Research Paper

Examining the Regional Economic Integration: Analysis of Cross-border Trade among ASEAN, China, and India

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Abstract

Researchers have studied economic integration since the late 20th century as global markets become interconnected. ASEAN, China, and India are critical political, economic, and infrastructural players, with a growing middle class of over 3.50 billion projected to rise as the fourth-largest economy by 2030. This study examines trade policies, GDP, FDI, proximity, and regional agreements to assess trade flows and economic integration. This study uses a gravity model with panel data regression (1999-2023) to examine regional trade flows. The gravity model estimates the impact of economic size and distance on trade volumes, whereas panel data regression evaluates the relationship between trade policies and economic integration. Data include trade statistics from secondary sources. The finding reveals that economic integration improves trade volume through aligned policies and economic interdependencies. The gravity model highlights that economic size and proximity sustain trade flows, whereas FDI shows a positive correlation, indicating the potential for more profound integration; the trade potential model examines how trade policies and economic size affect intra-regional commerce, a topic rarely studied in the literature. This study calculates trade potential, offering insights for policymakers to improve trade efficiency. Unlike past research that has isolated ASEAN, China, and India, this study provides a comprehensive regional perspective. However, these limitations exclude exchange rates, technology, language, tariffs, and post-2023 applicability.

Keywords: *Regional Economic Integration; Cross border trade; Trade flows; the Regionalism Theory; Gravity Model*

INTRODUCTION

Regional economic integration has emerged as a transformative force in Asia, driven by ASEAN, China, and India. Although existing studies highlight trade creation effects (Balassa, 2011; Jose & Samudra, 2022), limited attention has been paid to the convergence of per capita income and equitable development across these regions. For instance, ASEAN-China trade reached USD 685.28 billion by 2022 (ASEAN Secretariat, 2022), and India's Look East Policy underscores its strategic pivot toward the organization. However, geopolitical tensions, infrastructure gaps, and regulatory barriers persist, raising questions about the long-term sustainability of integration. This study addresses these gaps by examining how Free Trade Agreementss (FTA), Foreign Direct Investment (FDI), and geopolitical factors shape intra-regional trade dynamics and economic convergence.

Economic unification among ASEAN, China, and India reveals the future economic growth prospects based on increased trade volumes. ASEAN-China trade volumes reached USD 685.28 billion by 2022 (ASEAN Secretariat, 2022), and ASEAN-India trade values reached USD 131.5 billion (Ganai et al., 2023). These figures indicate the increasing interdependence between these regions but also highlight the challenges, such as political tensions, infrastructural deficits, and regulatory barriers limiting the possibility of integration in the long term. Recent global liberalization and multilateralism trends, such as the WTO and China's increasing influence,

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emphasize the importance of economic integration. South Asia, Sub-Saharan Africa, and Southeast Asia (ASEAN) have witnessed phenomenal economic growth, and ASEAN has furthered regional integration through initiatives like the ASEAN Free Trade Area (AFTA) and the ASEAN Economic Community (AEC). China's economic and political influence continues to expand, while India's Look East Policy aims to foster closer ties with ASEAN and beyond (Chia & Sussangkarn, 2006; Liu et al., 2023). While COVID-19 disrupted global economies, it has also reinforced the need to strengthen regional partnerships and trade corridors, as evidenced by China's Belt and Road Initiative (BRI) and India's economic ambitions.

The current literature has primarily focused on the effects of trade creation and diversion, often overlooking deeper economic dimensions such as per capita income convergence and broader developmental outcomes within ASEAN, China, and India. Although trade integration has been widely studied, important factors like market access, FDI, and intra-regional trade flows have not received adequate attention in a unified framework. In addition, limited research has examined the influence of institutional mechanisms, including geopolitical strategies and FTA, on regional dynamics. This study addresses these gaps by applying a gravity model framework to analyze the multifaceted impacts of regional integration, focusing on initiatives such as the Belt and Road Initiative (BRI) and India's Look East Policy. It provides a more comprehensive understanding of how trade policies, economic scale, and strategic cooperation shape cross-border economic relations and the effectiveness of integration among ASEAN, China, and India (Chia, 2013; Gurunathan & Moorthy, 2021).

The ASEAN Economic Community (AEC) symbolizes a commitment to economic integration despite the region's diverse stages of economic development. The ASEAN-India-China Comprehensive Economic Cooperation Framework (AICEC) and other agreements have furthered regional integration through liberalization measures and infrastructure development (Batra, 2007). ASEAN integration initiatives have contributed positively to international trade negotiations and global policy (Banda & Whalley, 2005; Maria et al., 2017). However, geopolitical insecurity, regulatory hurdles, and infrastructure deficits hinder integration. ASEAN's projected middle-class expansion and China and India's demographic advantages will position the region as one of the world's largest economic entities by 2030 (ASEAN Prosperity Initiative, 2022; Liu et al., 2023). Despite this potential, regional cooperation faces significant obstacles, including the need for sustainable development, particularly in green financing and energy transitions. ASEAN's renewable energy goals, which require significant financial investments, highlight the ongoing challenges to achieving comprehensive regional integration (ASEAN Prosperity Initiative, 2022).

Figure 1 presents the conceptual framework for understanding cross-border trade and regional economic integration among ASEAN, China, and India. The figure explains how economic integration increases international trade, improves price competitiveness, boosts GDP growth, and influences FDI. The main agreements, including AFTA, AIFTA, ACFTA, and RCEP, are initiated as critical ways for expanding trade demand and economic growth. The conceptual framework underscores the interdependence of economic integration levels—political unions, economic unions, common markets, and customs unions. Therefore, this study explores the dynamics of cross-border trade and examines how regional economic integration influences trade flows, foreign investment, and long-term cooperation. The evaluation will assess the effectiveness of trade agreements and analyze the impact of regional integration on geopolitical stability and economic growth. This research aims to provide valuable insights for policymakers and stakeholders engaged in regional economic planning and integration efforts using quantitative panel data analyses, gravity model analysis, and empirical studies. The following research questions are:

a. How do China and India contribute to ASEAN economic integration and cross-border trade?

b. How does FDI affect trade between ASEAN countries, China, and India?
c. Do FTAs and geopolitical factors affect trade cooperation among ASEAN, China, and India?

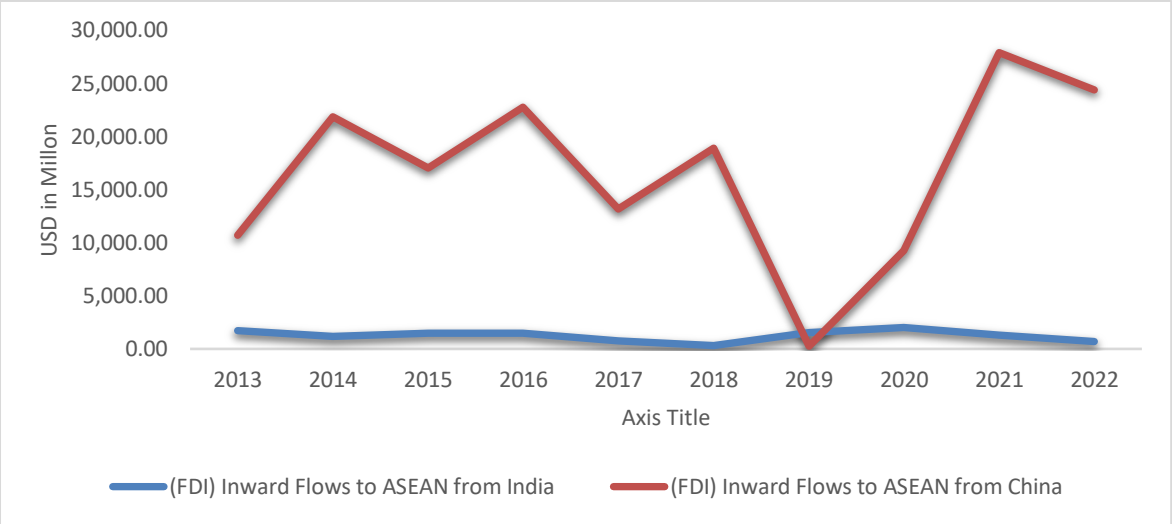


Figure 1. FDI Flow to ASEAN Countries
Source: ASEAN Secretariat, (2022)

