Article



Empirical Comparison of BRICS Manufacturing with the G7

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Abstract

The post-globalization era which is simultaneously a post-Western era, has opened a new page in the dynamics of global social, political and economic order in the wake of the 21st Century, where the 'Chinashock' is vibrating not only in the USA, but in almost all the G7 countries. The main aim of the study to empirically establish whether the G7 still leads the World in manufacturing outputs. The study is a qualitative one where document studies were adopted in generating data from secondary sources such as academic journals, bulletins, textbooks, scholarly papers, and internet materials. The generated data was analyzed through critical discourse method. This loss of focus on emerging global realities, made the G7 to equally loose grips of global leadership. As the result, the BRICS for the past thirteen years has been leading the World in terms of global manufacturing. Findings of the study has established that the BRICS with 35% of the World manufacturing outputs has outperformed the G7 who's manufacturing outputs represent 31% of the World manufacturing outputs.

Keywords

Epicentre, Economic Power, Industrialization, Manufacturing, Foreign Direct Investment.

Introduction

The global North has for the past couple of centuries dominated global events and affairs through the employment of diverse intrigues such as slavery, imperialism, colonialism, and neo-colonialism. The enormous wealth accumulated by these slave merchants and colonial powers, which was majorly the sweat of acquired slaves and proceeds from the plunder of the resources of their colonies; set the pace for the North's economic and general development. These plundered human and natural resources from

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third world colonies, were the main triggers of their industrial revolution that placed the North (G7) at a vantage point over other countries of the world (Ciuriak, 2023).

With the easing out of slavery and colonialism, some assertive third world countries leverage on the new found freedom to chart a way forward to extricate themselves from dependency on these imperial powers. The BRICS which is an acronym of five countries Brazil, Russia, China, India and South Africa came into existence in 2009; with aim of fostering strong economic cooperation among members for greater development of their individual national economies. This did with the mindset of setting themselves free from overdependence on the G7. Founded on strict discipline, governments of these BRICS countries encouraged local entrepreneurship among their citizens by exclusively utilizing local intellectual thinking, and indigenous technics and technologies to power their manufacturing revolution. To ensure irreversible success in this direction, government of these countries through appropriate policies encouraged their citizens to patronize their locally manufactured products, goods and services with little or no room for foreign goods and services. With large numbers of consumers from their bloated population and with the steadily rising huge exports of their goods and services with large markets in foreign countries; the BRICS is undoubtedly the leading global economic bloc for now and for a very long time to come (Iqbal, 2022; Cervellati, et-al, 2023).

With the expiration of the intrigues of the G7 in strangulating the economies of other countries, and faced with dwindling economic fortunes in domestic economies of members, it however lives in oblivion based on past glory. The refusal of the complacent G7 to accept this unfolding reality of a new global economic paradigm shift, made it to lose focus on global leadership, where the five assertive BRICS members - Brazil, Russia, India, China and South Africa are filling in the gap (Shameem, & Jayaprasad, 2020; Ciuriak, 2023).

The Group of Seven (G7) which was founded on 15th November, 1975, is a group of the world's largest advanced economies that comprises United States, Canada, France, Germany, Italy, Japan and the United Kingdom. The aim of the G7 is that of discussing and coordinating global issues like economic governance, international security, and emerging technologies. The G7 has been leading the world economy for close to fifty (50) years; up till the formation of the BRICS in 2009. That global economic leadership role is now on the line with the growing assertiveness of the BRICS in the global economy, more especially in the global manufacturing sector (Musita, et-al, 2023; Nach & Newadi, 2024; Cervellati, et-al, 2023).

Therefore, it is this growing economic performance of the BRICS against that of the G7 that form the motivation for the study.

