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Challenges and Opportunities of Altasia: A National Benchmarking Assessment

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Abstract: As global pressures mount to diversify supply chain strategies beyond China, the concept of “Altasia” has emerged, encompassing 14 alternative countries. This study offers a comprehensive framework describing the historical context, driving factors, and theoretical underpinnings motivating the global shift away from China. Our research model delineates the strategic pathways employed by multinational corporations to navigate the decoupling process, particularly in identifying alternative manufacturing hubs across the Altasia region. This article critically examines the multifaceted challenges and opportunities inherent in Altasia as a collective entity comprising these 14 alternative countries. Furthermore, it explores the transformative implications of this paradigm shift on the broader global supply chain ecosystem. In conclusion, we highlight the forward-looking significance of these findings, shedding light on avenues for future research endeavors in this evolving landscape.

Keywords: Altasia; hegemonic rivalry; decoupling; global supply chain ecosystem



Citation: Hong, P.; Chen, H.-W.; Ahrens, F.; Park, Y.S.; Cho, Y.S. Challenges and Opportunities of Altasia: A National Benchmarking Assessment. *Sustainability* **2023**, *15*, 14507. <https://doi.org/10.3390/su151914507>

Academic Editors: Ripon Kumar Chakraborty and Ting Chi

Received: 5 September 2023

Revised: 20 September 2023

Accepted: 26 September 2023

Published: 5 October 2023



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1. Introduction

In recent years, the term “Altasia” has gained prominence, representing a group of fourteen countries positioned as potential alternatives to China within the context of evolving global supply chains. This concept has emerged against the backdrop of escalating hegemonic rivalry between the United States and China, which has accelerated the process of supply chain decoupling. Altasia, however, transcends the conventional “China+” strategy; instead, it signifies a strategic shift towards considering these fourteen countries as viable substitutes for China [1].

The factors driving this shift are multifaceted. China, once known for its cost advantages, has witnessed a gradual increase in labor and production costs over time, eroding its historical appeal to global firms [2]. Additionally, rising wages, stricter regulatory measures, and escalating raw material costs have collectively diminished China’s attractiveness as a long-term manufacturing hub. The seismic disruptions caused by the COVID-19 pandemic further underscored the vulnerabilities of global supply chains overly reliant on China’s production capabilities, prompting a reevaluation of resilience and risk mitigation strategies. One of the compelling drivers for exploring Altasia is the growing concern among global firms regarding the protection of intellectual property in China’s legal landscape, which often favors domestic entities [2]. Moreover, the dynamics of China’s domestic market are evolving, with increased competition and government interventions presenting challenges for foreign companies seeking access. These combined factors have propelled a shift towards considering Altasian countries as more viable alternatives.

However, it is essential to note that not all businesses share this perspective. Some international companies opt to remain in China due to the allure of its expansive consumer

market, burgeoning middle class, and rising disposable income [3]. China's abundant and skilled labor force continues to attract manufacturers [4–6], while established relationships with Chinese suppliers pose obstacles to relocating operations. China's robust infrastructure and logistics network further enhance its appeal as a sourcing and distribution hub [7].

In light of these conflicting arguments surrounding Altasia, this article endeavors to conduct a meticulous examination of the concept. To achieve this objective, we address three fundamental questions: (1) What are the primary drivers behind Altasia, encompassing hegemonic rivalry, the quest for China alternatives, and supply chain risk management and resilience strategies? (2) What precisely defines Altasia, and what are the distinct characteristics of the fourteen countries within this framework? (3) How can businesses make a successful transition to Altasia, aiming for a practical alternative to China that goes beyond the "China+" approach? We analyze the pros and cons of embracing Altasia as a viable alternative to China.

To accomplish this, we present a conceptual framework and a research model that define critical variables for assessing the challenges and opportunities presented by Altasia. Our analysis employs descriptive statistics to compare Altasia to China, drawing insights from the findings. Finally, we distill lessons learned and discuss both theoretical and managerial implications, charting a path for future research in this evolving landscape.

2. Driving Force for Altasia

Several factors are associated with why more global firms consider moving away from China. With zero-COVID policies, there had been substantial lockdowns in major industrial cities, including Shanghai, with increasing production costs, growing financial risks, and added healthcare disruptions [8]. In addition, labor and production costs in China have risen over the years, reducing the cost advantage that China once offered to global firms. Increasing wages, stricter regulations, and rising costs of raw materials may also make it less attractive for global firms to continue manufacturing in China. The post-COVID-19 pandemic situation highlights the vulnerabilities in global supply chains that rely heavily on China for production and manufacturing. More global firms now seriously consider diversifying their supply chains and reducing their dependence on China to increase resilience and reduce the risk of supply chain disruptions [9].

Intellectual property issues are a concern for global firms operating in China. Global firms find protecting their patents, trademarks, and trade secrets challenging. The legal challenges they face are formidable to overcome in Chinese legal systems that tend to take sides with Chinese firms [10]. In response to the growing populist movement in the US, the Chinese government also promoted its own China First policy, so that increasingly foreign global firms could not penetrate Chinese domestic markets and expand their strategic opportunities effectively in China. Increasing local competition and Chinese government interventions also create further barriers for global firms to China's domestic market [11]. As Chinese firms experience a less friendly welcome in global markets, as highlighted in the case of Huawei, foreign global firms are becoming more cautious in their strategic alliance with Chinese firms, and their direct investment in China has also decreased over the years [12].

There has been increasing hegemonic rivalry that accelerated business uncertainties and deterred strategic long-term investment during the COVID-19 pandemic. Industrial policies of the US, Europe, Japan, and South Korea also have become more nationalistic. The emphasis is strengthening their domestic manufacturing capabilities in terms of national security and domestic advantages [13]. As heavy subsidies are involved in enticing firms to come back (i.e., reshoring) and directing these firms to more strategically aligned countries (i.e., friendly shoring), more firms consider searching for alternative sites in ASEAN countries, or coming to countries with geographical proximity (e.g., regionalism) [14]. All these combined effects drive global firms to consider other options, such as Altasian countries.

For this study, we examine fourteen countries identified as Altasian countries by the Economist. In addition, the selection of these countries was a result of a meticulous process

based on several factors, including economic significance, regional influence, and supply chain interdependence with China. These factors were considered to ensure the relevance and representativeness of the chosen nations in our analysis.

- **Economic Significance:** We included countries with substantial economic significance within the Altasia region to assess their potential to serve as alternatives to China. This was determined by factors such as GDP, trade volume, and foreign reserves.
- **Regional Influence:** The selected countries have a significant impact on regional supply chain dynamics. They are known for their active participation in regional trade networks, infrastructure development, and economic collaborations, which makes them key players in the Altasia region.
- **Supply Chain Interdependence:** We also considered the degree of supply chain interdependence between these countries and China. This interdependence was assessed by analyzing trade data, including export and import volumes, as well as trade balance.
- **Diversity:** We aimed to capture a diverse set of countries with varying economic structures, political systems, and levels of development within the Altasia region to provide a well-rounded perspective on potential alternatives to China.

3. Research Methodology

This section outlines the research methodology employed in this study to systematically compare Altasian countries with China across various dimensions of national capability. To comprehensively evaluate the potential of these countries as alternatives to China in the global supply chain ecosystem, we utilize a combination of quantitative and qualitative indicators. In the quantitative analysis (Section 3.1), we focus on ten key national capability indicators, including Gross Domestic Product (GDP), population size, land and water resources, trade volumes, research and development (R&D) expenditure, infrastructure investment, military expenditure, energy production and consumption, transportation and logistics capacity, and the presence of global Fortune 500 and Forbes 2000 firms. These indicators provide a robust foundation for assessing economic performance, resource availability, innovation capacity, and global market integration.

