



# A STUDY ON THE IMPACT OF REGIONAL TRADE AGREEMENT ON ASEAN TRADE FLOWS

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**Abstract:** As a result of the ASEAN- India Free Trade Agreement, members of the trade bloc will have easier access to the Indian request for near backups and semi-processed and reused agrarian products, which could have a negative effect on the Indian agrarian assiduity. Small and medium- sized businesses in India that produce food and other agrarian-affiliated goods, some intermediate goods, and products for light manufacturing are also anticipated to suffer. still, the liberalization of significances of intermediate goods will impel transnational businesses to streamline product in the region's iron and sword, chemicals, ministry, and transport outfit diligence. India may come more integrated in these sectors' product networks as a result. The average chance tariff cuts in Malaysia, Indonesia, and Thailand's Normal Track particulars are mainly lower than those in India, thus there are no significant immediate earnings for other Indian companies in terms of request access. India's job and livelihood challenges will probably come much more delicate as a result of the current FTA's neglect of the domestic husbandry sector's and manufacturing base's development conditions in favor of awaited earnings in ASEAN's service sector liberalization.

**Keywords:** ASEAN, Regional Trade Agreement, Gravity Model, Impact

## I. INTRODUCTION

### 1.1. Regional Trade Agreement

- A pact that's inked by two or further nations to promote the unrestricted inflow of goods and services across their boundaries is appertained to as an indigenous trading agreement.
- Transport of manufactured goods and services is hampered by proportions, tariffs, and other trade restrictions.
- Regional marketable agreements aid in lowering or removing trade obstacles.
- Moment, indigenous trade agreements (RTAs), along with worldwide multinational accords governed by the World Trade Organization, account for further than half of all transnational trade (WTO).
- numerous nations have laboriously tried to develop fresh, constantly more contemporary and forward- allowing bilateral and indigenous trade agreements in recent times in a trouble to expand trade and good profitable growth.

### 1.2. Types of RTA

These trading agreements vary depending on the level of commitment and the agreement among the member countries:-

- a) Preferential Trade Agreement
- b) Free Trade Agreement
- c) Customs Union
- d) Common Market
- e) Economic Union
- f) Full Integration

### 1.3. Benefits of Regional Trade Agreement

- a. Boosts Economic Growth
- b. Volume of Trade
- c. Quality and Variety of Goods

## 1.4. ASEAN

- The Association of Southeast Asian Nations (ASEAN) is a political and profitable union of ten member countries in Southeast Asia.
- It fosters intergovernmental cooperation and makes it easier for its members and other Asia- Pacific nations to integrate economically, politically, militarily, educationally, and socioculturally.
- For further than 50 times, ASEAN has supported indigenous stability and development, and it's immaculately positioned to break pressing indigenous enterprises.
- Promoting indigenous peace and stability grounded on the rule of law and the UN Charter was a secondary thing.
- By deciding to produce an ASEAN community with three pillars — the ASEAN Security Community, the ASEAN Economic Community, and the ASEAN Socio- Cultural Community — in 2003, ASEAN took a step toward emulating the European Union (EU).

## 1.5. ASEAN – India Free Trade Agreement (AIFTA)

The Framework Agreement on Comprehensive Economic Cooperation between ASEAN and India was inked in October 2003. It served as legal base to conclude farther agreements, including Trade in Goods Agreement, Trade in Services Agreement, and Investment Agreement. The AIFTA is now being accepted on husbandry, fisheries and forestry; services; mining and energy; wisdom and technology; transport and structure; manufacturing; mortal resource development; and other sectors. The ASEAN- India Trade in Services Agreement was inked in November 2014