2. Theoretical Framework

Comparative advantage theory was adopted and utilized as a framework for the study as treated below:

2.1 Comparative Advantage Theory

The second theory adopted as framework for the study is the Comparative Advantage Theory. Comparative advantage relates to how much productive and cost-efficient a country is over another country in the harnessing of vital resources in the production of finished goods and services. Furthermore, the theory of comparative advantage which is generally known as Heckster-Ohlin theory, is a classical country-based theory which states that countries will gain comparative advantage if they produce and export goods that requires resources or factors that they have in great supply; and cheaper production factors. The differences in factor abundance and the factor intensity of goods must be in favour of the country that possessed them. The CAT states that countries can benefit from international trade by specializing in producing goods where they have a lower opportunity cost compared to other countries. In another word, it is the ability of a country to produce a particular good or some goods or services at lower opportunity cost than its trading partners. Furthermore, comparative advantage also describes the economic reality of the gains from trade for individuals, firms, or nations; which arise from differences in their endowments or technological progress. The theory emphasizes that countries with advantage in the differences in factor abundance and the factor intensity of goods, often attains absolute advantage where they become more productive, and cost-efficient than other countries (Alting, 1978; Szirmai & Verspagen, 2015; Watson, 2017; Liu, et-al, 2020; Murdock, 2020; Wolde, 2022; Diodato, et-al, 2022; Krusse, et-al, 2023).

3. Methodology

The study is a qualitative one where secondary sources of data were mainly utilized in generating data for the study. The research, is essentially descriptive and explanatory. The document studies, was adopted in generating data through secondary sources such as: UN-Trade Statistical Data, World Bank Group Open Data, OPEC Statistical Bulletin, and BRICS Statistical Data, were scrutinized. Other documents scrutinized include published materials such as textbooks, academic journals, scholarly papers, and internet materials.

4. Results and Discussion

Results from data generated mainly from secondary sources through document studies, on BRICS and G7 manufacturing production and outputs, are hereby presented in tabular forms and in figures; and analyzed through critical discourse method below:

4.1 Manufacturing Outputs of BRICS, 2018-2024

In terms of industrialization and more particularly the manufacturing sub-sector, all global eyes are now on the BRICS. China as a pillar in the BRICS, leads the group with \$31,388,467,575,169tr, as well as being the global number one manufacturing country for the period of this study (2012 to 2024). India is placed second with \$2,583,126,706,352.0tr for the same period. Russia is third with \$1,731,731,570,988.0tr. Brazil is fourth with \$1,362,533,032,052.0tr. While South Africa is place 5th with \$300,425,951,976.0tr. The BRICS total cumulative for the period of the study stands at \$37,366,278,836,537.0tr, which represents 35% of total world manufacturing production (\$106,856,626,720,000.0tr) (Gayal, et-al, 2018; Tahir & Burki, 2023; World Bank Group, 2025).

The strong emergent manufacturing cooperation among BRICS nations in the past thirteen years; has indeed resulted into both quantitative and qualitative production of finished products, goods and services with rising wide consumer appetite in the global market. The total cumulative annual average of the BRICS which stands at \$26,690,199,168,955tr representing 25% of the world total, attest to this steady increase in their overall performance for the period of the study (World Bank Group, 2025). In view of this, the emergent strong synergy among the BRICS members will place them as the bloc as the global economic compass for the rest of the 21st Century.

The BRICS leader, China with a very powerful performance of 84% of the group's total manufacturing production and outputs for the period of the study (and 29% of the world total cumulative), will place her as a model for the remaining group members to emulate (Researcher's computation, (2025), based on World Bank Group, 2025). India with 7% stand at a far distant second position to China. Russia with 5% is placed in the third position. Brazil with 4% is placed in the 4th position. While, South Africa with 0% is in the last position; such that its percentage could not appear on the comparative pie-chart in Figure 2 below. The BRICS Cumulative Annual Average (BCAA) between 2012 and 2024 stands \$5,448,039,833,791tr. The BRICS Country Cumulative Average (BCCA) for the same period stands \$7,423,255,767,307tr. It is quite interesting to note that both the BCAA and BCCA, are by far greater than the World Cumulative Average for the same period which stands at 693,824,199,480.5tr. This is an indication that the BRICS march towards upstaging the hitherto hegemonic West is unstoppable (Haraguchi & Resonja, 2015; Musita, et-al, 2023; Siqing, 2018; Nach & Newadi, 2024).