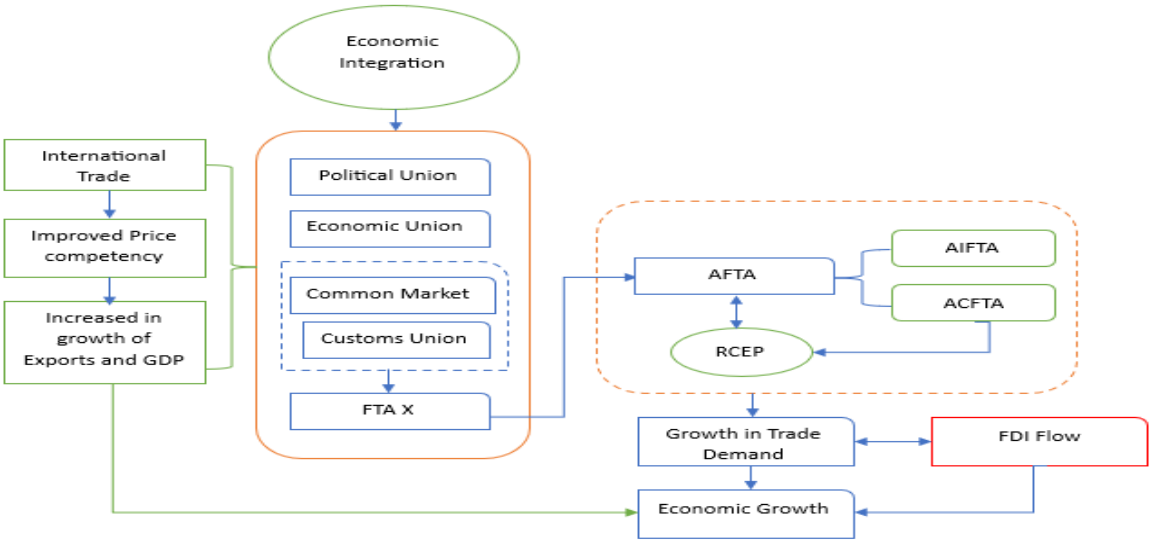


Figure 2. Conceptual Framework
Source: Author's contemplation

LITERATURE REVIEW

This section highlights the theoretical and empirical underpinnings of the models described. The core unresolved issue driving this study is the limited effectiveness of regional economic integration in producing equitable and sustainable growth among ASEAN countries despite rising geopolitical tensions and power asymmetries. This study aims to understand how integration frameworks can address these challenges to promote balanced development.

Theoretical Foundations and Strategic Impacts of Cross-Border Trade Dynamics

No country or economy of today can afford isolation by itself because global connections for development are essential. As a result, innovation and global collaboration have become the focus of the changing economy. The seminal 1961 work from Balassa (1961) introduced the concept of

economic integration and highlighted its potential for mutual benefit through resource reallocation. However, the conventional effects of both trade creation and diversion mattered very little for less developed countries (LDCs). The integration theory was fully developed after World War II. Its purpose was to encourage cooperative development. ASEAN and the AEC are regional frameworks indeed supported by these theoretical models, yet stronger empirical analysis is needed because of limitations in fully addressing disparities among member states (Balassa, 2011; Brada & Mendez, 1985).

Integration plays the most critical role when productive forces grow during such periods. Trade creation is expected to thrive when countries are competitive and cooperative; however, such conditions often do not apply to most LDCs. Trade diversion extensively dominates instead because these aspiring industrializes rely heavily on industrial goods from advanced or newly industrializing economies (El-Agraa, 1989). Few small domestic markets also obstruct industrial growth in LDCs and necessitate that markets expand to attract optimal plant setups, reinforcing the importance of cross-border trade and economic integration matters (Brada & Mendez, 1985). This rationale also supports the need for comprehensive frameworks like the AEC Blueprint 2025, designed to address internal economic divides among ASEAN members.

Trade is no longer confined to exchanges between nation-states; intra- and inter-industry trade in goods now accounts for nearly 70% of total international trade and is growing faster than overall trade in goods and services. The expansion of service trade—from less than 5% in 1990 to approximately 24.7% in 2023—is also notable. More than two-thirds of total foreign direct investment now originates from services and continues to grow steadily (World Bank, 2023). This transformation in trade patterns highlights the need for updated regional integration models that incorporate services and digital trade as central drivers of economic growth.

The research examined the reasons among ASEAN members for integrating and trading with neighbouring countries, such as India and China. The paper highlights the original theories related to integration and cross-border trade because almost all developed or underdeveloped countries have obliged themselves to increase trade openness. Policymakers are looking at how the maximum effects of the benefits are to be gained from integrated country agreements—from FTA to Bilateral Trade Agreements (BTAs) — for significantly long-term contributions to international cooperation (Banda & Whalley, 2005; Rajan & Sen, 2004).

Figure 3. Intra-ASEAN Trade

Source: ASEAN Secretariat (2022) and IMF

After all this time, ASEAN has moved far on the road to economic integration over the last six decades. Much progress has been made in these areas. However, the membership of ASEAN countries may differ in their varied backgrounds and levels of economic advancement, as well as in political systems, and diffusion comes with these initiatives, such as the AEC. An AEC is considered a region with full integration of its members within a competitive global economy (ASEAN Prosperity Initiative, 2022). Although many critics argue that the AEC is not more than political rhetoric, ASEAN's steady shift from preferential trade agreements to comprehensive blueprints like the AEC 2025 has laid the foundation for genuine regional integration (Maria et al., 2017).

Although ASEAN might not intend to create a customs union, the above can be regarded as a significant contribution of the "open regionalism" strategy in inducing economic advancement and industrial growth. This approach has also met some challenges regarding Member States' development gaps. Nevertheless, the efforts and activities of ASEAN have included tariff reduction, liberalization of services, streamlining investment rules, and promotion of regional cooperation, all of which positively impact economic integration for the region (Jose & Samudra, 2022; Sen, 2006). The annual report by ASEAN Statistics regarding the open regionalism approach reveals how intra-ASEAN trade grew significantly through surges in the trade of goods and services.

In 2023, ASEAN's international merchandise trade showed a moderate decline of 11.9%, improving from an earlier contraction of 14.6%. More recent data exhibit, however, that intra-ASEAN trade has significantly enhanced, with the following nations making the most progress among the top five best performers in recovery from COVID: Brunei Darussalam, followed by Vietnam, Singapore, Thailand, and the Philippines (ASEAN Prosperity Initiative, 2022; ASEAN Secretariat, 2023).

China's Belt and Road Initiative (BRI) has been an important economic and geopolitical tool that has crossed borders and is instrumental across ASEAN and India. China has adopted the hybrid economic model, boosting regional trade with its influence (Chiang, 2019). India has further enacted liberalization policies to strengthen economic relationships across borders. In addition to enabling trade, India's Look East policy is synchronized with economic integration in Asia and even the Make campaign in India to redefine much of the trade chains in the region (Garg, 2022; Gurunathan & Moorthy, 2021). Both India and China play crucial roles in shaping and deepening the ASEAN economic and trade market, thus architecting the future economic space of the region.

