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A Comparative Study on Economic Growth and Bilateral Trade Dynamics between India and China

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Abstract

This research paper attempts at analyzing bilateral trade and economic growth of India and China and explore future implications of their trade and economic cooperation. This paper examines the changes and major movements in the exports, imports, trade openness, and terms of trade and gross domestic product of both countries. Appropriate statistical methods are applied to obtain results which reveal that exports and imports of China are higher than India's which has resulted in much better integration with the world economy for China as compared to India. The lack of significant difference in TOT implies a relatively balanced economic relationship. No significant difference in trade openness suggests that both countries are equally open to international trade. Significant difference is observed in the GDP and GDP growth over the time period under study. The large size of the economy and rapid growth shows that China has significantly scaled up its economy. Regarding bilateral trade, there has been substantial increase in bilateral exports and imports but a statistically significant difference is observed in their performance. India's imports from China outperformed the exports from the country to China. This has resulted in trade imbalance and it is skewed in favor of China. Policy makers need to focus on other areas to improve bilateral trade such as infrastructure, reduction in barriers to trade, technology exchange, innovation, sustainable trade practices and diversification in types of goods traded.

Keywords: Bilateral Trade, Comparative Analysis, India-China, Trade Performance.

Introduction

Trade has been widely acknowledged as a key factor in promoting economic growth (1). International trade has been found critical for achieving economic development in developing countries (2,3). The effect of international trade is found to be positive and significant on growth but this effect varies according to the development level of the economy. The effect is found significant and positive in the context of developed and developing countries but insignificant for least developed countries (LDCs) (4). Trade is characterized by trade integration, trade openness and technological revolution. The world trade scenario has been moulded by the increased participation of developing countries over time starting with the industrialising east Asian economies who pursued an outward-oriented trade policy from 1960s onwards, followed by China and India (5).Trade contributes immensely in the pursuit of economic growth. Bilateral trade facilitates economic development and contributes to economic integration. Countries have been coexisting and trading with one another by arranging for the smooth flow of goods and services. As emerging economies become increasingly prominent in world trade, it becomes imperative to understand their trade dynamics (6). India and China share multiple similarities and have enjoyed strong historical and cultural linkages. Both countries pursued inward-looking policies in their formative years of growth but they have expanded economic integration amongst themselves and with rest of the world with the adoption of economic reforms which China initiated in 1978 and India in 1991. As compared to China, India is late to open up its economy and it has a lot of catching up to do since 1991 in various macroeconomic parameters including trade. In 2004, India's total trade was $254 billion as compared to China's total trade at $1155 billion in the same time period. China has emerged as a formidable competitor for India at the world market scene. The analysis of trade intensity between India and China shows that there is potential for trade expansion between both countries which can be facilitated by use of appro-

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priate policy instruments (7). The last decadal growth in India-China trade depicts that both nations are competing in many areas but they are also complementing and supplementing each other in many respects. Their economic structures are characterized by many substantial complementarities. China is known as the world's manufacturing powerhouse and India's increasing strength in manufacturing and knowledge-based services is leading to complementarities which can be utilized for mutual benefit as there are varied opportunities for cooperation in the fields of investment, services and manufacturing. These synergies can be better exploited owing to the size of their economies and geographical proximity (8). India- China bilateral trade has long come to be recognized as the most relied upon and most agreed upon method to achieve harmonization of relations between two nations. Their long-term trade partnership prospects remain to be fully exploited and explored and are characterized with fragile political equations (9).

