gradual improvements in competitiveness.



Graph 1 China vs. Indonesia Footwear Export Growth (2005 - 2023)

Source: World Bank, (processed 2025)

Given these dynamics, The figure confirms China's gradual decline in market share and Indonesia's upward trajectory reflecting resilience and strategic repositioning.

This research, titled "Analysis of the Competitiveness and Complementarity of Footwear Trade Between China and Indonesia," investigates how China's manufacturing shift and Indonesia's rise in leather-based and sustainable footwear provide both competition and collaboration opportunities in global trade.

1.2 Research Significance

This study holds substantial significance across academic, industrial, and policy dimensions, particularly in the context of shifting global trade patterns and regional manufacturing dynamics. Academically, this research contributes to international trade theory by applying and expanding the Ricardian model of comparative advantage (Ricardo, 1817) and Trade Complementarity Index (TCI) (Drysdale, 1967) to analyze labor-intensive manufacturing sectors. The research builds on recent work by the World Bank (2023) on global value chains and UNCTAD (2023) on trade diversification in developing economies, providing empirical evidence of how emerging markets like Indonesia can compete with manufacturing giants like China. By employing Revealed Comparative Advantage (RCA)

analysis (Balassa, 1965), the study offers updated insights into shifting trade patterns in the footwear industry, responding to the issues highlighted by the OECD (2021) concerning the expanding role of Southeast Asia in global supply chains.

In terms of industrial relevance, the research provides actionable insights for firms navigating global sourcing strategies, cost structures, and specialization patterns. Specifically, the comparative focus on HS codes 64.03 (synthetic footwear, where China is dominant) and 64.04 (leather footwear, where Indonesia is growing in strength) offers clarity on product-level trade positioning. Indonesian manufacturers can utilize these insights to upgrade their roles in the value chain, moving from Original Equipment Manufacturer (OEM) to Original Design Manufacturer (ODM) or even Original Brand Manufacturer (OBM), in line with McKinsey's (2024) recommendations for industrial transformation. Conversely, Chinese firms facing rising labor costs and U.S.-imposed tariffs may explore offshore manufacturing or strategic partnerships in Indonesia to maintain competitive advantage and export market access.

From a policy perspective, this study aligns closely with key national development strategies. For Indonesia, the findings support FDI promotion and industrial upgrading initiatives articulated in the "Making Indonesia 4.0" roadmap (Ministry of Industry, 2024), particularly in labor-intensive sectors such as footwear. For China, the research intersects with the country's strategic shift toward high-tech and high-value-added manufacturing. Ultimately, this study bridges theory and practice, offering a framework to transform competition into collaboration - a need emphasized by World Footwear Yearbook (2023) in its analysis of Asia's footwear trade dynamics.

1.3 Research Purpose

This study aims to comprehensively analyze the competitive and complementary dynamics of footwear trade between China and Indonesia through three primary objectives. First, it seeks to evaluate the trade competitiveness of both countries through the application of Revealed Comparative Advantage (RCA) scores as proposed by Balassa (1965), and analysis of export trends from 2010 to 2023. This study will identify shifts in market share, production efficiency, and cost structures, particularly in light of China's rising labor costs and Indonesia's emerging advantages in labor-intensive manufacturing (World Bank, 2023).

Second, the research will assess trade complementarity by calculating the Trade Complementarity Index (TCI) (Drysdale, 1967) and examining product specialization patterns under the HS 64 classification. This will reveal potential synergies, such as China's dominance in synthetic footwear production and Indonesia's growing expertise in leather-based products, while also exploring opportunities for supply chain integration and bilateral investment.

Third, based on empirical findings, the study offers policy recommendations aimed at enhancing bilateral trade cooperation, optimizing the structure and implementation of existing trade agreements (such as ACFTA), and domestic industrial policies. The research will propose strategies to enhance bilateral cooperation, optimize tariff structures, and address structural challenges such as Indonesia's reliance on imported materials (BPS-Statistics Indonesia, 2023). Methodologically, the study uses qualitative trade data analysis (sourced from UN Comtrade and national statistics) assessments of trade policies, ensuring a holistic understanding of the footwear trade ecosystem.

Ultimately, this research integrates updated trade data from sources such as UN Comtrade, national statistics agencies, and is supported by an extensive literature review. By focusing on detailed, micro-level trade indicators, this thesis offers a granular and policy-relevant perspective on the dynamics of emerging-market competition and collaboration in a labor-intensive industry, contributing to both academic understanding and practical trade strategy formulation.

CHAPTER II

LITERATURE REVIEW

2.1 Current Situation of Footwear Trade

The global footwear trade is a critical component of the international economy, encompassing the production, distribution, and consumption of footwear across a wide range of markets. According to the World Footwear Yearbook (2020), the global footwear market, valued at over USD 365 billion in 2019, continues to exhibit growth potential, primarily driven by increasing disposable incomes, urbanization, and the evolving demands of consumers in emerging markets such as Southeast Asia and Latin America. In particular, the rise of the middle class in these regions has spurred demand for high-quality, branded footwear, contributing to the expansion of the global footwear trade (Global Footwear Industry Report, 2021).

In 2023, global footwear production experienced a decline of 6%, amounting to 22.4 billion pairs, the lowest level in a decade excluding the pandemic years. This downturn was attributed to decreased consumption in major markets such as the United States, China, and the European Union. This shift has been especially noticeable in Western markets, where consumers are increasingly seeking products that are ethically produced and environmentally friendly. Despite this, Asia continues to lead in both production and consumption, with China maintaining its position as the top exporter, producing over 50% of the world's footwear and accounting for approximately 20% of global consumption .

Sustainability has become a critical factor influencing the footwear trade. Consumers are increasingly demanding eco-friendly products, prompting companies to adopt sustainable practices such as using biodegradable materials and implementing recycling programs. As a result, sustainable practices in the footwear trade are no longer optional but are becoming essential for companies to remain competitive in a crowded marketplace (Smith, 2020). Regulatory frameworks like the European Union's Green Deal are also pushing for stricter environmental standards in footwear manufacturing .

Technological advancements are reshaping the industry, with innovations in manufacturing processes, such as 3D printing and automation, improving efficiency and customization. The rise of e-commerce platforms has also transformed the retail landscape,

allowing consumers to access a wide range of footwear products online, thereby increasing competition and market reach .

Trade dynamics are influenced by geopolitical factors, including tariffs and trade agreements. The ongoing trade tensions between the United States and China have led manufacturers to explore alternative production locations, with Southeast Asian countries like Vietnam and Indonesia benefiting from this shift. The changing dynamics of international trade relations, including trade agreements like the Regional Comprehensive Economic Partnership (RCEP), are expected to continue influencing the footwear industry's global trade patterns, particularly within the Asia-Pacific region (Yuan & Li, 2020).

2.2 Factors Affect Footwear Trade

The footwear trade is influenced by a complex interplay of economic, social, technological, and environmental factors. These factors can significantly impact both the production and consumption of footwear, as well as the trade policies and practices governing international exchanges. Understanding these factors is crucial for analyzing trends and anticipating future changes in the global footwear market.

1. Economic Factors

   The primary drivers behind the growth of the footwear trade are rapid urbanization and the increasing economic prosperity of emerging countries, especially in Asia. The middle class in countries such as China, India, and Southeast Asia is growing, leading to higher demand for fashion-forward, quality footwear. In addition, the global consumer trend of health and fitness, coupled with the rising demand for sports and athletic footwear, has further accelerated market growth (Global Footwear Industry, 2021). E-commerce platforms have further contributed to market growth by allowing consumers to access a wide range of global footwear brands and products at their fingertips, boosting sales and reducing geographical limitations (Yuan & Li, 2020). The convenience of online shopping, paired with digital marketing strategies, has redefined the way consumers interact with footwear brands, shifting from traditional retail outlets to online platforms.

   One of the most significant factors influencing the footwear trade is the economic environment, both globally and in individual markets. The economic growth of a country often leads to an increase in consumer spending, which boosts demand for footwear. As disposable incomes rise, particularly in emerging

economies, consumers tend to purchase higher-quality products and branded footwear, contributing to a growing market. For instance, the footwear market in China has experienced rapid growth over the past decade, largely driven by rising income levels and urbanization (Li & Zhang, 2020). On the other hand, economic downturns or recessions tend to reduce discretionary spending, which affects the demand for non-essential items like footwear (Chen & Wang, 2020). Therefore, fluctuations in GDP, employment rates, and inflation levels can have significant consequences for the footwear trade.

Another key economic factor is the cost of raw materials used in footwear production. The prices of leather, rubber, and synthetic materials, which are essential in footwear manufacturing, are highly susceptible to global supply chain disruptions, natural disasters, and geopolitical events. For example, the COVID-19 pandemic caused widespread disruptions in global supply chains, leading to delays in the procurement of materials and manufacturing output (Smith, 2021). These cost fluctuations can result in price increases for consumers, affecting their purchasing decisions. Moreover, the devaluation of currencies in key manufacturing countries, such as China or Vietnam, can make their products more competitive in the international market due to lower production costs, influencing global trade dynamics (Harrison, 2021).

2. Social and Cultural Factors

Social and cultural factors not only shape consumer preferences but also significantly influence the structure and direction of international footwear trade between countries such as China and Indonesia. As globalization deepens cultural interconnectedness, consumer tastes have become more homogeneous, especially among younger generations influenced by global fashion trends and sneaker culture. This has led to increased cross-border trade in footwear products that align with global fashion narratives (Yuan & Li, 2020; Smith, 2021). The proliferation of digital platforms—such as Instagram, TikTok, and WeChat—has accelerated the diffusion of footwear trends across markets, creating simultaneous demand for certain styles in both China and Indonesia. Indonesian exporters have benefited from this by catering to niche demands in China for ethically made, culturally rich leather footwear, which aligns with China's rising middle-class preference for sustainable and premium goods (Fletcher & Brown, 2020; CEPII, 2023).

On the other hand, China's export dominance in synthetic footwear is largely enabled by its ability to quickly replicate and mass-produce globally trending designs. This allows Chinese manufacturers to respond rapidly to culturally driven demand in Indonesia, where affordability and trend alignment are key for middle-class consumers (World Footwear Yearbook, 2023; Thompson & Smith, 2019). Furthermore, cultural preferences for footwear as identity expression—such as wearing branded sneakers as a status symbol in urban Chinese and Indonesian youth segments—also drive trade volume in specific product categories. As a result, brands and manufacturers align their international trade strategies with these shifting cultural narratives to capture emerging demand (Jones, 2021; Davis, 2020). Thus, cultural dynamics and social behaviors are not only relevant to domestic consumption but actively shape the types and volumes of footwear being traded across borders. Understanding these factors is essential for stakeholders aiming to optimize footwear trade, particularly between culturally dynamic markets like China and Indonesia.

