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CONTENTS

ECONOMIC AND INSTITUTIONAL DETERMINANTS OF FDI INFLOWS TO EMERGING MARKETS: A COMPARATIVE ANALYSIS OF THE BRICS

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Abstract

Over the past three decades, BRICS have shown higher growth rates as compared to even developed countries of the world, confirming to the prime objective for which these countries joined hands together. The prime objective was to enhance cooperation in trade and commerce, to increase their socio-economic and political importance and to bring this group in the forefront in the world forum.

Therefore, it becomes imperative to throw some light on the trends and patterns of the factors across these countries which have contributed to the success of BRICS over these years especially in terms of becoming the most favourite destinations of the world in attracting Foreign Direct Investment (FDI) inflows. Country wise and period wise trend analysis is conducted in this study to examine the pattern followed by the macro- economic and institutional determinants affecting the FDI inflows in all these five countries individually and also as a group. A comparative analysis is also done across all the five countries regarding ranking them across all these parameters and finding out the areas where they are leading and lagging.

Keywords: Foreign Direct Investment, FDI, Economic Determinants, Institutional Determinants, BRICS, Trend Analysis, Comparative Analysis.
JEL Classification: O5, P47, P5.

1. INTRODUCTION

Jim O' Neill (2001) at Goldman Sachs developed the idea of the BRIC nations in his notable paper, "Building better global economic BRICs" when major structural changes were already taking place in these countries. Brazil was already working on bringing an economic stabilization plan to tackle the issue of very high inflation rates prevailing in the economy and also to boost privatization in the late 1980s. On the similar lines, India had introduced economic reforms, popularly known as LPG (Liberalization, Privatization and Globalization) in the early 1990s. On the other hand, during the late 1990s, since China had emerged safe and sound from the Asian economic crisis, no such reform measures were visibly taking place in China whereas Russia was planning a strategic change to rebuild its lost economic status during this time.

The formalization of the group happened in 2009 when the leaders of the original four countries held their first summit in Russia. A clear objective behind the

formalization of the group was spelled out during their first summit, "calling for a more democratic and multi-polar world based on the rule of international law, equality, mutual respect, co-operation, coordinated action, and collective decision making of all states". The youngest member of the group is South Africa who joined the group in 2010 making the acronym to BRICS (Brazil, Russia, India, China, and South Africa). It was since then that the acronym "BRICS" has been used to represent the collective power of these five economies.

Persistent economic activities along with a focused strategy of growth since the 1990s resulted in major infrastructural and other favorable economic and institutional changes in the BRICS nations. These changes transformed BRICS nations into attractive destinations for capital inflows (especially in the form of FDI). It is also to be noted here that all the BRICS nations are not just developing or newly industrialized economies, but they are also classified as largest (in terms of surface area and population size) and fastest- growing economies. All these five countries have a momentous influence on regional and global affairs discussed at the international platforms; all five countries are a part of the G-20 group.

These five countries also represent the largest continents of the world with their unique characteristics, i.e. Brazil represents the largest country in the South American continent; Russia, the world's largest nation (in terms of surface area) is a part of both European and Asian continent; India, the largest democratic and second most populous country in the world is a part of Asian continent; China, the most populated country in the world, is also a part of the largest continent of the world in terms of both size and population, i.e. Asia; and last but not the least South Africa which represents the African continent has the largest GDP per capita among all the regions (double that of Nigeria) and is the most attractive investment destination on the continent (because of advancements in the overall environment).

Over the last three decades, BRICS nations have emerged as the fastest developing economies of the world because of a continuously rising share in world's Gross Domestic Product (GDP); world trade; foreign exchange reserves; and FDI inflows and outflows. As per the latest World Development Indicators (WDI) data of 2015, issued by the World Bank, BRICS together represent over 3.09 billion people which account for almost fifty per cent of the world's population; all five countries are among the top 25 countries of the world in terms of population size, and four of them are in the top 10 (China at the top followed by India, Brazil and Russia). BRICS have a combined nominal GDP of 16.6 trillion US Dollars which is close to 22% of the gross world product and a combined foreign reserves level of 4 trillion US Dollars.

In spite of all these heterogeneities among the BRICS, the study published by Goldman Sachs in 2003 "*Dreaming with BRICs: The Path to 2050"* is noteworthy here that predicted *"over the next 50 years, the BRICS economies* could *become super powers in the world economy"* and this is proven by the influx of capital that has been coming into these countries in past three decades. A summary of such capital movements is discussed in the next section.

1.1. AN OVERVIEW OF FDI NET INFLOWS IN BRICS COUNTRIES

Table 1 below presents the total FDI net inflows (used as a proxy for FDI inflows) into BRICS by the host countries from the year 1983 to 2015 which is the period of this study (except for Russia, the period is taken from 1995 to 2015 for which the data is available). This period has been carefully chosen because of common availability of all the determinants selected for this study.

