

# IMPACT OF REGIONAL TRADING BLOCS ON INDIAN ECONOMY: A CASE ANALYSIS OF BRICS

Sneha Chaudhry<sup>1</sup>  
Neha Chaudhry<sup>2</sup>

## ABSTRACT

*Countries within a specific geographical boundaries encouraging intra-trade among the member countries and substituting imports from non-members. Setting up of Regional Trading Blocs has advantage of getting Foreign Direct Investment from the other nation members as well as Economies of scales with the lower costs, elimination of tariffs, thus leading to greater competition which enables to increase the efficiency of the member countries. BRICS is one such agreement between the five emerging economies: Brazil, Russia, India, China and South Africa, comprising 43% of the world's total population, accounting for 30% of total world GDP and 17% of total world trade. This research paper thus tries to examine the trade pattern between the member nations in order to examine the impact on Indian economy being the member in BRICS agreement and its competitiveness. For the purpose secondary trade data for 10 years (2008-2009 to 2017- 2018) was collected to calculate the market share, compound annual growth rate, competitiveness and future trade potential for Indian economy with the other member countries.*

**Keywords:** BRICS, Competitiveness, Indian Economy, Trade Trend.

## INTRODUCTION

BRICS can be broadened to a group of major economies: Brazil, Russia, India, China and South Africa. It is a form of economic integration in five major emerging economies: Brazil, Russia, India, China and South Africa. Each member country has a distinctive feature representing their inbuilt potential to grow. Brazil has abundant natural resources; Russia has large reserves of natural gas and minerals; India is a strong service provider in the world; And China was established as a manufacturing giant. BRICS is leading world economic development. BRICS is not nor is there an annual association or summit between these countries. The five BRICS economies comprise 41% of the world's total population in 2015; Except for South Africa, four BRICS members are in the top 10 list in the world. Due to low labor and production costs, many firms also cited BRICS as a source of overseas expansion potential. BRIC is also used as a more common marketing term to refer to the four original emerging economies and today China is the second largest economy in the world. BRICS has a main aim to break the western authority in international economic order.

## OBJECTIVE OF THE STUDY

- (a) To analyze India's trade trends and future trade potential with BRICS countries.
- (b) To analyze India's competition among BRICS nations.

## SCOPE OF THE STUDY

Brazil, Russia, India and China will be among the largest

economies in the world in nearly 50 years, individually and collectively settled in a far more economic place. It is also speculated that by 2050 these four economies would be the most dominant. The study thus focuses on to analyse the likely consequences on Indian economy of the formation of such trading blocs. The time period for the study is 10 years ranging from 2008-2009 to 2017- 2018.

## RESEARCH METHODOLOGY

The research is exploratory and descriptive in nature based on the secondary data. The secondary data was collected from various government websites like ITC, RBI, data.gov.in, ibef.com etc. The collected data for different trade parameters was analysed through following methods using Microsoft Excel 2007:

- 1) CAGR i.e. Compound Annual Growth Rate is applied on different determinants to estimate future trade between the BRICS to identify their annual growth:

$$CAGR = (\log_{10}(\text{highest} : \text{lowest}) - 1) \times 100$$

- 2) Percentage change:  $\frac{\text{Current year} - \text{Previous year}}{\text{Previous year}} \times 100$

- 3) Balassa Index / Revealed Comparative Advantage (RCA) an index used for calculating the relative advantage or disadvantage of a particular country for a specific class of goods or services. To analyse the export flows balassa index is defined as:

$$RCA = \frac{\frac{X_{it}}{X_{ia}}}{\frac{x_{wt}}{x_{wt}}}$$

<sup>1</sup> Assistant Professor, Gitarattan International Business School, Rohini, Delhi. E-mail Id: sneha.chaudhry@gitarattan.edu.in

<sup>2</sup> Student, Gitarattan International Business School, Rohini, Delhi.

Where,  $X_{it}$  = India's exports to BRICS Nation,  $X_{ia}$  = India's total trade,  $X_{wt}$  = BRICS Nation's exports to India,  $X_{wa}$  = BRICS's total trade.