The analysis of changes in bilateral trade reveals that India and China have enjoyed unprecedented economic progress in the last decade which has lifted their status in the world economy. India and China accounted for 20.1 per cent of world GDP in 2004. Rapid increase in trade volume of both nations implies that their trade developments could have important implications for the world economy. Though bilateral trade volume has increased but trade intensity indices show that they are trading at less than expected potential. There is room for growth in bilateral trade and both sides are making efforts to enhance trade and economic collaboration. RCA analysis reveals that both nations need to trade in products in which there is no overlap of comparative advantage. Both countries complement each other in certain areas e.g. China's expertise in manufacturing sector and India's in services sector and could offer valuable insights in the development of such sectors in one another (10). The enhancements in diplomatic and trade relations have resulted in significant growth for both India and China. Despite a history of mutual mistrust, their trade relationship is steadily improving. Both nations have pursued rival strategies to achieve dominance in the Asia-Pacific region, aiming to maintain peaceful relations and fostering development. For continuous economic advancement, it is essential that India and China maintain strong relations (11). The analysis of India's policy approach towards China finds that both India and China aim to expand their stable bilateral relationship in areas of cooperation and collaboration. India seeks Chinese investments in manufacturing, infrastructure, and greater market access to drive its economic reforms. India's policy towards China emphasizes non-alignment, strategic autonomy, and joint efforts on global issues like climate change and World Trade Organization (WTO) reform (12). India-China bilateral relations are multifrontal and converging and diverging on various issues based on their respective worldviews. The present dynamics of India-China relations are debated by some scholars that whether common economic interests or boundary disputes are the main factors shaping their interactions. There appears no apparent reason why these neighbours should not be encouraged to enhance their social, political, economic and cultural interactions, as they can equally complement each other's core strategic interests in a multipolar world order (13).

Indian companies are affected by inefficiency because of insufficient social and physical infrastructure. There is possibility of collaboration between two countries in fields such as technology, Small and Medium Enterprises (SMEs) and green field investments. It finds that the imbalance in trade owes to lack of cooperation between government and industry and there is need to identify products in which India enjoys comparative advantage. India can learn from the case of China and Japan relationship where dynamic economic relationship has been in coexistence with poor political ties. India could attract Chinese investment in manufacturing and this could fix the trade deficit and help build export opportunities to third countries (14). Recently, China has become one of India's top three trading partners, while India is now among China's largest consumer markets. Despite this, India is found to have a persistent deficit in trade with China even though Covid-19 lockdown gave Indian traders an advantage. To mitigate the impact of the pandemic and minimize the supply chain disruptions, India needs to carefully plan its medium- and long-term policies. India needs to address certain challenges at domestic front such as building high-end technology, infrastructure, and strengthening multilateral institutions etc. in order to prepare the

economy for political and economic interventions by China in post Covid-19 period. India needs to revisit its foreign trade policy and promote trade based on comparative advantage (15).

The study addresses notable gap in the existing literature where most of the studies analysing India- China trade is theoretical in nature but there have been a few studies which have investigated India- China trade relation with respect to parameters of singular trade indices (FDI, RCA, GDP, export, import, trade intensity, trade deficit etc.) and are inadequately explored. The present study makes serious effort to bridge this gap with the inclusion of macro- economic variables and trade related indices. It even incorporates an analysis of the effect of India-China bilateral trade flows. China and India have emerged as two of the biggest emerging economies not only in Asia but in the world also. Growth forecasts put Asia to grow at the rate of 4.5 % and India and China are estimated to grow at the rates of 6.8 % and 4.6 % respectively in 2024 (16).

Last two decades have witnessed remarkable tale of economic cooperation between India and China. It started with very modest $2 billion in 2001 and increased to around $74 billion in 2011 to crossing $100 billion threshold in 2021. This level of bilateral trade creates huge, unprecedented opportunities for their businesses and investors and creates the possibility of greater stability in the region. Both nations have shown remarkable trends in bilateral trade and are also working on establishing common negotiating strategies for the international forums (17). India's number one trade partner from 2013-14 to 2017-18 and in 2020-21 was China. It became India's largest trading partner in 2023-24 with $118.4 billion in bilateral trade and surpassed USA which was India's leading trade partner in 2021-2022 and 2022-2023. India's exported goods worth $16.67 billion in 2022-23 and mainly included iron ore, handloom, plastics, fruits, vegetables and spices. Its imports in same time period increased to $101.7 billion. The time period from 2019 to 2024 witnessed change in India's trade dynamics with top fifteen trade partners which impacted its export, imports and status of trade surplus/deficit across sectors. India has an expanding trade imbalance with China which is projected to reach $85.09 billion in 2024 from $53.57 billion in 2019. This brings to light concerns regarding rising imports and stagnant exports to China (18).