The BRICS manufacturing performance for the period of the study is as presented in Table 1 and Figures 1, & 2 below:

Table 1: Cumulative Manufacturing Outputs of BRICS, 2018-2024 (tr)

S/N	Countries	Cumulative	BCAA	BCCA	WCA
1.	Brazil	1,362,533,032,052	5,338,039,833,791	7,473,255,767,307	15,265,232,388,571
2.	Russia	1,731,731,570,988	5,338,039,833,791	7,473,255,767,307	15,265,232,388,571
3.	India	2,583,120,706,352	5,338,039,833,791	7,473,255,767,307	15,265,232,388,571
4.	China	31,388,467,575,169	5,338,039,833,791	7,473,255,767,307	15,265,232,388,571
5.	South Africa	300,425,951,976	5,338,039,833,791	7,473,255,767,307	15,265,232,388,571
	BRICS Total	37,366,278,836,537	26,690,199,168,955	37,366,278,836,537	76,326,161,942,355
	World Total	106,856,626,720,000	15,265,232,388,571	21,371,325,344,000	106,856,626,720,000

Source: Generated by the Researcher in 2025 as adapted from World Bank Group, 2025

Fig. 1: Cumulative Manufacturing Outputs of BRICS, 2012-2024 (\$tr)

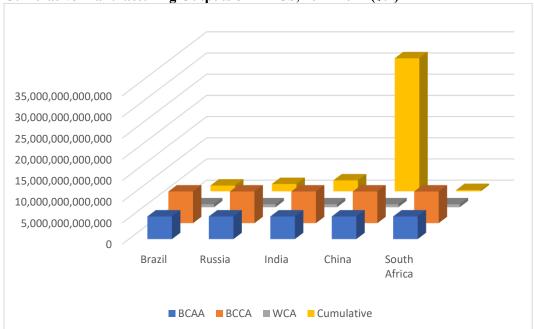
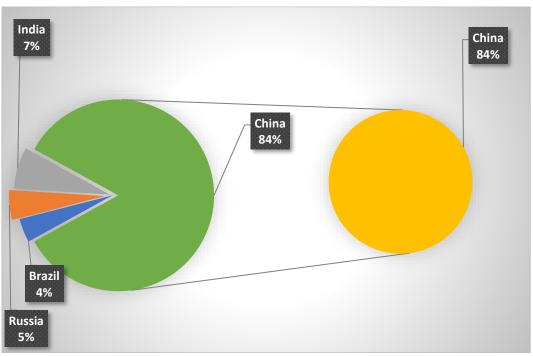


Fig. 2: Cumulative Manufacturing Outputs of BRICS, 2012-2024 (%)



Source: Generated by the Researcher in 2025 as adapted from World Bank Group, 2025

4.2 Manufacturing Outputs of G7, 2018-2024

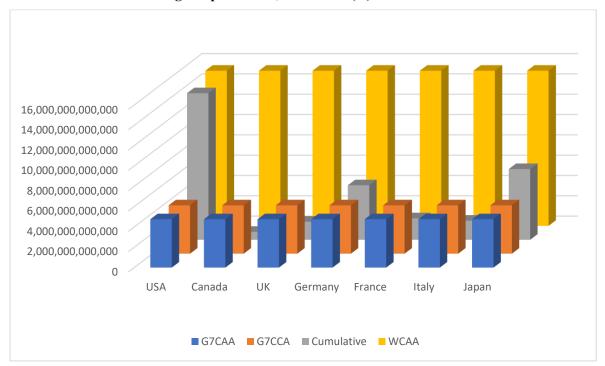
The United States of America (USA) leads the G7 with \$14,424,349,678,000tr manufacturing production and outputs, representing 42% of the group's total cumulative for the period of the study. Japan is placed in the second position with \$6,958,815,388,002tr (represents 27%). Germany is third with cumulative of \$5,363,785,805,039tr representing 15%. France is placed in the fourth position with \$2,115,014,705,196tr represe5%), Italy 1,879,487,236,743tr (5%), UK 1,782,527,057,204tr (4%), and Canada 782,186,223,189tr (2%).