Furthermore, digital technology and globalization have revolutionized business operations, expanded market reach, and enhanced productivity. These changes have benefitted small- and medium-sized enterprises (SMEs), enabling them to compete globally. The digital economy presents new growth opportunities, particularly when complemented by solid governance, human capital, and robust legal frameworks (Hv & Tonby, 2014; World Bank, 2015). Policymakers in ASEAN, China, and India are increasingly adopting the concept of new regionalism to stimulate economic development by promoting cross-border trade. Although traditional economic integration theories still hold significance, the current policy landscape is influenced by the constraints of multilateralism and the evolving global economic framework. The theory of new regionalism provides a pragmatic and adaptable approach to addressing these global and regional issues, particularly considering the difficulties encountered in multilateral discussions.

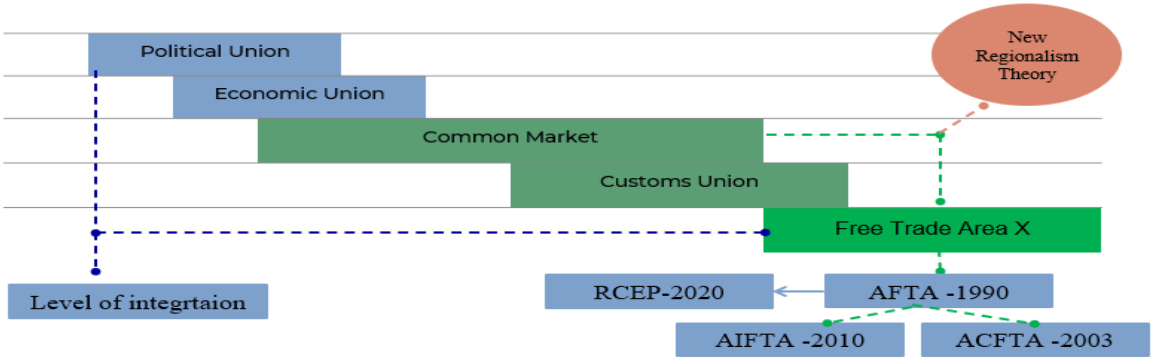


Figure 2. Level of Integrating
Source: Authors' Compilation

Regional organizations such as the ASEAN have been instrumental in promoting economic integration. This development is part of a larger global trend toward economic collaboration that is increasingly region focused. The initiative to establish an Asian free trade area in the early 1990s represented a significant step toward regional cooperation. This trend gained momentum after the Asian financial crisis (1997–1998) and the unsuccessful WTO Ministerial Conference in Seattle (1999). Regionalism theory posits that geographic closeness, economic interdependence, and shared cultural characteristics can drive nations to create regional blocs to tackle shared issues collectively. Additionally, a phenomenon referred to as the "domino effect" often occurs, where countries not included in existing regional trade agreements strive to join or create new ones to prevent their sidelines. This trend has expanded the focus of trade negotiations to encompass goods, services, investment, and regulatory cooperation, thereby enhancing economic integration (Rajan & Sen, 2004; Sen, 2006).

Economic integration manifests in various forms, including FTAs and comprehensive Economic Unions. FTAs focus on removing internal trade barriers while allowing countries to maintain their external trade policies. Customs unions and common market's advance this concept by promoting the unrestricted movement of goods, services, labor, and capital. The most sophisticated level of integration, Economic Unions, aligns fiscal and monetary policies to address non-tariff barriers and institutional inefficiencies (Plummer, 1997; Sen, 2006). However, overlapping FTAs and complex rules of origin confuse businesses, delaying integration efforts (Rajan & Sen, 2004). Geopolitical tensions and power imbalances further challenge equitable outcomes, particularly in less developed countries. This raises a core question for this study: How does the economic integration between ASEAN, China, and India impact cross-border trade, given the persistent disparities and geopolitical shifts?

In conclusion, economic integration diminishes global inequalities and catalyses inclusive growth, regional stability, and institutional collaboration. The evolution from the foundational principles of Customs Union Theory to the more sophisticated frameworks of the Economic and Monetary Union illustrates the growing significance of regionalism in Asia, particularly among ASEAN, China, and India, in facilitating cross-border trade and regional development. Initiatives such as the ASEAN Free Trade Area (AFTA) highlight the capacity of integration to strengthen regional identity and economic resilience. Nevertheless, it is essential to recognize and address the negative impacts on non-member states to maintain the advantages of a liberalized global trade environment.

Regional Comprehensive Economic Partnership

The Regional Comprehensive Economic Partnership (RCEP), signed in 2020 and entered into force in 2022, is the world's largest free trade agreement, encompassing 15 countries, including all ASEAN member states, China, and, to a lesser extent, India through its trade partnerships, despite India opting out of the agreement. The RCEP represents a significant milestone in institutionalizing trade rules, improving market access, and reducing tariff and non-tariff barriers among its members (Adila & Suryadipura, 2023). By creating a harmonized trading bloc that integrates various pre-existing ASEAN+1 FTAs, the RCEP aims to strengthen regional supply chains, stimulate investment flows, and promote inclusive economic development.

The RCEP structure builds on ASEAN's centrality in regional economic cooperation and is often viewed as a strategic response to other mega-trade agreements like the CPTPP. While the RCEP is less ambitious regarding environmental and labor standards, it focuses on economic pragmatism and inclusivity, especially for developing economies. With its emphasis on rules of origin (ROO) consolidation and e-commerce facilitation, the RCEP is positioned to foster more predictable trade conditions and reduce costs for businesses engaged in cross-border transactions (Anshari & Ali, 2023; Zhai, 2023).

The RCEP has particular relevance for ASEAN, China, and India's broader trade strategies, even if India has chosen not to participate in the agreement. China's growing role within the RCEP underscores its leadership in the Asia-Pacific trade architecture, reinforcing its Belt and Road Initiative's goals and extending its economic influence through formalized channels (Garg, 2022; Zhang, 2023). The RCEP complements existing trade commitments and furthers the ASEAN Economic Community (AEC) efforts. The agreement's investment, services, intellectual property, and digital trade provisions represent a broader framework than most of ASEAN's bilateral FTAs.

From a theoretical perspective, the RCEP reflects elements of both new and open regionalism theories. It embodies economic rationality and strategic interdependence while remaining open to future accessions and maintaining links with global trade institutions. Critics argue that without India's participation, the RCEP might fall short of its full potential as a comprehensive regional pact. Nonetheless, the agreement has initiated structural shifts in production and trade networks, encouraging firms to relocate and integrate within RCEP's geographic perimeter (Garg, 2022; Zhai, 2023).

Quantitative studies predict that the RCEP could lead to substantial gains in real income and trade volumes for participating countries, particularly for smaller ASEAN economies. Projections by the World Bank and Asian Development Bank indicate a cumulative GDP gain of up to $209 billion by 2030 for members, with intra-RCEP trade expected to rise by over 10% due to lowered trade costs and simplified regulatory procedures (Khati & Kim, 2023; World Bank, 2015). These outcomes highlight the RCEP's potential to narrow development gaps and strengthen economic integration in East Asia.

Despite its promise, RCEP's effectiveness depends on member countries' commitment to reforming domestic regulations, enhancing transparency, and building institutional capacities. The success of the implementation lies not only in tariff elimination but also in harmonizing technical standards, improving trade facilitation, and ensuring equitable benefits across member states. As such, the RCEP represents both an opportunity and a challenge, offering a platform for deeper economic cooperation while demanding greater coordination among diverse economies.

Economic Approaches of China and India in the ASEAN Context

The ASEAN is pivotal in promoting regional economic integration and cooperation within Asia. As ASEAN strives to achieve its economic community goals, understanding cross-border trade dynamics and their policy implications is crucial. This literature review explores relevant research,

theories, and empirical findings related to this multifaceted topic.