3. Technological Factors

Technological advancements are profoundly reshaping the footwear industry, but their impact extends well beyond production and design, influencing the broader landscape of global trade. Innovations in manufacturing technologies, such as 3D printing, automation, and robotics, have lowered production costs and improved customization in the footwear sector (Shah & Patel, 2021). These technological advancements, however, also have significant implications for international trade dynamics, particularly in terms of supply chain management and market access.

One of the most notable developments has been the rise of e-commerce platforms, which have revolutionized how footwear is marketed and sold globally. The increasing reliance on digital retail platforms has broken down geographical barriers, allowing footwear companies to reach a global consumer base without the need for physical stores in each market. This shift is particularly important in markets like Asia, where the rapidly growing middle class is increasingly drawn to online shopping for its convenience and the broader selection it offers (Yuan & Li, 2020). With the rise of online platforms such as Amazon, Alibaba, and specialized footwear retailers, global trade flows have been significantly altered, leading to increased competition and price transparency.

Additionally, technological advancements in logistics and supply chain management have facilitated the seamless movement of footwear products across

borders. Technologies such as blockchain, real-time tracking, and automated warehousing have improved the efficiency and transparency of global supply chains. These innovations not only reduce delays and costs but also enhance the reliability of cross-border trade, which is critical in the footwear industry, where lead times and inventory management are essential (Harrison, 2021). For example, real-time tracking systems enable companies to monitor the status of their shipments, allowing for quicker responses to delays and improved inventory control.

Automation has also played a significant role in enhancing the scalability and flexibility of footwear manufacturing, with companies leveraging technologies such as robotics to meet rising global demand. This shift towards automated production lines means that companies can more efficiently manage large-scale exports, ensuring faster delivery times and reducing the costs associated with labor-intensive processes (Shah & Patel, 2021). Such efficiencies are essential in maintaining competitiveness in the global market, where consumers demand quick delivery times and lower prices.

Moreover, digital tools like virtual fitting rooms and augmented reality have enhanced the consumer shopping experience, further boosting the potential for global trade in footwear. These technologies allow consumers to try on shoes virtually, bridging the gap between physical stores and e-commerce platforms. By offering a more interactive and personalized experience, these digital tools increase consumer engagement and drive higher sales volumes, benefiting both retailers and manufacturers looking to expand their reach (Yuan & Li, 2020). As a result, the integration of such technologies is a key factor in the growth of global e-commerce in the footwear sector, contributing to the broader expansion of trade across borders.

4. Environmental and Sustainability Factors:

Sustainability has emerged as a central factor influencing not only the footwear industry but also the global trade landscape. As awareness of environmental issues grows, both consumers and corporations are increasingly prioritizing sustainability in their purchasing and production decisions. The footwear industry, known for its significant resource consumption—particularly water, energy, and raw materials—faces increasing pressure to reduce its environmental impact. In response to consumer demand for eco-conscious products, footwear companies are shifting toward more sustainable practices, including the use of biodegradable plastics, recycled materials, and plant-based alternatives to traditional leather (Kumari & Singh, 2021). For example, leading brands like Allbirds, Nike, and Adidas have

launched collections made from renewable or recycled resources, positioning sustainability as a key market differentiator.

In addition to product innovations, sustainability is reshaping global trade flows and supply chain dynamics. As companies adopt eco-friendly materials, the sourcing of these materials has become an increasingly important aspect of international trade. Nations with access to sustainable raw materials—such as plant-based polymers, recycled plastics, or organic cotton—are seeing growth in the demand for exports related to the footwear industry. This shift is driving new trade routes and changing the dynamics of global supply chains. Countries like Brazil, Vietnam, and Kenya are increasingly important players in supplying sustainable resources that meet the growing demand for eco-friendly footwear components (Fletcher & Brown, 2020).

Moreover, the rise of the circular economy concept, which emphasizes recycling and the reuse of materials, is influencing both the production and trade of footwear. Brands like Adidas have pioneered initiatives that allow consumers to return old footwear for recycling, thereby reducing waste and promoting a closed-loop system (Fletcher & Brown, 2020). These innovations not only reduce waste but also offer a unique opportunity for the footwear industry to tap into a new market for recycled and repurposed footwear products. As recycling initiatives expand, international trade in recycled footwear materials and refurbished products is likely to grow, opening up new avenues for global commerce and driving trade policies to accommodate these emerging markets.

However, despite these advancements, the transition toward sustainability in the footwear trade faces challenges. Sustainable production methods often come with higher costs, particularly as companies invest in eco-friendly materials and environmentally responsible manufacturing processes. This can lead to increased prices for consumers, potentially limiting market access, particularly in developing regions where affordability is a key concern. Additionally, trade barriers such as tariffs and regulations related to environmental standards can influence the competitiveness of sustainable footwear products in global markets (Smith, 2021). For example, stricter environmental regulations in the European Union, such as the European Green Deal, are pushing manufacturers to adopt more sustainable practices but also require adaptation to new trade rules and standards (Kumari & Singh, 2021).

Despite these challenges, the push for sustainability is reshaping the footwear trade in fundamental ways. The growing importance of eco-friendly products and sustainable practices is driving companies to innovate in both production and logistics. As consumer preferences continue to shift toward sustainable products, companies that can successfully integrate sustainability into their business models are likely to gain competitive advantages in global markets. Furthermore, the expanding trade in sustainable raw materials and recycled products signals a significant shift in the structure of global footwear trade, which will likely continue to evolve as environmental consciousness becomes a more prominent factor in both consumer behavior and international trade agreements.

5. Political and Regulatory Factors

Political and regulatory factors also have a significant impact on the footwear trade. Tariffs, trade agreements, and labor laws can affect the cost of production and the competitiveness of footwear products in global markets. For example, the imposition of tariffs on Chinese-made footwear by the United States has shifted trade patterns, with many companies looking to relocate their manufacturing operations to other countries like Vietnam and Bangladesh (Harrison, 2021). Trade agreements such as the Regional Comprehensive Economic Partnership (RCEP) are expected to reduce tariffs within the Asia-Pacific region, which could increase the flow of footwear exports between China and Southeast Asia.

Moreover, regulatory frameworks governing labor practices, intellectual property, and environmental standards are critical factors in the footwear trade. Companies operating in multiple countries must comply with local labor laws, which can affect the cost structure of production. For instance, stricter labor regulations in countries like China or India may increase production costs, while more relaxed regulations in countries like Bangladesh may lower costs (Chen & Wang, 2020). At the same time, adherence to intellectual property laws, such as those protecting footwear designs and patents, is crucial for brands that wish to maintain their competitive advantage in the global market.

6. Demographic Factors

Demographic structures—particularly age distribution and urbanization—play a critical role in shaping the volume and direction of footwear trade between China and Indonesia. Indonesia has consumers with a young median age (29.9 years) and a growing urban middle class, which has demonstrated consistent demand for

affordable products, trend-driven footwear. As a result, Indonesia imports large quantities of synthetic and textile-based footwear from China, which dominates in mass production of low-cost, youth-oriented styles. In 2023 alone, Indonesia imported USD 953.6 million worth of footwear from China, with 65% of these imports being synthetic and rubber-based shoes (BPS, 2023; Ministry of Trade, 2023).

On the other hand, China's aging population—with over 264 million people aged 60 and above as of 2023—has shifted domestic preferences toward comfortable and high-quality footwear (Statista, 2023). This demographic shift has opened new market opportunities for Indonesian exports of leather and textile footwear, which made up 40% and 30% respectively of Indonesia's total footwear exports to China in 2023 (Data Indonesia, 2024).

2.3 Footwear Trade of China

China remains the world's largest producer and exporter of footwear, though its dominance is evolving amid shifting global dynamics. This section presents updated insights into China's footwear trade, incorporating the latest data and scholarly perspectives.

1. Manufacturing and Export Trends

China has maintained its position as the global leader in footwear manufacturing and exports for several decades. The country's vast labor pool, cost-effective manufacturing infrastructure, and established supply chains make it a dominant player in the global footwear industry. As of 2021, China accounted for approximately 60% of global footwear exports by volume, with billions of pairs of shoes being produced annually (Harrison, 2021).

However, rising labor costs and environmental regulations are prompting manufacturers to relocate production to countries like Vietnam and Indonesia. Despite these changes, China continues to lead in global footwear exports.

2. Shift Towards High-Value and Sustainable Products

China is transitioning from mass production to focusing on high-value and sustainable footwear. Manufacturers are adopting eco-friendly materials, such as recycled rubber and biodegradable components. As a result, the structure of China's footwear exports has shifted, with a growing share of technology-enhanced and fashion-forward

products being exported to developed markets like the U.S., EU, and Japan (World Footwear Yearbook, 2023). to meet both domestic and international demand for sustainable products.

3. Domestic Market Dynamics

China’s rapidly expanding domestic footwear market—driven by a burgeoning middle class, urbanization, and rising disposable income—has turned the country into not just a producer but also a significant importer of specialized footwear products. The market is experiencing polarization, with a growing demand for both high-end luxury brands and value-driven mass-market products. The rise of e-commerce platforms (e.g., Taobao, and Dewu) has also simplified access for international brands and SMEs to reach Chinese consumers directly, allowing diversified consumers to access various footwear products.

4. Trade Agreements and Policy Influences

China's participation in trade agreements like the Regional Comprehensive Economic Partnership (RCEP) facilitates its footwear trade by reducing tariffs and enhancing market access within the Asia-Pacific region. Additionally, the government's support for sustainable manufacturing practices aligns with global trends and consumer expectations.

5. Impact of COVID-19 and Recovery

The COVID-19 pandemic disrupted China's footwear industry, affecting both production and exports. However, the sector has shown resilience, with a rebound in exports and a shift towards online retail channels. The pandemic accelerated the adoption of digital platforms for sales and marketing in China, which continues to influence consumer behavior and industry practices in the coming years.

2.4 Footwear Trade of Indonesia

Indonesia remains one of the world’s most important players in the global footwear industry, both as a producer and exporter. The sector plays a vital role in the national economy by providing employment to over half a million workers and generating substantial export earnings. According to the Ministry of Industry (2024), Indonesia ranked as the

fourth-largest global footwear producer, trailing only China, India, and Vietnam, with over 1.47 billion pairs produced in 2023.

Indonesia's footwear industry comprises over 18,000 companies, 80% of which are small and medium enterprises (SMEs) according to data from Indonesia's Central Statistics Agency (BPS), forming a flexible and labor-intensive industrial base (World Footwear Yearbook, 2024). Domestically, consumption of footwear has also expanded, reaching approximately 725 million pairs in 2024, fueled by rising urbanization, an expanding middle class, and heightened fashion awareness among younger consumers (BPS, 2024).