In parallel, the qualitative analysis (Section 3.2) delves into a set of Qualitative National Capability Scope Indicators (QNCSI). These encompass GDP per capita, the UN Human Development Index (UNHDI), the World Education Index, the Global Competitiveness Index (GCI), the National Innovation Index (NII), the Environmental Performance Index (EPI), the Healthcare Index, the National Credit Rating (NCR), Fixed Broadband Subscriptions (FBS) per 100 people, and the Ease of Doing Business Index. These qualitative indicators explore nuanced aspects of each country's capabilities, including human development, innovation capacity, environmental performance, and business-friendly environments. Both the quantitative and qualitative assessments contribute to a comprehensive understanding of the strengths and weaknesses of Altasian countries compared to China. The data used for this analysis are reliable, current (from 2021 to 2023, where available), and formatted the same way across all countries to ensure that comparisons are valid and easily interpretable. The subsequent sections will detail the findings and insights derived from these comprehensive assessments, shedding light on the potential of these Altasian countries as viable alternatives to China within the global supply chain landscape.

3.1. Ten Quantitative National Capability Scale Indicators

This section compares the Altasian Countries and China using the following quantitative national indicators.

- **Gross Domestic Product (GDP):** GDP is a fundamental measure of a country's economic output and is often used to indicate overall economic performance.
- **Population Size:** A country's total population is an essential factor as it affects the availability of labor, consumer markets, and overall economic potential.

- **Size of Land and Water:** This provides the geographical context in which a country operates. It is related to natural resources/agricultural potential, biodiversity/ecosystem services, and geopolitical influence on the global stage that impacts trade negotiations, alliances, regional dynamics, and natural disaster vulnerability and adaptation.
- **Export and Import Volumes:** International trade is an essential aspect of a country's economic capabilities, and export and import volumes can indicate a country's integration into the global economy.
- **Research and Development (R&D) Expenditure:** This measures the amount a country invests in research and development activities, which reflects its commitment to innovation and technological advancement.
- **Gross Fixed Infrastructure Investment Expenditure:** This indicator measures the financial resources a country allocates to develop and maintain its infrastructure. It includes both public and private sector investments in transportation (roads, railways, airports), energy (power generation and distribution), water supply and sanitation, communication networks, and public facilities.
- **Military Expenditure:** This metric reflects the country's resources devoted to its military capabilities and defense.
- **Energy Production and Consumption:** It tracks a country's energy production and consumption in terms of energy self-sufficiency, energy security, and the level of industrialization. It also reflects the country's reliance on various energy sources, such as fossil fuels, renewable energy, and nuclear power.
- **Transportation and Logistics Capacity Measures:** This measures the size of railroads, highways, the number of ports, and the number of airports.
- **Total Number of Global Fortune 500 plus Forbes 2000 Firms:** This indicates a country's economic capacity, which measures economic influence and competitiveness in the global market, job creation and economic growth contribution, tax revenue enhancement, technological advancements, and innovation.

Comparing these factors into a comprehensive Quantitative National Capability index can provide a more holistic understanding of a country's strengths and weaknesses. For use in comparisons, the data used in the above index are reliable, up-to-date (2021–2023 as available), and comparable across countries, ensuring accurate and meaningful comparisons.

Table 1 presents the data for the ten Quantitative National Capability Scale indicators. Each country section first presents the actual scores of its national capability scale dimension. Just below is the rank score of the 15 countries. For example, China has the largest population of 1412 (million); thus, its rank score among the 15 countries is 15, whereas Brunei, the smallest country, with 430,000 people, ranks 1 out of 15. Japan's rank score of population is 11 because its population is the fifth largest among 15 countries. All other countries are also given rank scores according to their comparative rank among 15 countries. Each of these rank scores of each column is then summed together. The total rank scores of each country suggest its Quantitative National Capability Scale measures.

Table 1. Altasian countries: Quantitative National Capability Scale indicators.

	GDP	Population (Millions)	Land/Water (km ²)	Export	Import	R&D Expenditure (USD Billion)	Gross Fixed Infrastructure Investment Expenditure (% of GDP)	Military Expenditure (\$ Billion)	Primary Energy Consumption (TWH)	Logistics Performance Index	Fortune 500 and Forbes 2000	Total Score
	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	
Japan	4,409,738	125	377,976	65,004	68,823	194.0	23.55	49	4956	13	241	135
	14	11	11	14	14	14	4	13	13	13	14	
South Korea	1,721,909	51.63	100,210	49,600	59,746	105.0	31.12	44	3530	17	81	122
	12	7	4	13	13	12	12	12	12	12	13	
Taiwan	790,728	23.26	36,193	35,955	30,979	46.1	20.50	10.72	1329	13	53	92
	10	5	3	10	10	11	1	10	8	13	11	
Singapore	515,548	5.45	728	38,484	36,172	11.7	24.81	11.2	879	1	11	90
	8	2	1	12	11	9	6	11	6	15	9	
India	3,736,882	1,374	3,287,590	38,380	58,110	159	28.49	61	10,123	38	64	134
	13	14	14	11	12	13	9	14	14	8	12	
Indonesia	1,391,778	276	1,811,569	23,495	20,588	10.6	32.16	7.6	2715	61	8	101
	11	13	13	6	6	7	13	9	11	5	7	
Bangladesh	420,516	166	148,460	3257	4161	1.38	30.51	3.8	499	88	3	65
	5	12	5	4	4	6	11	5	4	4	5	
Thailand	574,231	66.17	510,890	27,650	24,936	13.4	24.02	7.1	1406	34	14	97
	9	8	12	8	8	10	5	8	10	9	10	
Philippines	440,901	112	300,000	6528	8954	0.6	25.16	3.47	586	43	5	70
	10	10	8	5	5	4	7	4	5	6	6	
Malaysia	447,026	33	329,613	29,066	22,311	11.1	25.30	4.0	1344	26	9	86
	6	6	9	9	7	8	8	6	9	10	8	
Vietnam	449,094	99.5	331,212	27,540	25,210	0.9	23.08	5.5	1275	43	4	74
	7	9	10	7	9	5	3	7	7	6	4	
Laos	14,091	7.34	236,800	1972	1883	0.2	29.04	0.0185	140	NA	0	35
	1	3	7	3	2	3	10	1	3	1	1	
Cambodia	30,628	16.53	181,035	1795	2191	0.04	21.92	0.604	67	115	0	30
	3	4	6	2	3	1	2	3	2	3	1	
Brunei	15,988	0.43	5765	1189	651	0.08	34.59	0.436	46	NA	0	28
	2	1	2	1	1	2	14	2	1	1	1	
China	19,373,586	1412	9,706,961	295,000	205,000	556	41.89	237	44,276	19	145	161
	15	15	15	15	15	15	15	15	15	11	15	

Note: Monetary unit is in USD. Export and import are in millions. Source: OECD, R&D Expenditure, 2022; World Bank, infrastructure investment expenditure, 2018; 2023 World Population Review; military expenditure by country 2023; Our World in Data, energy consumption by country 2022.