ASEAN plays a crucial role in promoting economic integration throughout the Asian region. As it progresses toward its objectives for the ASEAN Economic Community (AEC), the economic strategies of China and India have gained increasing importance in shaping its trade dynamics and regional influence. China's involvement with ASEAN has significantly grown through initiatives such as the ASEAN-China FTA, which removed most tariffs for the ASEAN-6 by 2010 and for the CLMV countries by 2015. While nations like Thailand and Singapore have actively pursued trade liberalization, others, including Indonesia and the Philippines, have adopted a more cautious approach, reflecting their national economic priorities (Adila & Suryadipura, 2023; Rajan & Sen, 2004). In addition to trade liberalization, China has sought to enhance regional integration through infrastructure and digital connectivity, particularly through the Belt and Road Initiative (BRI) and the International Land-Sea Trade Corridor (ILSTC), which support logistics, e-commerce and investment flows (Liu et al., 2023; Zhai, 2023). China's trade supremacy is evident as it stands as ASEAN's largest trading partner, representing 22.9% of imports and 14.8% of exports in 2022. The negotiations for the Version 3.0 China-ASEAN Free Trade Agreement began in 2022, focusing on strengthening cooperation in goods, investment, and digital and green economies (ASEAN Secretariat, 2022, 2023).

India has enhanced its economic relationships with ASEAN through the "Look East" policy, which later evolved into the "Act East" initiative, leading to the establishment of the ASEAN-India FTA in 2009. Additional frameworks, such as the Comprehensive Economic Cooperation Agreement (CECA) with Singapore and the Mekong-Ganga Cooperation, have facilitated growth in bilateral and regional trade (Ganai et al., 2023; Garg, 2022; Hong, 2007). India's competitive advantages are primarily found in its services sector, especially in business process outsourcing (BPO), along with robust GDP growth and favorable demographic trends. Despite its relatively small share in ASEAN trade, accounting for 3.6% of exports and 2.3% of imports in 2022, India presents significant long-term strategic opportunities for regional diversification (Kato, 2022; Sudan, 2022). The dynamics of digital trade and financial innovation shape cross-border transactions increasingly. The launch of China's digital RMB and the expansion of e-commerce through frameworks like the RCEP create new possibilities for integration. Furthermore, China's partnerships with ASEAN in areas such as agriculture and biosecurity, particularly with Myanmar, further enhance regional interdependence (Ganai et al., 2023).

Table 1. Trade Destinations in ASEAN, India, and China

Country/Region	Export		Import	
	Share %-2021	Share %-2022	Share %-2021	Share %-2022
ASIAN	21.7	22.9	23.9	21.6
China	16.4	14.8	20.9	22.9
India	3.1	3.6	2.3	2.3
Total	**41.2**	**41.3**	**47.1**	**46.8**

Source: ASEAN Secretariat (2022) and IMF

Table 2. Trade destinations in other countries

Country/Region	Export		Import	
	Share %-2021	Share %-2022	Share %-2021	Share %-2022
United States	14.9	14.8	6.7	6.9
EU-27	8.9	9	7.4	6.3
Japan	6.6	6.8	7.8	7.2

Country/Region	Export		Import	
	Share %-2021	Share %-2022	Share %-2021	Share %-2022
Hong Kong	6.6	5.8	0	0
Korea: Republic of Korea	4	4.1	7.2	7.5
Taiwan	3	3	6.9	6.9
UAE	0	0	2	2.4
Australia	2.5	2.6	2.4	2.6
Others	12.2	12.4	12.5	13.5
Total	**58.7**	**58.5**	**52.9**	**53.3**

Source: ASEAN Secretariat (2022) and IMF

In summary, growing regionalism in Asia has resulted in a complex web of economic agreements. Although the welfare implications of Asia's new trade arrangements remain uncertain, ASEAN benefits from its central position in the region. ASEAN must work hard to maintain unity and develop intra-ASEAN cooperation to fully capitalize on its strategic position. Prioritizing the creation of a comprehensive and expanded manufacturing base and continued investments in infrastructure and connectivity will promote cross-border trade and strengthen economic integration between ASEAN, China, and India.

RESEARCH METHOD

Data Source

This study employs quantitative research methods to examine regional economic integration and its impact on ASEAN, China, and India to understand the importance of multilateral cooperation in fostering economic growth. This study uses a gravity model with panel data regression to examine trade flows among ASEAN, China, and India from 1999 to 2023. The gravity model estimates the impact of economic size and distance on trade volumes, whereas panel data regression evaluates the relationship between trade policies and economic integration. In addition, unit roots are checked, and co-integration relationships are examined. The data comprise trade statistics from WDI, CIPE, and ASEAN countries, with variable descriptions and sources detailed in Table 3.

Table 3. Variable Description and Source

Variables	Description	Unit	Source
Dependent Variable			
Trade	Trade flow between country	current US$	WDI
Independent Variable			
FDI	Foreign Direct Investment flows	current US$	WDI
RealGDP	The sum of ASEAN'GDP (India, China)	current US$	WDI
Economic_ Size GDP Distance	GDP Growth absolute difference in GDP between regions	current US$ current US$	WDI
Population	Total geographic population of the region	Number of People	WDI

Distance/Remote	Geographical distance between trading countries in the region	KM	CIPE
Geopolitical	Political Stability and Cooperation	Trade (% of GDP)	WDI
Policy	Specific trade policies and regulatory measures affecting trade	Trade (% of GDP)	WDI
Dummy Variables			
Dev_Status	Development level of the country (one if developed, 0 if not)	1,0	ASEAN Stats
FTA	**Indicating a Free Trade Agreement (1 if present, 0 if not)**	**1,0**	**ASEAN Stats**

Econometric Methods

The gravity model is widely used to estimate trade flows between member countries and regions. Newton's law of Universal Gravitation leads one to derive the gravity model. Gravity theories hold that the amount of trade between two countries directly depends on their relative sizes—typically the economic size as shown by GDP—and inversely on the distance between them—as a surrogate for transportation costs. Gravity notions were first applied to economic relationships by Tinbergen (1962) and Pöyhönen (1963) (Sarin, 2018; Zhai, 2023). Classical gravity models traditionally have limited functionality because they only use cross-sectional data and a single set of equations to estimate trade flows between two countries at a given time. Still, academics have added more to the basic form to highlight other factors influencing bilateral commerce.

The basic Traditional gravity model equation is:

$$trade_{ij} = C * \frac{GDP_I * GDP_j}{Dist} \text{.....1}$$

The standard gravity model does not provide the theoretical foundations but has improved. Our study uses the extended form of the gravity model with panel data analysis that includes essential variables, such as trade, GDP, Economic size, Population FDI, and others. Panel data analysis is a relatively new development that has induced a paradigm shift by providing a more comprehensive understanding of how trade evolves in numerous sites over time. This technique gained momentum and remarkably became popular because of its ability to enrich our knowledge of evolution (Silva & Tenreyro, 2006; Zhai, 2023). Therefore, we have two separate equations: ASEAN and India and ASEAN and China. We will now understand the trade flows between India and China from the ASEAN.

Equation for ASEAN-India

$$\text{LNtrade}_{ij} = \beta_0 + \beta_1 lnRealGDP_{ij} + \beta_2 lnPop_{ij} + \beta_3 lneconomicsize_{ij} + \beta_4 lnFDI_{ij} + \beta_6 lnremote_{ij} + \beta_7 lnGDP\_Distance_{ij} + \beta_8 policy_{ij} + \beta_8 Geopolitical_{ij} + \beta_{10} FTA_{ij} + \beta_{11} Dev\_status_{ij} + \mu ij \text{.....2}$$

Equation for ASEAN-China

$$\text{LNtrade}_{ij} = \beta_0 + \beta_1 lnRealGDP_{ij} + \beta_2 lnPop_{ij} + \beta_3 lneconomicsize_{ij} + \beta_4 lnFDI_{ij} + \beta_6 lnremote_{ij} + \beta_7 lnGDP\_Distance_{ij} + \beta_8 policy_{ij} + \beta_8 Geopolitical_{ij} + \beta_{10} FTA_{ij} + \beta_{11} Dev\_status_{ij} + \mu ij \ldots\ldots\ldots\ldots 3$$

FINDINGS AND DISCUSSION

Data validation

Adding exogenous variables is a typical way of expanding the gravity model. Nevertheless, this study has been able to propose novel models due to multiple co-linearities and substantial uncorrelation among the independent variables. Given the significant uncorrelatedness between variables, this study conducted a correlation coefficient analysis on the variable data before introducing the specific model. The data were analyzed for correlation coefficients and were treated accordingly before introducing the model. This study analyzes the correlation coefficients of the variables and treats them accordingly before introducing the specific model. Before conducting the regression analysis, the data are tested for smoothness, correlation, and cointegration; specifically, the correlation analysis test is conducted, and the results show that a strong correlation among all variables has a good correlation.