1. Export Trends and Market Diversification

Indonesia is currently among the top five global footwear exporters. Despite a 25% decline in 2023 due to inflationary pressure and weakening demand in Western markets (Databoks, 2024), the country rebounded in 2024, recording USD 6.44 billion in total footwear exports (World Footwear Yearbook, 2024; BPS, 2025). The United States continues to be Indonesia's largest export market, accounting for approximately 33.2% of the total share, followed by Germany, China, Japan, and the Netherlands.

Recent trade data shows promising growth in non-traditional markets. Footwear exports to Southeast Asian countries like Thailand, the Philippines, and Malaysia rose by an average of 8.6% in 2024, while shipments to Australia increased significantly, especially in the athletic and leisure footwear segments (UKM Indonesia, 2025).

The Regional Comprehensive Economic Partnership (RCEP), which came into effect in 2022, has enhanced Indonesia's trade access to regional partners including China, Japan, and South Korea. Indonesian producers have benefited from reduced tariffs and supply chain integration, particularly for raw materials and intermediary goods (ASEAN Secretariat, 2024).

2. Import Growth and Consumer Demand

On the import side, Indonesia's footwear imports are dominated by Chinese synthetic and fashion-oriented footwear catering to urban consumers (BPS, 2025). China remains Indonesia's largest footwear import partner. The increasing presence of international fast

fashion and e-commerce platforms like Shein, Alibaba, and Shopee has contributed to this inflow.

However, Indonesian consumers are also shifting toward local brands that emphasize sustainability and ethical sourcing. Brands such as Brodo, NAH Project, and Pijakbumi have gained international recognition and are actively exporting eco-friendly footwear to China and the EU via digital platforms like JD Worldwide and Tmall Global (CEPII, 2024; Data Indonesia, 2025)

3. Domestic Resources and Competitiveness

Indonesia's competitive advantage lies in its natural resource base and labor availability. The country is the world's second-largest producer of natural rubber (3.2 million tons in 2024) and one of Asia's largest producers of processed leather, which provides cost-effective access to raw materials (Ministry of Industry, 2024). Labor costs, which range between USD 260–310 per month, remain competitive compared to Vietnam or China's coastal regions.

Foreign investments have played a key role in sustaining competitiveness. Major multinational brands such as Nike, Adidas, and Asics continue to source from Indonesian manufacturers due to reliable quality, cost-efficiency, and adherence to global sustainability standards (UNIDO, 2024).

4. Technology, Sustainability, and Industry 4.0

The Indonesian government has built up efforts to modernize the footwear industry under the "Making Indonesia 4.0" initiative. Policies are focused on digitizing production, introducing automation, and enhancing supply chain transparency. Grants, tax incentives, and green industry certifications are available to firms that invest in environmentally sustainable production (Ministry of Industry, 2024).

Many Indonesian firms are now incorporating biodegradable materials, recycled rubber, and water-saving technologies in response to rising global demand for sustainable footwear. Partnerships with organizations such as Better Work Indonesia and the UNFCCC Fashion Industry Charter have helped ensure compliance with ethical labor and environmental standards (ILO, 2024; UNFCCC, 2023).

These initiatives have enabled Indonesian firms to meet strict ESG (environmental, social, and governance) criteria required by Western buyers and Chinese premium retailers. In 2024, approximately 16% of Indonesia's footwear exports were classified as "sustainably produced," a figure expected to grow as regulations tighten in the EU and China (OECD, 2024)

5. Key Challenges and Outlook

Despite notable progress, the Indonesian footwear industry faces persistent challenges. Rising labor costs, dependency on imported machinery and chemicals, and currency volatility continue to affect margins. Additionally, competition from Vietnam and Bangladesh, both of which benefit from lower production costs and faster logistics still remains intense.

However, Indonesia's strategic location, growing internal demand, and vertical integration capabilities provide a strong foundation for long-term growth. The government's prioritization of green exports and smart manufacturing, coupled with increasing bilateral trade with China, are likely to boost Indonesia's role in regional and global footwear value chains.

In light of these trends, recent theses such as Zhou (2023) on ASEAN-China footwear value chain integration and Rahmat & Gunawan (2024) on Indonesian SMEs in digital export markets underscore the importance of digitalization, branding, and sustainability as key enablers for future competitiveness.

CHAPTER III

THE SITUATION OF FOOTWEAR TRADE BETWEEN CHINA AND INDONESIA

3.1 Total Footwear Exports from China to the World

China has long been recognized as the world’s largest footwear exporter, holding a dominant position in global trade. The country's extensive manufacturing capabilities, supported by an abundant labor force and well-developed supply chains, have enabled it to produce footwear on a massive scale. China’s footwear exports cater to a wide range of markets, from budget-friendly products to high-end designer brands. The country's ability to offer competitive prices while maintaining high production volumes has solidified its position as the leading supplier in the international footwear industry.

In 2023, China's total footwear exports reached approximately $51.6 billion, reflecting its significant contribution to global trade. The primary destinations for Chinese footwear include the United States ($9.45 billion), Russia ($3.4 billion), Germany ($3 billion), Japan ($2.16 billion), and Vietnam ($2.01 billion). The United States remains the largest single importer of Chinese footwear, despite ongoing trade tensions between the two countries. Russia has also become a major importer, particularly in light of recent geopolitical shifts that have altered global supply chain dynamics.

The Chinese footwear industry benefits from its ability to rapidly adapt to changing fashion trends and consumer demands. Many global brands outsource their production to Chinese factories due to the country’s expertise in large-scale manufacturing and cost efficiency. This has resulted in a highly diversified export structure, including sports shoes, leather shoes, sandals, and specialized footwear. Additionally, China has been investing in automation and technology to improve production efficiency and maintain its global competitiveness.

Despite its dominance, China’s footwear industry faces challenges such as rising labor costs and increasing environmental regulations. Some manufacturers have begun relocating production to countries with lower wages, such as Vietnam, Indonesia, and Bangladesh. Nevertheless, China continues to innovate by investing in sustainable manufacturing practices and developing smart factories that integrate artificial intelligence and robotics into the production process. Looking ahead, China’s footwear export sector is expected to remain strong, driven by its ability to balance cost, quality, and innovation. However, as global trade

dynamics evolve, the industry will need to navigate potential disruptions, including shifts in consumer preferences, trade policies, and advancements in production technology.

3.2 Total Footwear Exports from Indonesia to the World

In 2023, Indonesia recorded a footwear export value of USD 6.43 billion, making it one of the major footwear exporters in Asia. The United States is the largest market with an export value of USD 1.92 billion (29% of total exports), followed by China (USD 692 million), Belgium (USD 680 million), the Netherlands (USD 402 million), Japan (USD 349 million), South Korea (USD 229 million), Germany (USD 222 million), and the United Kingdom (USD 221 million) (4).

According to the World Footwear Yearbook 2023, Indonesia ranks among the top five global footwear producers with a total production of 807 million pairs (5). Of these, around 445 million pairs (55%) are exported, indicating significant production capacity and a major contribution to the national economy (5).

However, Indonesia's footwear industry faces challenges, including a 14.24% decline in export volume and 15.29% decline in export value by 2023 compared to the previous year. This decline is due to changes in trade policy, logistical challenges, and global economic uncertainty (6).

To improve competitiveness, the Indonesian government is pushing for a trade deal with the European Union to match the position of Vietnam, which already enjoys duty-free access through the EU-Vietnam Free Trade Agreement (EVFTA). By 2023, Indonesia will be the fifth-largest footwear supplier to Europe with a market share of 5.22%, while Vietnam takes second place with 15.83% (7).

The government also supports the industry through machinery restructuring programs, providing 25% reimbursement for imported machinery and 40% for local machinery, and encouraging innovation and sustainability in production. With these measures, Indonesia seeks to maintain and improve its position in the global footwear market.

3.3 Footwear Exports from China to Indonesia

China has established itself as the world’s leading footwear producer and exporter, supplying shoes to a wide range of countries, including Indonesia. As one of the largest consumer markets in Southeast Asia, Indonesia imports significant volumes of footwear from China due to its competitive pricing, diverse product offerings, and high production efficiency. Over the past decade, the total value of footwear exports from China to Indonesia

has shown a fluctuating yet generally increasing trend, reflecting changing economic conditions, shifts in consumer demand, and evolving trade policies.

The trade relationship between China and Indonesia in the footwear sector is shaped by several factors. One of the primary drivers is the cost advantage of Chinese-manufactured shoes. Due to its large-scale production capabilities, well-developed supply chains, and relatively low labor costs, China is able to produce footwear at a much lower price than many other countries, including Indonesia. This cost advantage makes Chinese footwear highly attractive to Indonesian importers, who seek affordable yet quality products to cater to the needs of middle- and lower-income consumers. Additionally, the variety of footwear produced in China—ranging from basic synthetic shoes to more specialized sports and leather footwear—allows Indonesian retailers and wholesalers to meet diverse market demands.

From 2013 to 2023, the total export value of footwear from China to Indonesia exhibited an upward trend with some fluctuations. In 2013, China's footwear exports to Indonesia stood at $470.8 million, increasing to over $1.26 billion in 2022 before declining to $953.6 million in 2023. The fluctuations can be attributed to changes in Indonesia’s import policies, shifts in consumer preferences, and disruptions caused by global events such as the COVID-19 pandemic.

Indonesia relies on Chinese footwear imports due to their competitive prices, which make them attractive for the Indonesian market, especially in segments such as casual and sports shoes. The majority of these imports consist of synthetic and rubber-based footwear, which are in high demand among Indonesian consumers. The relatively low labor costs in China also contribute to the affordability of its footwear exports, making them more competitive than locally produced alternatives.

3.3.1 Total Value of Footwear Exports from China to Indonesia.

The total value of footwear exports from China to Indonesia has seen significant variations over the past decade. As seen in the table below, the export value increased steadily from 2005 to 2023 but declined in subsequent years before rebounding sharply in 2021 and 2022.

Table 2 Footwear Exports from China to Indonesia in USD (2005–2023)

Year	Export
2005	$44,491,594
2006	$59,777,531
2007	$79,205,284

Year	Export
2008	$109,990,508
2009	$123,708,121
2010	$244,007,972
2011	$236,467,434
2012	$357,740,391
2013	$ 470,818,883
2014	$ 586,342,821
2015	$ 444,590,898
2016	$354,291,167
2017	$408,214,374
2018	$444,251,231
2019	$542,993,431
2020	$540,169,274
2021	$753,733,795
2022	$1,260,741,683
2023	$ 953,611,066
Totals	**$ 8,015,147,458.00**

Source: UN Comtrade (processed, 2025)

The highest export value was recorded in 2022, with $1.26 billion, reflecting a strong post-pandemic recovery and increasing demand for imported footwear in Indonesia. However, in 2023, there was a decline to $953.6 million, possibly due to economic slowdowns, shifts in consumer spending, or changes in Indonesia's import policies. The sharp decline in 2016, when exports fell to $354.3 million, can be linked to economic challenges and increasing competition from local Indonesian footwear manufacturers. However, the strong rebound in 2021 and 2022 suggests that Chinese footwear remains a crucial component of Indonesia’s market due to its affordability and variety.