3.2. Ten Qualitative National Capability Scale Indicators

Qualitative National Capability Scope indicators (QNCSI) refer to descriptive measures that assess the qualitative aspects of a country's capabilities and scope within a specific domain. These indicators go beyond numerical metrics and delve into the nuanced and qualitative factors contributing to a country's strengths, weaknesses, potential, and limitations in a particular area. They provide insights into the broader qualitative landscape, including factors like expertise, innovation, strategic alignment, adaptability, and overall qualitative capacity within the context of a nation's capabilities and scope in each domain. For this study, the following indicators are used to measure QNCSI:

- GDP per Capita—While GDP measures the overall economic output of a country, GDP per capita provides a more accurate reflection of the average economic well-being of its citizens;
- UN Human Development Index (UNHDI)—The HDI combines factors like life expectancy, education, and per capita income to assess a country's overall development and quality of life;
- World Education Index—Education is a significant determinant of a country's future capabilities, and literacy rates are an important aspect of education access and quality. This measure evaluates the educational attainment levels of a country's population, such as literacy rates and educational qualifications;
- Global Competitiveness Index (GCI)—The GCI provides an assessment of a country's competitiveness by considering factors like infrastructure, macroeconomic stability, health, education, and technological readiness;
- National Innovation Index (NII)—The GII ranks countries based on their innovation capabilities, considering factors such as R&D investment, patent activity, and technological outputs;
- Environmental Performance Index (EPI)—The EPI evaluates a country's environmental policies and performance in areas such as air quality, water resources, and biodiversity conservation;
- Healthcare Index—The quality and availability of healthcare services can impact a nation's human capital and workforce productivity;
- National Credit Rating (NCR)—This measures a country's creditworthiness and ability to meet its financial obligations, including debt repayment. It reflects its perceived financial stability and credit risk, economic policy credibility, and currency stability;
- Fixed Broadband Subscriptions (FBS)—This assesses the scope of a country's internet infrastructure and availability of broadband services, which play a crucial role in driving economic and social progress in the digital era;
- Ease of Doing Business—It signifies the level of simplicity, efficiency, and favorable conditions that a country provides for businesses to establish, operate, and thrive within its economic and regulatory environment;
- Ease of Doing Business Index—This index assesses the regulatory environment and ease of conducting business in a country, which can impact its attractiveness to investors and businesses.

Combining these factors into a comprehensive qualitative national capability index can provide a better understanding of a country's internal strengths and weaknesses. For the comparison purpose, the data used in the above index are reliable, up to date (2021–2023, as available), and comparable across countries, so as to ensure accurate and meaningful comparisons.

Table 2 shows ten Qualitative National Capability Scope indicators. Each country first presents the actual scores of each national capability scope dimension. Then, all countries are given rank scores (1–15). For example, South Korea scored the best in the world education index, at 0.81. Thus, its rank score is 15, whereas Bangladesh, with the lowest score of 0.37, has a rank score of 1 among the 15 countries. Japan's rank score on the environmental performance index is 15 because its index score of 57.2 is 1st among 15 countries, and Indonesia's rank score on the environmental performance index is 4

because its index score of 28.2 is 12th among 15 countries. All other countries are also given rank scores according to their comparative ranks among 15 countries. Each of these rank scores in each column are then added. The total rank scores of each country signify its Qualitative National Capability Scope measures.

Figure 1 is drawn based on the total rank scores of each country in Table 1 (Quantitative National Capability Scale indicators) and Table 2 (Qualitative National Capability Scope indicators). The vertical axis signifies each nation's total score of Quantitative National Capability indicators (Table 1). The horizontal axis denotes each nation's total score of qualitative national capability indicators (Table 2). The figure also shows five clusters of nations that are grouped together in terms of the proximity of these quantitative and qualitative national capability indicators, which is based on Centroid clustering with Squared Euclidean distance. Note that all figures hereafter are created with IBM SPSS version 29.0.

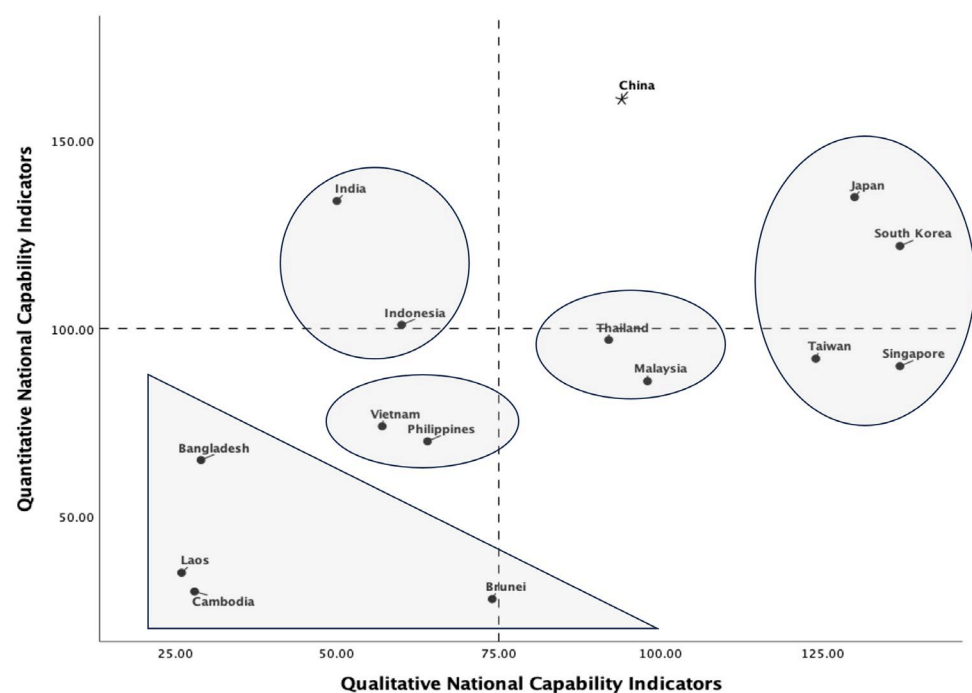


Figure 1. Clusters by business environment and economic indicator scores.

There are many countries that have the potential to become alternative destinations for global supply chain production bases instead of China. The 14 countries can be classified into four different groups. This is based on two criteria in terms of the degree of development (i.e., advanced and developing) and the population, geographical and GDP size (i.e., large, mid-sized, and small). (1) Advanced countries: Japan, South Korea, Taiwan, and Singapore. (2) Large Developing Countries: India, Indonesia, Bangladesh. (3) Mid-Sized Developing Countries: Thailand, Philippines, Malaysia, Vietnam. (4) Small Developing Countries: Laos, Cambodia, Brunei.

Table 2. Altasian countries: Qualitative National Capability Scope indicators.

	GDP Per Capita	UN Human Development Index	World Education Index	Global Competitiveness Index	National Innovation Index	Environmental Performance Index	Health Care Index	National Credit Rating	Fixed Broadband Subscriptions/ 100 People	Ease of Doing Business (Ranking)	Total Score
	Score	Score	Score	Score	Score	Score	Score	Score	score	Score	
Japan	35,291	19	0.768	82.3	12	57.2	5	A+	36	29	129
	14	13	13	14	12	15	13	12	13	10	
South Korea	32,731	19	0.81	79.6	6	46.9	1	AA	44	5	137
	12	13	15	12	15	13	15	13	15	14	
Taiwan	33,059	22	0.80	80.2	10	45.3	2	AA+	24.99	15	125
	13	12	14	13	11	11	14	14	11	12	
Singapore	66,176	12	0.681	84.8	7	50.9	24	AAA	25.69	2	137
	15	15	12	15	14	14	10	15	12	15	
India	2256	132	0.409	61.4	40	18.9	19	BBB-	1.96	63	50
	3	3	4	4	9	1	11	6	1	8	
Indonesia	3893	114	0.543	64.6	75	28.2	52	BBB	4.54	73	60
	7	7	7	8	5	4	6	7	4	5	
Bangladesh	1684	129	0.37	52.1	102	23.1	85	BB-	6.58	168	29
	2	4	1	3	2	3	4	4	5	1	
Thailand	6124	66	0.55	68.1	43	38.1	13	BBB+	17.35	21	92
	8	9	8	9	8	10	12	9	8	11	
Philippines	3328	116	0.589	61.9	59	28.9	38	BBB+	8.45	95	64
	5	5	9	6	6	6	8	9	6	4	
Malaysia	10,576	62	0.62	74.6	36	35	34	A-	11.12	12	98
	9	10	10	11	10	9	9	10	7	13	
Vietnam	3409	115	0.507	61.5	48	20.1	66	BB+	19.83	70	57
	6	6	5	5	7	2	5	5	10	6	
Laos	2566	140	0.375	50.1	112	30.7	100+	CCC-	2.03	155	26
	4	2	2	1	1	8	1	2	3	2	
Cambodia	1430	146	0.382	52.1	97	30.1	100+	B2	2.03	144	28
	1	1	3	3	3	7	1	3	3	3	
Brunei	29,673	51	0.656	62.8	92	45.7	100+	--	17.83	66	74
	11	11	11	7	4	12	1	1	9	7	
China	12,556	79	0.514	73.9	11	28.4	46	A+	37.58	31	94
	10	8	6	10	13	5	7	12	14	9	