The descriptive statistics for ASEAN, India, and ASEAN, China are in Tables 4 and 5 provide a comprehensive view of economic indicators and dynamics in these regions, as the mean and median provide information about each variable's central or typical values. In contrast, the range (maximum and minimum) reflects its variability/spread. The descriptive statistics for ASEAN-India and ASEAN-China trade data from 1999 to 2023 show notable patterns. For both datasets, the mean trade value (LNTRADE) was relatively high, with ASEAN-China having a slightly lower mean (7.625) than ASEAN-India (7.718). Key variables, such as GDP, population, and economic size, show moderate to high values across both models, with ASEAN-China having a higher mean real GDP (29.348) than ASEAN-India (28.062). The data also reveal significant variations in variables like policy, geopolitical, and remote location influences, with some skewness observed, particularly for geopolitical factors (highly skewed negatively for both). Additionally, the standard deviations of 1.978 for ASEAN-India and 2.532 for ASEAN-China reinforce the argument about differences in trade intensity, which supports the notion that regional economic integration has resulted in considerable yet unequal growth in trade among these continents (Alvstam et al., 2015). Overall, the distributions indicate a mix of moderate central tendency and varying dispersion in the trade and economic indicators for both regions.

The correlation matrix of linear relationship strengths between the variables is shown in Table 6 for ASEAN India and Table 8. for ASEAN China. The correlation matrices for ASEAN-India and ASEAN-China highlight the relationships between trade and economic indicators. For ASEAN-India, the strongest correlations were between LNTRADE and LNPOP (0.54) and between LNFDI and both LNTRADE (0.62) and LNECONOMICSIZE (0.52). Notably, geopolitical variables show weak negative correlations with most other variables. In the ASEAN-China matrix, LNTRADE shows a strong positive correlation with LNFDI (0.78), whereas LNPOP has moderate correlations with both LNTRADE (0.29) and LNFDI (0.46). Geopolitical factors also exhibit weak correlations, negatively affecting LNPOP and LNFDI. Both matrices show that FTA and DEV_STATUS have moderate positive correlations with trade and economic size variables.

To avoid pseudo-regressions, a unit root test on panel data is required to determine the stationarity of variables. The ADP, CIPS, and PP tests were conducted separately for each variable. The unit root test outcomes for ASEAN-India and ASEAN-China have been summarized in Tables 9 and 10. At all significance levels of 1%, 5%, and 10%, none of the variables are stationary at ADF,

PP, or CIPS tests in areas like ASEAN-India and ASEAN China. LNTrade, LNRealGDP, LNPop, LNEconomicSize, LNFDI, Remote, Policy, Geopolitical, and GDP_Distance do not reject the null hypothesis of a unit root, implying non-stationarity at a 0.05 level. In contrast, when first-order differences are used—testing for significance at an alpha of either 0.01, 0.05, or 0.1 level—these variables become stable after first differencing. These factors disprove the null hypothesis in this aspect. This implies that differencing must be performed before applying the gravity model analysis to ensure stationarity.

Because of the findings on panel data within ASEAN, China and India provide an essential understanding of trade dynamics, verifying the hypothesis on economic integration and its impact on trade. OLS regression results show that trade is significantly influenced by population size; ASEAN-China gains an impressive 17.16% increase in trade for every 1% increase in population, while this is different in ASEAN-India, where the relationship is more complicated or less direct. In both cases, Real GDP influences trade volume since ASEAN-China gains 1.40% in trade per 1% rise in GDP while ASEAN-India gains 0. 71%. Another driver of global commerce is FDI, which rises 1% and generates an extra 0.43% for ASEAN-India and 0.56% for ASEAN-China. Trade between China and economic size benefits from a positive relationship; trade between India and economic size suffers from a negative relationship.

Supportive policies are crucial for enhancing trade, as favorable measures are associated with a 0.60% trade increase. Moreover, distance has varied results; it affects commerce with China, which is unfavorable but somewhat favorable for India. While ASEAN-China trade relies heavily on maritime routes and faces geopolitical challenges, ASEAN-India trade benefits from historical land-based connections and India's Act East Policy, launched in 2014. Although China's BRI enhances infrastructure, bureaucratic hurdles may still make distance a significant barrier to ASEAN-China trade, whereby India's Act East Policy has focused on strengthening land and maritime linkages, which may explain why distance has a relatively positive impact on ASEAN-India trade. Geopolitical considerations and FTA have different effects; although FTAs significantly increase trade with China, they impact bilateral trade between India and ASEAN countries less.

Considering the findings, it can be summarized that, in line with the proposed hypotheses, the determinants of cross-border trade among ASEAN, China, and India include population size, economic size, FDI, and supportive trade policies. These results reflect the complex interplay of various factors influencing trade and highlight how economic cooperation and integration are essential for promoting regional trading links (Akhter & Ghani, 2010; Silva & Tenreyro, 2006; Kien, 2009). The Hausman test was used to identify the best regression model. Table 9 presents the results for ASEAN, China, and India. The final random-effects model is selected, and the regression model is presented and discussed.

Table 4. Descriptive Summary of Statistics for ASEAN and India

Sample:	**1999-2023**										
Observation	250										
	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Prob	Sum	Sum Sq. Dev.
LNTRADE	7.718	8.218	10.395	1.067	1.978	-1.248	4.177	79.330	0.000	1,929.616	974.587
LNREALGPD	28.062	28.253	29.033	26.852	0.665	-0.432	1.853	21.458	0.000	7,015.376	110.258
LNPOP	20.988	20.996	21.258	20.763	0.109	-0.02)	2.394	3.865	0.145	5,247.064	2.958
LNFDI	21.668	21.911	25.982	15.319	1.947	-0.373	2.786	6.267	0.044	5,417.114	943.777
LNECONOMIC SIZE	26.179	26.518	29.097	22.921	1.568	-0.337	1.933	16.587	0.000	6,544.770	612.302
GEOPOLITCAL	0.202	0.202	4.226	-7.604	1.590	-1.629	8.809	462.053	0.000	50.464	629.557
POLICY	126.180	99.060	425.363	32.667	89.712	1.686	5.310	174.071	0.000	31,545.060	2,003,992
REMOTE	2.391	2.396	3.116	1.589	0.382	-0.084	2.280	5.700	0.058	597.664	36.342
GDP_DISTANCE	7.468	7.172	11.363	2.435	1.927	0.243	2.295	7.634	0.022	1,867.016	924.239
FTA	0.728	1.000	1.000	0.000	0.446	-1.025	2.050	53.153	0.000	182.000	49.504
DEV_STATUS	0.672	1.000	1.000	0.000	0.470	-0.733	1.537	44.669	0.000	168.000	55.104

Source: Author Computation.