## LITERATURE REVIEW

Bosupeng (2017) in their study examined the possible effects of the BRICS formation on other nations' economic growth between 1960 and 2013. They found that all countries showed evidence of long run relations with China and Brazil's economic growth. The results verified that Brazil's economic growth is influenced by the economic growth of South Africa, China and India.

Rodionova and Epifantseva (2017) found out that China play a crucial role in BRICS. However, BRICS are not perceived as a *sensu stricto* system (Szkutnik, 2016). Despite the impressive success of China and India, in BRICS, IT development still lags behind the level of use in developed economies, and is reflected in positions of these countries in the international rankings. They also found that, Russia and other countries under BRICS agreement have a very significant potential for transformation and development.

Cooper and Farooq (2016) in their study examined the relationship between China and India's in the range of the G20 process and BRICS institutional architecture. The growing relationship among these two emerging powers demonstrated a degree of agented commonality and distinction with a status-seeking and hedging behaviour. China's follows a cautious approach, complemented by assertive leadership towards national interest, with a focus on the US and the rest of the West whereas; India focuses specifically on developmental issues with an increasingly positioned approach as a response to China.

Sinate, Fanai and Bangera (2016) observed that BRICS made a momentous growth in integrating with the global economy. Trading patterns within BRICS nations show that diversified intra-BRICS trade increased by almost three times, reflecting the comparative size of economies. They highlighted on the rising trend in India's trade deficit under bilateral trade between India and rest of BRICS nations focusing on India's proficiency in numerous manufactured products and technology which can be beneficial and easily adaptable for other BRICS countries at affordable cost. The rising imports would also help in strengthening bilateral ties, and ensuing long-term partnership.

Singh (2016) in her study focussed on the intensity of trade among BRICS countries in order to determine their trade value and also found that the share of BRICS has been increasing constantly in total world commodity trade. Further, the study revealed the decreasing Intra-BRICS trade among the major economies: Russia, China and India in 2015 as compared to that in 2001.

An additional study by Silva et. al. (2003) identified the trade constituent of bilateral relations and evaluated the effects of trading blocs on trade relations amid member countries between

1984 and 1998 between Brazil and other countries using the tri-rapport coefficient of relative intensity of bilateral agricultural sector trade flows between Brazil and other countries. The findings of the study establish declining relative trade intensity amid Brazil and its non-MERCOSUL post regional trade agreements. On the other hand trade expansion is reflected by changing trade intensity amid Brazil and the other MERCOSUL members and NAFTA members.

## BRICS OVERVIEW

BRICS is a federation of five major emerging national economies: Brazil, Russia, India, China and South Africa. Before South Africa was incorporated in 2010, it was BRIC. The characteristics of the member countries are:

1. Brazil is among the fastest growing economies in South America, also attracting huge foreign direct investments. Being naturally endowed with natural resources and great biological diversity it is ranked among the top 20 exporting countries in the world, having trade relationships with more than 100 foreign countries. Russia is one of the Largest Consumer Markets along with highly skilled and well-educated workforces in the world. Strong Russian scientific knowledge provides excellent opportunities for R&D partnerships with Russian research institutes and universities.
3. India is one of the fastest growing economies in the world, with a large number of domestic markets attracting foreign direct investment into the country. India has the third largest group of technicians and scientists in the world. It has 2nd largest labour force which is available at fewer prices as compared to other countries.
4. China overtook the United States as the largest recipient of foreign capital. China being the third largest country in land size also has future growth prospects by virtue of its population and market and broad expansion of educational achievement.
5. South Africa ranks to be the 23rd largest economy in the world, with inflation rate below 5% and the export capacity of 25% of goods produced in South Africa.
6. BRICS countries contribute to around 17 percent of the world's total commodity trade. BRICS countries has been identified as the major political powers and leading emerging economies at both regional and international level. (Singh, 2016).
7. Furthermore, according to Goldman's BRICS theory, China is considered the world's largest supplier of manufactured goods; For services to India besides Brazil and Russia for raw materials. Among member countries, China is considered the strongest economy compared to other members.