The rising trade deficit is a cause of concern for the India and Indian government has taken varied continuous and sustained measures to lower trade deficit with China and lower trade barriers for India's exports to China. It includes holding official meetings to obtain market access for Indian products in Chinese market, conducting training workshops to train Indian exporters on updated regulatory practices of China, providing institutional support to exporters and implementation of various schemes e.g. Make in India, Digital India, Export oriented Unit Scheme and Special Economic Zone etc. to help domestic industries compete with exports (19).

Comparative Performance of India and China (2001-2022)

Figure 1(A) shows comparative exports performance of India and China in US$ current prices during the period 2001 to 2022. India's exports stood at US$ 43878489, and China's exports stood at US$ 266098209 in 2001 and they increased to US$ 452684214 and US$ 3593601450 respectively in 2022. This shows expanding exports of China to world in comparison to India's exports to world. Figure 1(B) shows imports of India and China for the last 22 years. In 2001, imports of India and China were US$ 50671106 and US$ 243552881 respectively which increased to US$ 732565993 and US$ 2715998754 for them in 2022.

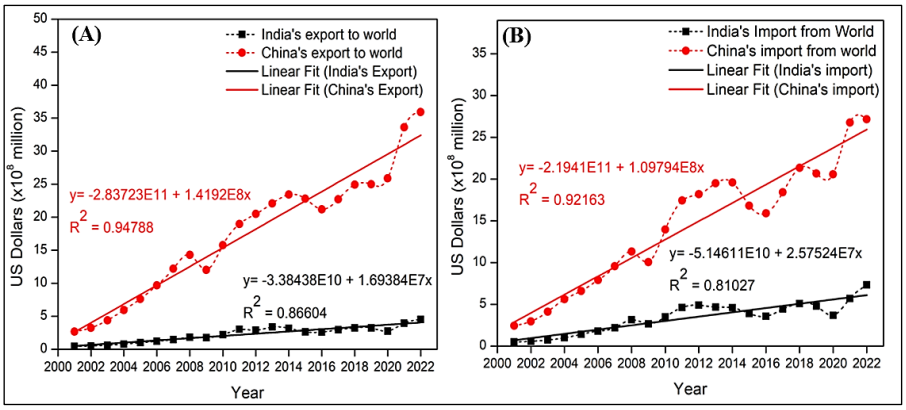

Figure 1: (A) Export and (B) Import of India and China (2001- 2022)

Figure 2 (A) shows net barter Terms of Trade (TOT) (2015=100) between India and China from 2001 to 2021. The TOT of China was highest at 103.3 in 2001 whereas India achieved highest TOT in 2016 at 105.32. Both nations have almost similar TOT in 2021 at around 90. Both countries share in trade (% of GDP) as a measure of trade openness is shown in Figure 2(B). China is observed to have higher share in trade (% of GDP) at 38.52 % as compared to India's share at 25.99 % in 2001. Their share almost overlapped in 2009. In later years India registered higher share in trade (% of GDP) and it is 49.22 % for India in 2022 as compared to 38.14 % for China in 2022.

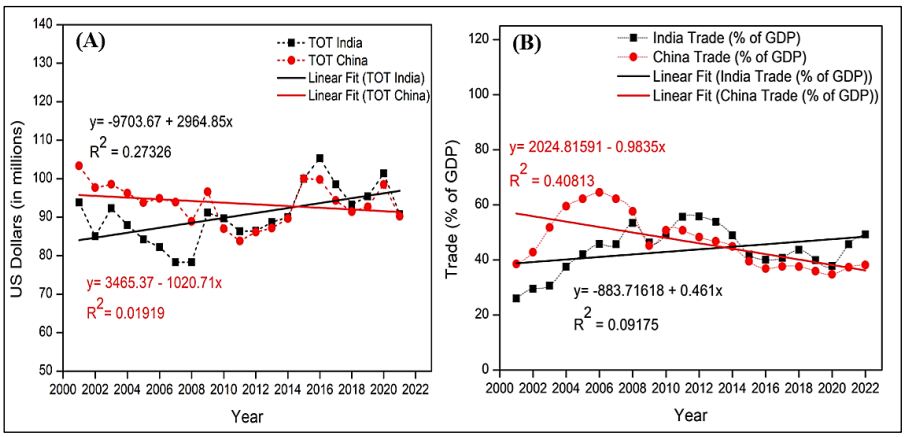

Figure 2: (A) Terms of Trade and (B) Trade (% of GDP) of India and China from 2001 to 2022