Table 5. Descriptive Summary of Statistics for ASEAN and China

Observation	**250**										
Sample	**1999-2023**										
	Mean	**Median**	**Maximom**	**Minimum**	**Std. Dev.**	**Skewness**	**Kurtosis**	**Jarque-Bera**	**Prob**	**Sum**	**Sum Sq. Dev.**
LNTRADE	7.625	8.447	11.056	1.788	2.532	-0.639	2.205	23.626	0.000	1,906.37	1,595.953
LNREALGDP	29.348	29.653	30.515	27.721	0.944	-0.396	1.677	24.747	0.000	7,337.06	221.703
LNPOP	21.062	21.058	21.247	20.949	0.063	0.750	3.610	27.320	0.000	5,265.47	0.988
LNFDI	21.668	21.911	25.982	15.319	1.947	-0.373	2.786	6.267	0.044	5,417.11	943.777
LNECONOMIC SIZE	26.179	26.518	29.097	22.921	1.568	-0.337	1.933	16.587	0.000	6,544.77	612.302

Observation	**250**										
Sample	**1999-2023**										
	Mean	**Median**	**Maximom**	**Minimum**	**Std. Dev.**	**Skewness**	**Kurtosis**	**Jarque-Bera**	**Prob**	**Sum**	**Sum Sq. Dev.**
GEOPOLITCAL	0.202	0.202	4.226	-7.604	1.590	-1.629	8.809	462.053	0.000	50.46	629.557
POLICY	126.180	99.060	425.363	32.667	89.712	1.686	5.310	174.071	0.000	31,545.06	2,003,992
REMOTE	3.248	3.299	4.268	1.720	0.604	-0.288	2.061	12.642	0.002	811.92	90.845
GDP_DISTANCE	8.256	8.370	11.235	4.127	1.444	-0.112	2.581	2.348	0.309	2,064.05	519.222
FTA	0.728	1.000	1.000	0.000	0.446	-1.025	2.050	53.153	0.000	182.00	49.504
DEV_STATUS	0.672	1.000	1.000	0.000	0.470	-0.733	1.537	44.669	0.000	168.00	55.104

Table 6. Correlation Matrix for ASEAN and India

	LNTRADE	**LNREALGPD**	**LNPOP**	**LNFDI**	**LNECONOMICSIZE**	**GEOPOLITCAL**	**POLICY**	**REMOTE**	**GDP_DISTANCE**	**FTA**	**DEV_STATUS**
LNTRADE	1.00										
LNREALGPD	0.42	1.00									
LNPOP	0.54	0.86	1.00								
LNFDI	0.62	0.51	0.50	1.00							
LNECONOMICSIZE	0.18	0.34	0.20	0.52	1.00						
GEOPOLITCAL	-0.19	0.10	-0.21	-0.06	0.11	1.00					
POLICY	0.23	0.06	-0.16	0.40	0.03	0.32	1.00				
REMOTE	0.41	0.67	0.72	0.49	0.09	-0.15	-0.08	1.00			
GDP_DISTANCE	0.14	0.30	0.11	0.43	0.02	0.18	0.47	0.47	1.00		
FTA	0.28	0.56	0.53	0.32	0.17	-0.05	-0.01	0.36	0.12	1.00	
DEV_STATUS	0.44	0.53	0.57	0.43	0.05	0.15	0.09	0.53	0.30	0.59	1.00

Table 7. Correlation Matrix for ASEAN and India

LNTRADE	**1.000**												
LNREALGDP	0.112	1.000											
LNPOP	0.295	0.635	1.000										
LNFDI	0.785	0.467	0.463	1.000									
LNEXPORT	0.971	0.155	0.335	0.766	1.000								
LNIMPORT	0.836	0.111	0.291	0.721	0.759	1.000							
LNECONOMICSIZE	0.665	0.312	0.083	0.524	0.670	0.585	1.000						
REMOTE	0.230	0.892	0.644	0.578	0.268	0.181	0.234	1.000	0.161				
POLICY	0.310	-0.006	-0.268	0.405	0.310	0.090	0.031	0.161	1.000				
GEOPOLITCAL	-0.201	0.090	-0.397	-0.058	-0.178	-0.269	0.113	0.098	0.318	1.000			
GDP_DISTANCE	-0.071	0.491	0.002	0.331	-0.085	-0.023	0.008	0.531	0.488	0.441	1.000		
FTA	0.132	0.579	0.416	0.322	0.159	0.108	0.175	0.547	-0.013	-0.054	0.264	1.000	
DEV_STATUS	0.228	0.540	0.512	0.434	0.230	0.290	0.051	0.562	0.087	-0.147	0.291	0.588	1.000

Table 8. Correlation Matrix for ASEAN and China

	LNTRADE	**LNREALGDP**	**LNPOP**	**LNFDI**	**LNECONOMICSIZE**	**GEOPOLITCAL**	**POLICY**	**REMOTE**	**GDP_DISTANCE**	**FTA**	**DEV_STATUS**
LNTRADE	1.00										
LNREALGDP	0.11	1.00									
LNPOP	0.29	0.64	1.00								
LNFDI	0.78	0.47	0.46	1.00							
LNECONOMICSIZ	0.66	0.31	0.08	0.52	1.00						

	LNTRADE	LNREALGDP	LNPOP	LNFDI	LNECONOMICSIZE	GEOPOLITCAL	POLICY	REMOTE	GDP_DISTANCE	FTA	DEV_STATUS
E											
GEOPOLITCAL	-0.20	0.09	-0.40	-0.06	0.11	1.00					
POLICY	0.31	-0.01	-0.27	0.40	0.03	0.32	1.00				
REMOTE	0.23	0.89	0.64	0.58	0.23	0.10	0.16	1.00			
GDP_DISTANCE	-0.07	0.49	0.00	0.33	0.01	0.44	0.49	0.53	1.00		
FTA	0.13	0.58	0.42	0.32	0.17	-0.05	-0.01	0.55	0.26	1.00	
DEV_STATUS	0.23	0.54	0.51	0.43	0.05	-0.15	0.09	0.56	0.29	0.59	1.00

Source: *Author Computation.*

Table 9. Unit Root Tests for ASEAN and India

	ADF				PP				CIPS			
	Level		1st Difference		Level		1st Difference		Level		1st Difference	
	Statistic	Prob.**	Statistic	Prob.**	Statistic	Prob.**	Statistic	Prob.**	Statistic	Prob.**	Statistic	Prob.**
LNTrade	20.43	0.43	107.41***	0.00	36.41**	0.01	163.4***	0.00	-0.2	0.39	-8.6***	0.00
LNReal GDP	16.66	0.67	70.50***	0.00	10.31	0.96	121.9***	0.00	-0.5	0.30	-5.8***	0.00
LNPop	23.05	0.28	4.810	0.998	267.5***	0.00	1.561	1.00	-1.3*	0.08	2.269	0.98
LNEconomicSize	10.18	0.96	81.08***	0.00	32.00**	0.04	111.7***	0.00	2.05	0.97	-6.5***	0.00
LNFDI	17.86	0.59	121.1***	0.00	34.97**	0.02	573.8***	0.00	-0.1	0.45	-9.6***	0.00
Remote	6.829	0.99	103.7***	0.00	4.947	0.99	214.1***	0.00	1.52	0.93	-8.4***	0.00
Policy	26.39	0.15	119.1***	0.00	27.83	0.11	204.5***	0.00	-1.0	0.14	-9.5***	0.00
GeopoliticaL	22.06	0.33	87.90***	0.00	30.17*	0.06	212.72***	0.00	-0.7	0.22	-7.3***	0.00
GDP_Distance	13.16	0.87	97.01***	0.00	16.87	0.66	158.47***	0.00	0.49	0.68	-7.8***	0.00

Notes: (*) Significant at 10%; (**) Significant at 5%; (***) Significant at 1% Source**:** Author Computation