Table 1. *FDI net inflows (US Billion $) in Brazil, India, China and South Africa (1983-2015); Russia (1995-2015)*

Year	Brazil	Russia	India	China	South Africa
2015	75.07	6.48	44.21	249.86	1.57
2014	96.89	22.89	33.87	289.10	5.74
2013	80.84	70.65	28.15	347.85	8.12
2012	76.11	50.59	23.99	295.62	4.63
2011	71.54	55.08	36.50	331.59	4.14
2010	53.34	43.17	27.40	272.99	3.69
2009	31.48	36.58	35.58	167.07	7.62
2008	50.72	74.78	43.41	186.80	9.88
2007	44.58	55.87	25.23	169.39	6.59
2006	19.38	37.59	20.03	133.27	0.62
2005	15.46	15.51	7.27	111.21	6.52
2004	18.16	15.44	5.77	62.11	0.70
2003	10.14	7.96	4.32	49.46	0.78
2002	16.59	3.46	5.63	49.31	1.48
2001	22.46	2.75	5.47	44.24	7.27
2000	32.78	2.71	3.58	38.40	0.97
1999	28.58	3.31	2.17	38.75	1.50
1998	31.91	2.76	2.63	43.75	0.55
1997	19.65	4.87	3.58	44.24	3.81
1996	11.20	2.58	2.43	40.18	0.82
1995	4.86	2.06	2.14	35.85	1.25
1994	3.07	0.69	0.97	33.79	0.37
1993	1.29	-	0.55	27.51	0.01
1992	2.06	-	0.28	11.16	0.01
1991	1.10	-	0.07	4.37	0.25
1990	0.99	-	0.24	3.49	-0.07
1989	1.13	-	0.25	3.40	-0.20

Year	Brazil	Russia	India	China	South Africa
1988	2.80	-	0.09	3.19	0.16
1987	1.17	-	0.21	2.31	-0.19
1986	0.34	-	0.12	1.87	-0.05
1985	1.44	-	0.11	1.66	-0.45
1984	1.59	-	0.02	1.26	0.42
1983	1.61	-	0.01	0.64	0.07

Source**:** Own compilation based on data extracted from World Development Indicators 2016, World Bank (Accessed on 22-11-2016).

The table reveals that Brazil was a leader in attracting FDI flows till the early eighties. However, in the year 2015, the FDI inflows have fallen down from year 2014. On the other hand, with the liberal trade regimes followed by the Chinese economy, the maximum FDI flows amongst all these five countries started flowing to China. It remains the leader in getting highest FDI inflows since 1985 to 2015. China's share in the total FDI inflows of BRICS is almost 66% in the year 2015 itself. But, if the trend of only last decade is seen, the growth made by the Indian economy is also noticeable i.e. 7.6% which is the maximum among these five countries. India also picked up its FDI inflows during the last decade which is almost six times from the year 2005, i.e. from USD 7.27 billion; it has reached to USD 44.21 billion in the year 2015.

In 1990s Russia attracted very low levels of FDI flows. It was only in the beginning of 2000s, when the oil prices across the globe started to move high and economic activities were speeding up, that Russian economy could also see some positive movements in FDI flows. During 2005 to 2008, FDI inflows were growing at consistently higher rate but this rate of growth in FDI reversed in 2009 when Russian economy had to face the global economic crisis. In 2009 FDI inflows toppled down to twice as low as in 2008. With a steady growth rate and strong steps for the revival of the economy after the crisis, Russia could find an increase in FDI growth. The year 2013 proved to be a boon for the Russian economy's FDI inflows mainly because of the British Petroleum (BP) - Rosneft deal. However, due to the aftermaths of Ukrainian conflict, introduction of government sanctions, overall poor investment climate and the dwindling economic conditions due to falling oil prices, in the year 2014, FDI inflows deteriorated 3 times as compared to 2013 (from USD 70.65 billion to USD 22.89 billion). In fact the year 2014 became the first year when outward FDI stock exceeded inward FDI stock in Russia. The situation did not improve in year 2015, FDI inflows decreased to USD 6.48 billion in 2015, as can be seen from Table 1 above, approximately 70% slump as compared to 2014 placing Russia at the second last place among BRICS economies (after South Africa).

South Africa, the newest member nation of BRICS group, has huge potential for attracting foreign investment; however, its past experience in terms of attracting FDI so far has been relatively poor. This is mainly because of the number of legislative uncertainties that discourage the foreign MNCs to invest. As a result, FDI inflows in South Africa were dropped sharply (73% down) in 2015 itself as

compared to 2014 and almost an 81% decrease from year 2013. In addition to infrastructural abnormalities in the electricity and logistics sectors, strikes in industrial units also badly affect the production processes which prove to be a disincentive for the investors. Still, due to new investments in infrastructure, FDI position has started to improve, though, at a slow pace.

With this background, the study attempts to analyze the various factors influencing the FDI inflows in these countries over a long period of thirty three years (except for Russia for which the data was available from 1995). Also, the study throws a light on how this would channelize the efforts made by these economies in the right direction and enhance their efficiencies to become one of the supreme powers of the world.

1.2. MOTIVATION BEHIND THIS STUDY

The prediction made by Dominic Wilson and Roopa Purushothaman at Goldman Sachs in their notable work in 2003 "*Dreaming with BRICs: The Path to 2050"* where they predicted that over the next 50 years, BRICS could become supreme powers of the world, has become the motivation for this present study. The representation from all these continents brings together a lot of cultural and social diversities also due to which the consortium BRICS benefits more as compared to many such other economic blocs. Therefore, it becomes imperative to throw some light on the trends and patterns of the factors across these countries which have contributed to the success of BRICS over these years. The present study discusses in detail the performance of BRICS group over a period of more than thirty years on account of both the economic and institutional determinants. After the aforesaid analysis, a comparative analysis of BRICS countries is also done in this study to address the question 'why should an MNC make foreign direct investment in BRICS countries?'

The study is significant not just for the researchers but also for the foreign MNCs interested in expanding their businesses in BRICS and also for the policy makers of other emerging countries of the world to take lessons from BRICS and follow their path of success.