This is as presented in Table 2 and Figures 3 and 4 below:

Table 2: Cumulative Manufacturing Outputs of G7, 2018-2024 (tr)

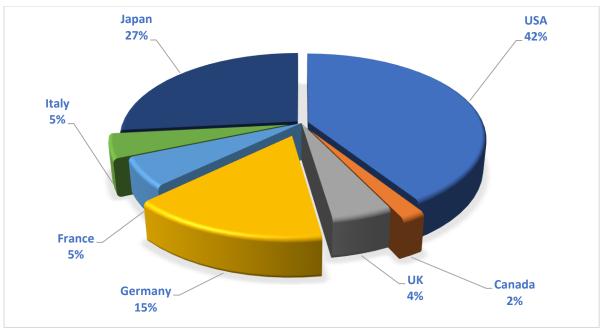
S/N	Countries	Cumulative	G7CAA	G7CA	WCAA
1.	USA	14,424,349,678,000	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
2.	Canada	782,186,223,189	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
3.	UK	1,782,527,057,204	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
4.	Germany	5,363,785,805,039	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
5.	France	2,115,014,705,196	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
6.	Italy	1,879,487,236,743	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
7.	Japan	6,958,815,388,002	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
	G7 Total	33,306,166,093,373	33,306,166,093,373	33,306,166,093,373	106,856,626,720,000
	World Total	106,856,626,720,000	15,265,232,388,571	15,265,232,388,571	106,856,626,720,000

Fig. 3: Cumulative Manufacturing Outputs of G7, 2018-2024 (tr)



Source: Generated by the Researcher in 2025 as adapted from World Bank Group, 2025

Fig. 4: Cumulative Manufacturing Outputs of G7, 2018-2024 (tr)



4.3 Comparative Manufacturing Outputs of BRICS and G7, 2018-2024

The empirical comparison of manufacturing of the two trans-regional economic blocs for the study period of 2018 to 2024, has shown that the BRICS with a total cumulative of \$37,366,278,836,537tr (35% of the world total cumulative), has outperformed the G7 whose total cumulative stands at \$33,306,166,093,373tr (31% of the world total cumulative). China as a single country in the BRICS economic bloc recorded \$31,388,467,575,169tr (29% of the world total cumulative), has a towering manufacturing performance over and above that of the G7 leader - USA, whose cumulative stands at \$14,424,349,678,000tr (13% of the world total cumulative). In the same vein, China's individual; country annual average (ICAA) of \$4,484,066,796,452.7tr which represents its actual rate of annual increase, has outperformed the USA whose individual country annual average (ICAA) of \$2,060,621,382,571.4tr (representing its actual rate of annual increase). Whereas, the BRICS cumulative annual average of (CAA) of \$5,338,039,833,791tr which also represents its rate of actual annual increase; as well as 35% of the world cumulative annual average of \$15,265m232,388,571tr; far outweighed the G7 cumulative annual average (CAA) of \$4,758,023,727,624tr which represents 31% of the world cumulative annual average for the same period. Furthermore, the G7 with a cumulative country average (CCA) of \$4,758,023,727,624tr, has underperformed compared to the BRICS whose cumulative country average (CCA) stands at \$7,473,255,767,307tr. On an individual country basis, China, as earlier stated, is in the first position as the global leader in manufacturing with \$31,388,467,575,169tr (29% of the world total cumulative). The USA is placed in the second position with USA, whose cumulative stands at \$14,424,349,678,000tr (13% of the world total cumulative). Japan is third with \$6,958,815,388,002 (7% of the world total), and Germany is fourth with \$5,363,785,805,039tr (5% of the world total). While, five countries in both BRICS and G7 recorded almost parallel performances more especially in the per centum, where India is fifth with \$2,583,120,706,352tr (2\% of the world total), France is sixth with \$2,115,014,705,196tr (2% of the world total), Italy is seventh with \$1,879,487,236,743tr (2% of the world total), UK is eight with \$1,782,527,057,204tr (2% of the world total), Russia is ninth with \$1,731,731,570,988 (2% of world total), Brazil is tenth with \$1,362,533,032,052tr (1% of the world total), Canada is placed in the eleventh position with \$782,186,223,189tr (1% of the world total); while South Africa is in the 12th and last position with 300,425,951,976tr (0% of the world total).