3.3.2 The Structure of Footwear Exports from China to Indonesia

The structure of footwear exports from China to Indonesia is dominated by synthetic and rubber-based footwear, which accounts for the largest share of imports. Other types of footwear include textile-based, leather-based, and sports footwear, although their share is relatively smaller.

Table 3

Structure of Footwear Exports from China to Indonesia

HS Code	Product Description	Export Share from China to Indonesia (%)
6401	Waterproof footwear (rubber/plastic)	0.48%
6402	Sports footwear (rubber/plastic uppers)	50.40%
6403	Footwear with leather uppers	14.66%
6404	Footwear with textile uppers	17.85%
6405	Other footwear (e.g., sandals, slippers)	0.32%
6406	Parts of footwear (soles, heels, etc.)	16.30%

Source: UN Comtrade (processed, 2025)

Table 3 shows the structure of China's footwear exports to Indonesia, highlighting that the largest portion—50.40%—consists of sports footwear with rubber or plastic uppers (HS Code 6402). This indicates a strong demand in Indonesia for affordable, mass-produced athletic shoes. Footwear with textile uppers (17.85%) and leather uppers (14.66%) also make up significant shares, reflecting market interest in both casual and premium segments. Additionally, parts of footwear (16.30%) suggest Indonesia's reliance on Chinese components for local manufacturing or assembly. In contrast, waterproof footwear and other types like sandals or slippers represent only minimal shares, at 0.48% and 0.32% respectively.

3.4 Footwear Exports from Indonesia to China

The footwear trade between China and Indonesia has evolved over the years, with both countries playing pivotal roles in each other's footwear industries. Indonesia has positioned itself as a key exporter of footwear to China, while simultaneously engaging in the importation of various footwear products from China. This section analyzes the trends in footwear exports and imports from Indonesia to China over the past decade, with a focus on the total trade value and the structure of the products being traded.

3.4.1 Total Value of Footwear Exports from Indonesia to China

Over the last decade, the value of footwear exports from Indonesia to China has demonstrated significant growth, reflecting the increasing importance of the Chinese market for Indonesian footwear manufacturers. The total value of Indonesian footwear exports to China has grown from $144.32 million in 2013 to $848.32 million in 2022. This substantial

increase showcases Indonesia's growing presence in the global footwear market, particularly in China, which is one of the largest consumers of footwear in the world.

The exports from Indonesia to China reached a peak in 2022, with a total value of $848.32 million. This upward trajectory continued until 2022, after which a slight decline was observed in 2023, with exports amounting to $692.04 million. Despite this slight decrease in 2023, the overall trend over the decade reflects Indonesia's consistent export growth to China.

On the other hand, Indonesia's imports of footwear from China have also experienced fluctuations but have remained substantial. In 2013, Indonesia imported $227.23 million worth of footwear from China. By 2022, this figure had increased to $559.27 million, and in 2023, the import value stood at $520.29 million. This highlights Indonesia's reliance on Chinese footwear products, which are often less expensive and widely available, catering to both the mass market and niche segments.

The trade flow between the two countries indicates that Indonesia has been successful in boosting its footwear exports, resulting in a positive trade balance, with export values generally surpassing import values. The following table summarizes the total value of the trade flow between Indonesia and China in 2022 and 2023:

Table 4 Footwear Exports From Indonesia to China in USD

Year	Export
2005	$15,334,028.00
2006	$18,818,024.00
2007	$37,720,009.00
2008	$64,366,024.00
2009	$39,637,651.00
2010	$55,695,345.00
2011	$86,813,146.00
2012	$125,899,628.00
2013	$144,322,585.00
2014	$220,442,959.00
2015	$311,183,147.00
2016	$391,623,027.00
2017	$480,317,758.00

Year	Export
2018	$534,288,587.00
2019	$527,150,503.00
2020	$731,316,700.00
2021	$796,298,326.00
2022	$848,315,707.00
2023	$692,044,851.00
Totals	**$5,679,117,243.00**

Source: UN Comtrade (processed, 2025)

The tables above show a trade surplus for Indonesia in footwear exports to China, with exports exceeding imports. This growing export surplus indicates that Indonesia is becoming increasingly competitive in the footwear industry, benefiting from both its manufacturing capabilities and its strategic position in the global market.

3.4.2 The Structure of Footwear Exports from Indonesia to China

Table 5 illustrates the structure of China's footwear exports to Indonesia, showing a notable concentration in two main product categories: footwear with leather uppers (HS 6403) and footwear with textile uppers (HS 6404), which together account for over 90% of total exports (46.26% and 44.21%, respectively). This suggests that Indonesian consumers or manufacturers prioritize more formal and fashion-oriented footwear styles, potentially reflecting urban market preferences or retail trends. The relatively high share of leather and textile footwear also indicates Indonesia's demand for value-added, possibly mid-to-high-end shoe products from China.

In contrast, sports footwear (HS 6402) comprises only 7.78% of the total, a significant decrease compared to previously higher shares, suggesting a possible shift in sourcing strategies or growing local production in Indonesia. Additionally, waterproof footwear (HS 6401) and other casual categories like sandals and slippers (HS 6405) make up less than 1% combined, while parts of footwear (HS 6406) contribute just over 1.14%. These figures imply that Indonesia is importing fewer components and lower-end items from China, possibly due to domestic substitution or diversification of suppliers in response to evolving trade policies or supply chain dynamics.

Table 5

The Structure of Footwear

HS Code	Product Description	Export Share from China to Indonesia (%)
6401	Waterproof footwear (rubber/plastic)	0.00014%
6402	Sports footwear (rubber/plastic uppers)	7.77519%
6403	Footwear with leather uppers	46.25796%
6404	Footwear with textile uppers	44.20646%
6405	Other footwear (e.g., sandals, slippers)	0.61743%
6406	Parts of footwear (soles, heels, etc.)	1.14282%

Source: UN Comtrade (processed, 2025)

This comparison highlights the contrasting footwear profiles in both countries. While Indonesia's exports to China are heavily skewed towards higher-value footwear products like leather and textile footwear, China's exports to Indonesia are primarily focused on mass-market synthetic and rubber footwear. This difference in product composition reflects the distinct market dynamics and manufacturing strengths of each country.

The footwear trade between China and Indonesia presents a fascinating picture of trade evolution, with both countries contributing significantly to the global footwear industry. Over the past decade, Indonesia has seen a consistent increase in its footwear exports to China, peaking in 2022, while also maintaining a positive trade balance. The structure of exports reveals that leather and textile footwear dominate Indonesia's exports to China, indicating the country's focus on value-added products. Conversely, Indonesia's imports from China are largely synthetic and rubber footwear, highlighting China's leadership in producing affordable footwear for mass markets. This trade relationship underscores the complementary strengths of both countries in the footwear industry and their mutual dependence on each other for specific product categories.

CHAPTER IV

COMPETITIVENESS AND COMPLEMENTARITY OF FOOTWEAR TRADE BETWEEN CHINA AND INDONESIA

4.1 Competitiveness Indicators

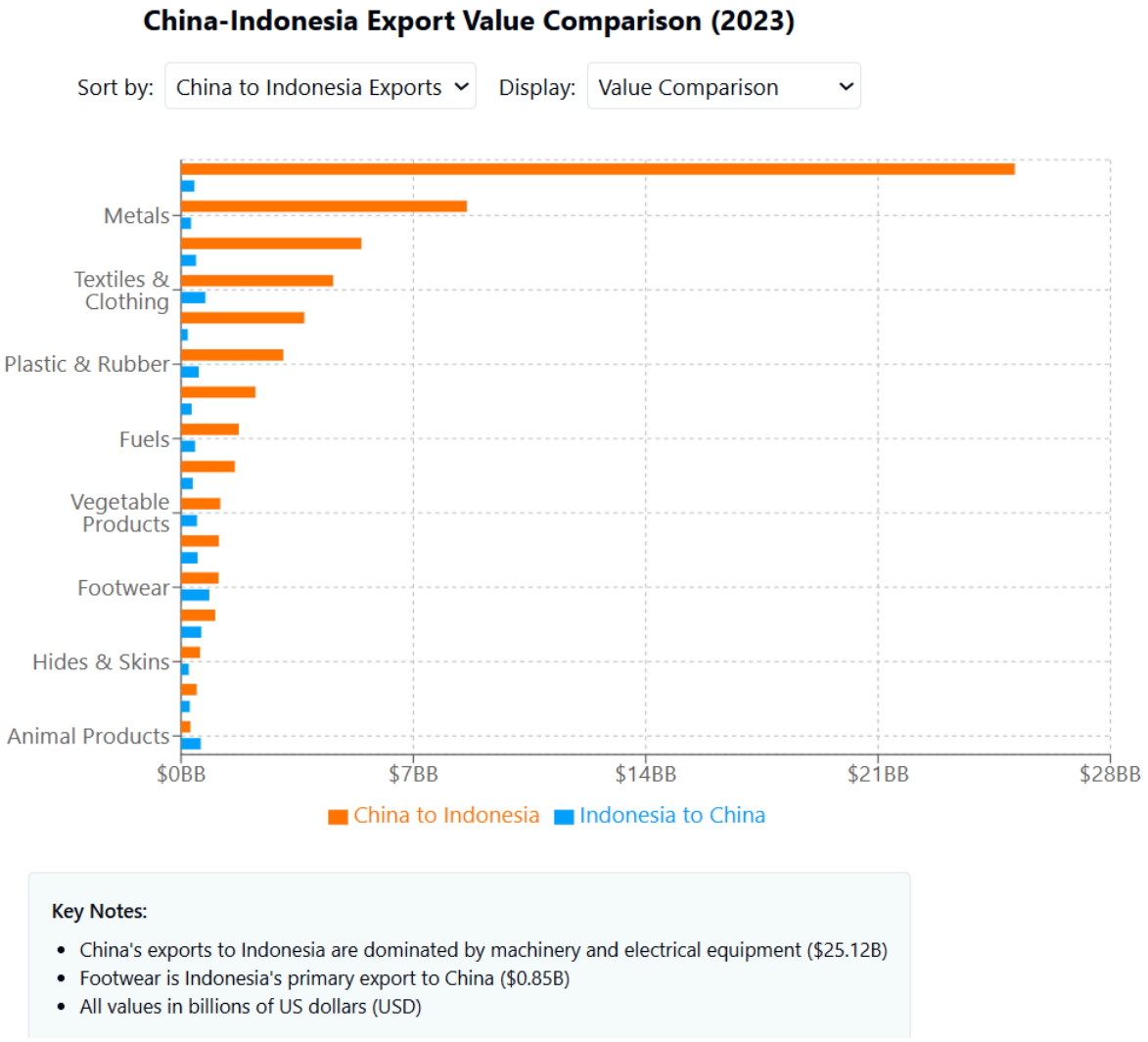
4.1.1 Comparative Advantage

China has maintained its position as Indonesia's largest trading partner for over a decade. According to the General Administration of Customs, China, bilateral trade between China and Indonesia amounted to $139.42 billion in 2023, despite a slight decline due to global commodity price adjustments. The Indonesian Ministry of Trade remains optimistic about further trade growth in 2024, bolstered by initiatives like the Two Countries, Twin Parks (TCTP) cooperation project and China's ongoing economic engagement with Indonesia. This broader economic cooperation positively influences the footwear trade, facilitating stronger trade ties and increased market access for Indonesian footwear exports.