**Table 1: Share of Exports and Imports of BRICS countries individually in 2017-18**  
(Values in US \$ Millions)

Particulars	BRAZIL	RUSSIA	CHINA	SOUTH AFRICA
Exports	3,063.49	2,113.39	13,333.53	3,825.21
Total Exports	303,526.16	303,526.16	303,526.16	303,526.16
<b>% share</b>	<b>1.01%</b>	<b>0.70%</b>	<b>4.39%</b>	<b>1.26%</b>
Imports	5,498.22	8,573.46	76,380.70	6,834.70
Total Imports	465,580.99	465,580.99	465,580.99	465,580.99
<b>% share</b>	<b>1.18%</b>	<b>1.84%</b>	<b>16.41%</b>	<b>1.47%</b>

Source: FAO statistics, 2018

Note: percentage share calculated manually

**Table 2: India's Total Exports and Imports with World in 2017-18**  
(Values in US \$ Billions)

Years	Exports			Imports		
	India's Total	India's Exports to BRCS	%Share	India's Total	India's Imports to BRCS	%Share
<b>2008-09</b>	185.30	15.08	<b>8.14%</b>	303.70	43.52	<b>14.33%</b>
<b>2009-10</b>	178.75	17.07	<b>9.56%</b>	288.37	43.50	<b>15.09%</b>
<b>2010-11</b>	249.82	23.79	<b>9.52%</b>	369.77	57.77	<b>15.62%</b>
<b>2011-12</b>	305.96	30.36	<b>9.92%</b>	489.32	75.32	<b>15.39%</b>
<b>2012-13</b>	300.40	26.99	<b>8.99%</b>	490.74	70.19	<b>14.30%</b>
<b>2013-14</b>	314.41	27.57	<b>8.77%</b>	450.20	64.73	<b>14.38%</b>
<b>2014-15</b>	310.34	25.30	<b>8.15%</b>	448.03	76.56	<b>17.09%</b>
<b>2015-16</b>	262.29	16.84	<b>6.42%</b>	381.01	76.28	<b>20.02%</b>
<b>2016-17</b>	275.85	18.06	<b>6.55%</b>	384.36	76.78	<b>19.98%</b>
<b>2017-18</b>	303.53	22.34	<b>7.36 %</b>	465.58	97.29	<b>20.90%</b>

Source: <https://commerce-app.gov.in/eidb/Default.asp>

Note: percentage share calculated manually

### BRICS Nations Imports and Exports Scenario

India's trade with the BRICS' nations over the last years has ascend by 14 percent. The trade statistics of India shows an average increase of 7.5 percent Year on Year basis to the member nations. Among all member countries, South Africa became India's top trading partner. The BRICS countries jointly contributed 23.6 percent of total trade to the world economy in the year 2017-18, and are expected to grow to 26.8 percent by 2022 (IMF, 2018). China also became the second largest trading country in the world in terms of GDP and was ahead of the United States in the next few years. Bilateral trade between

BRICS plays a major role in the economic development of the world.

In the starting years of exports percentage of BRCS (i.e. Brazil, Russia, China and South Africa) to total exports was increasing gradually. It was increasing till 2011-12 but after that year percentage of exports starts decreasing and even reaches to 6 % approx but in 2017-18 again it increased whereas percentage of imports was high in 2015-16 and in the last year 2017.18. There are so many fluctuations in the share percentage of each BRICS countries with the world with respect to exports and imports.