All this analysis is conducted with an intention to help the policy makers in these countries who can make strategic decision making about those specific areas of concern only where their country is lagging (in terms of economic environment and institutional quality) and channelize the efforts of their Governments to turn this dream into reality- the dream to become supreme powers in the world economy by 2050.

2. LITERATURE REVIEW

"Foreign Direct Investment (FDI) is a driving force of globalization and an important engine of economic growth. Developing as well as developed countries seek to attract FDI due to its many advantages for economic development. FDI can

not only bring capital to an economy but also transfer knowledge, technology and skills, as well as generate employment and trade". (Jimmy J. Zhan, 2006)

A lot of research work has been accomplished in the past regarding investigation of all these aspects mentioned in the above definition related to FDI. Keeping in view the background of this study, literature review has been carried out to find out the determinants of FDI inflows.

FDI is assumed to facilitate economic growth in emerging markets by providing innovative technological know- how, capital and access to diverse markets for the production of goods and services. However, attracting FDI is a major challenge for host countries as they need to identify the major push and pull factors that attract FDI to their countries. Some of the studies highlighting these factors have been summarized below:

2.1. STUDIES RELATED TO ECONOMIC DETERMINANTS OF FDI

There are several studies which have analyzed the economic determinants of FDI for individual countries or groups of countries that are part of developing or developed markets.

2.1.1. Studies in the context of group of developing countries

In a study conducted by Harinder Singh and Kwang W. Jun (1995), only export orientation was proved to be a signal of country's growth that helps in attracting more FDI inflows. However, Marcelo Braga Nonnemberg and Mario Jorge Cardoso de Mendonca (2004) concluded that FDI is correlated to economy's degree of openness, inflation, risk and average rate of economic growth. Baker et al. (2008) highlighted stock market performance as the indicator for having more FDI inflows. Khondoker Abdul Mottaleb and Kaliappa Kalirajan (2010) also demonstrated that larger GDPs, higher GDP growth rates, higher proportion of international trade and a more business-friendly environment are more successful in attracting FDI. In a similar study, Recep Kok and Bernur Acikgoz Ersoy (2009) found total debt service, GDP and inflation as the crucial determinants behind FDI inflows. Magda Kandil (2011) in a study on developing countries emphasized the role of exchange rate movements in attracting FDI flows.

Priya Gupta and Archana Singh (2013, 2014) also concluded in a very recent study on BRIC (which is an acronym commonly used to refer to Brazil, Russia, India and China) Nations that the most important factors for attracting FDI inflows are inflation rate, international liquidity, debt service as a percentage of export of goods and services of the country, current account as percentage of GDP, current account as percentage of export of goods and services, budget balance as a percentage of GDP and percentage unemployment in the country. Vijayakumar et al. (2010) concluded that market size, labor cost, infrastructure, currency value and Gross Capital Formation are the potential determinants of FDI inflows of BRICS. Another study in the context of BRICS countries was conducted by Ranjan and Agrawal

(2011) who found that the most important determinants of FDI inflows in BRICS are market size, trade openness, labor cost, infrastructure facilities and macroeconomic stability and growth prospects. Market size and trade openness were also highlighted by Jadhav (2012) in his paper on BRICS countries.

2.1.2. Studies in the context of specific developing countries

Boopen Seetanah and Sawkut Rojid (2011) emphasized on trade openness, wages and the quality of labor as the most instrumental factors for attracting FDI in Mauritius. Another study by Nguyen and Nguyen (2007) in the context of Vietnam gave importance to market, labor and infrastructure in attracting FDI. In the context of Nigeria, Ibrahim and Saidat (2008) and Obida Gobna Wafure and Abu Nurudeen (2010) highlighted the importance of market size of the host country, deregulation, political factors, and exchange rate regime for attracting FDI. A study on Ghana by Kyereboah- Coleman, A. and Agyire- Tettey, K. F. (2008) also proved exchange rate regime as an important factor for FDI inflows. De Angelo et al. (2010) concluded the importance of the consumer market and strength of consumer sales as the most important factor in explaining capital movements into Brazil.

A study in China by Owen C. H. Ho (2004) indicated that market size, wage rate, degree of economic reform and innovation activities are important determinants of sectoral FDI in China. Chien- Hsun Chen (1996) determined that market expansion potential, labor cost, allocative efficiency, transportation linkages, and technological filtering are able to attract more FDI in the mainland China. Almost similar findings were postulated by Lv Na and W.S. Lightfoot (2006) who found that GDP that proxies for the market size, quality of labor and the degree of openness are the main determinants of FDI in China. Junjie Hong (2008) also emphasized the labor cost as an essential determinant for attracting FDI flows in China.

Muhammad Azam and Ling Lukman (2010) also revealed that market size, external debt, domestic investment, trade openness, and physical infrastructure are the important economic determinants of FDI in Pakistan, India and Indonesia. Balasundram Maniam and Amitava Chatterjee (1998) conferred the importance of exchange rate for attracting US FDI in a developing country like India. Monica Singhania and Akshay Gupta (2011) revealed that GDP, inflation rate, scientific research, and FDI Policy changes have had a significant impact on FDI inflows into India. The financial strength of the state, development level of the state, size of the market and level of infrastructure were some other determining factors for FDI in India as studied by Neerja Dhingra and H.S. Sidhu (2011). In a latest study conducted by P. Dua and R. Garg (2015), it was found that the depreciating exchange rate, higher domestic returns, higher domestic output and better infrastructure are the reasons for influx of FDI into India.