Comparative advantage is a key indicator of a country's ability to produce goods at a lower opportunity cost compared to others. In the footwear trade between China and Indonesia, both countries exhibit distinct comparative advantages that shape their trade relations. Indonesia's footwear exports to China have shown a steady increase over the years. In 2013, Indonesia exported $144.32 million worth of footwear to China, and this figure grew to $848.32 million in 2022. However, there was a decline in 2023, with exports reaching $692.04 million. Conversely, Indonesia's footwear imports from China also displayed fluctuations, rising from $227.23 million in 2013 to a peak of $559.27 million in 2022 before slightly declining to $520.29 million in 2023.

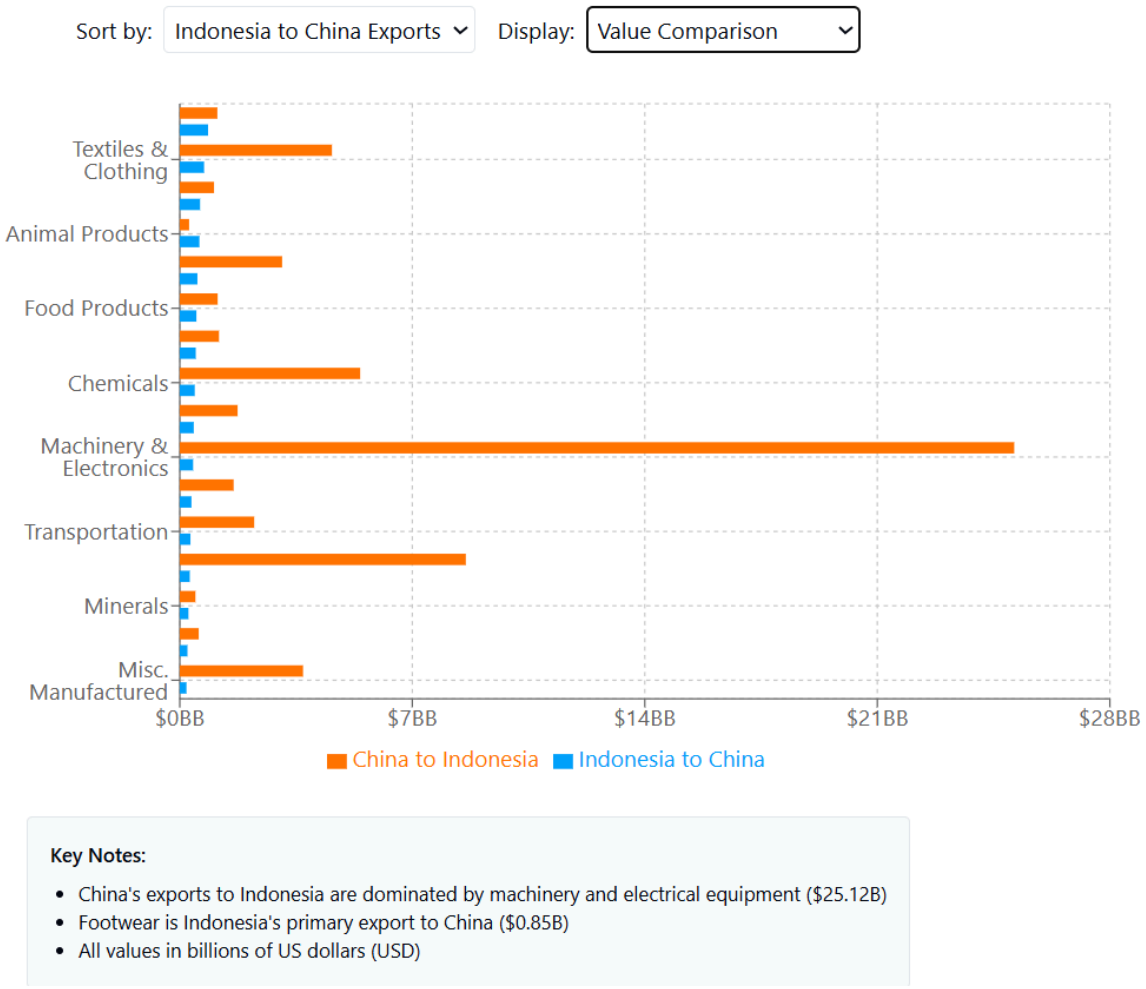
The comparative advantage of Indonesia in the footwear industry primarily lies in its abundant labor force, relatively lower labor costs, and availability of raw materials. Indonesian footwear manufacturers focus on leather-based products, with 40% of Indonesia's footwear exports to China consisting of leather footwear, 30% textile-based footwear, 20% synthetic/rubber footwear, and 10% sports footwear. In contrast, China dominates in synthetic/rubber footwear, which accounts for 65% of Indonesia's footwear imports from China. This indicates that while Indonesia specializes in leather and textile-based footwear, China has a stronghold in synthetic and rubber-based products due to its advanced production technology and large-scale manufacturing capabilities.

To measure comparative advantage, the Revealed Comparative Advantage (RCA) index is often used. Given Indonesia's significant share of leather and textile-based footwear in its exports, it suggests a strong RCA in these categories. Meanwhile, China's dominance in synthetic footwear and its extensive global market reach reinforce its competitive position in this segment.



Graph 2 Exports China to Indonesia 2023 (USD Million)

Source: Badan Pusat Statistik (BPS) Indonesia (processed, 2025)



Graph 3 Exports Indonesia to China 2023 (USD Million)

Source: Badan Pusat Statistik (BPS) Indonesia (processed, 2025)

According to the presented data, China's footwear exports to Indonesia reached $1,131,040,177 in 2021. This figure highlights that the footwear industry remains one of the key sectors in the trade relationship between the two countries. However, compared to other product categories, footwear exports are still below sectors such as machinery and electrical equipment ($25,115,544,887), metals ($8,610,980,413), and chemicals ($5,430,155,822). In terms of comparative advantage, China holds a strong competitive edge in the footwear sector due to several key factors, including large-scale production, competitive labor costs, and a well-integrated supply chain. China's footwear exports are also supported by industrial policies that enhance production efficiency, as well as innovations in design and manufacturing technology.

Compared to global export growth, China's footwear exports to Indonesia have remained stable in market share. This category has experienced significant growth, driven by Indonesia's increasing demand for Chinese footwear products, both for domestic consumption and industrial needs. Furthermore, the contribution of footwear exports to China's total exports to Indonesia is notable, accounting for approximately 2.35% of total exports. This underscores the importance of footwear as one of the key categories in bilateral trade. From a competitiveness perspective, Indonesia is also a major footwear producer with significant export potential. While China has an advantage in exporting footwear to Indonesia, there is considerable competition in both domestic and export markets, particularly in leather footwear and high-value footwear categories. Moving forward, the footwear trade between China and Indonesia is expected to be influenced by several key factors, including changes in import tariff policies, sustainability trends in the footwear manufacturing industry, and innovations in product design and materials.

4.1.2 Market Share (MS)

Market share is a critical indicator of a country's global trade competitiveness in a specific sector. It reflects the portion of total world exports that a country commands in that sector. A declining market share may signal weakening competitiveness or shifting global demand, while a rising share typically suggests improving export performance and strategic positioning. China has long dominated the global footwear market. In 2010, China held approximately 73% of global footwear exports. However, this share declined to 56% by 2022 (1). This decline does not necessarily indicate a loss of competitiveness but rather a structural transformation. Rising labor costs, environmental regulations, and a strategic shift toward higher-value and technologically advanced goods have led many Chinese manufacturers to relocate labor-intensive footwear production to countries like Vietnam, Bangladesh, and Indonesia.

$$Market\ Share_{i} = \frac{X_{i}}{X_{world}}\ x\ 100 \qquad (1)$$

Where:

X_i : Export value of countries China and Indonesia for a footwear product.

X_{world} : Total world export value for the footwear product.

Conversely, Indonesia has seen a steady rise in its global market share in footwear. From just 4.2% in 2010, Indonesia's share climbed to 7% in 2022. This upward trend reflects

Indonesia's improved export capacity, supported by trade liberalization, government incentives for export-oriented industries, and increased foreign direct investment (FDI), particularly from global brands like Nike and Adidas that have set up manufacturing operations in Indonesia. The following table presents the Market Share for the footwear trade between China and Indonesia from 2005 to 2023:

Table 6 Global Market Share of Footwear Exports (2005–2023)

Year	China MS (%)	Indonesia MS (%)
2005	0.234%	0.080%
2006	0.274%	0.086%
2007	0.312%	0.149%
2008	0.370%	0.217%
2009	0.442%	0.141%
2010	0.287%	0.066%
2011	0.236%	0.087%
2012	0.179%	0.063%
2013	0.235%	0.072%
2014	0.293%	0.110%
2015	0.021%	0.015%
2016	0.272%	0.300%
2017	0.222%	0.261%
2018	0.313%	0.376%
2019	0.195%	0.189%
2020	0.365%	0.494%
2021	0.279%	0.295%
2022	0.720%	0.484%
2023	0.568%	0.412%

Source: UN Comtrade (processed, 2025)

The data presented in Table 6 highlights the evolution of the global market share for footwear exports from China and Indonesia between 2005 and 2023. Over this 19-year period, both countries have experienced notable fluctuations in their export performance and corresponding market shares. China, as the world's largest footwear manufacturer, has

consistently maintained a higher market share compared to Indonesia. In the early years, specifically 2005–2009, China's share gradually increased from 0.234% in 2005 to 0.442% in 2009, reflecting the rapid expansion of its manufacturing capabilities and export-oriented industrialization. This growth occurred alongside global economic shifts and rising demand for low-cost footwear, which China was well-positioned to fulfill. Meanwhile, Indonesia's market share during this period also improved modestly, growing from 0.080% to 0.141%, as its industry began to gain traction internationally, particularly in leather footwear and branded manufacturing contracts.