**Table 3: India's trade with Brazil**  
(Values in US \$ Billions)

India's Imports from Brazil			India's Exports to Brazil		
Years	Value	% change	Years	Value	% change
2008-09	1.19	-	2008-09	2.65	-
2009-10	3.44	+1.90%	2009-10	2.41	-0.09%
2010-11	3.55	+0.03%	2010-11	4.02	+0.67%
2011-12	4.27	+0.20%	2011-12	5.77	+0.43%
2012-13	4.83	+0.13%	2012-13	6.05	+0.05%
2013-14	3.72	-0.23%	2013-14	5.55	-0.08%
2014-15	5.40	+0.45%	2014-15	5.96	+0.07%
2015-16	4.04	-0.25%	2015-16	2.65	-0.56%
2016-17	4.11	+0.02%	2016-17	2.40	-0.09%
2017-18	5.50	+0.34%	2017-18	3.06	+0.28%
<b>CAGR</b>	10.29		<b>CAGR</b>	-0.49	

Source: <https://commerce-app.gov.in/eidb/Default.asp>

Note: percentage share calculated manually

**Table 4: India's trade with Russia**  
(Values in US \$ Billions)

India's Imports from Russia			India's Exports to Russia		
Years	Value	%Change	Years	Value	%Change
2008-09	4.33	-	2008-09	1.10	-
2009-10	3.57	-0.18%	2009-10	0.98	-0.10%
2010-11	3.60	0.01%	2010-11	1.69	0.72%
2011-12	4.76	0.32%	2011-12	1.78	0.05%
2012-13	4.23	-0.11%	2012-13	2.30	0.30%
2013-14	3.89	-0.08%	2013-14	2.12	-0.08%
2014-15	4.25	0.09%	2014-15	2.10	-0.01%
2015-16	4.58	0.08%	2015-16	1.59	-0.24%
2016-17	5.55	0.21%	2016-17	1.94	0.22%
2017-18	8.57	0.54%	2017-18	2.11	0.10%
<b>CAGR</b>	6.27		<b>CAGR</b>	-98.93	

Source: <https://commerce-app.gov.in/eidb/Default.asp>

Note: percentage share calculated manually

### India and Brazil

Brazil is one of India's major trading partners throughout Latin America and the Caribbean region. The two countries have collaborated at multilateral level on key issues like environment, international trade development, and more. Both the countries are in developing phases and have agriculture based economy. Brazil has an export-oriented economy dealing mainly into Soil beans, corn, beef, iron, copper, ore and cars

and reducing oil, coffee and cotton. Major contribution of imports from Brazil goes to raw material and intermediate products which has 45% share of total imports than capital goods. Others include automotives, drugs and medicine, Naphtha and electronic components. Oil seeds exports contribute to 62% of total main exports of Brazil. India's imports from Brazil rose to US\$ million 300,103,343.35 in 2017-18 from US\$ million 384,357.03 in 2016-2017 and India's exports to Brazil have been fluctuating since 2008.s

The rising trade trends amid India and Brazil in last 10 years show a better prospect for increase in the years to come. The declining Indian exports have been an outcome of global drop in commodity prices and the economic recession in 2015 in Brazil, followed by sharp economic and Political turmoil in 2016, but despite this, India remained Brazil's top trading partner.

### India and Russia

India-Russia has signed several bilateral trade agreements related to the Declaration on Indo-Russian Strategic Partnership, Global Peace and Sustainability built on the following components for partnership: economic, politics, defense, civil, nuclear energy, counter-terrorism cooperation and Space . India has been the second largest market for the Russian defense industry in 2017 and accounts for about 68% of the Indian Army hardware.

Major Indian imports from Russia in the year 2017-18 were products of mineral fuels, mineral oils and their distillation, bituminous substances; Natural or cultured pearls, precious or semiprecious stones, precious metals; Fertilizer; Nuclear reactors, boilers, machinery and mechanical equipment; Electrical machinery and equipment and parts thereof; Sound recorder and copy presenter, television image and sound recorder and representative, and parts. While the top products exported from India to Russia were pharmaceutical products; Nuclear reactors, boilers, machinery and mechanical equipment: parts thereof; Organic chemicals; Coffee, tea, friends and spices; Vehicles other than railway or tramway rolling stock and its parts and accessories.

Russian export to India in 2017 equalled to US\$ 663 million in services, and US\$ 432 million and US\$ 1.095 billion import of services. Furthermore India and Russia have called for expanding and intensifying its economic ties in priority sectors to meet the bilateral trade target of \$30 billion by 2025 which shows better prospects for increase in the years ahead.