Elizabeth Asiedu (2002) suggested that *g*ood infrastructure, liberalized trade regimes and better government policies can help Africa to get more FDI flows. Elizabeth Asiedu (2006) concluded that natural resources and large markets promote FDI. Openness to trade, the size of the domestic market, stock of human capital played a positive role while political instability and labor cost a negative role in

attracting FDI in the African markets as explored by Sawkut et al. (2009). There are few studies in the context of transition economies also like Yuko Kinoshita and Nauro F. Campos (2003) explored institutions, agglomeration and trade openness as main determinants for FDI inflows in such countries.

2.1.3. Studies in the context of group of developing and developed countries

Andrew J. Abbott and Glauco De Vita (2011) in their study on OECD and non-OECD high income countries proved exchange rate regime as the most essential reason for high FDI inflows. For OECD member countries, Bertrand et al. (2004) concluded both economic and institutional determinants as critical for having more FDI inflows viz. size and growth of the host market, government emphasis on financial incentives, economic policy, cultural closeness, costs of transport, materials and labor availability, technological know- how, political stability and good infrastructure facilities.

Andreia Alexandra Faria Severiano (2011) showed the importance of GDP per capita, degree of openness to trade, exchange rate, minimum wage, corporate tax rate and labor market flexibility while analyzing the determining factors for FDI in primary, secondary and tertiary sectors of Portugal. Another study which confirmed the results of the previous studies was by Gilmore et.al. (2003) who concluded that FDI is a preference to other forms of foreign market entry, size and growth of the host market, government emphasis on FDI and financial incentives, economic policy, cultural closeness, costs of transport, materials and labor, resources, technology, political stability and infrastructure are important determinants of FDI for Northern Ireland and Bahrain.

2.2. STUDIES RELATED TO NON- ECONOMIC/ INSTITUTIONAL DETERMINANTS OF FDI

2.2.1. Studies in the context of group of developing countries

A study based on institutional determinants by Giuseppina Talamo (2011) revealed corporate governance and institutional quality as the most important factor of FDI. Belay Seyoum and Terrell G. Manyak (2009) concluded that public and private transparency can act as the strong reason for rising FDI inflows in developing countries. In another study on developing countries, Matthias Busse and Carsten Hefeker (2005) showed that a stable government, absence of internal conflict and ethnic tensions, basic democratic rights and a proper law and order mechanism leads to better FDI inflows. Alvin G. Wint and Densil A. Williams (2002) also supported stable government policies as a reason for having more FDI flows into the host country. Koji Miyamoto (2003) highlighted that an economy having a focused approach for human capital formation (i.e. by making both public and private investments on improvising the standard of living, education and health of man power) attracts more MNCs to invest their capital for long run in the form of FDI. Another perspective for attracting more FDI inflows in the host country was

presented by Keith E. Maskus (2000) who stressed on the protection of intellectual property rights (IPRs) of the MNCs bringing not just capital but also production technologies to the host country. He emphasized on the need of adhering to various multilateral agreements (like Multilateral Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)) to significantly strengthen the IPR regime in the host country.

2.2.2. Studies in the context of specific developing countries

A study by Yi Hu (2007) concluded that higher literacy and education rates in China attract more FDI inflows. In the context of Pakistan, A. S. Rehman (2009) highlighted the importance of political stability and availability of energy to the MNEs to invite them to invest their capital for a long run. In a research on African countries, Jacob W. Musila and Simon P. Sigue (2006) emphasized on bringing economic reforms and policy changes in the host country so as to be a favorite destination of investment by MNCs. In addition to this, Elizabeth Asiedu (2001) said that by providing better infrastructural facilities and following liberalized trade regimes, host countries like Africa may attract more FDI inflows. Almost similar conclusions were drawn in the context of Russia by various researchers. In a study conducted by Jones et al. (2000), national infrastructure facilities and transparent government policies were cited as the most crucial determinants of attracting more FDI inflows. Another study by Andrey Popovich (2007) mentioned political risk as the most important deterrent towards bringing FDI inflows. Bergsman et al. (1999) in an earlier study on Russia also focused on having a more modern approach towards FDI, i.e. by following liberalized trade regimes to the maximum extent possible. The overall environment of a host country in terms of stable government policies, transparent law and order mechanism, better infrastructural facilities (e.g. energy, transportation, etc.) and a clear focus on education and health sectors makes a difference in bringing these developing countries on the top list of destinations attracting maximum FDI inflows.

2.2.3. Studies in the context of group of developing and developed countries

Various studies have been conducted in the past that highlight institutional determinants as the critical reason behind higher FDI inflows. Jo Jakobsen and Tor G. Jakobsen (2011) suggested that a clear opinion of public and their preferences helps in the decision of MNCs of whether they should invest in a particular country or not in the context of non- OECD member countries. A similar opinion about democratic participation of public was given by Matthias Busse (2003) for the developing and emerging market economies. Arshad Alam and Prabir K. Bagchi (2011) proved supply chain capability and government practices of the host country as the determinant of FDI inflows. However, Nitish Singh (2011) restricted his findings to only supply chain capability as the most crucial factor. Many researchers like David Floyd and Sandhla Summan (2008) in their study on Eastern and Western countries; Nauro Campos and Yuko Kinoshita (2008) in their study on Latin American and Eastern European countries and Bang Nam Jeon and Se Young Ahn (2004) in their research on Asian countries, have opined that the government policies

related to a liberalized trade regime and an improved investment environment are required to act as pull factors for FDI inflows. There are various other factors that are extremely crucial for the MNCs to take a decision of investing their capital into the host country like country risk ratings (Vijayakumar et al., 2009) and public, private and corporate level transparency (Belay Seyoum, 2009) in the context of developing and developed countries. Robert W. Mc Gee (2003) conducted a comprehensive study on South East European countries for finding the essential reasons behind an upsurge movement in FDI inflows. He concluded that an overall transparent environment including a friendly business climate, taxation system, trade barriers, banking system, rules and regulations and corruption are some of such factors.