Source: World Economic Forum, Global Competitiveness Report, 2019; Yale Center for Environmental Law & Policy, EPI results, 2022; World Bank, fixed broadband subscriptions per 100 people, 2021; World Bank Group, Doing Business 2020; UN, World Education Index, 2023.

Table 3 summarizes how these countries are compared in various aspects, such as lower labor costs, favorable business environments, growing consumer markets, and access to natural resources. However, each country has its own challenges and considerations, such as infrastructure development, political stability, and regulatory environment. Companies considering moving their supply chain production base to one of these countries should consider a wide range of factors.

Table 3. Practical challenges of each Altasian country block.

Blocks	Advanced Countries	Large Developing Countries	Mid-Sized Developing Countries	Small Developing Countries
Specific countries in each block	Japan, South Korea, Taiwan, and Singapore	India, Indonesia, Bangladesh	Thailand, Philippines, Malaysia, Vietnam	Laos, Cambodia, Brunei
Geopolitical risks	Japan and South Korea maintain a strong alliance with the US, whereas Taiwan does not. Singapore maintains independence.	Relatively neutral regarding geopolitical risks.	Approach geopolitical issues as member countries of ASEAN.	Stay friendly both toward China and US-led alliances.
Cost considerations	Labor costs are high to support high standards of living.	Labor costs are competitive, and they are rising.	Improving the quality of labor that requires education and training.	Low labor costs for manual labor.
Supply chain resilience	Diverse international supply chain networks support national supply chain resilience.	Large economies of scale's production capabilities are advantageous, whereas increasing requirements to support large populations are constraining.	Supply chain resilience is modest in view of relatively small market size and production capabilities.	Supply chain resilience is in the early stage of development in terms of production capabilities and market development.
Intellectual property concerns	Abide by international norms of intellectual property issues.	The imperatives of rapid economic growth are often in conflict with international intellectual property requirements.	With a strong focus on manufacturing assembly operations, intellectual property concerns are relatively modest.	Developing and building manufacturing facilities for cost-based products is likely to involve fewer intellectual property issues.
Domestic market access	Other than Japan, South Korea, Taiwan, and Singapore are export-led economies with relatively smaller domestic markets.	Domestic markets need further development in keeping with the large population base.	Domestic markets grow to the extent that more people achieve rapid income growth.	Relatively small domestic markets require rapid economic growth.

4. Assessment and Evaluation of Altasia Countries

In Section 3, we discussed the research methodology for assessing national supply chain ecosystem capabilities in Altasia countries. In this section, Section 4, we delve into the assessment and evaluation of Altasia countries with a specific focus on their national supply chain ecosystem capabilities. We will compare these capabilities to those of China, aiming to gain insights into the relative strengths and weaknesses of Altasia's supply chain ecosystems in comparison to one of the world's largest and most influential economies.

Supply chain ecosystem capabilities are crucial for facilitating domestic and international trade, optimizing logistics and transportation, supporting industries, and enabling the efficient flow of goods, services, information, and capital. We will employ two key parameters, capability and competitiveness, to evaluate these ecosystems. These parameters encompass various facets such as supply chain risk mitigation capability, supply chain responsiveness capability, trade facilitation efficiency performance, and logistics infrastructure competitive performance. Furthermore, we will analyze the interdependence and independence between Altasia countries and China in the context of supply chain capabilities. While Altasia countries have unique identities, separate governance systems, and diverse historical experiences from China, their economic ties are deeply intertwined. We will explore the complexities and challenges associated with diversifying supply chain capabilities away from China and the potential consequences for these nations.

This section aims to provide a comprehensive understanding of Altasia's supply chain ecosystem capabilities, its competitive position compared to China, and the intricate web of

economic relationships that shape the region's supply chain landscape. For this article, the focus of the assessment of Altasia countries is national supply chain ecosystem capabilities, which refers to the various interconnected components, including physical infrastructure, technological systems, workforce skills, regulatory frameworks, and collaboration networks, that enable a country to effectively manage and optimize its complex supply flows of information, materials, products, and services [15–17].

4.1. Comparing National Supply Chain Ecosystem: Capabilities and Competitiveness

To compare Altasia countries and China regarding the national supply chain ecosystem (NSCE), we consider two parameters: capability and competitiveness. Table 4 shows supply chain ecosystem capabilities regarding supply chain risk mitigation capability and supply chain responsiveness capability [15–17]. They play a vital role in facilitating domestic and international trade, optimizing logistics and transportation, supporting industries, and enabling the efficient flow of goods, services, information, and capital.

National supply chain ecosystem capabilities (NSCEC) refers to the collective set of competencies, resources, infrastructure, and interconnections within a country that enable the efficient and effective movement of goods, services, and information across the supply chain in terms of risk mitigation and responsiveness capabilities. A supply chain ecosystem encompasses all the interconnected activities, organizations, and stakeholders involved in producing, distributing, and delivering products and services to end consumers.

National supply chain risk mitigation capability (NSCRMC) refers to a country's ability to identify, assess, and proactively address potential risks and disruptions that can impact its supply chain. This includes strategies, plans, and mechanisms to reduce disruptions' adverse effects, such as natural disasters, geopolitical conflicts, economic shocks, and other unforeseen events. National supply chain responsiveness capability (NSCRC) refers to a country's capacity to quickly adapt, adjust, and respond to changes and disruptions within its supply chain. This includes the ability to reconfigure production processes, reroute logistics, switch suppliers, and implement alternative strategies to ensure a continuous flow of goods and services despite unexpected events. NSCRC involves agility, flexibility, and the ability to make rapid decisions and changes when required.

Supply chain ecosystem capabilities (SCECap) is a comprehensive measure of a nation's ability to effectively manage and optimize its entire supply chain ecosystem to enhance competitiveness, resilience, and efficiency in the global marketplace. Two important indicators are supply chain risk mitigation capability (SCRMC) and supply chain responsiveness capability (SCRC). SCRMC represents a national capacity to identify, assess, and proactively manage risks that can disrupt or negatively impact the overall functioning of its supply chains at the national level, including organizational and industry aspects [18–22]. SCRC measures a nation's ability to adapt its supply chain operations quickly and effectively in response to changing circumstances, disruptions, or demand fluctuations utilizing organizational and industry-level capabilities [23–26]. The supply chain mitigation capability focuses on preventing or reducing risks in the first place, while supply chain responsiveness capability centers on the ability to withstand and recover from disruptions. An effective national supply chain strategy often involves a combination of both approaches to create a well-rounded approach to risk management.