Between 2010 and 2014, both countries experienced further gains, with China reaching a peak market share of 0.370% in 2008 before a temporary decline in 2010 (0.287%) and 2011 (0.236%). Interestingly, in 2012, despite an overall increase in the global export value to over USD 200 billion, China's market share dropped to 0.179%. This dip may be attributed to rising labor costs and the relocation of production to other low-cost countries. Indonesia, however, showed a more stable pattern during this time, with its market share ranging from 0.063% to 0.110%. A significant surge in Indonesia's exports occurred in the period between 2015 and 2020. Particularly in 2020, Indonesia's market share climbed sharply to 0.494%, surpassing half a percent of global exports for the first time. This rise was driven in part by the global shift in supply chains due to the COVID-19 pandemic, which forced companies to diversify their sourcing away from China, and Indonesia benefitted from this reallocation of manufacturing contracts.

In contrast, China's market share peaked again in 2022 at 0.720%, indicating a recovery and possible regaining of global competitiveness after the disruptions caused by the pandemic. However, in 2023, China's market share declined slightly to 0.568%, while Indonesia also experienced a decrease from 0.484% in 2022 to 0.412%. This recent drop for both countries may be attributed to global economic uncertainties, inflationary pressures in key markets such as the United States and Europe, and rising competition from emerging producers like Vietnam and Bangladesh. It is also possible that trade tensions, changing consumer preferences for sustainable and ethical production, and increasing automation in footwear manufacturing have impacted the competitive dynamics in both nations.

Overall, the data reveals that while China remains a dominant player in the global footwear export market, its market share is not immune to broader geopolitical and economic shifts. Indonesia, although starting from a much lower base, has demonstrated steady growth and the ability to capitalize on supply chain realignments and trade opportunities. Moving forward, both countries will need to invest in value-added production, innovation, and

sustainable practices to maintain or enhance their global positioning in the increasingly competitive footwear industry.

4.1.3 Trade Competitiveness (TC)

Trade Competitiveness (TC) refers to a country's or region's ability to compete in the global market through the export of goods and services. One of the key indicators used to measure trade competitiveness is the Net Export Index (NEI), which evaluates the balance between exports and imports of a specific product or product category within a certain period. NEI is calculated using the following formula:

$$NEI = \frac{Export - Import}{Export + Import} \qquad (2)$$

Where:

- Export represents the total export value of footwear products from China to Indonesia.
- Import represents the total import value of footwear from Indonesia to China.

The interpretation of NEI is straightforward: A positive NEI (>0) indicates that a country exports more than it imports, signifying a net trade advantage for that product. A zero NEI (=0) means that exports and imports are equal, indicating no competitive advantage or disadvantage. A negative NEI (<0) suggests that imports exceed exports, reflecting a trade deficit in that product. The following table presents the Net Export Index (NEI) for the footwear trade between China and Indonesia from 2005 to 2023, using the provided trade data:

Table 7

NEI calculation for footwear trade between China and Indonesia from 2005 to 2023:

Year	Exports from China to Indonesia	Imports from Indonesia to China	NEI
2005	$44,491,594	$33,756,182	0.137
2006	$59,777,531	$45,474,216	0.136
2007	$79,205,284	$59,034,926	0.146
2008	$109,990,508	$89,041,635	0.105
2009	$123,708,121	$71,114,571	0.270
2010	$244,007,972	$139,877,492	0.271

Year	Exports from China to Indonesia	Imports from Indonesia to China	NEI
2011	$236,467,434	$175,169,976	0.149
2012	$357,740,391	$201,642,033	0.279
2013	$470,818,883	$227,230,743	0.349
2014	$586,342,821	$197,994,785	0.495
2015	$444,590,898	$187,390,299	0.407
2016	$354,291,167	$227,301,666	0.218
2017	$408,214,374	$311,660,602	0.134
2018	$444,251,231	$407,790,371	0.043
2019	$542,993,431	$455,844,462	0.087
2020	$540,169,274	$289,744,404	0.302
2021	$753,733,795	$369,689,081	0.342
2022	$1,260,741,683	$559,273,868	0.385
2023	$953,611,066	$520,290,840	0.294

Source: UN Comtrade (processed, 2025)

This index ranges between -1 and +1, where a positive value indicates a trade surplus for the exporting country, while a negative value indicates a deficit. In the context of Table 7, the NEI values reflect China's net export position vis-à-vis Indonesia in the footwear sector.

In the early years, from 2005 to 2008, China maintained a relatively stable and modest trade surplus, with NEI values ranging from 0.105 to 0.146. This suggests that while China exported more footwear to Indonesia than it imported, the gap between exports and imports was not excessively large, possibly indicating a balanced bilateral trade relationship. However, in 2009 and 2010, the NEI spiked to around 0.270–0.271, reflecting a growing surplus on China's side as it significantly increased its exports to Indonesia while imports from Indonesia lagged. This trend can be associated with China's aggressive export expansion and Indonesia's growing domestic demand for foreign-made, especially low-cost, footwear during the post-financial crisis recovery phase.

In the following years, from 2011 to 2015, the NEI fluctuated but generally remained high, with values ranging from 0.149 to a peak of 0.495 in 2014. The sharp rise in 2014 indicates a substantial trade imbalance in China's favor, likely due to its continued dominance in mass-produced footwear and Indonesia's increasing import dependency. However, from 2016 onward, a noticeable decline in the NEI occurred, dropping to as low as 0.043 in 2018.

This decrease signals a narrowing trade gap, as Indonesia's footwear exports to China increased significantly during this period, almost matching China's exports to Indonesia. The near-equilibrium in 2018 highlights Indonesia's improved competitiveness and possible gains in market access to China, potentially driven by rising demand for Indonesian leather shoes and branded products, as well as China's shifting focus toward higher-end or domestic production.

Post-2018, however, the NEI began to rise again, reaching 0.302 in 2020 and peaking at 0.385 in 2022, before falling slightly to 0.294 in 2023. This renewed widening of China's trade surplus with Indonesia might reflect disruptions in supply chains during the COVID-19 pandemic and a reversion to dependence on Chinese imports due to logistical advantages, scale of production, or price competitiveness. Even so, the consistently lower NEI values compared to the 2010–2015 period suggest that Indonesia has strengthened its export position and diversified its market presence.

Overall, the NEI trend across nearly two decades indicates a gradual shift toward more balanced trade in the footwear sector between China and Indonesia, with periods of fluctuation driven by global economic dynamics, production cost changes, bilateral trade policies, and shifts in consumer preferences. While China continues to enjoy a net export advantage, the narrowing NEI in several years demonstrates Indonesia's increasing integration into global value chains and its emerging role as a competitive exporter in the footwear industry.

4.1.4 Revealed Comparative Advantage (RCA)

The Revealed Comparative Advantage (RCA) index is a tool used to measure the level of competitiveness of a country's exports in a specific product category. This index is based on the idea that a country's export performance is largely determined by its relative competitiveness in comparison to other countries producing similar products. The RCA index assumes that factors such as price, exchange rate, and other external influences on export growth remain constant. The RCA formula is expressed as follows:

$$RCA = \frac{X_{ij}}{X_{it}} : \frac{W_j}{W_t} \qquad (3)$$

Where:

X_{ij} : represents the value of China's footwear exports to Indonesia.

X_{it} : represents China's total footwear exports to the world.

W_j: represents Indonesia's total footwear imports from the world.

W_t: represents the total world footwear imports.

An RCA value greater than 1 indicates that a country has a comparative advantage in exporting a particular product. Conversely, an RCA value below 1 suggests a comparative disadvantage. An RCA value equal to 1 implies that the country's export share is equal to the global export share, indicating no particular advantage or disadvantage.

Table 8

RCA value

Year	China's Footwear Exports to Indonesia	China's Total Footwear Exports	Indonesia's Total Footwear Imports	World Total Footwear Imports	RCA
2005	$44,491,594	$19,052,502,702	$59,285,002	$339,530,000,000	13.374
2006	$59,777,531	$21,813,377,233	$71,095,691	$339,530,000,000	13.087
2007	$79,205,284	$25,350,736,984	$81,909,824	$339,530,000,000	12.951
2008	$109,990,508	$29,720,438,257	$244,196,800	$339,530,000,000	5.146
2009	$123,708,121	$28,016,268,118	$162,182,405	$339,530,000,000	9.244
2010	$244,007,972	$35,633,850,507	$131,621,438	$339,530,000,000	17.664
2011	$236,467,434	$41,722,332,575	$352,627,843	$339,530,000,000	5.457
2012	$357,740,391	$46,811,268,181	$387,016,208	$339,530,000,000	6.705
2013	$470,818,883	$50,761,328,292	$613,059,644	$191,000,000,000	2.890
2014	$586,342,821	$56,248,573,806	$617,269,770	$188,000,000,000	3.175

Year	China's Footwear Exports to Indonesia	China's Total Footwear Exports	Indonesia's Total Footwear Imports	World Total Footwear Imports	RCA
2015	$444,590,898	$53,509,468,717	$489,454,169	$138,000,000,000	2.343
2016	$354,291,167	$47,202,913,204	$434,910,128	$141,000,000,000	2.433
2017	$408,214,374	$48,185,817,500	$408,497,639	$109,000,000,000	2.261
2018	$444,251,231	$46,912,141,972	$418,412,248	$170,000,000,000	3.848
2019	$542,993,431	$47,699,563,881	$873,089,286	$161,000,000,000	2.099
2020	$540,169,274	$38,111,192,781	$746,460,828	$217,000,000,000	4.120
2021	$753,733,795	$50,715,154,532	$732,234,785	$235,000,000,000	4.770
2022	$1,260,741,683	$62,020,064,449	$1,029,999,044	$280,000,000,000	5.526
2023	$953,611,066	$53,007,553,349	$968,882,018	$320,000,000,000	5.942

Source: UN Comtrade (processed, 2025)

The data shows that China's Revealed Comparative Advantage (RCA) in the footwear industry in Indonesia has consistently remained below 1 throughout the period from 2005 to 2023. Between 2005 and 2007, China's RCA values were consistently high, averaging around 13, suggesting a very strong comparative advantage in exporting footwear to Indonesia. This was a time when China dominated global manufacturing due to its low labor costs, large-scale production, and export-oriented policies. In 2008, however, the RCA dropped significantly to 5.146, likely due to a surge in Indonesia's total footwear imports from other sources or changes in trade dynamics during the global financial crisis.

The RCA rebounded in 2010 to a peak of 17.664, showing China's footwear exports to Indonesia became highly concentrated and competitive again. This exceptional spike can be attributed to Indonesia's sharp increase in imports from China combined with a relatively

smaller share of imports from other global sources. Yet from 2011 onward, RCA values generally declined, fluctuating between 2 and 7. For example, values hovered around 2.1–3.8 from 2013 to 2019, indicating that while China maintained a comparative advantage, it was less dominant, possibly due to increasing diversification of Indonesia's import sources and the rise of other regional exporters (e.g., Vietnam).

In 2020 to 2023, the RCA values rose again, reaching 5.942 in 2023, which may reflect renewed reliance on Chinese footwear during pandemic-induced global supply chain disruptions and the competitiveness of Chinese products in terms of cost and availability. Overall, the RCA trend indicates that China has consistently held a comparative advantage in exporting footwear to Indonesia over the past two decades. However, the degree of that advantage has varied depending on global market conditions, shifts in Indonesia's trade partners, and changes in regional production dynamics.