2.2.4. Studies in the context of specific developed countries

According to Jose I. Galan and Javier Gonzalez-Benito (2001) availability and protection of intangible assets like intellectual property rights, lower transfer costs, easy knowledge transfer and accumulation, current and future markets and their expected growth are the most crucial determinants behind increased levels of FDI inflows in Spain. Some other essential factors behind the FDI movement were highlighted by M. Krishna Erramilli and Derrick E. D'Souza (1995) in their study on United States of America viz. internal and external uncertainties existing in the host country environment related to ethnic tensions, law and order mechanism, non-stringent rules and regulations, etc.

From the above review of literature regarding determinants of FDI it has been observed that researchers agreed about the impact of many determinants on FDI but there is lack of uniformity of the opinion regarding the influence of some determinants like inflation, exchange rate, openness, GDP, foreign exchange reserves, etc. on FDI inflows. Some other determinants like international liquidity, gross capital formation, labour cost and availability, country risk ratings, etc. have not been researched much in the past and thus, this necessitates reinvestigation of all these factors influencing FDI inflows in case of BRICS nations.

3. RESEARCH DESIGN FOR THE STUDY

Sample size for the study

The study is conducted on five most powerful and fastest growing emerging countries of the world i.e. BRICS which stands for Brazil, Russia, India, China and South Africa.

Period of the study

The data set of economic determinants consists of annual dataset from 1983-2015 (33 years) for the four emerging economies namely Brazil, India, China and South Africa and for Russia, the data is available from 1995- 2015 (21 years). The data set of institutional determinants consists of annual risk ratings which is available from 1995-2015 (21 years).

Sources of data for this study

- *For economic determinants*- Since this study is based on extensive secondary data on International Financial Statistics, the authenticity of data is a prime concern. So, after reviewing a lot of literature, the data sources which were found to be reliable are: World Development Indicators published by World Bank; World Economic Outlook published by International Monetary Fund (IMF); Oxford Economics Annual Database and Bruegel Database.
- *For institutional determinants*- However, due to non- availability of data on institutional determinants in the earlier mentioned data sources, country risk ratings are used as a proxy (Malhotra et al. (2014), Savoiu et al. (2013), S. Popa (2012), S. Samara (2012), Basu et al. (2011)). The data on country risk ratings, measuring the institutional quality of these countries, is obtained from the International Country Risk Guide (ICRG) published by the Political Risk Services (PRS) Group, USA. The PRS Group, USA, founded in 1979, is largely used as the most authentic source by investment firms, colleges and universities, multilateral agencies like IMF, etc. The same data source has been used by Arbatli; David et al.; Kinoshita, etc. in 2011 in their respective research works conducted with IMF.

Variables used for this study

All these determinants are carefully chosen, based on previous literature and availability of dataset for the selected period. The detailed definitions and their measurement are reported in Table 2 as follows:

Table 2. *Explanatory Determinants and their measurement*

	Symbols	**Determinants**	**Measurement**
	Y	Foreign Direct Investment	Net inflows of FDI in Current billion US Dollars
Economic Determinants	X1	Market Size and growth prospects	GDP annual percentage growth rate
	X2	Industrial Production Index	Level of Industrial Production Index (IPI)
	X3	Inflation rates	Annual percentage of inflation rate as per Consumer Price Index (CPI)
	X4	Unemployment rates	Unemployment rates as percentage of total labor force
	X5	Trade Openness	Sum of exports plus imports of goods and services in current US Dollars as a percentage of Gross Domestic Product in current US Dollars

	Symbols	Determinants	Measurement
	X6	Exchange Rate	Real Effective Exchange Rate (REER) Index
	X7	Gross Capital Formation	Annual percentage growth rate of Gross Capital Formation
	X8	International Liquidity	Import Cover Ratio in number of months (measured as the proportion of foreign reserves in current US Dollars and imports of goods and services in current US Dollars)
	X9	Labor Cost	Net workers' remittances and compensation in US Dollars
Institutional Determinants	X10	Bureaucracy Quality	#Risk rating based on sub components: the institutional strength and quality of the bureaucracy. Maximum points: 4, Minimum Points: 0
	X11	Corruption	#Risk rating based on assessment of corruption within the political system. Maximum points: 6, Minimum Points: 0
	X12	Ethnic Tensions	# Risk rating based on assessment of the degree of tension within a country attributable to racial, nationality, or language divisions. Maximum points: 6, Minimum Points: 0
	X13	External Conflict	#Risk rating based on sub components: War, Cross-Border Conflict and Foreign Pressures. Maximum points: 12, Minimum Points: 0
	X14	Government Stability	#Risk rating based on sub components: Government Unity, Legislative Strength and Popular Support. Maximum points: 12, Minimum Points: 0
	X15	Internal Conflict	#Risk rating based on sub components: Civil War/Coup Threat, Terrorism/Political Violence and Civil Disorder. Maximum points: 12, Minimum Points: 0
	X16	Law and order	#Risk rating based on sub components: strength and impartiality of the legal system and popular observance of the