**II. LITERATURE REVIEW**

- The China-ASEAN Free Trade Agreement (CAFTA) has been acknowledged as a significant step forward in regional economic integration. They studied the effect of CAFTA on the domestic fertiliser usage for the exported fresh fruits and vegetables from China to ASEAN nations over the period 1995-2015. (Li, 2022).
- Chinese ACFTA is governed by a number of regional and bilateral trade agreements that have been struck between China and other nations. They studied the effects of Chinese foreign direct investment (OFDI) in the ASEAN-5 nations of Indonesia, Malaysia, the Philippines, Singapore, and Thailand. (Mohamed Hisham Hanifa, 2022).
- In this paper she calculated the effect of particular RTAs (bilateral, SAFTA, APTA, ASEAN, and MERCOSUR trade bloc) and the regulatory quality of the partner country on India's export productivity. The results indicated that, in comparison to PTAs (MERCOSER and APTA), FTAs (ASEAN and SAFTA) and bilateral agreements have allowed India to significantly increase its exports. (Kaushal, 2022).
- The duration of imported trade relationships, tariff rates, and their connections were the focus of this article. He looked into how the difference in tariff rates affects the likelihood that a trade relationship will survive using survival analysis. Their report is based on the ASEAN+6 and takes into account 89 manufacturing trade partners from 1996 to 2011. (Lin, 2020).
- The objective of this paper was to evaluate, both retrospectively and prospectively, the efforts of East Asian nations to cooperate in order to liberalize the regional market. They looked into the reasons why there have been so many RTAs in East Asia. (Park, 2020).
- In this study, they examined Vietnam's bilateral trade and assessed its exploitation of trade efficiency both before and after its free trade agreements (FTAs) with China and India came into effect using the stochastic frontier estimation technique for the structural gravity model. The ASEAN-India Free Trade Agreement (AIFTA) had a favourable impact on Vietnam's bilateral trade flows between 2000 and 2015. However, the coming into force of the ACFTA had a strikingly negative effect on exports but not imports. Vietnam has also greatly decreased trade costs as a result of its involvement in regional trade agreements (RTAs) and free trade agreements. The ASEAN-India Free Trade Agreement (AIFTA) had a favourable impact on Vietnam's bilateral trade flows between 2000 and 2015, while they discovered a strikingly negative effect on Vietnam's exports but not imports following the coming into force of the ASEAN-China Free Trade Agreement (ACFTA). (Nguyen Xuan Trung, 2018).
- The ASEAN-China FTA (ACFTAFTA) was a critical stage in territorial monetary coordination for both China and the ASEAN nations, says the authors. The general impact of an FTA on FDI streams was an exact inquiry. FTAs might invigorate FDI through the impacts of market extension and vertical fracture, while they may likewise lessen FDI by a plant legitimization impact. (Gootiiz, 2017).
- He estimated the direct effects of the agreement on China and Indonesia. He argues that despite the fact that other political economy forces have also been at work, opposition to the agreement has contributed to the resurgence of non-tariff trade barriers in the nation. In the end, the agreement serves as a cautionary tale: If regional import tariffs are reduced, there may be pressure for trade policies that are more complicated and opaquer. (Marks, 2015).
- This study examined the impact of the ASEAN–China Free Trade Agreement (ACFTA) on ASEAN's exports to China. It found that the majority of tariff concessions provided by regional trade agreements are not utilized at a high rate, and that the region's manufactured goods trade is market-driven and governed by multinational corporations (MNCs). Duty-free imports in the export enclaves provided by the host economies for these multinational corporations also facilitated this trade. The determinants of trade were distinct for the two sectors, and the implementation of ACFTA had distinct effects on P&C versus final goods ASEAN exports to China when gravity estimation methods were applied to individual regressions. (Yi, 2014).
- ASEAN must align its infrastructure, human capital, and technologies in order to seamlessly move domestic industries up the global production value-chain. They used data on bilateral FDI from 2000 to 2009. The empirical findings demonstrate that FDI inflows are positively impacted by free trade agreements. (Narjoko, 2014).

### III. OBJECTIVES OF THE STUDY

- Assessing the impact of Regional Trade Agreement (RTA).
- Assessing the impact of ASEAN in trading between two countries.
- Impact of ASEAN in East Asian Countries.

### IV. RESEARCH METHODOLOGY

Our study has been on Secondary Data and the data has been collected from multiple sources like internet, books, journals and some references from the previous research papers or articles published.

The paper uses the gravity model to estimate India's export efficiency by using knowledge from theoretical and empirical literature. It combines a gravity model with a stochastic frontier method to effectively incorporate inefficiency and other unquantified multilateral resistances into a technical inefficiency term. The SF gravity model is recommended over OLS due to its robustness to outliers and its ability to produce unbiased estimates of the frontier parameters. It also deals with the endogeneity problem brought on by the inclusion of RTA dummies and facilitates the interpretation of the effects of different trade resistances, including RTAs, on trade efficiency and trade flows. The study uses Battese and Coelli's (1995) spec.