For this study, supply chain risk mitigation capability is measured in terms of diverse risk exposures (e.g., climate risk, cyber risk, fire risk), whereas supply chain responsiveness capability considers essential control and preventive indicators (e.g., corruption control, corporate governance, services diversity, and supply chain visibility).

Table 4 presents the data on actual measures of supply chain ecosystem capabilities based on data adapted from the United Nations Comtrade database (Ferreira, F. (Adapted). (2022). 2022 Supply Chain Index Data from the United Nations Comtrade Database. Retrieved from <https://comtradeplus.un.org/> on 30 August 2023). They reflect the supply chain ecosystem potential indicators of nations in terms of supply chain risk mitigation capability and supply chain responsiveness capability.

Table 4. National benchmarking of supply chain ecosystem capability indicators.

Country	Supply Chain Risk Mitigation Capability					Supply Chain Responsiveness Capability			Total Score
	Climate Risk Exposure	Climate Risk Intensity	Cyber Risk Readiness	Fire Risk Exposure	SC Corruption Control Index	SC Corporate Governance Score	Number of Diverse Services	SC Visibility Index	
Japan	52.0	71.2	97.8	50.1	96.7	73.2	206.0	88.3	69
	8	1	11	5	13	8	10	13	
South Korea	62.9	35.7	98.5	43.6	95.1	83.0	268.0	75.7	78
	7	4	14	6	12	10	13	12	
Taiwan	16.3	44.2	92.4	40.8	87.2	90.9	141.0	72.1	73
	14	3	7	7	11	12	8	11	
Singapore	89.0	60.3	98.5	83.2	100.0	99.9	240.0	89.6	72
	1	2	14	1	14	14	12	14	
India	47.3	20.3	97.5	34.8	60.1	85.8	117.0	57.1	69
	9	9	10	10	8	11	5	7	
Indonesia	85.9	26.5	94.8	12.4	59.6	65.7	118.0	56.3	54
	2	6	9	12	6	7	6	6	
Bangladesh	33.6	20.6	81.0	40.0	35.4	47.0	32.0	34.3	40
	11	8	4	8	1	4	2	2	
Thailand	78.1	21.2	86.3	32.6	59.7	81.9	89.0	63.4	56
	4	7	5	11	7	9	4	9	
Philippines	40.0	17.9	76.7	50.4	45.1	48.3	66.0	46.0	42
	10	10	3	4	3	5	3	4	
Malaysia	85.4	27.1	98.0	57.9	74.6	93.8	208.0	49.8	61
	3	5	12	2	10	13	11	5	
Vietnam	20.1	0.8	94.5	38.8	56.9	46.7	180.0	62.7	67
	13	12	8	9	5	3	9	8	
Laos	67.8	0.7	19.2	0.0	47.2	23.2	141.0	39.8	50
	6	13	2	13	4	1	8	3	
Cambodia	70.3	0.7	17.9	0.0	40.9	41.6	12.0	22.8	38
	5	13	1	13	2	2	1	1	
Brunei	NA	NA	NA	NA	NA	NA	NA	NA	--
China	33.5	6.1	92.4	51.3	74.4	61.3	590.0	71.2	72
	12	11	7	3	9	6	14	10	

Source: The World Bank Open Data. National benchmarking of supply chain ecosystem capabilities is measured in terms of supply chain risk mitigation capability and supply chain responsiveness capability with five subdimensions, respectively. This is a comparative assessment and analysis of countries' capabilities and performance within their supply chain networks, aiming to identify strengths and areas for improvement in the overall supply chain ecosystem.

Each country's specific score is recorded first, and the next row is the rank score among 14 countries (Brunei's score is unavailable). For example, for Cyber Risk Readiness, Singapore is the highest (98.5, thus with a rank score 14) and Cambodia is the lowest (17.9, rank score 1). On the other hand, For Climate Risk Intensity, Japan is the highest (97.8, thus the rank score is 1), and Cambodia and Laos are the lowest two countries (0.7, thus 13). Rank score total is shown in the last column. In terms of supply chain ecosystem capability, Korea, Taiwan, Singapore, China, Japan, and India are listed in the highest group. On the other hand, Cambodia, Bangladesh, Laos, and the Philippines show relatively low score totals.

Table 5 reports supply chain ecosystem competitiveness (SCEComp), which refers to the ability of a country's supply chain ecosystem to effectively and efficiently compete in the global marketplace. It encompasses a range of factors, strategies, and capabilities that enable a nation's supply chain to excel in performance, innovation, resilience, and responsiveness. Two key indicators are trade facilitation efficiency performance (TFEP) and logistics infrastructure competitive performance (LICP). TFEP represents a country's ability to streamline and optimize international trade processes, reducing barriers and increasing the efficiency of cross-border transactions [27–29]. LICP indicates a country's ability to provide a competitive and efficient logistics infrastructure that supports the seamless movement of goods, reduces costs, and enhances supply chain connectivity [30–33]. Both Trade Facilitation Efficiency Performance (TFEP) and Logistics Infrastructure Competitive Performance (LICP) are critical because they directly impact a country's ability to compete in the global marketplace by reducing trade barriers, lowering transaction costs, and improving supply chain efficiency.

These two key performance indicators (TFEP and LICP) contribute to measuring NSCEComp. These indicators provide insights into a country's supply chain ecosystem's efficiency, effectiveness, and overall capabilities. These indicators reflect the overall health and competitiveness of a nation's supply chain ecosystem and are essential benchmarks for policymakers, businesses, and other stakeholders seeking to enhance the NSCEComp. A strong performance in TFEP and LICP contributes to a resilient, agile, and responsive supply chain ecosystem that is well-prepared to navigate challenges and capitalize on opportunities in the global trade landscape.

Specific measures adopted as indicators of TFEP are trade flow productivity (e.g., custom process time and port turnaround time), whereas LICP reports the indicators related to supply chain and logistics infrastructure flow effectiveness (e.g., supply chain timeliness, infrastructure quality index, sustainability competitiveness score). Table 5 shows the national benchmarking of supply chain ecosystem output. It reports nations' supply chain ecosystem performance in terms of trade facilitation efficiency performance (TFEP) and logistics infrastructure competitive performance (LICP). Each country's specific score is recorded first, and the next row is the rank score among 14 countries, including China (Brunei's score is not available). For example, for the port dwell time median that measures TFEP, Japan is the lowest (0.4 and thus its rank score is 14), and Bangladesh is the highest (5.4 and thus its rank score is 2). On the other hand, in the sustainable competitiveness score that measures LICP, Korea is the second best (55.9 and thus its rank score is 13) next to Japan (56.2 and thus its rank score is 14). The Philippines is 11th among 14 nations (41.9, and thus 5). The rank score total is shown in the last column. In terms of supply chain ecosystem competitiveness, Japan, Korea, Taiwan, China, and Singapore are listed in the highest group. On the other hand, Bangladesh, Laos, and India show relatively low score totals.

Table 5. National benchmarking of supply chain ecosystem competitiveness indicators.