	Symbols	Determinants	Measurement
			law. Maximum points: 6, Minimum Points: 0
	X17	Military in Politics	# Risk rating based on assessment of threat of military take-over. Maximum points: 6, Minimum Points: 0
	X18	Religious Tensions	# Risk rating based on assessment of threat by a single religious group that seeks to replace civil law by religious law. Maximum points: 6, Minimum Points: 0
	X19	Socioeconomic Conditions	#Risk rating based on sub components: Unemployment, Consumer Confidence and Poverty. Maximum points: 12, Minimum Points: 0

Notes:

1. Own compilation based on extensive literature review.
2.#Extracted from the ICRG Methodology provided on http://www.prsgroup.com/ ICRG_methodology.aspx where points are assigned by ICRG editors on the basis of a series of pre-set questions for each risk component
3. Maximum points of each risk ratings equates to very low risk whereas minimum points means very high risk.

Explanation of the determinants

FDI (Y): *Proxy- FDI net inflows:* Data on FDI flows are presented on net bases (capital transactions' credits less debits between direct investors and their foreign affiliates). Net decreases in assets or net increases in liabilities are recorded as credits, while net increases in assets or net decreases in liabilities are recorded as debits. Hence, FDI flows with a negative sign indicate that at least one of the components of FDI is negative and not offset by positive amounts of the remaining components. These are instances of reverse investment or disinvestment.

(A.) Economic Determinants

(i) Market size and growth prospects (X1): *Proxy- Gross Domestic Product (annual growth rate %):* GDP growth rate has been taken as a proxy in this study for capturing the effect of increasing market size and growth prospects of these BRICS Nations because it considers the total of all economic activity in one country, regardless of who owns the productive assets and also because multilateral agencies like IMF also consider it as a better measure than GNP to analyze the world's economic growth. GDP represents the sum of value added by all its producers. Value added is the value of the gross output of producers less the value of intermediate goods and services consumed in production, before accounting for consumption of fixed capital in production.

A larger market size provides more opportunities for sales and also profits to foreign firms, and therefore attracts FDI inflows. So, the expected impact of the growing size of the market on FDI is positive (see Severiano, 2011; Singhania and Gupta, 2011; Dhingra and Sidhu, 2011).

(ii) Industrial Production Index (X2): *Proxy- Level of Industrial Production Index (IPI):* The Industrial Production Index (IPI) is an economic indicator that measures the real production output of manufacturing, mining and utilities sector. The exact coverage, the weighting system and the methods of calculation differs from one country to another. It is a known fact that a better IPI would obviously mean an increased availability of output for both domestic sustenance and export. And thus, it is also expected that higher IPI would positively influence more FDI inflows in any economy (see Sridharan et al., 2009; Sahoo and Mathiyazhagan, 2003).

(iii) Inflation rates (X3): *Proxy- Annual percentage of inflation rate as per Consumer Price Index (CPI):* Inflation is measured by the consumer price index which reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals. There are two schools of thoughts with respect of impact of inflation on FDI inflows. One view is that an MNC would like to invest in the host country in case of higher inflation rates presuming to get better returns by selling its products at a relatively higher rate. This may happen because the market shows better demand prospects and a higher purchasing power in the hands of maximum part of population leading to greater producer surplus which acts as an incentive for the foreign investors. However, the other school of thought opines that the host country's government may bring changes in its fiscal and monetary policies to bring economic stability or controlling inflation which in turn may prove to be a disincentive for the foreign investors, i.e. it might compel them to disinvest their holdings and rather shift them to a more profitable avenue.

Another reason which usually discourages the foreign firms to invest in an inflated economy is that higher inflation leads to a fall in the value of money of the host economy. Such depreciation of host country's currency leads to increase in the relative wealth holdings of foreign firms and also reduces their cost of capital. However consequently, this phenomenon affects the foreign investors at the time of repatriation of their profits. Therefore, the flow of FDI into the host country declines. Hence, the expected relationship between the two is indeterminate (+/–) (See Gupta and Singh, 2014; Singhania and Gupta, 2011; Nonnemberg and Mendonca, 2004).

(iv) Unemployment rates (X4): *Proxy- Unemployment rates as percentage of total labor force:* The unemployment rate is a measure of the prevalence of unemployment and it is calculated as a percentage by dividing the number of unemployed individuals by all individuals currently in the labor force. During periods of recession, an economy usually experiences a relatively high unemployment rate.

With a higher rate of unemployment, it is expected to have very less FDI inflows as the people of the host country will have lesser or no purchasing power at all leading to decreased demand and thus acing as a disincentive for the MNCs to setup their industries in such countries. Thus, it is expected to have a negative relationship between unemployment and FDI inflows (see Gupta and Singh, 2014; Billington, 1999; Friedman et al., 1992; Coughlin et al., 1991).

(v) Trade openness (X5): *Proxy- Sum of exports plus imports of goods and services in current US Dollars as a percentage of Gross Domestic Product in current US Dollars:* Goods consist of merchandise imports and exports. Services cover transport, travel, communications, construction, IT, financial, other business, personal and government services, as well as royalties and license fees. This indicator measures a country's 'openness' or 'integration' in the world economy. It represents the combined weight of total trade in its economy, a measure of the degree of dependence of domestic producers on foreign markets and their trade orientation (for exports) and the degree of reliance of domestic demand on foreign supply of goods and services (for imports).