Details of this with their annual and country averages are as presented in Table 3 and Figures 5 and 6 below:

Table 3: Cumulative Manufacturing Outputs of BRICS and G7, 2018-2024 (tr)

S/N	Countries	Cumulative	CAA	CCA	WCAA
1.	Brazil	1,362,533,032,052	5,338,039,833,791	7,473,255,767,307	15,265,232,388,571
2.	Russia	1,731,731,570,988	5,338,039,833,791	7,473,255,767,307	15,265,232,388,571
3.	India	2,583,120,706,352	5,338,039,833,791	7,473,255,767,307	15,265,232,388,571
4.	China	31,388,467,575,169	5,338,039,833,791	7,473,255,767,307	15,265,232,388,571
5.	South Africa	300,425,951,976	5,338,039,833,791	7,473,255,767,307	15,265,232,388,571
	BRICS Total	37,366,278,836,537	26,690,199,168,955	37,366,278,836,537	106,856,626,720,000
1.	USA	14,424,349,678,000	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
2.	Canada	782,186,223,189	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
3.	UK	1,782,527,057,204	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
4.	Germany	5,363,785,805,039	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
5.	France	2,115,014,705,196	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
6.	Italy	1,879,487,236,743	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
7.	Japan	6,958,815,388,002	4,758,023,727,624	4,758,023,727,624	15,265,232,388,571
	G7 Total	33,306,166,093,373	33,306,166,093,373	33,306,166,093,373	106,856,626,720,000
	World Total	106,856,626,720,000	15,265,232,388,571	15,265,232,388,571	106,856,626,720,000

Source: Generated by the Researcher in 2025 as adapted from World Bank Group, 2025

Fig 5: Comparative Manufacturing Outputs of BRICS and G7, 2018-2024 (tr)

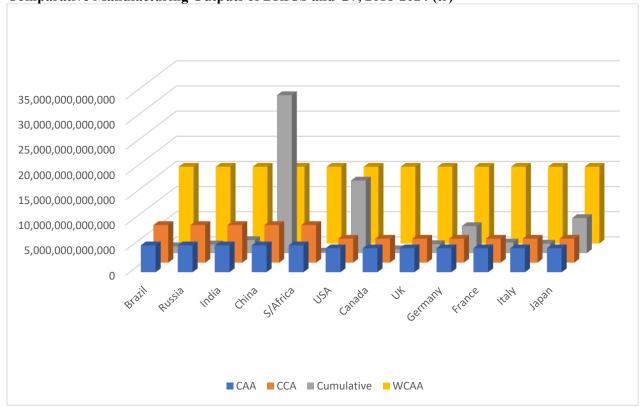
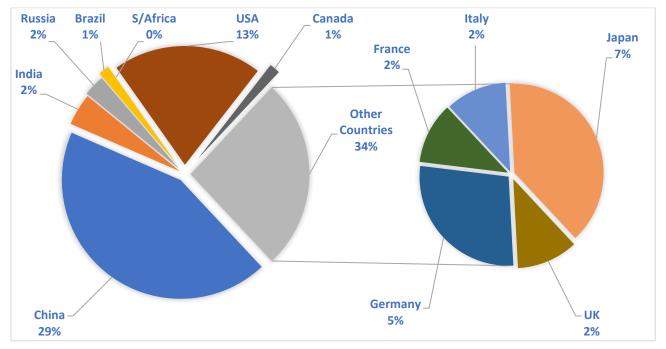


Fig 6: Comparative Manufacturing Outputs of BRICS Countries and G7 Countries, 2018-2024 (%)



Source: Generated by the Researcher in 2025 as adapted from World Bank Group, 2025