Country	Trade Facilitation Efficiency Performance				Logistics Infrastructure Competitive Performance				Total Score
	Av. Import Dwell Time (NFD to DLV) (Day)	Cons. Dwell Time (Day) (Import)	Port Dwell Time Median (Import)	Turnaround Time at Port (Day)	SC_Timeliness Index	SC_Infrastructure Quality Index	Turnaround Time With Ship's TEUh	Sustainable Competitiveness Score	
Japan	2.6	5.5	0.4	0.3	93.4	79.8	0.5	56.2	90
	6	2	14	14	13	13	14	14	
South Korea	1.4	5.7	5.6	0.7	79.3	59.7	1.0	55.9	67
	11	1	1	12	12	11	6	13	
Taiwan	1.3	5.2	3.9	0.5	70.9	70.9	0.8	44.2	74
	12	4	4	13	9	12	12	8	
Singapore	1.6	1.5	1.5	1.0	96.2	96.9	1.2	48.5	79
	10	14	11	3	14	14	2	11	
India	3.0	2.7	1.5	0.9	61.5	34.3	1.0	39.3	54
	4	11	11	6	6	8	6	2	
Indonesia	2.6	2.3	2.2	1.1	68.8	30.4	1.1	45.7	55
	6	12	9	2	7	6	3	10	
Bangladesh	4.9	5.5	5.4	3.0	37.4	15.2	3.0	39.7	16
	2	2	2	1	2	3	1	3	
Thailand	2.1	4.3	3.3	0.8	74.9	29.7	1.1	44.7	57
	9	6	8	7	10	5	3	9	
Philippines	2.9	5.0	4.9	1.0	39.9	28.2	1.1	41.9	31
	5	5	3	3	3	4	3	5	
Malaysia	1.1	3.6	3.6	1.0	60.1	47.2	1.0	43.1	57
	13	8	6	3	5	10	6	6	
Vietnam	2.6	3.6	3.6	0.8	68.9	31.5	0.9	44.2	61
	6	8	6	7	8	7	11	8	
Laos	NA	2.9	0.6	0.8	33.9	12.8	1.0	39.3	42
	1	10	13	7	1	2	6	2	
Cambodia	3.1	2.1	2.1	0.8	47.1	8.6	0.8	39.8	54
	3	13	10	7	4	1	12	4	
Brunei	NA	NA	NA	NA	NA	NA	NA	NA	--
China	3.4	3.7	3.7	0.8	76.0	39.0	1.0	51.1	59
	2	7	5	7	11	9	6	12	

Source: The World Bank—Supply Tracking Data and Logistics Performance Index 2023.

Figure 2 shows the clusters of Altasia countries in comparison to China. It represents the total score of each nation in terms of national supply chain ecosystem capability (Table 4) and national supply chain ecosystem competitiveness (Table 5). It also provides somewhat unexpected results. First, China's position is below Altasia's leading group of neighbors (Japan, Korea, Taiwan, and Singapore). In absolute terms, China's supply chain ecosystem capabilities and supply chain ecosystem competitiveness are much bigger than any Altasian countries'. The result has to do with the standardized and qualitative nature of the data provided by the United Nations. Both supply chain ecosystem capability and competitiveness are not in absolute terms, but in comparative terms. In other words, despite its huge scale advantage, China has been reported to be consistently below Korea, Japan, and even Singapore in terms of national competitiveness or supply chain ecosystem capability.

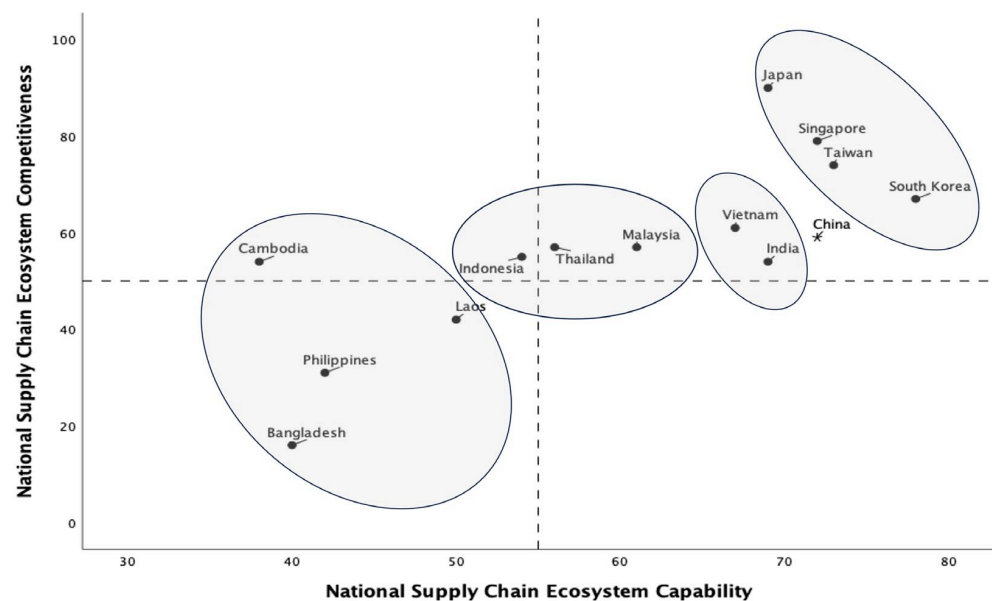


Figure 2. National supply chain network ecosystem: capability and competitiveness scores.

While China has invested heavily in infrastructure development over the years, some other countries in the region, such as South Korea and Japan, are renowned for their advanced technological capabilities and well-established infrastructure. Korea and Japan have been at the forefront of innovation in various sectors, including electronics, the automotive industry, and robotics, giving them a competitive edge in the global market [34].

The quality and efficiency of goods and services play a crucial role in national competitiveness. While China has a vast manufacturing base, it has faced challenges related to product quality and adherence to international standards in some cases. In contrast, countries like Japan and South Korea have built a reputation for high-quality products and efficient production processes, which can be more attractive to global customers.

Singapore, Japan, and South Korea have often been noted for their business-friendly environments, ease of doing business, and relatively low levels of bureaucracy and corruption. These factors can be critical in fostering innovation, attracting investments, and supporting supply chain ecosystems. China, on the other hand, may face issues related to regulatory complexities, intellectual property protection, and other challenges that can impact its competitiveness in certain industries.

4.2. Altasia and China: Independence and Interdependence

Altasian countries are different from China in terms of national identity, the integrity of national borders, separate governance systems, cultural heritage, and historical experiences. Therefore, these Altasian countries are certainly separate entities, and thus, they may assume the role of providing critical supply chain capabilities similar to those of China.

Table 6 shows several key indicators of comparing China and the 14 Altasia countries. It shows that China's scale advantage is not absolute, even in purely quantitative factors. The study findings suggest that Altasian countries lack in absolute terms (e.g., GDP and total land and water size). Yet, with other quantitative indicators such as population size, trade volume (export + import), foreign reserve, and numbers of Fortune 500 and Forbes 2000 firms, the total combined strength of Altasia countries is comparable to that of China. It suggests that the combined capabilities and potential of Altasia are comparable to China's.

Table 6. Comparison of key indicators: China vs. Altasia (14 countries).

	Population (Million)	GDP (Million)	Land (km ²)	Export (Million)	Import (Million)	Foreign Reserve (Billion)	Fortune 500 Firms+ Forbes 2000
China	1412	19,373	9,326,410	295,000	205,000	3177	442
Altasia (Total)	2356	14,959	7,277,733	322,403	364,715	3865	495
Altasia/ China	166.88%	77.21%	78.03%	109.29%	177.91%	121.66%	111.99%

Note: All monetary units (e.g., GDP, export, import, foreign reserve) are in USD.

While there has been a serious discussion about diversifying supply chain capabilities away from China, the process of replacing China's supply chain capabilities with other nations is not a straightforward task, and can face several challenges due to the interdependence, shared interests, and direct engagements these countries have with China. Below are three key reasons why these countries might not be able to replace China's supply chain capabilities quickly.

Table 7 shows trade between China and Altasian countries. All Altasian countries have deeply intertwined economic relationships with China. China serves as a major trading partner, both as a source of raw materials and components, as well as a significant market for finished goods. This interdependence results from decades of economic integration and specialization in regional production networks. Disentangling from these networks and finding alternative sources can be complex and time-consuming. Sudden shifts could disrupt existing supply chains and lead to economic losses for all parties involved.