Much of FDI is export oriented and may also require the import of complementary, intermediate and capital goods. In either case, volume of trade is enhanced and thus trade openness is generally expected to be a positive and significant determinant of FDI (see Seetanah and Rojid, 2011; Severiano, 2011; Nonnemberg and Mendonca, 2004).

(vi) Exchange rate (X6): *Proxy- Real Effective Exchange Rate Index:* The real effective exchange rate (REER) is the weighted average of a country's currency relative to an index or basket of other major currencies, adjusted for the effects of inflation. The weights are determined by comparing the relative trade balance of a country's currency against each country within the index. This exchange rate is used to determine an individual country's currency value relative to the other major currencies in the index, such as the U.S. dollar, Japanese yen and the euro.

The effect of exchange rate movements on FDI flows is a fairly well-studied topic, although the direction and magnitude of influence are far from certain. Some researchers stated that a depreciation of the host currency should increase FDI into the host country, and conversely an appreciation of the host currency should decrease FDI. On the contrary, some other researchers claimed that appreciation of the host currency should increase FDI into the host country through increase in expectations of future profitability in terms of the home currency. Therefore, the expected relationship between the two is indeterminate (+/–) (see Severiano, 2011; Maniam and Chatterjee, 1998).

(vii) Gross capital formation (X7): *Proxy- Gross capital formation (annual growth rate %):* GCF is measured by the total value of the gross fixed capital formation, changes in inventories and acquisitions less disposals of valuables for a unit or sector. Gross fixed capital formation (GFCF) refers to the net increase in physical assets (investment minus disposals) within the measurement period.

It is observed that generally with the improvement in the investment climate, more foreign investors tend to route their investments in developing countries. This inflow of funds then enables the producers to manufacture better quality products leading to higher gross capital formation in these countries. On the other hand, because of cut throat competition among the developing countries for attracting more funds in their economies, a better investment climate might not lead to increase in gross capital formation at all. This is simply because each nation tries to make better sustainable strategies than other which ultimately leads to a marginal/ negligible change or even reduction in their gross capital formation. Such unclear relation between FDI inflows and capital formation also holds true in the context of BRICS, the most emerging economies of the world. Therefore, a positive or negative but significant relationship between FDI and Capital Formation is expected (see Vijayakumar et al., 2010).

(viii) International liquidity (X8): *Proxy- Import Cover Ratio (in number of months):* International liquidity measures as to how many months' imports can be covered by the foreign exchange reserves of a country. It is measured as the proportion of foreign reserves in current US Dollars and imports of goods and services in current US Dollars.

Higher this number, the better it is for the country's financial health and thus better it is for attracting more FDI inflows. Thus, it is expected to have a positive and significant relationship between FDI inflows and international liquidity (see Malhotra et al., 2014; Gupta and Singh, 2014).

(ix) Labor cost (X9): *Proxy- Net workers' remittances and compensation in US Dollars:* It is measured as the difference between the workers' remittances and compensation, received (million US Dollars) and workers' remittances and compensation, paid (million US Dollars).

Higher labor cost would result in higher cost of production and is expected to limit the FDI inflows; therefore, we expect the negative and significant relationship between labor cost and FDI (see Vijayakumar et al., 2010; Sawkut et al., 2009; Anh and Thang, 2007; Gilmore et al., 2003; Hong, 2008; Na and Lightfoot, 2006; Ho, 2004 in the specific context of China).

(B.) Institutional Determinants

(x) Bureaucracy quality (X10): It refers to the institutional strength and quality of the bureaucracy in any country. This has a direct impact on the policy measures taken by a newly elected government. A high risk country usually faces traumatic changes in the policies as well as the administrative controls with the change in the government which in turn adversely impacts the foreign investors to operate in that country (see Malhotra et al., 2014).

(xi) Corruption (X11): Corruption is that evil in any economy which not just distorts the outer reputation of a country but also ruins the roots of that nation. It may exist in various forms in any economy distorting its financial environment

leading to discontentment in the minds of foreign investors (see Malhotra et al., 2014).

(xii) Ethnic tensions (X12): This refers to the inherent tensions existing in any economy in terms of racial discrimination, nationality or language differences. This creates an unhealthy environment in which the MNCs from foreign countries might not like to operate (see Malhotra et al., 2014).

(xiii) External conflict (X13): It may exist in an economy in the form of foreign pressures for trade restrictions, withholding of aids and sanctions, threat of war or cross- border conflicts. This discourages the foreign investors to allocate their economic resources in such countries which are prone to such risks (see Malhotra et al., 2014).

(xiv) Government stability (X14): It is the measure of stability of the elected government and its commitment in implementing the policies declared by it in due course of time. A conflict from the opposition may dwindle with the position of the present government creating an unstable environment for not just the domestic companies but also for the foreign counterparts (see Malhotra et al., 2014).

(xv) Internal conflict (X15): This refers to assessment of any possibility of civil war, civil disorder or terrorism within the country leading to a situation of unrest in the economy. This obviously acts as a deterrent to the foreign investors to invest in such countries (see Malhotra et al., 2014).

(xvi) Law and order (X16): It measures the strength and impartiality of the legal system and also assesses the observance of law in terms of crime rate. Country having a strong judicial system attracts more foreign investment vis-à-vis a country having high illegal mechanisms in place (see Malhotra et al., 2014).