Table 10. Unit Root Test for ASEAN and China

	ADF				PP				CIPS			
	Level		**1st Difference**		**Level**		**1st Difference**		**Level**		**1st Difference**	
	Statistic	**Prob.****	**Statistic**	**Prob.****	**Statistic**	**Prob.****	**Statistic**	**Prob.****	**Statistic**	**Prob.****	**Statistic**	**Prob.****
LNTrade	21.07	0.393	97.99***	0.00	60.9***	0.000	451.08***	0.00	-0.46	0.32	-7.8***	0.00
LNReal GDP	26.82	0.1402	19.54	0.48	29.14*	0.0849	45.56***	0.00	-1.83	0.03	-0.91	0.18
LNPop	4.698	0.9998	0.697	1.00	61.76***	0.000	0.126	1.00	2.299	0.98	5.73	1.00
LNEconomicSize	17.86	0.5966	81.08***	0.00	34.97**	0.02	111.7***	0.00	-0.11	0.45	-6.5***	0.00
LNFDI	10.18	0.9648	121.1***	0.00	32.00**	0.04	573.8***	0.00	2.052	0.97	-9.6***	0.00
Remote	16.86	0.6621	10.78	0.95	17.77	0.60	18.58	0.54	-0.53	0.29	0.52	0.70
Policy	26.39	0.1532	119.1***	0.00	27.83	0.11	204.5***	0.00	-1.03	0.14	-9.5***	0.00
GeopoliticaL	22.06	0.3372	87.90***	0.00	30.17	0.06	212.7***	0.00	-0.74	0.22	-7.3***	0.00
GDP_ Distance	20.98	0.398	87.27***	0.00	17.83	0.59	122.9***	0.00	-0.41	0.33	-6.8***	0.00

Notes: (*) Significant at 10%; (**) Significant at 5%; (***) Significant at 1% Source: Author Computation

Econometric Estimates of ASEAN China and ASEAN- India Trade.

Panel data were analyzed using several regression models, including mixed regressions, fixed-effects regressions, and random-effects regressions, to estimate the trade factors for ASEAN China and ASEAN India. The results of these regressions are displayed in the tables below.

Table 11. Regression results from three models- ASEAN and India

	OLS		**FEM**		**REM**	
Variable	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**
LNREALGPD	0.706*	0.074	3.343***	0.000	2.381***	0.001
LNPOP	9.377***	0.000	1.851	0.646	-0.635	0.890
LNFDI	0.434***	0.000	-0.016	0.814	0.002	0.983
LNECONOMICSIZE	-0.087	0.316	-1.982***	0.000	-0.835***	0.002
GEOPOLITCAL	-0.073	0.288	0.102**	0.024	0.058	0.331
POLICY	0.006***	0.000	-0.013***	0.000	-0.011***	0.000
REMOTE	0.262*	0.553	-3.429***	0.002	-2.033*	0.084
GDP_DISTANCE	-0.190*	0.010	0.341***	0.002	0.208	0.116
FTA	-0.191	0.477	0.066	0.655	0.134	0.506
DEV_STATUS	0.456*	0.091	0.074	0.635	0.060	0.777
C	-176.49***	0.000	-65.461	0.349	-19.366	0.810

Notes: (*) Significant at 10%; (**) Significant at 5%; (***) Significant at 1%

Source: Author Computation

Table 12. Regression results from three models- ASEAN and China

	OLS		**FEM**		**REM**	
	Coefficient	**Prob.**	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**
LNREALGDP	1.397***	0.000	1.121***	0.002	0.291	0.450
LNPOP	11.689***	0.000	-1.383	0.796	7.955*	0.073
LNFDI	0.564***	0.000	0.038	0.398	0.119**	0.038
LNECONOMICSIZE	0.883***	0.000	0.163	0.437	0.708***	0.000
GEOPOLITCAL	-0.158***	0.001	0.008	0.793	-0.038	0.323
POLICY	0.007***	0.000	0.006***	0.000	0.006***	0.000
REMOTE	0.530**	0.033	-1.519**	0.015	-0.258	0.690
GDP_DISTANCE	-0.242***	0.000	-0.024	0.663	-0.129**	0.055
FTA	-0.016	0.923	0.316***	0.001	0.360***	0.006
DEV_STATUS	0.41**	0.012	-0.305***	0.003	-0.267*	0.055
C	-233.8***	0.000	3.116	0.977	-171.481*	0.059

Notes: (*) Significant at 10%; (**) Significant at 5%; (***) Significant at 1%

Source: Author Computation

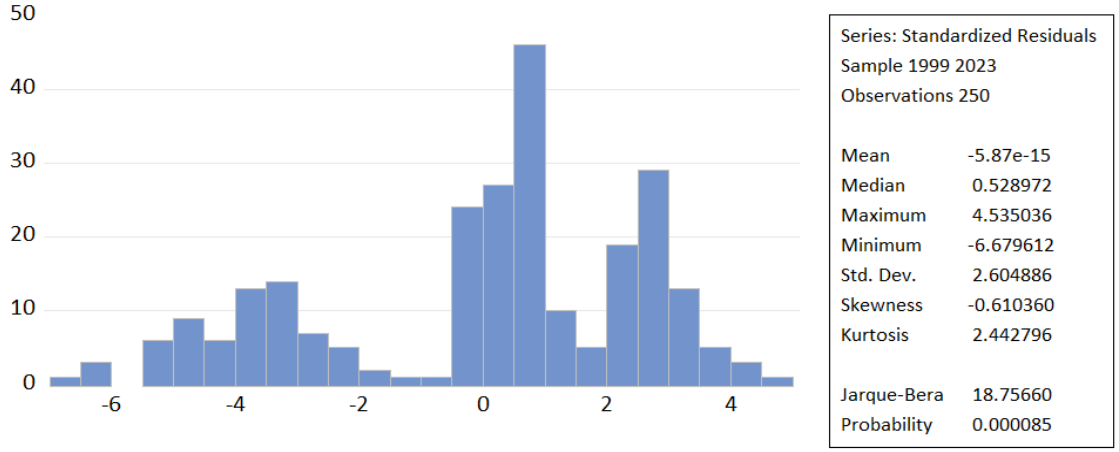
Table 13. Ftest, BP test, and Hausman test.

Test Description	**Test Result**		**Conclusion**
		Prob.	
F-test	Prob>F	0.000	FE>Ols
BP test	Prob>Chibar2	0.000	RE>Ols
Hausman test	Prob>Chibar2	0.9820	Ols>FE

The standardized residuals analysis further validates the model. The histogram of the standardized residuals shows zero-centered symmetry, indicating that the residuals are well-behaved. The descriptive statistics reveal that the mean and median of the residuals are nearly zero, suggesting that the model effectively predicts outcomes. Skewness and kurtosis coefficients are consistent with a normal distribution, and the Jarque-Bera test does not reject the null hypothesis of normality, as in Figures 3 and 4.

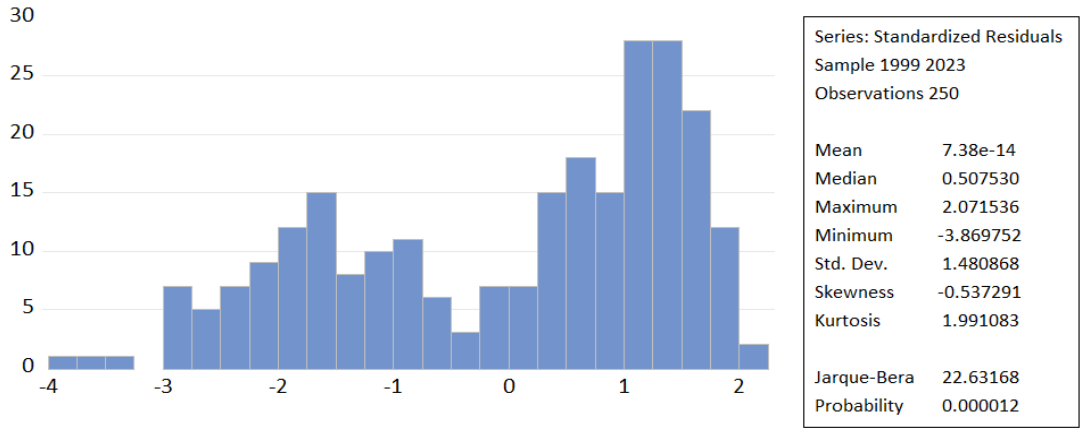
Finally, the ACFTA declared that reducing tariffs to 90% for a trade good by 2010 would boost their trade activities. Under the Belt and Road Initiative (BRI), China's investments increased trade connectivity through infrastructure investments. Reduction of non-tariff barriers would be a further advancement of market integration through the signing of the RCEP by 2020 (Bharti & Kumari, 2024). On the other hand, the AIFTA has gradually reduced tariffs on around 80% of trade. However, the effects have varied with those of the ASEAN, where India's exports to the ASEAN have substantially increased while India's trade deficit with the ASEAN is expanding. Such issues prompted India to withdraw from the RCEP in 2019 and push for revision of AIFTA to enhance market access and ameliorate the trade imbalances blamed for increased imbalances in both exports and imports with ASEAN countries (Bhowmick & Paul, 2024).