### V. DATA ANALYSIS

The Gravity Model is a model created by Tinbergen (1962) to explain bilateral trade between two countries. It is used to describe how trade cooperation, such as RTAs and FTAs, affects trade flows, with national output, distance, dummy variables, language, and dummy variables of common groups or blocs being used as trade determinants. The basic formula for gravity model is as under and the model is detailed by Frankel.

$$X_{ij} = \beta_0 (GDP_i)^{\beta_1} (GDP_j)^{\beta_2} (DIST_{ij})^{\beta_3} e^{\beta_4(LANG_{ij})} e^{\beta_5(ADJ_{ij})} e^{\beta_6(RTA_{ij})} \epsilon_{ij}$$

### VI. DATA INTERPRETATION

This study used a panel data set to select 60 partner nations based on their commerce with ASEAN, excluding those that derived more than 70% of their income from oil.

### VII. CROSS SECTIONAL GRAVITY EQUATION

The results of the OLS analysis of cross-sectional data using Ordinary Least Square (OLS) showed that GDP and distance correlations are strong and consistent across all time periods. The RTA was split into four ASEAN partners (ASEAN (CJK), APEA (A). The AFTA coefficient exhibits substantial results in 2000 and 2005 but insignificant results in all other years, suggesting that estimation is inconsistent. Hausman Taylor (HT) or Fixed Effect (FE) estimators are recommended to assess the effect of RTA internally on member. Data from East Asian countries of China, Japan, and Korea is provided to support this finding.

### VIII. FIXED EFFECT (FE) AND HAUSMAN TAYLOR (HT) MODELS AND ESTIMATIONS

Researchers have studied the statistical issue of heterogeneity in the gravity equation. To address this, Hausman-Taylor (HT) and Fixed Effect (FE) estimators can be used to fix unobserved individual effects in trade relationships. Panel data can be compared with estimates for bilateral fixed effects, bilateral and temporal effects, resulting in different variable coefficients in terms of sign and magnitude. Using estimates for both bilateral fixed and time effects reduce the majority of values and produces RTA variables, while excluding estimates for time-invariant variables while using only the bilateral trade fixed effect results in significant coefficients.

### IX. FINDINGS

Table 1. ASEAN Trade Share

| Year      | ASEAN | ASEAN+3 | AEASN+6 |
|-----------|-------|---------|---------|
| 2000-2004 | 5.90% | 19.00%  | 21.10%  |
| 2005-2009 | 5.90% | 21.00%  | 23.80%  |
| 2010-2014 | 6.60% | 24.30%  | 27.90%  |
| 2015-2019 | 7.10% | 25.50%  | 29.00%  |

Source: UNCTAD Statistic, 2021

Table 2. Applied Tariffs in ASEAN

|             | 2000  | 2010 | 2016 |
|-------------|-------|------|------|
| Brunei      | 7.85  | 2.51 | 0.5  |
| Darussalam  |       |      |      |
| Cambodia    | 16.43 | 9.5  | 9.77 |
| Indonesia   | 5.16  | 2.56 | 2.64 |
| Lao PDR     | 14.06 | 8.09 | 1.65 |
| Malaysia    | 4.810 | 3.12 | 4.02 |
| Myanmar     | 4.130 | 2.43 | 1.72 |
| Philippines | 3.77  | 3.96 | 4.17 |
| Singapore   | 0.04  | 0.05 | 0.07 |
| Thailand    | 9.54  | 5    | 3.52 |
| Vietnam     | 15.29 | 5.02 | 2.86 |

Source: The World Bank, 2021

## X. CONCLUSION

- The results of this study show that intra-ASEAN cooperation on AFTA has a positive and significant impact on trade flows, increasing trade by 89 percent.
- The consequence of foreign trade positively increases 2 percent of imports and 89 percent of exports to the rest of the world.
- Monitoring the impact of regional trade agreements outside ASEAN, ASEAN was divided into groups with China, Japan and Korea to mark integration with their East Asian counterparts and the ASEAN grouping with Australia, New Zealand and India.
- The results show that RTAs positively increase intra-member trade by 10 percent and 23 percent for ASEAN (CJK) and ASEAN (ANI).
- An analysis of spillover effects shows that regional trade agreements benefit internal trade flows, while having little effect on the diversion of trade from the rest of the world.
- Assessing the impact of the RTA on trade flows is a challenge to separate its impact from other agreements.
- Furthermore, the impact of a regional trade agreement can be felt long before it is signed.
- In addition, this study evaluates the impact of the six ASEAN regional trade agreements over 30 years without the Hong Kong regional trade agreement in 2019, so it can be added for further research.
- ASEAN regional cooperation and integration have been promoted through the ASEAN Economic Community established in 2015.
- The goal is not only to increase trade cooperation, but also to deeply connect the labour, investment and financial sectors of the region.

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