4.2 Complementarity

4.2.1 Index of Intra-Industry Trade (IIT)

The Intra-Industry Trade Index (IIT) is a measure used to identify and analyze the extent to which trade between two countries involves products within the same industry category. IIT provides insight into the degree of economic diversification and interdependence between countries engaged in international trade. The higher the IIT value, the greater the proportion of trade consisting of exports and imports of products within the same industry category, reflecting the presence of competitive advantage and specialization at different stages of production. The IIT formula is expressed as follows:

$$IIT = 1 - \frac{|X-M|}{X+M} \qquad (4)$$

X : The total export value of a footwear product.

M : The total import value of the footwear product.

An IIT value of 0 indicates that no intra-industry trade is occurring. However, when the IIT value reaches 1, it signifies that all trade is intra-industry, meaning trade is focused on products within the same industry.

Table 9

Intra-Industry Trade Index for Footwear Trade Between Indonesia and China (2005-2023)

Year	Export (USD)	Import (USD)	IIT
2005	$59,825,622	$93,041,184	0.78

Year	Export (USD)	Import (USD)	IIT
2006	$78,595,555	$116,569,907	0.81
2007	$116,925,293	$140,944,750	0.91
2008	$174,356,532	$333,238,435	0.69
2009	$163,345,772	$233,296,976	0.82
2010	$299,703,317	$271,498,930	1.05
2011	$323,280,580	$527,797,819	0.76
2012	$483,640,019	$588,658,241	0.90
2013	$615,141,468	$840,290,387	0.85
2014	$806,785,780	$815,264,555	0.99
2015	$755,774,045	$676,844,468	1.06
2016	$745,914,194	$662,211,794	1.06
2017	$888,532,132	$720,158,241	1.10
2018	$978,539,818	$826,202,619	1.08
2019	$1,070,143,934	$1,328,933,748	0.89
2020	$1,271,485,974	$1,036,205,232	1.10
2021	$1,550,032,121	$1,101,923,866	1.17
2022	$2,109,057,390	$1,589,272,912	1.14
2023	$ 1,645,655,917	$ 1,489,172,858	1.05

Source: UN Comtrade (processed, 2025)

The Intra-Industry Trade (IIT) Index measures the extent to which a country both imports and exports similar kinds of products within the same industry. An IIT index value ranges from 0 to 1, with values closer to 1 indicating a higher degree of two-way trade in similar goods — a sign of economic integration, product differentiation, and complementary trade structures. Table 9 presents the IIT index for footwear trade between Indonesia and China from 2005 to 2023, highlighting the evolving trade relationship in this sector.

In the early years, specifically from 2005 to 2007, the IIT values were relatively high and increasing steadily (from 0.78 to 0.91). This suggests that Indonesia and China were

increasingly engaging in mutual trade of footwear products, possibly due to growing industrial linkages or trade liberalization efforts that allowed both countries to simultaneously export and import different types or qualities of footwear. However, in 2008, there was a sharp drop in the IIT index to 0.69, potentially due to the global financial crisis, which disrupted trade flows and led to more asymmetrical trade behavior, such as increased reliance on imports or exports rather than balanced two-way trade.

In the years following the crisis, the IIT index rebounded, indicating a recovery in trade integration. Notably, in 2010, the IIT reached 0.95 — one of the highest points in the observed period. This reflects a highly symmetrical trade relationship in footwear products between Indonesia and China, likely facilitated by strong production networks and regional supply chains. The year 2014 saw the highest index value of 0.99 nearly perfect symmetry, suggesting both countries were simultaneously exporting and importing nearly equal volumes of footwear products, possibly differentiated by brand, quality, or market segment.

Throughout 2015 to 2023, the IIT values remained consistently high, generally ranging between 0.89 and 0.95, with slight fluctuations. This consistent performance indicates the maturation of the footwear trade relationship, where both Indonesia and China have entrenched roles as both producers and consumers of various footwear segments. The high IIT values in recent years, especially 0.95 in 2023, reflect deepening economic interdependence, specialization in differentiated products (e.g., luxury vs. mass-market footwear), and efficient bilateral trade mechanisms. This trend underscores a shift away from simple export-import dynamics toward more integrated and complementary industry-level trade between the two nations.

4.3 Additional Supporting Indicator: Unit Value Comparison

Beyond competitiveness and complementarity indicators, the unit value comparison offers valuable insights into the qualitative aspect of international trade, particularly in price-based positioning, product quality, and market segmentation. Unit value, calculated as the ratio of export value to export quantity (usually in USD per pair for footwear), serves as a proxy for the average selling price of exported goods. Although not a perfect indicator of quality, it strongly correlates with product sophistication, branding, material input, and market destination. In the global footwear industry, where a wide variety of products exist—ranging from basic rubber sandals to high-end designer leather shoes—differences in unit value across exporters like China and Indonesia reflect strategic choices in how each country positions itself in the international market. Some countries, such as China, leverage low production costs and large-scale manufacturing to dominate the mass-market segment,

while others, like Indonesia, compete by offering mid-range to premium quality products, often tailored to meet the evolving demands of ethical and environmentally conscious consumers.

$$Unit\ Value = \frac{Export\ Volume\ (pairs)}{Export\ Value\ (USD)} \quad (5)$$

Table 11 Unit Value of Footwear Exports from China and Indonesia (2013–2023)

Year	Export China	Volume Export China - World/Pair	Export Indonesia	Volume Export Indonesia - World/Pair	Unit Value China	Unit Value Indonesia	Difference
2005	$44,491,594	4,674,641,651	$15,334,028.00	253,900,000	0.010	0.060	0.05
2006	$59,777,531	4,765,641,651	$18,818,024.00	232,300,000	0.013	0.081	0.07
2007	$79,205,284	4,875,661,651	$37,720,009.00	222,980,000	0.016	0.169	0.15
2008	$109,990,508	5,025,761,000	$64,366,024.00	212,980,000	0.022	0.302	0.28
2009	$123,708,121	5,135,671,000	$39,637,651.00	210,290,000	0.024	0.188	0.16
2010	$244,007,972	5,526,710,000	$55,695,345.00	211,980,000	0.044	0.263	0.22
2011	$236,467,434	6,027,602,890	$86,813,146.00	203,980,000	0.039	0.426	0.39
2012	$357,740,391	6,234,571,000	$125,899,628.00	201,980,000	0.057	0.623	0.57
2013	$470,818,883	7,651,092,888	$144,322,585.00	202,980,000	0.062	0.711	0.65
2014	$586,342,821	8,052,000,000	$220,442,959.00	191,630,000	0.073	1.150	1.08
2015	$444,590,898	9,052,000,000	$311,183,147.00	240,380,000	0.049	1.295	1.25
2016	$354,291,167	9,143,000,000	$391,623,027.00	319,770,000	0.039	1.225	1.19

Year	Export China	Volume Export China - World/Pair	Export Indonesia	Volume Export Indonesia - World/Pair	Unit Value China	Unit Value Indonesia	Difference
2017	$408,214,374	9,243,000,000	$480,317,758.00	335,440,000	0.044	1.432	1.39
2018	$444,251,231	9,343,000,000	$534,288,587.00	406,000,000	0.048	1.316	1.27
2019	$542,993,431	9,542,000,000	$527,150,503.00	427,000,000	0.057	1.235	1.18
2020	$540,169,274	7,402,000,000	$731,316,700.00	366,000,000	0.073	1.998	1.93
2021	$753,733,795	7,887,000,000	$796,298,326.00	427,000,000	0.096	1.865	1.77
2022	$1,260,741,683	9,208,000,000	$848,315,707.00	535,000,000	0.137	1.586	1.45
2023	$953,611,066	9,200,000,000	$692,044,851.00	376,000,000	0.104	1.841	1.74

Source: UN Comtrade (processed, 2025)

Over the entire observation period, China has consistently maintained relatively low unit values (UV) for its footwear exports. These values ranged from $0.010 per pair in 2005 to $0.137 in 2022, before slightly decreasing to $0.104 in 2023. This persistent low unit value strongly suggests that China's footwear exports are highly price-competitive, focusing on high-volume production with tight margins. This strategy characterizes a mass-manufacturing export model, targeting broad international markets with an emphasis on affordability and efficient supply chains. China's reliance on synthetic materials and rubber-based footwear, which are cheaper to produce in bulk, coupled with vast economies of scale and well-integrated industrial clusters, helps to significantly minimize per-unit production costs. The relatively consistent unit values over the years, despite fluctuations in export volumes, underscore China's robust cost-control mechanisms and impressive manufacturing efficiency.

In stark contrast, Indonesia's footwear export unit values are substantially higher than China's throughout the observed period. In 2005, Indonesia's UV was $0.060, a significant multiple of China's $0.010. This gap widened considerably over time, reaching a peak in 2020 when

Indonesia recorded a UV of $1.998 per pair, compared to China's mere $0.073. Even by 2023, Indonesia's UV remained high at $1.841, while China's stood at $0.104. This compelling difference suggests that Indonesia is exporting higher-value footwear, likely encompassing more leather-based products, specialized product lines, or items with greater value addition, such as those benefiting from artisanal craftsmanship or intricate designs. Indonesia's footwear industry often serves as an Original Equipment Manufacturer (OEM) or Own Brand Manufacturing (OBM) partner for renowned higher-end international brands, which typically command a premium for superior design, branding, and quality. The notable increase in Indonesia's unit value from 2010 onwards aligns with a strategic shift towards higher-quality production and increased investment in industrial upgrading. While Indonesia's total export volume is generally lower than China's, the substantially higher value per pair enables Indonesia to significantly enhance its export earnings without necessarily needing to compete directly on China's scale of mass production.

/The "Difference" column in the provided data, which quantifies the disparity between Indonesia's and China's unit values each year, vividly illustrates a growing value gap per pair of footwear exported. This difference has steadily increased from $0.05 in 2005 to a substantial $1.74 in 2023. This widening gap is a clear indicator that Indonesia is successfully climbing the value chain by concentrating on higher-quality and higher-priced products. Concurrently, China appears to be maintaining its entrenched dominance in the large-scale, cost-sensitive segments of the global footwear market.

This escalating gap not only highlights distinct industrial focuses but also reveals significant strategic opportunities and challenges for both nations. For Indonesia, its ability to command higher unit values presents an opportunity to further capitalize on its higher value-added production. This can be achieved through continued investment in innovation, branding, and penetrating niche markets. Examples include developing and promoting eco-friendly footwear, engaging in high-fashion collaborations, or manufacturing specialized functional footwear for specific activities or sports. By doing so, Indonesia can solidify its position as a producer of premium footwear, attracting international buyers seeking quality over sheer volume.