Figure 3. Normality Test–ASEAN China



Source: Author Computation.

Figure 4. Normality Test in ASEAN India



Source: Author Computation.

CONCLUSIONS

A comprehensive analysis of trade patterns between ASEAN, China, and India provides insights into their economic relationships and policies. Descriptive data in trade volumes vary; ASEAN-China trade exhibits more volatility than ASEAN-India. Greater mean trade volume and standard deviation for China indicate volatility and a more dynamic and chaotic trading environment. Real GDP figures show a mean far higher than those of India and ASEAN, suggesting a larger and more volatile economic base that affects trade dynamics and underscores China's economic dominance. This finding shows that regional economic integration affects cross-border trade between ASEAN states and China and India, specifically focusing on economic size, population factors, and FDI dynamics.

A 1% population increase between the ASEAN and China raises trade by 17.16%, while GDP growth leads to a 1.40% and 0.71% increase in the trade between the ASEAN and China and between the ASEAN and India, respectively. FDI also plays a critical role, enhancing trade with China by 0.56% and India by 0.43%. These findings suggest that economic integration expands trade growth, with ASEAN and China benefiting more from more profound integration. The study conducts unique empirical research on how ASEAN countries experience different trade outcomes, from China's trade cooperation to regional integration, economic size, and FDI, alongside geopolitical stability versus trade with India. This research indicates that historic ground pathways and India's Act East Policy help reduce the effect of geographic distance. In contrast, ASEAN-China trade, reliant on maritime routes, faces geopolitical and logistical barriers. A significant finding from the research shows that FTAs boost ASEAN-China trade levels to a greater extent than ASEAN-India trade relationships despite variations in economic integration between the regions.

Trade agreements and geopolitical factors influence economic growth and interdependence in various ways. This study shows that trade policies increase trade volumes for both ASEAN-China and ASEAN-India, with the latter causing a 0.60% increase. This emphasizes the significance of trade agreements and their development. Geopolitical stability has a negative but insignificant effect on ASEAN-China trade, whereas FTAs have no significant impact on ASEAN-India trade. This leads us to conclude that supranational agreements promote trade. However, their effectiveness is limited by the given regional and geopolitical conditions, thus requiring specific tailored public policies to address such challenges.

These study's issues and objectives primarily concern the present situation of trade across borders, the consequences of economic unification, and how FDI flows depending on the size of an economy. The results underscore the significance of countries in the same area working together and forming international alliances if they are to be long-lasting. The current study highlights the need for comprehensive policy frameworks to tackle complex issues, offering simplified insights into the economic processes behind trade patterns and regional integration, and providing fresh perspectives for policymakers, scholars, and stakeholders. This shows that since cooperation is more important than rivalry, the area has an opportunity for financial expansion and growth. This indicates that prioritizing cooperation over rivalry presents opportunities for financial growth, forming a foundation for policies and strategies that promote long-term economic integration and cross-border trade.

Policy Recommendations

Based on the findings of this study, The following policy recommendations are developed to address the complex trade dynamics between ASEAN, China, and India and strengthen regional economic integration based on the results and assumptions of the study:

1. Strengthen and extend FTAs: This study revealed that FTAS greatly influence trade volumes, particularly with China. Prioritizing industries with high trade potential, such as

technology, manufacturing, and services, will enhance trade efficiency. In contrast, India's trade imbalances should be addressed through targeted agreements that improve market access and competitiveness. Better FTAs will facilitate more trade and help maintain the local economy.

2. Invest in connectivity in infrastructure: The more open a country, the greater its involvement in trade. The study underlines the need to enhance infrastructure to reduce. Trade obstacles are brought about by location. Investing in transportation and logistics infrastructure—such as port development, rail line expansion, and ease of internet connection—is vital. Priority should be given to cooperative cross-border infrastructure projects that fill gaps and facilitate company business across borders.
3. Promote economic diversification and innovation because commerce is believed to be affected by economic size and growth. Therefore, we must pay attention to these aspects. Policies should support companies with plenty of space to expand and facilitate the beginning of new sectors, where specific policy measures, such as tax incentives for new industries, investment in research and development, and support for digital transformation, should be implemented. This approach reduces the risks of unstable trade balances and economies, improves trade flows, and strengthens the economy.
4. Handle Geopolitical and Policy Issues: This study demonstrates how geopolitical concerns and trade policies influence trade patterns. This study suggests a multilateral forum and regional dialogue mechanism to strengthen trade disputes and policy uncertainties. Strong diplomatic coordination and policy alignment will create a more stable trade environment.
5. Enhance regional integration through additional cooperation through joint projects and regional groups to improve the area's economic cooperation. Support should consist of cooperative research, development, and skill-building projects among people to enhance policy execution and strengthen economic links.

This study improves international trade theory by showing how regional integration, economic size, and investment shape trade between ASEAN, China, and India. Policymakers and industry stakeholders can work together to stabilize trade, and following these ideas will help ASEAN, China, and India address significant issues, boost trade, and advance local economic integration. These policies will help fulfil the study's objectives by addressing the elements influencing trade, promoting economic development, and strengthening regional cooperation. This study challenges conventional models by revealing ASEAN-China trade's sensitivity to economic and population shifts, while ASEAN-India trade relies on historical ties and logistics. The findings also examine that geopolitical stability alone does not drive trade, highlighting the need for region-specific policies. Signifying the gravity model, this study supports the role of economic size and distance while integrating geopolitical and policy factors, offering a nuanced perspective on trade strategy.

LIMITATION & FURTHER RESEARCH

Even though there is a significant amount of literature on regional economic integration in ASEAN, China, and India, there is still a noticeable lack of research in conducting thorough impact assessments of integration policies and their effects on cross-border trade dynamics and economic growth to compare and understand the long-run position. On the other hand, the existing studies show that the RCEP has become a significant multilateral trade agreement. However, there still needs to be clear empirical studies on how ASEAN avoids domination and external power over its regional market. Therefore, this Research will focus on one hand at evaluating the effectiveness of various integration initiatives, such as free trade agreements or infrastructure development projects, in promoting cross-border trade dynamics and economic

growth within the region as a comparison look.

More knowledge is needed regarding the difficulties and advantages of institutional frameworks and efforts to align regulations across various economies in the ASEAN, China, and India regions. This gap in research is significant when facilitating international trade and promoting economic integration. There may be limited research on the long-term effects of ASEAN, China, and India's economic integration on things like the environment, social inclusion, and wealth distribution. This study examines how healthy integration policies support long-term development goals, reduce income inequality, and help reduce poverty in the region. Invariably, more questions will arise for further study, such as whether present-day economic and political superpowers genuinely intend to protect trade practices across borders. FTAs will become the dominant global trading network if the WTO crisis is not resolved. Such excessive economic integration might increase adherence costs and the ever-present danger of disintegration; how does this affect ASEAN, China, and India.

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