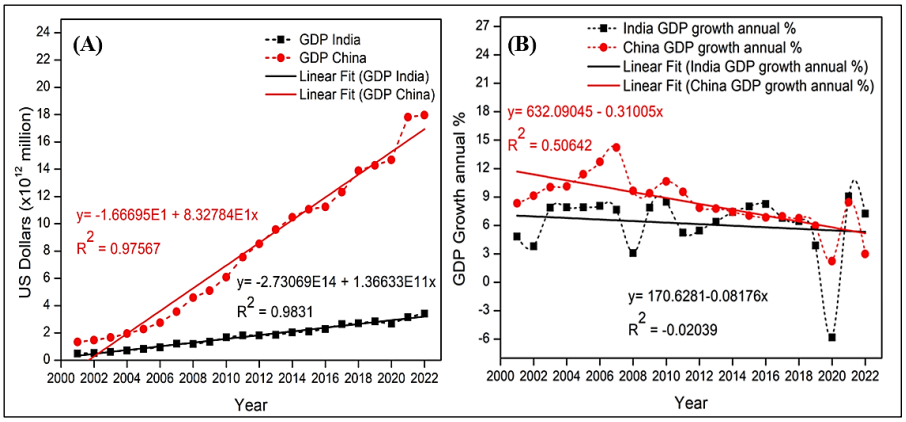

Figure 3: (A) GDP and (B) GDP growth (annual %) for India and China from 2001 to 2022

Figure 3 (A) shows the movement of GDP of both nations from 2001 to 2022. The Chinese GDP reached US$ 17963171479205.3 which is significantly higher than India's GDP at US$ 3416645826052.87 in 2022. The GDP growth rates for China and India are shown in figure 3(B), where they were 8.33% and 4.82%, respectively, in 2001 and 2.98 % and 7.23%, respectively, in 2022.

As shown in Table 1, the India-China bilateral trade analysis shows that India's exports rose from US$ 922542 thousand in 2001 to US$ 15084401 thousand in 2022. However, India's imports increased from US$ 1827549 thousand in 2001 to US$ 102249180 thousand in 2022.

Table 1: India- China Bilateral Exports and Imports (US$ Thousand)

Year	India Export to China	India Import from China	China Export to India	China Import from India
2001	922,542	1,827,549	1,895,833	1,699,093
2002	1,531,604	2,619,849	2,671,164	2,273,871
2003	2,567,162	3,615,126	3,343,225	4,251,377
2004	4,098,514	6,051,257	5,936,008	7,678,030
2005	7,183,792	10,167,061	8,934,277	9,766,216
2006	7,829,168	15,639,064	14,581,297	10,277,449
2007	9,491,978	24,575,772	24,051,380	14,617,156
2008	10,093,927	31,586,024	31,585,381	20,258,886
2009	10,370,052	30,613,371	29,666,560	13,714,289
2010	17,439,991	41,249,116	40,913,958	20,846,313
2011	16,717,786	55,483,025	50,536,416	23,372,279
2012	14,729,317	54,140,455	47,677,452	18,797,191
2013	16,416,825	51,635,444	48,432,411	16,970,270
2014	13,434,251	58,230,546	54,217,422	16,358,691
2015	9,539,517	61,641,108	58,262,004	13,395,985
2016	8,914,967	60,479,988	58,920,648	11,748,712
2017	12,500,767	71,890,425	67,925,121	16,333,354
2018	16,503,442	73,845,717	76,880,637	18,850,037
2019	17,278,833	68,402,093	74,825,299	17,985,879
2020	19,008,267	58,798,825	66,719,472	20,977,286
2021	23,036,597	87,535,136	97,510,656	28,137,336
2022	15,084,401	102,249,180	118,501,523	17,482,817
CAGR	**14.23%**	**21.12%**	**21.76%**	**11.74%**