Table 7. Trade volume (in billions of USD) between China and Altasian countries (2022).

Country	Export to China	Import from China	Total Trade	Trade Balance
Japan	184.4	172.9	357.4	11.5
South Korea	199.6	162.6	362.2	37.0
Taiwan	238.0	81.5	319.6	156.6
Singapore	33.9	81.1	115.1	−47.3
India	17.4	118.5	135.9	−101.1
Indonesia	77.7	71.3	149.0	6.5
Bangladesh	0.88	1.62	2.5	−0.74
Thailand	56.5	78.4	134.9	−22.0
Philippines	23.0	64.6	87.7	−41.5
Malaysia	109.8	93.7	203.5	16.2
Vietnam	89.7	146.9	234.9	−58.9
Laos	2.48	1.67	4.2	0.8
Cambodia	1.94	11.3	13.2	−9.4
Brunei	2.21	0.8	3.0	1.41
Grand Total	1035.3	1086.09	2120.1	−52.34

Data source: general administrations of customs of China.

Table 8 shows the trade volume of major countries in the EU (e.g., Germany, UK, France, Italy), North America (e.g., US, Canada, and Mexico), South America (e.g., Brazil and Argentina), the Middle East (e.g., Saudi Arabia and Iran), and Africa (e.g., Egypt, Nigeria, and South Africa). China's trade flows with major Asian countries (e.g., Japan, Korea, Taiwan, India, and Indonesia) are relatively larger than those of any countries from the EU, North America, South America, the Middle East, and Africa.

Table 8. Trade volume (in billions of USD) between China and other major regions (2022).

Country	Export to China	Import from China	Total Trade	Trade Balance
EU				
Germany	111.3	116.2	227.6	−4.9
UK	21.8	81.5	103.4	−59.7
France	35.5	45.6	81.2	−10.1
Italy	26.9	50.9	77.8	−24.0
North America				
USA	177.6	571.7	759.4	−404.4
Canada	42.4	53.7	96.1	−11.3
Mexico	16.2	44.8	61.0	−28.6
South America				
Brazil	109.5	61.2	171.5	48.3
Argentina	5.9	12.6	18.5	−6.7
Middle East				
Saudi Arabia	39.1	28.1	67.2	11.0
Iran	5.9	8.2	14.1	−2.3
Africa				
Egypt	1.2	18.1	19.3	−15.9
Nigeria	3.0	21.9	24.9	−18.9
South Africa	20.5	20.6	41.1	−0.1

Data source: general administrations of customs of China.

This suggests that while diversifying supply chains away from China might be a goal for some industries or sectors, it is not necessarily in the best interest of these countries to sever ties with China completely. Maintaining diplomatic and economic relations with China is crucial for regional peace and prosperity. Moreover, China's Belt and Road Initiative (BRI) and other regional infrastructure projects offer investment and economic development opportunities. Balancing the pursuit of new supply chain options with maintaining overall economic stability can be a delicate task.

Rapidly replacing China's supply chain capabilities might jeopardize the long-held relationships between these countries and China, potentially disrupting the economic gains achieved through these collaborations. While there is a desire to diversify supply chain capabilities away from China, the process is complex and faces challenges due to the existing interdependence, shared interests, and historical engagements that these countries have had with China. Therefore, transitioning to alternative sources of supply chain capabilities away from China will likely take time, requiring careful planning and strategic coordination among the involved nations.

5. Lessons and Implications

This study has several limitations that warrant careful consideration. While our findings offer valuable insights into the supply chain dynamics within the context of

Altasia, it is crucial to recognize the boundaries within which these conclusions should be interpreted.

Firstly, our benchmark comparison between China and the 14 Altasian countries relies on qualitative indicators such as competitiveness, environmental performance, and national supply chain capability. These indicators, while informative, are inherently qualitative and open to interpretation. The scale factor used for standardization is essential for facilitating a fair comparison, but it may not necessarily provide an absolute or universally applicable measure. Therefore, it is imperative to view the results presented in Figures 1 and 2 as reflective of the relative positions of these 15 countries within our specific supply chain ecosystem context. Extrapolating these findings to different industries and regions should be done cautiously, as variations in industry-specific nuances and regional factors can significantly impact the outcomes.

Secondly, the use of a multi-scaling method to assign rank orders, though suitable for our comparative analysis, might not be ideal for comparing 15 countries across all possible contexts. The method is tailored to our research framework and objectives, which focus on supply chain ecosystem capability and competitiveness. Applying this method to alternative research questions or diverse industries may yield different results. It is essential to understand that our study's findings should be regarded as specific to the parameters and criteria we employed. In summary, while our research offers valuable lessons and implications within the realm of Altasia's supply chain dynamics, we emphasize the need for caution when generalizing these findings to other industries and regions. The qualitative nature of our indicators, coupled with the specific context of our research framework, underscores the importance of considering industry-specific nuances and regional variations when interpreting and applying our conclusions. Future research endeavors should aim to explore these limitations more comprehensively to provide a more nuanced understanding of the generalizability of our findings. Despite these limitations, the findings of this study provide several meaningful lessons and implications.

5.1. Theoretical Implications

First, this study provides theoretical support for the idea of Altasia. When the Economist first mentioned the term Altasia, it was based on anecdotal evidence of how fourteen neighboring countries of China might be an alternative to China during a heated debate on decoupling. Although Altasia is not a theoretical concept, this study provides a rational basis for continuous discussion about Altasia as an alternative to China [35,36]. There is a power to concepts. The concept of the European Union has encouraged the nations in Europe to move forward towards a somewhat cohesive group of nations [37,38]. BRICS has provided more opportunities for the pursuit of shared interests [39,40]. In a similar fashion, Altasia, if well-articulated and established, has the potential to move these fourteen nations towards bigger goals that they had never imagined before. Besides several media reports, this is the first journal paper that examines the concept of Altasia from a global supply chain perspective.

Moreover, this study draws upon established international relations theories, such as regional integration theory and comparative advantage theory, to lend further credence to the potential viability of Altasia. Regional integration theories, often exemplified by the success of the European Union, highlight how neighboring countries can benefit from increased economic cooperation and reduced trade barriers. Similarly, comparative advantage theory, which has been a cornerstone of international economics, underscores the potential gains from specializing in industries where each nation holds a competitive edge. By applying these theoretical frameworks to the Altasia concept, this study underscores the theoretical underpinnings that support the idea of collaborative economic growth among the Altasian countries.

Second, this study examines the conceptual framework underpinning national-level benchmarking studies. The history of benchmarking spans over half a century, evolving beyond the confines of firms and industries. The extension of benchmarking practices to

the national level is a logical progression from the established benchmarks at the firm and industry levels [41,42].

This study proposes a methodical exploration of intricate national-level phenomena by employing the ranking order method and real-world data. This research dissects the dimensions of national-level benchmarking studies through the lens of supply chain ecosystem capability and competitiveness, coupled with qualitative and quantitative national indicators.

These studies at the national level hold significance as they unravel the strengths and weaknesses within a country's supply chain and logistical infrastructure. The robustness of these elements substantially amplifies a nation's competitive edge on the global stage. A well-developed supply chain not only assures prospective investors of seamless operations and mitigated risks, but also establishes a cornerstone for economic progress. By gauging their supply chain capabilities relative to their counterparts, policymakers gain insights to guide strategic improvements, mitigate bottlenecks, and streamline international trade procedures. In essence, this study underscores the theoretical foundation and wider implications of national-level benchmarking studies, emphasizing their role in enhancing global economic resilience and cooperation.