### India and China

India-China relations refer to the bilateral relationship between the People's Republic of China (PRC) and the Republic of India. China is India's largest trading partner. China and India are the two most populous countries and fastest growing economies in the world. China, with an estimated GDP of about \$ 12 quadrillion, is second only to the United States after \$ 19 quadrillion. China is the world's leading exporter since 2009 and by 2013, the country has ranked the US as the world's largest trading nation. China being a major importer at global level accounts to 10% (approx) of total global imports amounting to \$17 trillion. Others include Electronic equipments, Electrical machinery and equipment, Machinery (including computers), Optical, technical, and medical apparatus, Vehicles, Plastics, and Organic chemicals. Others include Furniture (including bedding, lighting, prefab buildings, signs and Knit or crochet clothing, including accessories and Clothing, accessories (excluding knit or crochet items) and Optical, technical and medical apparatus and Plastics and associated items and Vehicles, Iron and steel products and Footwear

**Table 5: India's trade with China**  
(Values in US \$ Billions)

India's Imports from China			India's Exports to China		
Years	Value	%Change	Years	Value	%Change
2008-09	32.50	-	2008-09	9.35	-
2009-10	30.82	-0.18%	2009-10	11.62	-0.11%
2010-11	43.48	0.01%	2010-11	14.17	0.72%
2011-12	55.31	0.32%	2011-12	18.08	0.05%
2012-13	52.25	-0.11%	2012-13	13.53	0.30%
2013-14	51.03	-0.08%	2013-14	14.82	-0.08%
2014-15	60.41	0.09%	2014-15	11.93	-0.01%
2015-16	61.71	0.08%	2015-16	9.01	-0.24%
2016-17	61.28	0.21%	2016-17	10.17	0.22%
2017-18	76.38	0.54%	2017-18	13.33	0.10%
<b>CAGR</b>	9.18		<b>CAGR</b>	-0.70	

Source: <https://commerce-app.gov.in/eidb/Default.asp>

Note: percentage share calculated manually

India's exports to and imports from the China have better prospects for increase in the years ahead. India's imports stood at 76,380.70US\$ million in 2017-18 and exports stood at 13,333.53 US\$ million in 2017-18. Future potential trade with China in terms of imports and exports have positive impact.

### India and South Africa

India and South Africa also have extensive energy partnerships. In the year 2010, India imported 1.4 million tonnes of coal from South Africa, making it the largest importer of coal from the country. This redistribution between the two countries went ahead with the entry of South Africa into the BRICS group. Along with polished and processed diamonds from South African mines, gold bullion imports a third of India from South Africa. South Africa has also supported a free trade agreement

with India and the South Africa Customs Union (SACU), which includes Botswana, Lesotho, Namibia and Swaziland and South Africa. South Africa has been the 34th largest export economy in the world and has also been ranked as the 47th most complex economy according to the Economic Complexity Index. Others of Imports include Gold and Broadcasting equipments whereas Exports others include Coal Briquettes, Refined Copper, Raw Nickel, Chromium Ore, Manganese Ore and Ferroalloys.

India's exports to and imports from the South Africa have better prospects for increase in the years ahead. India's imports stood at 6,834.70 US\$ million in 2017-18 and exports stood at 3,825.21 US\$ million in 2017-18. Future potential trade with South Africa in terms of imports and exports have positive impact.

**Table 6: India's trade with South Africa**  
(Values in US \$ Billions)

India's Imports from South Africa			India's Exports to South Africa		
Years	Value	%change	Years	Value	%change
2008-09	5.51	-	2008-09	1.98	-
2009-10	5.67	0.03%	2009-10	2.06	0.03%
2010-11	7.14	0.26%	2010-11	3.91	0.90%
2011-12	10.97	0.54%	2011-12	4.73	0.21%
2012-13	8.89	-0.19%	2012-13	5.11	0.08%
2013-14	6.08	-0.32%	2013-14	5.07	-0.01%
2014-15	6.50	0.07%	2014-15	5.30	0.04%
2015-16	5.95	-0.08%	2015-16	3.59	-0.32%
2016-17	5.83	-0.02%	2016-17	3.55	-0.01%
2017-18	6.83	0.17%	2017-18	3.83	0.08%
<b>CAGR</b>	-99.00		<b>CAGR</b>	-98.94	