Table 1 shows that from 2001 to 2022, the Compound Annual Growth Rate (CAGR) of Indian exports to China is 14.23 % whereas China's exports to India registered CAGR of 21.76% in the same time period. For the same time frame, India's imports from China grew with CAGR of 21.12% and China's imports from India in the same period grew with CAGR of 11.74%. The rise in bilateral trade and the corresponding increase in trade deficit for India has served as the motivation for the present study to investigate their bilateral trade performance with the main objectives of examining India's and China's exports and imports performance with the global market, assessing trade openness (trade as % of GDP), Gross Domestic Product (GDP in current US$), Terms of trade (TOT) and annual GDP growth (%) for both India and China, and analysing the bilateral trade flow between India and China.

The following null hypotheses are analysed in this study:

H_{01} = There is no significant difference in the world exports of India and China.

H_{02} = There is no significant difference in the world imports of India and China.

H_{03} = There is no significant difference in the Terms of Trade (TOT) of India and China.

H_{04} = There is no significant difference in Trade openness of India and China.

H_{05} = There is no significant difference in the GDP of India and China.

H_{06} = There is no significant difference in the GDP growth rate (annual %) of India and China.

H_{07} = There is no significant difference in India's Export to China and Import from China.

H_{08} = There is no significant difference in China's Export to India and Import from India.

Methodology

Secondary data is obtained from various authentic sources such as research papers, World Bank, United Nations Conference on Trade and Development (UNCTAD) and relevant books are obtained in order to attain the study objectives. Secondary data is used for the analysis as it provides reliable, comprehensive and readily available information on requisite trade indices, trade flows and trends which provides a cost and time efficient means to identify patterns and evaluate policy impacts. In order to achieve the objective of data analysis, independent sample T test and F test are applied to the data under study. The independent sample T test compares the means of two independent groups to determine if the differences are statistically significant. The F test determines that whether the variance of two or more groups is significantly different or not.

Results and Discussion

H_{01} = There is no significant difference in the world exports of India and China.

Table 2 indicates that India's exports over twenty-two years (2001-2022) had a mean of 8.2767, while China's mean was 9.1534. The difference between these means is 0.8767, which aligns with the mean difference reported in the t-test output. The standard deviations for China's and India's exports are 0.32256 and 0.30280, respectively, indicating low variability within each group. In Levene's Test for equality of variances, the F value is 0.031 with a significance (p-value) of 0.861. Since the p-value of 0.861 is greater than 0.05, we fail to reject the null.

Table 2: Descriptive Statistics Comparing the Export, Import, Terms of Trade, Trade Openness, GDP Growth Rate and GDP of India and China

	LN EXPORT		LN IMPORT		TOT		TRADE OPENNESS		LN GDP		GDP GROWTH	
	India	China	India	China	India	China	India	China	India	China	India	China
N	22	22	22	22	22	22	22	22	22	22	22	22
Mean	8.2767	9.1534	8.4354	9.078	90.4394	93.5482	43.5938	46.5129	12.1812	12.7852	6.174	8.4306
Std. Deviation	0.3028	0.32256	0.33812	0.30354	7.14013	5.23614	8.14739	9.66851	0.26198	0.37521	3.16125	2.7657
Std. Error Mean	0.06456	0.06877	0.07209	0.06471	1.5581	1.14262	1.73703	2.06133	0.05585	0.08	0.67398	0.58965

Hypothesis of Levene's test, suggesting that the variances of LN EXPORT for India and China are not significantly different, allowing us to assume equal variances for the t-test. From Table 3, we observe a t-value of -9.295 and a p-value of 0.000, leading us to reject the null hypothesis and conclude that there is a significant difference in the exports of both countries. The mean LN EXPORT for China is notably higher than that for India by approximately 0.87674 units, indicating that China's exports have experienced greater growth than those of India.

H_{02} = There is no significant difference in the world imports of India and China.