5. Conclusion

From the analysis so far, conclusion can be drawn that the BRICS has overshadowed and outperformed the G7 in global manufacturing for the period of the study. The study has further established that the BRICS is steadily leading the world in terms of manufacturing production and output with total cumulative of \$37,366,278,836,537.0tr, representing 35% of total world manufacturing production for the period of the study which stands at \$106,856,626,720,000.0tr. This BRICS performance is over and above that of the G7 manufacturing production and outputs for the period of the study which stands at \$33,306,166,093,373tr, representing 31% of the world total cumulative for the same period. The study has also established that the BRICS with a cumulative annual average of (CAA) of \$5,338,039,833,791tr, which also represents its rate of actual annual increase; as well as 35% of the world cumulative annual average (increase) of \$15,265m232,388,571tr; has not only far outweighed the G7 cumulative annual average (CAA) of \$4,758,023,727,624tr which represents 31% of the world cumulative annual average for the same period; but it (BRICS) is on a global rampage to upturn and displace the G7 from further global economic dominance. This is hinged on the fact the BRICS has all the comparative advantages in the areas of abundant cheap labour, abundant raw materials, large expanse of land and large domestic consumers; as against the G7's shrinking population, limited landmass, sparse raw materials and shrinking domestic consumption appetites. As long as the G7 does not come to terms with this emergent reality and re-align according to the unwinding global shift in the manufacturing vogue, the BRICS will continue to dominate the global economy for the rest of the 21st Century.

REFERENCES

- Alting, L. (1978). A systematic theory of manufacturing. *Environment and Planning B.*, vol. 5(2). Pp. 131-156. DOI:10.1068/b050131. Accessed 1st March, 2025.
- Cervellati, M.; Meyerheim, G. & Sunde, U. (2023). The empirics of economic growth over time and across nations: Unified growth perspective. *Journal of Economic Growth*, 28: 173-224. Springer. https://doi.org/10.1007/s10887-022-09216-2. Accessed on 2nd January, 2025.
- Ciurial, D. (2023). The BRICS as an alternative anchor for global economic governance: A comment. Ciuriak Consulting Inc. Discussion paper, 21st August, 2023. *Center for International Governance and Innovation (CIGI)*. C. D. Howe Institute; Asia-Pacific Foundation of Canada. Pp. 1-27.
- Denning, (2020). Asia's oil market: The 21st Century battlefield. San Francisco, USA: at <u>idenning@bloomberg.net</u>. Accessed on 22nd January, 2025.
- Diodato, D., Hausmann, R. & Schetter, U. (2022). A simple theory of economic development at extensive industry margin. *Center for International Development (CID)* Faculty Working Paper No. 416, September, 2022. Harvard University, USA.
- Duggan, N., Hooijmaaijers, B. Rewizorski, M. & Arapova, E. (2022). The BRICS global governance and challenges for South-South cooperation in a post-western world. *International Political Science Review*, 43(4): 469-480. https://doi.org/10.1177/01925121211052211. Accessed on 6th February, 2025.
- Irshad, M. & Syed, H. Q. (2022). Casual nexus between economic growth, FDI and employment: An inquiry into BRICS and ASEAN. *Theoretical and Applied Economics*, 29: 107-124.
- Iqbal, B. A. (2022). BRICS as a driver of global economic growth and development. Global Journal of Emerging Market Economies, 14(1): 7-18. Emerging Markets Institute Beijing Normal University. https://doi.org/10.1177/09749101211067096. Accessed on 26th January, 2025.
- Javeria, M. & Ashok, M. (2020). Foreign Direct Investment into BRICS: An empirical analysis.

 Routledge Transnational Corporations Review, 12(1)1-9.

 https://doi.org/10.1080/19186444.2019.1709400.

 Accessed on 3rd February, 2025.
- Joo, B. A. & Shawl, S. (2023). Understanding the relationship between FDI and economic growth in BRICS: Panel ARDL approach. *The Journal for Decision Makers*, 48(2): 100-113.
- Jehle, G. A., & Renny, P. J. (2011). Advanced macroeconomic theory. (3rd Ed.), PEARSON *Financial Times*, Prentice Hall Harlow, England.

 www.pearsoned.co.uk. Accessed on 5th February, 2025.
- Kachegia, P. & Theodre, M. (2022). FDI and institutions in BRICS and CIVETS countries: An empirical investigation. *Economics*, 10: 177. https://doi.org/10.3390/economics10040077. Accessed on 16/01/2025.
- Kruse, H, Mensah, E. & Sen, G. (2023). A manufacturing renaissance? Industrialization in the developing world. *IMF Economic Review*, 71(2): 439-473. Doi.10.1057/s.41308-022-00183-7. Accessed on 14th January, 2025.
- Lee, Y. S. (2020). New general theory of economic development: Innovative growth and distribution. *Review of Economic Development*, 24(2): 1-33 (April, 2020).