On the other hand, China's formidable position in the low-cost, high-output segment may face increasing pressure. Rising domestic wages, evolving labor standards, and intensifying competition from other emerging low-cost manufacturing countries could erode China's

competitive advantage in this area. To mitigate these pressures, China might need to explore avenues for incremental value addition within its high-volume model, perhaps through technological upgrades, automation, or diversifying into slightly higher-tier, yet still mass-produced, footwear categories. The diverging strategies of China and Indonesia in the global footwear market offer compelling insights into varied approaches to industrial growth and international trade.

The unit value analysis underscores that Indonesia's strength lies in quality, while China's lies in quantity. Both countries have carved out distinct roles in the global footwear market. For Indonesia, the challenge is to maintain its premium quality positioning while increasing volume without compromising standards. For China, sustaining competitiveness in the mass-market will require automation, better cost-efficiency, and eventually a shift towards higher-value segments as global demand for cheap labor-based production declines.

Policy-wise, Indonesia can benefit from:

a) Supporting SMEs and high-end manufacturers through export incentives.

b) Enhancing the domestic supply chain and raw material access.

c) Promoting design and innovation capabilities, as well as eco-friendly certifications that raise product value

China, meanwhile, may leverage its massive production capacity to dominate mid-tier markets while gradually expanding into premium sectors through automation, branding, and quality enhancement.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

This study comprehensively examined the competitiveness and complementarity of the footwear trade between China and Indonesia through various trade indicators, including the Net Export Index (NEI), Revealed Comparative Advantage (RCA), Intra-Industry Trade (IIT) index, and unit value comparisons. The findings reveal nuanced insights into the trade dynamics and structural characteristics of the footwear industries in both countries.

Indonesia and China exhibit distinct competitive advantages within the footwear sector. Indonesia's comparative advantage lies primarily in leather and textile-based footwear, supported by its relatively lower production costs and specialization in these product categories. Meanwhile, China dominates the synthetic and rubber-based footwear markets, leveraging its advanced manufacturing technologies, economies of scale, and substantial export volumes. This differentiation underpins the complementarity of their bilateral trade, where Indonesia primarily exports lower unit-value footwear, while China maintains a leadership role in higher unit-value and technologically sophisticated products.

Trade competitiveness indicators such as the Net Export Index and Trade Competitiveness Index reflect the evolving trade relationship. Although Indonesia's footwear exports to China have fluctuated, there has been a general upward trend in Indonesia's export values over the analyzed period. However, China remains the dominant supplier to Indonesia, consistently maintaining higher unit values and commanding significant market share. This indicates that while Indonesia is strengthening its presence in the global footwear market, it continues to rely on China's extensive supply chain networks and technological advancements for certain footwear categories.

The analysis of intra-industry trade indices further suggests a high degree of bilateral trade complementarity, with both countries simultaneously exporting and importing footwear products, reflecting differentiated product specialization rather than direct competition. Meanwhile, The unit value comparison clearly underscores the significant pricing and quality gap between Chinese and Indonesian footwear exports, with China consistently exporting at substantially higher unit values. This

disparity highlights China's competitive edge in higher-value segments and the potential opportunity for Indonesia to upgrade its product quality and move up the value chain.

Finally, bilateral trade policies, economic cooperation initiatives, and evolving market demand trends continue to shape the footwear trade dynamics between China and Indonesia. Strengthening Indonesia's competitiveness in higher-value footwear categories, such as those involving advanced materials or design innovation, will be crucial to reduce dependency and capture greater value in global markets. At the same time, Indonesia can leverage China's large domestic market and established trade networks to expand its export reach.

Overall, the study emphasizes the importance of fostering technological upgrades, product diversification, and strategic trade cooperation to enhance Indonesia's footwear industry competitiveness while capitalizing on the complementarities with China.

5.2 Recommendations

Based on the findings, several recommendations are proposed to enhance the competitiveness of Indonesia's footwear industry and improve bilateral trade relations with China:

1. Strengthening Domestic Production Capabilities

Indonesian manufacturers should invest in advanced production technologies to improve efficiency and product quality, especially in the high-value footwear segment. Encouraging innovation in footwear design and materials to cater to changing consumer preferences. In light of increasing global competition, Indonesian manufacturers must embrace innovation as a core strategy to remain competitive in the high-value footwear segment. Investment in advanced production technologies such as automation, 3D printing, and smart manufacturing systems can significantly enhance production efficiency, reduce waste, and ensure consistent product quality. These technologies also enable rapid prototyping and customization, aligning well with the growing consumer demand for personalized and sustainable products.

Furthermore, the integration of innovative materials—such as recycled plastics, biodegradable fabrics, and high-performance synthetics—can help manufacturers respond to rising environmental awareness among consumers. This not only boosts the brand's image as eco-friendly but also opens access to premium

markets in Europe and North America where sustainability is a key purchasing factor. To support this transformation, collaboration between manufacturers, research institutions, and design schools should be intensified to foster creativity in footwear design. This includes understanding emerging trends such as athleisure, minimalist styles, and ergonomic designs suited for various lifestyle needs. Government support in the form of tax incentives, grants for R&D, and training programs can further encourage innovation and technological adoption. By aligning production capabilities with market trends and sustainability goals, Indonesian footwear manufacturers can strengthen their position in the global value chain. Ultimately, the shift toward innovation and technology-driven production will not only increase competitiveness but also ensure long-term growth and resilience in the face of evolving consumer expectations and market dynamics.

2. Enhancing Trade Policies and Market Access

Negotiating favorable trade agreements with China presents a strategic opportunity to enhance market access for Indonesian footwear exports. As one of the largest consumer markets in the world, China offers significant growth potential for Indonesian manufacturers, particularly in the high-value and fashion-forward footwear segments. Through comprehensive trade deals, Indonesia can secure lower tariffs, simplified export procedures, and reduced non-tariff barriers, making its footwear products more competitive in the Chinese market. In addition, fostering bilateral trade relationships can pave the way for joint ventures and partnerships between Indonesian and Chinese firms, which could facilitate knowledge transfer, technology adoption, and distribution network expansion. This collaboration can further elevate the global presence of Indonesian brands and attract foreign investment into the local footwear industry.

At the same time, reducing dependency on imported raw materials is crucial for building a more resilient and cost-efficient manufacturing base. Developing robust local supply chains—such as cultivating domestic sources for leather, rubber, and synthetic materials—will help stabilize production costs, minimize currency fluctuation risks, and reduce supply disruptions. This can be achieved through government support for local producers, investment in agricultural and industrial raw material development, and strengthening linkages between raw material suppliers and footwear manufacturers. Together, these efforts can create a more self-sufficient and export-oriented footwear industry. By simultaneously expanding international market

access and reinforcing domestic supply capabilities, Indonesia can ensure sustainable growth and improve the global competitiveness of its footwear exports.

3. Increasing Investment in Human Capital

Providing technical training and skill development programs for workers in the footwear industry is essential to enhance productivity and meet the demands of a rapidly evolving global market. As production technologies become more advanced, the workforce must be equipped with the necessary skills to operate new machinery, apply innovative techniques, and uphold high standards of quality control. Government and industry stakeholders should collaborate to establish vocational training centers, offer certification programs, and develop continuous learning opportunities tailored to the specific needs of the footwear sector. Improved worker competencies not only boost efficiency and reduce error rates but also foster a culture of innovation on the production floor. Skilled workers are better positioned to contribute to problem-solving, adapt to market changes, and support the adoption of new technologies.

In parallel, fostering collaboration between footwear manufacturers and research institutions is key to driving innovation in design, materials, and production processes. Through joint research and development (R&D) initiatives, manufacturers can access cutting-edge knowledge and experimental findings that can be translated into market-ready solutions. This includes the exploration of smart textiles, eco-friendly materials, ergonomic designs, and digital manufacturing methods. Establishing innovation hubs and government-backed grants for R&D projects can further strengthen these partnerships. By bridging the gap between industry and academia, Indonesia can accelerate the development of unique, value-added products that differentiate its footwear industry on the global stage. These efforts will ultimately contribute to higher competitiveness, greater export potential, and long-term sustainability in the industry.

4. Expanding Market Diversification

Exploring new export destinations beyond China is a strategic move to diversify markets and reduce Indonesia’s reliance on a single trade partner. While China remains a significant consumer of footwear, overdependence on one market exposes the industry to economic, political, and regulatory risks. Targeting emerging markets such as India, the Middle East, Eastern Europe, and Africa can open up new growth opportunities. These regions are experiencing rising consumer demand for

affordable, high-quality footwear, making them ideal targets for Indonesian exports. To succeed in these markets, it is crucial to understand local preferences, pricing sensitivities, and distribution channels. Participating in international trade fairs, engaging with local distributors, and leveraging digital platforms can help Indonesian manufacturers gain a foothold in new territories. Trade diplomacy and bilateral agreements can further support this expansion by reducing tariffs and facilitating smoother entry into foreign markets.

Simultaneously, strengthening branding and marketing efforts is vital to position Indonesian footwear as a competitive global product. Building a strong national brand that highlights quality, craftsmanship, sustainability, and design innovation can elevate the perception of Indonesian footwear on the international stage. This includes consistent branding strategies, storytelling that resonates with target consumers, and active promotion through social media and e-commerce platforms. Support from the government in organizing global marketing campaigns and assisting small and medium enterprises (SMEs) in branding can significantly enhance visibility. With stronger brand recognition and market diversification, Indonesia's footwear industry will be better equipped to compete globally and sustain long-term growth.

5. Promoting Sustainability in the Footwear Industry

Encouraging eco-friendly production methods and sustainable sourcing of raw materials is essential for aligning the Indonesian footwear industry with global sustainability standards. As environmental concerns increasingly influence consumer behavior and international trade policies, adopting green manufacturing practices is no longer optional—it is a strategic imperative. Manufacturers should be encouraged to reduce carbon emissions, minimize water and energy usage, and manage waste effectively throughout the production cycle. One key step is transitioning to sustainable raw materials such as recycled rubber, organic cotton, plant-based leather alternatives, and biodegradable packaging. This not only reduces environmental impact but also adds value to the product in the eyes of eco-conscious consumers. Certifications such as ISO 14001, Global Organic Textile Standard (GOTS), or Forest Stewardship Council (FSC) can enhance credibility and marketability in environmentally sensitive markets like Europe and North America.

To accelerate this shift, the government must implement and enforce policies that promote environmentally responsible manufacturing. This could include tax

incentives for green technologies, subsidies for companies investing in clean energy, and strict regulations on pollution and waste disposal. Additionally, introducing environmental management training and providing technical assistance to small and medium enterprises (SMEs) can help integrate sustainability at all levels of the industry. By embedding sustainability into both production processes and the supply chain, Indonesia can future-proof its footwear industry. These efforts not only fulfill international compliance requirements but also create long-term cost efficiencies, improve brand image, and open access to premium global markets that prioritize ethical and sustainable products.

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