Table 2 and 3 show that twenty-two years of imports (2001-2022) of India had a mean of 8.4354 and China had a mean of 9.0780. The difference in means is 0.64269 which matches the mean difference reported in the t-test output. The standard deviation for China and India imports is .30354 and .33812 respectively. Both standard deviations are relatively small which indicates low variability within each group. The F value is 0.211, and the p-value is 0.648, which exceeds the common significance level of 0.05. Therefore, we fail to reject the null hypothesis of Levene's test and assume equal variances for the t-test. The t-test shows a p-value of 0.000, which is below the common significance threshold of 0.05, leading us to reject the null hypothesis. Consequently, we conclude that there is a significant difference in imports between China and India, with China exhibiting a higher mean compared to India. This indicates that China's imports have shown greater growth than those of India.

H_{03} = There is no significant difference in the terms of trade (TOT) of India and China.

In this study, Net Barter Terms of Trade (TOT), relative to the base year 2000, are analysed. The mean TOT for India is 90.4394, while for China, it is 93.5482.

Table 3: F and T-Statistics Comparison of Export, Import, Terms of Trade, Trade Openness, GDP, GDP Growth Rate of India and China

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
LN EXPORT	Equal variances assumed	0.031	0.861	-9.295	42.000	0.000	-0.87674	0.09432	-1.06709	-0.68638
	Equal variances not assumed			-9.295	41.833	0.000	-0.87674	0.09432	-1.06711	-0.68636
LN IMPORT	Equal variances assumed	0.211	0.648	-6.633	42.000	0.000	-0.6426	0.09687	-0.8381	-0.4471
	Equal variances not assumed			-6.633	41.520	0.000	-0.6426	0.09687	-0.83817	-0.44703
TOT	Equal variances assumed	1.106	0.299	-1.609	40.000	0.115	-3.10881	1.93217	-7.01386	0.79624
	Equal variances not assumed			-1.609	36.686	0.116	-3.10881	1.93217	-7.02488	0.80726
TRADE OPENNESS	Equal variances assumed	1.383	0.246	-1.083	42.000	0.285	-2.91916	2.69562	-8.35914	2.52082
	Equal variances not assumed			-1.083	40.827	0.285	-2.91916	2.69562	-8.36377	2.52545
LN GDP	Equal variances assumed	4.579	0.038	-6.19	42.000	0.000	-0.60396	0.09757	-0.80085	-0.40706
	Equal variances not assumed			-6.19	37.544	0.000	-0.60396	0.09757	-0.80155	-0.40637
GDP GROWTH	Equal variances assumed	0.001	0.979	-2.52	42.000	0.016	-2.25656	0.89551	-4.06377	-0.44935
	Equal variances not assumed			-2.52	41.271	0.016	-2.25656	0.89551	-4.06472	-0.4484

The difference in means is 3.1088, which corresponds to the mean difference reported in the t-test results. This suggests that, on average, India's TOT is 3.10881 units lower than China's. The standard deviations for China and India are 5.23614 and 7.14013, respectively, indicating some variability within each group. For Levene's test, the F value is 1.106, and the p-value is 0.299, which is greater than 0.05, allowing us to assume equal variances for the t-test, as we fail to reject the null hypothesis. According to the t-test, we also fail to reject the null hypothesis since the p-value of 0.115 is greater than 0.05. This means there is no statistically significant difference in the TOT means between India and China at the 5% significance level.

H_{04} = There is no significant difference in trade openness of India and China.

In this analysis, trade as a percentage of GDP is used as an indicator of trade openness for both economies. The mean trade openness for India is 43.5938, while for China, it is 46.5129. The difference in means is 2.91916, which aligns with the mean difference reported in the t-test output. China has a higher standard deviation of 9.66851 compared to India's standard deviation of 8.14739. Levene's test yields an F statistic of 1.383 with a p-value of 0.246, which exceeds the common significance level of 0.05. This allows us

to assume equal variances for the t-test, as we accept the null hypothesis. The t-test statistic is -1.083, with a two-tailed p-value of 0.285. Since this p-value is greater than the typical significance level of 0.05, the observed difference in means is not statistically significant. Therefore, we accept the null hypothesis, concluding that there is no significant difference in mean trade openness between India and China.