Liu, X., Mattoo, A., Wang, Z., & Wei, S. (2020). Services development and comparative advantage in manufacturing. *Journal of Development Economics*, 144(10): 24-38. https://doi.org/10.1016/jdeveco.2019-102438. Accessed on 20th January, 2025.

- Malik, A. & Sah, A. N. (2024). Does FDI impact the economic growth of BRICS economies? Evidence from Bayesian VAR. SAGE *Journal of Risk and Financial Management*, (MDPI), 7(10): 1-19. https://www.mdpi.com/journaljrfm. https://doi.org/10.3390/trfm.17010010, Accessed on 18th January, 2025.
- Mohanty, S. & Narayan, S. (2019). Outward FDI, human capital and economic growth in BRICS countries: An empirical insight. *Transnational Corporations Review*, 11: 235-249. https://doi.org/10.1080/19186444-2019.1657347. Accessed on 21st January, 2025.
- Molla, R. (2020). *The oil market is tilting toward Asia*. New York, USA: at molla2@bloomberg.net. Accessed on 22nd January, 2025.
- Murdock, C. W. (2020). Why Ricardo's Theory of comparative advantage regarding foreign trade doesn't work in today's global economy. 5 U BOLOGNA Law Review. No. 59: 59-79.
 - https://laweconomics.luc.edu/facpubs. Accessed on 28th February, 2025.
- Nach, M. & Nkwadi, R. (2024). BRICS economic integration: Prospects and challenges. *South African Journal of International Affairs*, 31(2): 151-166. https://doi.org/10.1080/10220461.2024.2380676. Accessed on 3rd February, /2025.
- Nistor, P. (2015). FDI implication on BRICS economy growth. *Procedia Economic and Finance*, 32: 981-985. https://doi.org/10.1016/S2212-5671(15)01557-9. Accessed on 02/02/2025.
- Putri, F. M. & Santoso, M. P. T. (2023). BRICS diplomacy: Building bridges for global cooperation. *Politics and Humanism*, 2(1): 10-21.
- Robinson, B. B. (2013). Top five Asia Pacific economies: Integration, conflict, vulnerability and crisis, 2010-2020. In: Adam Lowther (Ed) *The Asia Pacific century: Challenges and opportunities*. Alabama, USA: Air University Press.
- Shameem, C. & Jayaprasad, K. (2020). The evolution of BRICS in international political economy. *American Review of Political Economy*, 15(1): 1-19. https://doi.org/10.38024/arpe.sj.6.28.20. Accessed on 5th February, 2025.
- Siddiqui, K. (2016). Will the growth of the BRICS cause a shift in the global balance of economic power in the 21st Century? *International Journal of Political Economy*, 45(4): 315-338.
- Szirmai, A. & Verspagen, B. (2015). Manufacturing and economic growth in developing countries, 1950-2005. *Structural Change Economic Dynamics*, 34: 46-59. Doi:10.1016/j.struceco.2015.06.002. Accessed on 15th January, 2025.
- Tsaurai, K. (2017). The dynamic of FDI in BRICS countries. *Journal of Economics and Behavioral Studies*, 9(3): 101-112.
- UNCTAD (2023). *BRICS investment report, 2023*. UNCTAD-United Nations Publications, Geneva, Switzerland.
 - https://unctad.org/webflyer/global-investment-trends-monitor-no-41. Accessed on 31st January, 2025.

Watson, M. (2017). Historicising Ricardo's comparative advantage theory, challenging the normative foundations of liberal political economy. *New Political Economy*, 22(3): 257-272. https://doi.org/10.1080/13563467.2016. Accessed on 28th February, 2025.

- Wolde, A. M. (2022). Analysis of mult-country manufacturing value-added (MVA) using a dynamic policy model. *Journal of Economics and International Finance*, 14(3): 32-45. DOI:10.5897/JEF2022.1171. Accessed on 23rd January, 2025.
- World Bank Group (2025) World Bank Open Data on World Manufacturing, 2012-2024. World Bank Publications Washington DC, USA.

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