

## ANALYZING INDIA- CHINA TRADE GROWTH AND FUTURE OUTLOOK

India and China represent two largest and most dynamic societies in Asia which have emerged as new trend setters in international relations. Technological advancement, rising income and trade liberalization have been the main determinants to bring about significant changes in the composition and volume of global trade in the last two decades [1]. This presents a strong case for India to pursue an export led growth strategy. The interactions in bilateral trade over time put forth the importance of both the countries in each other's economic journey. China is the fourth largest export destination for Indian products but it is the number one import partner of India. For China, India is the sixth largest export destination but India ranks a distant 32<sup>nd</sup> rank in import partner countries of China. India is import dependent on China and to reduce its deficit it needs to increase its exports and become self-reliant. However given India's recent macroeconomic performance and its existing export structure, a turnaround would require a major structural transformation of the economy [2]. The economic progress of India and China have a great influence on the global economy. They are two rapidly growing powers which have made positive economic contribution to the world economy even though they differ in strength, timing and development processes of their economic take-off and the political systems governing the two nations. At the present age of globalization, the relationship between India and China bears an important place in the global economy [3].

To analyze India's trade performance with China, secondary data has been used from various authentic sites such as United Nations Commodity Trade Statistics and World for time period from 2001 to 2022. Following statistical techniques have been used in this study:

I. Compound Annual Growth Rate (CAGR)

Compound annual growth rate is India-China bilateral trade is analyzed.

$CAGR = (\text{Value final} / \text{Value initial})^{1/t} - 1$  where  $t$  = number of years

II. Trade Intensity Index (TII)

Trade Intensity Index (TII) signifies a country's importance in the world trade [4].

TII is mathematically obtained as following:

$$Tji = \frac{Xji}{Xjt} / \frac{Xwi}{Xwt}$$

here  $X_{wi}$ ,  $X_{ji}$  are the values of world exports and country  $j$ 's exports to country  $i$ .  $X_{jt}$  and  $X_{wt}$  are total exports of country  $j$  and total world exports respectively. An index of more than one shows a bilateral trade flow that is larger than expected given the partner country's importance in world trade and vice-versa [5].

III. Trade Complementarity Index (TCI)

TCI informs on the extent to which one country's export pattern complements the import pattern of another country.

The trade complementarity between two countries  $k$  and  $j$  can be defined as:

$$TCI_{ij} = 100 - \text{Sum} (|M_{ik} - X_{ij}| / 2),$$

where  $M_{ik}$  is the share of good  $i$  in all imports of country  $k$  and  $X_{ij}$  is the share of good  $i$  in global exports of country  $j$ . TCI takes value of 100 when export and import shares match exactly and the index is zero when no trade occurs between two countries.

#### IV. Gravity Model

The bilateral trade flow analysis is conducted with the aid of an empirical tool termed the gravity model of trade. Gravity model is compared to “Newton’s law” of gravity. The model defines that bilateral trade among the countries is directly proportional to economic size of the countries and negatively proportional to their distance and it can be restated as equation 1:

$$\text{Log}(\text{Trade}_{ij}) = \alpha + \beta_1 \log(\text{GDP}_i \cdot \text{GDP}_j) + \beta_2 \log(\text{Distance}_{ij}) + \mu_{ij} \quad (1)$$

In equation (1),  $\alpha$ ,  $\beta_1$ ,  $\beta_2$  are the coefficients which are to be estimated and  $u_{ij}$  represents chance events and any other disturbance that could affect the bilateral trade flows. Equation (1) forms the base equation for gravity model [6].

The study attempts to analyse the India- China bilateral trade relations from 2001 to 2022 using the measures of compound annual growth rate, trade intensity and trade complementarity indices. The future outlook of bilateral trade is analysed using the gravity analysis. The results show that the volume of India’s bilateral trade with China has increased over the time period under study but India’s imports weigh more than its exports to China. India’s trade intensity with China has been found less than expected given the partner country’s relevance in world trade even though India enjoys higher trade complementarity with China over the time period under study. The gravity analysis indicates that India’s bilateral trade with China is positively impacted by GDP, per capita GDP, population of India whereas it is negatively impacted by relative factor endowment and distance between two countries. The study finds existence of trade potential for India with China. India's significant trade deficit with China underscores its reliance on Chinese imports for essential raw materials across diverse industries. Addressing this dependency is crucial for India's economic self-reliance. Mitigating the trade deficit necessitates a focus on bolstering exports, which serves as a pivotal strategy.

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**Harmanpreet Singh**

Science tutor *Dr. P. Kumar*

Lovely Professional University (Phagwara)

## **A GREEN REVOLUTION: EXPLORING SUSTAINABLE ENTREPRENEURSHIP AMONG REGIONAL ENTREPRENEURS IN RURAL ECONOMIES**

In recent years, the global economy has witnessed a significant shift towards sustainability and environmental responsibility, with increasing recognition of the urgent need to address pressing environmental challenges. This trend has led to the emergence of green entrepreneurship as a prominent force driving economic development and innovation worldwide. In rural areas, regional entrepreneurs play a crucial role in advancing sustainability goals through the adoption of green practices in their businesses. This qualitative study explores the motivations, strategies, and contributions of regional entrepreneurs in rural areas who are embracing sustainable practices and integrating eco-friendly solutions into their operations. Through a comprehensive analysis of five case studies, this research aims to uncover the drivers, enablers, and implications of green entrepreneurship in rural economies within the broader context of modern trends in the development of the world economy.

This qualitative study investigates the adoption of green practices among regional entrepreneurs in rural areas through an examination of five case studies. It aims to uncover the drivers, enablers, and contributions of these entrepreneurs to national agendas addressing global climate change.

Employing a qualitative approach, this research conducts detailed analyses of five regional entrepreneurs operating in diverse rural sectors. Data collection involves semi-structured interviews, observations, and document analysis to explore motivations, strategies, and mechanisms driving the adoption of green practices.

The findings highlight that regional entrepreneurs in rural areas are proactively embracing green practices to enhance sustainability and competitiveness. Key enablers include heightened awareness among owners and perceptions of the benefits of eco-friendly practices, as well as growing customer demand for sustainable products. The predominant practice observed is the use of sustainable materials in product manufacturing. While financial constraints pose challenges, rural entrepreneurs have devised innovative and cost-effective methods to incorporate green practices into their businesses.