H_{05} = There is no significant difference in the GDP of India and China.

Tables 2 and 3 show that the mean GDP for India and China is 12.1812 and 12.7852 respectively. The difference in the means is .60396 which is same as the mean difference reported in the t- test output. This data suggests that China has a higher mean natural logarithm of GDP compared to India. The standard deviation for China's GDP is .37521 and India's GDP is .26198. Both standard deviations are relatively small and this indicates low variability within each group. Levene's test yields an F statistic of 4.579 with a significance level of 0.038. Since the p-value is less than 0.05, the assumption of equal variances between the two groups is violated. As a result, we reject the null hypothesis, indicating that equal variances cannot be assumed for the t-test. With the assumption of equal variances not held, the t-test statistic is -6.190 and the two-tailed p-value is 0.000, indicating a significant difference in the mean LN_GDP between India and China. Thus, we reject the null hypothesis and conclude that there is a significant difference in the GDP of India and China.

H_{06} = There is no significant difference in the GDP growth rate (annual %) of India and China.

Tables 2 and 3 show that the mean GDP growth rate for China and India is 8.4306 and 6.1740 respectively. The difference in the means is 2.25656 which is same as the mean difference reported in the t – test output. The standard deviation for China and India GDP growth rate is 2.76570 and 3.16125 respectively. The standard deviation analysis suggests that there is greater variability in GDP growth rates for India as compared to China in the concerned time period under study. Levene's test yields an F statistic of 0.001 with a significance level of 0.979, which is higher than the common significance level of 0.05. This allows us to assume equal variances for the t-test, as we cannot reject the null hypothesis. The t-test statistic is -2.520, and the two-tailed p-value is 0.016. Since this p-value is less than the common significance level of 0.05, we conclude that the observed difference in means is statistically significant. Therefore, we reject the null hypothesis and find that there is a significant difference in GDP growth rates between China and India, with China exhibiting a higher mean GDP growth rate than India.

H_{07} = There is no significant difference in India's export to China and import from China.

As shown in tables 4, 5, the mean exports of India to China are 6.9635 and mean imports from China is 7.4555. The difference in the means is 0.49200 which is same as the mean difference reported in the t- test result. The higher mean for imports as compared to exports suggests a trade imbalance, where India is importing more from China as compared to its exports to the country. The standard deviation for India's imports is higher than its exports to China at 0.52192 and 0.36474 respectively. This suggests that India's imports from China exhibit more variability than its exports. Levene's test yields an F statistic of 3.459 with a significance level of 0.070, which is above the common significance threshold of 0.05. This allows us to assume equal variances for the t-test, as we fail to reject the null hypothesis.

The t-test statistic is -3.624, and the p-value is 0.001, which is less than 0.05, indicating that the observed difference in means is statistically significant. Thus, we reject the null hypothesis that there is no significant difference between India's exports to China and its imports from China. The results reveal a statistically significant difference between India's exports and imports with China.

H_{08} = There is no significant difference in China's export to India and import from India.

Tables 4 and 5 reveal that the mean exports of China to India are 7.4499, while the mean imports from India are 7.0941. The difference in means is 0.35579, which corresponds to the mean difference reported in the t-test output. This significant difference indicates that China exports more to India than it imports from the country, resulting in a trade surplus with India. On average, Chinese exports to India exceed imports from India by 0.35579 units.

The standard deviation for China's exports is greater than that for its imports from India, at 0.52963 and 0.31515, respectively. This suggests that China's imports from India are more stable

and consistent than its exports. Levene's test yields an F statistic of 6.129 with a significance level of 0.017. Since the p-value is less than 0.05, we reject the assumption of equal variances across the two groups, meaning equal variances are not assumed for the t-test. The t-test statistic is 2.708, and the p-value is 0.010 for both equal variances assumed and not assumed. Because the p-value is less than the common significance level of 0.05, we reject the null hypothesis of no significant difference between China's exports to India and imports from India. The results indicate a statistically significant difference between China's exports to and imports from India.