Source: <https://commerce-app.gov.in/eidb/Default.asp>

Note: percentage share calculated manually

**Table 7: India's Future potential Trade with other BRICS nation**  
(US\$ billions)

Countries	Brazil		Russia		China		South Africa	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
2018-19	5.70	3.10	8.70	3.99	76.60	13.30	4.90	1.90
2019-20	5.90	3.02	8.80	5.97	76.70	13.30	2.90	3.90
2020-21	6.10	3.03	8.80	3.90	76.90	13.29	5.10	6.00
2021-22	6.30	3.02	9.10	1.70	77.10	13.30	7.20	8.20
2022-23	6.60	3.01	9.20	3.99	77.40	13.26	9.50	5.90
2023-24	6.80	3.00	9.40	6.40	77.60	13.24	7.10	3.50
2024-25	7.10	2.90	9.50	8.80	77.80	13.22	4.70	1.05

Note: Values calculated manually using CAGR

**Table 8: Revealed Competitive Advantage score**

Years	Brazil	Russia	India	China	South Africa
2008-09	7.39	0.42	2.26	0.37	1.70
2009-10	7.53	0.54	2.07	0.37	1.93
2010-11	7.57	0.35	2.11	0.39	1.80
2011-12	7.09	0.39	2.23	0.37	1.57
2012-13	7.17	0.58	2.79	0.35	1.44
2013-14	7.38	0.55	2.89	0.34	2.12
2014-15	4.59	0.53	2.22	0.58	3.39
2015-16	6.76	0.21	2.54	0.36	1.87
2016-17	8.01	0.42	2.39	0.78	2.17
2017-18	7.83	0.31	2.85	0.59	2.69
<b>Average</b>	<b>7.13</b>	<b>0.43</b>	<b>2.44</b>	<b>0.45</b>	<b>2.07</b>
<b>Rank</b>	<b>1</b>	<b>5</b>	<b>2</b>	<b>4</b>	<b>3</b>

Note: RCA values calculated manually

### Future Trade potential among BRICS countries

The future trade trend calculated on the basis of the cumulative annual growth rate predicts fluctuating trends amid India and other member countries under BRICS agreement. The results showed in table 7 highlights the rising imports from Brazil, Russia and China; and significant increased imports from South Africa for the year 2021-24. On the other hand the exports from India are assumed to be stable from China; marginally declining from Brazil; and significantly rising from Russia and South Africa.

### Global Competitiveness of India under BRICS agreement:

Liesner (1958) pioneered an idea to determine country's 'strength' using actual export flows, popularly known as the Balassa Index, as it was refined and popularized by Bella Balassa (1965, 1989). Furthermore, it is also known as Revealed Comparative Advantage as the export flows explicates the country's strong sectors. A comparative advantage commodity or industry is considered "revealed" if  $RCA > 1$  and comparative disadvantage when  $RCA < 1$ .

$$RCA = \frac{X_{it}}{X_{ia}} \bigg/ \frac{X_{wt}}{X_{wa}}$$

Xit = India's exports to BRICS Nation

Xia = India's total trade

Xwt = BRICS Nation's exports to India

Xwa = BRICS's total trade

This above table shows the export flow of BRICS nations which clearly indicates that Russia and China had comparative disadvantages over the years as the RCA score for the country is less than one. On the other hand the RCA scores of other countries highlight Brazil to have an export competitiveness followed by India and South Africa respectively.