Third, this study sheds light on the growth imperatives within Altasia countries and provides avenues for further theoretical exploration. Recognizing the heterogeneous nature of these fourteen nations is crucial, given their diversity across numerous dimensions. This diversity is evident in their varying levels of economic advancement, distinct supply chain capabilities, and disparities in logistical infrastructure. Additionally, this research underscores the differing paths of policy implementation, unique manufacturing strengths, and the influence of distinct national cultures across these nations.

For example, Japan's well-established manufacturing expertise and advanced technological infrastructure make it a leader in many sectors. Conversely, countries like Vietnam and Bangladesh, leveraging their cost-effective labor markets, emerge as competitive manufacturing centers. These distinctions are also reflected in the realm of logistics. Singapore's strategic port infrastructure contrasts with the nascent logistical networks in Cambodia, shaping their roles in the global supply chain arena.

Furthermore, the strategies for attracting foreign direct investment vary significantly among nations. Japan's innovation-centric incentives contrast with labor-driven policies observed in other Altasia countries. These intricacies weave a complex fabric of interactions, prompting the need for a theoretical exploration that unravels how these factors converge to drive growth throughout the Altasia region. Notably, the trajectory of Korea offers a remarkable testament to this potential for transformation, as it has progressed from a war-torn, third-rate country to one of the world's most advanced nations in less than 70 years. Thus, it is evident that a focused theoretical inquiry holds value in unraveling the interplay between national manufacturing capabilities and supply chain logistics [43–45].

5.2. Practical Implications

Several key considerations emerge in charting a course for the practical implications of Altasia countries' economic and supply chain strategies. These considerations are integral to fostering a comprehensive understanding of the region's unique dynamics, acknowledging its interdependence with China, and outlining the steps necessary to establish it as a robust global supply chain landscape alternative. As such, this section delves into the practical implications of emphasizing interdependence, capitalizing on comparative advantages, fostering strategic collaborations, and navigating the complex intersection of international markets and geopolitical priorities.

First, we emphasize interdependence and gradual development. In pursuing Altasia countries' economic advancement, it is imperative to underscore their interconnectedness with China, while acknowledging that their progress will likely unfold gradually due to their differing starting points and capabilities. It is vital to recognize that Altasia countries are far from homogenous entities; rather, they are characterized by significant diversity

across various facets, including economic development and supply chain capabilities. An essential aspect to consider in the practical utilization of Altasia countries lies in recognizing the distinction between these nations and China, while understanding their interdependent relationship. Altasia countries cannot be treated as isolated entities; rather, their dynamics are intertwined, necessitating a nuanced approach. Notably, Altasia countries are diverse in terms of economic development and supply chain capabilities. It is crucial to acknowledge that Altasia countries might not rapidly match China's manufacturing and supply chain prowess due to their varying starting points. In this context, business leaders must not only be attuned to geopolitical considerations, but also remain steadfast in their strategic long-term directions [46,47]. Despite geopolitical rivalries, the mechanisms of international markets and business-to-business interactions may not always align with the broader geopolitical landscape.

Second, we should establish a robust and cooperative framework, capitalizing on unique strengths and implementing actionable strategies for short-term impact. To solidify Altasia as a compelling alternative to China within the global supply chain landscape, an integrated and coherent framework must be forged among the diverse member nations. This calls for a strategic orchestration of each country's distinctive strengths, effectively creating a united supply chain network that stands out for both reliability and competitiveness. Realizing Altasia's potential as a formidable alternative to China necessitates the development of a collaborative framework that accommodates the diversity of the member nations while aligning their collective efforts toward reliability and consistency.

In a short-term horizon of fewer than five years, two specific suggestions can be pursued to expedite this transformative process: Establishing an "Altasia Council for Supply Chain Advancement" can serve as a dedicated platform for high-level strategic coordination. This council, comprising representatives from each Altasia nation, would oversee the implementation of cooperative strategies, monitor progress, and address challenges collectively. Such an international institutional quality mechanism could support initiatives that drive continuous supply chain improvements, such as enhancing cross-border trade facilitation, optimizing logistics routes, and jointly developing advanced manufacturing technologies [48,49]. Incorporating these suggestions into the overarching strategy would pave the way for a more cohesive Altasian supply chain network and position the consortium as a compelling alternative to China within a relatively short span.

Third, leverage comparative advantages to foster strategic collaborations for shared prosperity. The realization of Altasia's supply chain potential relies on recognizing and effectively utilizing the unique strengths of each nation. These nations can establish distinct roles in the global market by nurturing a cooperative strategy that harnesses specialized manufacturing, service excellence, and cost competitiveness. Much like how China showcases diverse capabilities across its regions, the 14 Altasia countries should collectively utilize their proficiencies to form a resilient supply chain network. While they may not function as a singular entity akin to the European Union, they can draw upon specialized manufacturing and services.

Harnessing the expertise of each country—such as Japan, Korea, and Taiwan's manufacturing prowess, the cost competitiveness of Vietnam and Bangladesh, and Cambodia's textile industry—will be pivotal. To thrive as pivotal supply chain centers, these nations should prioritize investments in modern infrastructure, cultivate skilled workforces tailored to sectors of comparative advantage, and establish supportive investment promotion agencies. Existing partnerships between countries like Japan/India, Korea/Vietnam, and Indonesia/Japan should be expanded. Altasia nations can work towards shared prosperity by bolstering these networks, and promoting growth in Northeast, Southeast, and Southwest Asia [50–52]. Balancing collaboration with competition within this framework can ensure the collective progress of these countries while respecting their individual goals and strategies [53–55].

6. Conclusions

In the realm of future research, there is a wealth of untapped potential awaiting exploration. Firstly, extending our investigation to delve deeper into the dynamics of specific Altasian countries, their unique challenges and opportunities presents an exciting avenue for further inquiry. As we continue to witness the evolution of these nations and their interplay within the global supply chain landscape, a finer-grained analysis could shed light on the intricacies of their growth trajectories. Moreover, investigating the evolving role of technology and digitalization in Altasia's supply chain development offers a promising area for research. With the increasing integration of Industry 4.0 technologies and the digitalization of supply chains worldwide, understanding how Altasian countries harness these tools to bolster their competitive advantage is essential. Additionally, exploring the geopolitical aspects and international relations implications of Altasia's emergence as a supply chain hub warrants a thorough investigation, as these factors will significantly shape the region's future. Ultimately, future research extensions in the Altasia context lie in dissecting the multifaceted dimensions of this dynamic region, providing valuable insights for scholars, policymakers, and businesses alike.

In conclusion, the path to shared prosperity within Altasia requires fostering strategic collaborations that balance competition and cooperation. In navigating these practical implications, business leaders must remain attuned to geopolitical shifts without compromising their long-term strategic visions. The evolving landscape requires agility and foresight, balancing the demands of international relations with the pursuit of sustainable supply chain development across Altasia nations.

Author Contributions: Conceptualization—P.H. and Y.S.C.; data collection and formal analysis—H.-W.C., F.A. and Y.S.P.; writing—original draft preparation, P.H.; writing—review and editing, P.H. and Y.S.C.; visualization, H.-W.C.; project administration, P.H. All authors have read and agreed to the published version of the manuscript.

Funding: This research has no external funding support.

Institutional Review Board Statement: The study did not require ethical approval for external reviews.

Informed Consent Statement: This study does not require informed consent.

Data Availability Statement: All data sources are stated in each table as needed.

Acknowledgments: Anonymous review comments are recognized with helpful suggestions.

Conflicts of Interest: The authors declare no conflict of interest.

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