Table 4: Descriptive Statistics of Comparison of Bilateral Trade between India and China

	LN BILATERAL EXPORT-IMPORT			
	India Bilateral Trade		China Bilateral Trade	
	India Export to China	India Import from China	China Export to India	China Import from India
N	22	22	22	22
Mean	6.9635	7.4555	7.4499	7.0941
Std. Deviation	0.36474	0.52192	0.52963	0.31515
Std. Error Mean	0.07776	0.11127	0.11292	0.06719

Table 5: F and T-Statistics Comparison of Bilateral Trade between India and China

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
INDIA BILATERAL TRADE	Equal variances assumed	3.459	0.07	-3.624	42.000	0.001	-0.492	0.13575	-0.76596	-0.21804
	Equal variances not assumed			-3.624	37.562	0.001	-0.492	0.13575	-0.76692	-0.21707
CHINA BILATERAL TRADE	Equal variances assumed	6.129	0.017	2.708	42.000	0.01	0.35579	0.1314	0.09062	0.62095
	Equal variances not assumed			2.708	34.214	0.01	0.35579	0.1314	0.08882	0.62275

Conclusion

The world exports and imports results signify that China is much better integrated with the world economy as compared to India. This helps understand global trade dynamics as results suggest that China is comparatively better placed to shape international trade policies. The lack of significant difference in Terms of Trade implies a relatively balanced economic relationship where neither of the two countries has an advantage over the other in terms of pricing power of exports and imports. No significant difference in trade openness as reflected in trade as percentage of GDP, suggests that both countries are equally open to international trade. Given their similar trade openness levels, they could explore the opportunities for collaboration in global trade forums. The large size of the economy and rapid economic growth as reflected in GDP and GDP growth rate shows that China has significantly scaled up its economy. The comparative lesser performance of Indian economy highlights the need for continuation of economic reforms, development of infrastructure and the need to adopt policies that promote innovation and economic growth. Regarding bilateral trade, Indian imports outperformed the exports to China and this is supported by the performance of Chinese exports exceeding imports from India. This has resulted in trade imbalance and it is skewed in favor of China. This is not desirable as it could have negative implications in negotiations for trade agreements and bilateral economic policies. Both countries need to consider strategic policies to balance trade. These findings are helpful in extrapolating policy implications for future India-China economic interactions. The present study offers valuable insights but it is subject to certain limitations. Aggregate trade parameter analysis is

used in this study. The analysis of sectoral variations and incorporation of external factors such as exchange rates, policy shifts and global crises could be included in future studies for a more dynamic analysis.

These findings provide latest empirical evidence and policy relevant insights which helps enrich the understanding of India-China trade dynamics. Their comparison of global economic integration provides new perspectives for future research on emerging economies. Their trade imbalance analysis contributes to existing literature offering a fresh perspective on its policy implications. The results indicate China's superiority but India too displays indications of being a prominent emerging economy in the world. There exist multiple opportunities to promote trade through mutual cooperation and collaboration. Intra-industry trade in intermediate manufactured goods holds significant potential to promote India-China bilateral trade. Their respective export specialization is dependent on policy, skills and natural resource endowment. Both economies are advised to pursue free trade and continue with sustained reforms to achieve a stable growth rate (20). With almost similar trade openness and trade terms, a deeper analysis at the sectoral level may be required to understand the individual industry requirements and take necessary remedial measures. The main determinants of their bilateral trade relationship are policy and relations, border diplomacy and trade statistics (21). Policy makers need to focus on other areas to improve bilateral trade such as infrastructure, reduction in barriers to trade, technology exchange, innovation, sustainable trade practices and diversification in types of goods traded.

Abbreviations

TOT: Terms of Trade, GDP: Gross Domestic Product, CAGR: Compound Annual Growth Rate, LDCs: Least Developed Countries, WTO: World Trade Organization, SMEs: Small and Medium Enterprises, UNCTAD: United Nations Conference on trade and development, RBI: Reserve Bank of India.

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Author Contributions

Ms. Alka Sandhu did the conceptualization, methodology, data analysis and writing of this article. Dr. Sakshi supervised the overall research and did the proof reading of the research article.

Conflict of Interest

The authors declare that they have no competing interests.

Ethics Approval

Not Applicable.

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