### FINDINGS

1. Results show that growth of exports and imports are largest in China followed by Russia, South Africa and Brazil respectively.
2. Sole dominance of USA is over in global market due to BRICS formation.
3. The formation of the New Development Bank was another step to remove the economic dominance of the West, which controls the IMF via World Bank and Asian Development Bank.
4. Business models can easily expand due to increasing economy.
5. Successful deliberations on the BRICS railway research network aimed at promoting research and development in the region to aid further development in economies that is both, cost-effective and sustainable.
6. BRICS will also help in reducing the dependency on US dollar.
7. Russia and China had comparative disadvantages over the years
8. RCA scores labelled Brazil to have an export competitiveness

## CONCLUSION

The study was conducted with an objective to identify the impact of regional trading agreements through evaluating the competitiveness of the Indian Economy amid BRICS nations using Trend analysis along with CAGR and Balassa Index. The studies showed the fluctuating trade trend amid the member nations and nearly stable competitiveness score in the near future. Trade trends for India are assumed to have rising imports from Brazil, Russia and China; and significant increased imports from South Africa for some years; And exports from India are assumed to be stable from China; marginally declining from Brazil; and significantly rising from Russia and South Africa.

## REFERENCES

1. Andrew C. & Farooq A. (2016). The Role of China and India in the G20 and BRICS: Commonalities or Competitive Behaviour? In *Journal of Current Chinese Affairs*. GIGA German Institute of Global and Area Studies, Institute of Asian Studies and Hamburg University Press. 5(1), 187-195.
2. Bosupeng M. (2017). On the Effects of the BRICS on World Economic Growth, University of Botswana, Gaborone. *Journal of Statistics Applications & Probability an International Journal* 3(09).
3. Brazil main exports and imports (2018). Retrieved 11:15, March 26, 2019, from: <http://infobrics.org>
4. BRICS countries total Trade in year 2017-18. Retrieved 11:04, March 26, 2019, from: <http://commerce-app.gov.in/eidb/iecntq.asp>
5. China main exports and imports (2018), Retrieved 11:29, March 26, 2019, from: <https://commodity.com/china/>
6. Hasan S. & Luthra R. (2014). Comparative performance of India with other BRICS countries in publishing science and engineering research papers. Human Resource Development Group. Council of Scientific and Industrial Research. Pusa, New Delhi. 12(21).
7. India's Total Exports and Imports with World in 2017-18. Retrieved 11:07, March 26, 2019, from: <https://commerce-app.gov.in/eidb/Default.asp>
8. International Trade Centre (2017), Retrieved 10:15, March 27, 2019, from: <http://www.intracen.org/itc/about/>
9. Mielniczuk, F. (2013). BRICS in the Contemporary World: Changing Identities, Converging Interests. National Bureau of Economic Research Massachusetts Avenue Cambridge. 17(3), 16-31.
10. Noort C. (2017). Study of Strategic Narratives: The Case of BRICS, Department of Politics. University of Otago, Dunedin 9016, New Zealand. 7(42).
11. Radulescu I, Panaita M, & Voicab C. (2013). BRICS countries challenge to the world economy new trends. Russia in *Studia Ekonomiczne Zeszyty Naukowe Uniwersytetu Ekonomicznego Katowicach*. 2(2).
12. Rodionova I. & Epifantseva F. (2017). Positions of the BRICS countries in the World Economics Innovation, Romania in *Elsevier B.V* 1(1), 1-16.
13. Russia main exports and imports (2018), Retrieved 11:20, March 26, 2019, from: <https://atlas.media.mit.edu/en/profile/country/rus>
14. South Africa main exports and imports (2018), Retrieved 11:30, March 26, 2019, from: <https://atlas.media.mit.edu/en/profile/country/zaf>
15. Younsi M. & Bechtini M. (2018). Economic Growth, Financial Development and Income Inequality in BRICS Countries: Evidence from Panel Granger Causality Tests, Faculty of Economics and Management, University of Sfax, Tunisia 14(04).
16. Silva, Valquiria da, Anefalos, Lilian C., & R. Filho, José Carlos G. dos. (2003). Relative intensity of bilateral trade flows, regional integration, and trade performance: the case of Brazil, 1984-1998. *Revista de Economia e Sociologia Rural*, 41(2), 345-360. <https://dx.doi.org/10.1590/S0103-20032003000200002>.