(xvii) Military in politics (X17): A threat of military takeover may represent a high risk as it is an indication that the government is unable to function effectively and therefore the country has an uneasy environment for foreign businesses (see Malhotra et al., 2014).

(xviii) Religious tensions (X18): This is the risk of a single religious group dominating the governance of the whole country. In other words, some inexperienced people trying to impose unnecessary policies through civil war leading to an uncertain investment climate and discouraging both domestic and foreign investors to remain invested in such countries (see Malhotra et al., 2014).

(xix) Socio-economic conditions (X19): These conditions encompass the basic problems at the root level in most of the developing nations. This includes poverty, unemployment, inequality of income, confidence of consumer in the market which affects the individuals of the economy and the society at large (see Malhotra et al., 2014).

Statistical software used for this objective of the study

MS- Excel has been used to examine the trends and patterns of macro-economic environment and institutional quality of all the five countries and across the whole period.

Techniques used for this objective of the study

(a) Country wise trend analysis: Trend analysis of all the economic (Y- X9) and institutional (X10- X19) determinants of FDI and economic growth for all the five countries have been conducted. Mean, Median, Standard Deviation, Maximum and Minimum statistics have been calculated for all the determinants for showing how Brazil, Russia, India, China and South Africa have performed as individual countries over the years regarding macro- economic environment (1983- 2015) and institutional quality (1995- 2015). This analisys helped to conduct a comparative analysis of these countries and after that do the ranking on the basis of where a particular country is leading and where it is lagging.

(b) Period wise trend analysis: Trend analysis is done to assess the trend of macro- economic determinants over the period 1983- 2015 (except Russia for which period is considered from 1995-2015) and of institutional determinants over the period 1995-2015 for BRICS countries as a group. The objective of this analysis is to see the trend over the said period to highlight the development process of BRICS nations.

4. FINDINGS AND DISCUSSION

4.1. TRENDS AND PATTERNS OF MACRO-ECONOMIC ENVIRONMENT OF BRICS

Following two tables (Table 3 and 4) summarize the macro- economic environment of these BRICS countries which has made them a favourite destination for the foreign investors to invest their money in the form of FDI. A deeper analysis is done to see which nations out of the BRICS have come out as leaders and which are still laggards.

Table 3. *A summary of the economic determinants used in this study to analyze macroeconomic environment of each of the BRICS countries for the period 1983 – 2015 (except for Russia, 1995-2015)*

		ECONOMIC DETERMINANTS									
Countries	**Statistics**	**Y**	**X1**	**X2**	**X3**	**X4**	**X5**	**X6**	**X7**	**X8**	**X9**
BRAZIL	**Mean**	27.12	2.72	78.20	349.36	6.95	0.22	90.35	3.67	8.40	1.43
	Median	16.59	3.20	73.69	8.45	6.75	0.21	90.81	5.83	8.18	1.57
	Standard Deviation	31.63	3.04	15.16	716.09	2.49	0.05	20.49	11.47	3.72	0.93
	Minimum	0.35	-3.85	52.74	3.20	3.35	0.14	63.59	-23.61	2.20	0.01
	Maximum	101.16	7.99	102.50	2947.73	12.32	0.30	127.81	31.68	16.83	2.97
RUSSIA	**Mean**	24.52	2.86	76.96	26.84	8.13	0.54	86.91	3.49	10.64	-9.76
	Median	15.40	4.50	80.65	13.68	7.70	0.53	87.07	3.94	11.57	-3.39
	Standard Deviation	24.74	5.09	19.32	43.07	2.43	0.07	20.65	25.37	6.31	10.48
	Minimum	2.07	-7.82	47.96	5.08	5.20	0.47	49.92	-45.20	2.11	-30.47
	Maximum	74.78	10.00	101.48	197.47	13.30	0.69	117.73	75.20	21.04	0.27
INDIA	**Mean**	11.05	6.37	87.65	7.89	9.68	0.30	108.20	8.36	7.41	21.12
	Median	3.58	6.64	71.66	8.35	9.86	0.24	96.89	8.03	7.05	11.09
	Standard Deviation	14.70	2.13	52.06	3.03	2.81	0.15	27.78	9.51	2.29	22.49
	Minimum	0.01	1.06	25.10	3.26	5.53	0.12	79.78	-9.98	2.49	2.20
	Maximum	44.21	10.26	181.03	13.87	13.54	0.56	179.61	31.74	13.09	66.19
CHINA	**Mean**	85.93	9.95	47.24	5.39	3.24	0.39	112.68	11.69	13.08	4.76
	Median	43.75	9.62	30.61	3.06	3.10	0.38	107.04	10.98	12.09	1.52
	Standard Deviation	96.19	2.70	43.69	6.35	0.87	0.13	25.67	7.89	6.67	6.97
	Minimum	0.64	3.93	4.55	-1.41	1.80	0.14	75.35	0.15	4.28	0.00
	Maximum	290.93	15.21	147.54	24.24	4.30	0.65	198.30	35.58	29.30	25.76

ECONOMIC DETERMINANTS											
Countries	**Statistics**	**Y**	**X1**	**X2**	**X3**	**X4**	**X5**	**X6**	**X7**	**X8**	**X9**
SOUTH AFRICA	**Mean**	2.39	2.25	91.57	8.91	21.80	0.52	112.46	3.01	2.84	-0.52
	Median	0.82	2.60	89.45	7.35	23.00	0.51	111.31	3.22	2.52	-0.43
	Standard Deviation	3.00	2.18	11.58	4.41	4.07	0.08	18.95	9.01	1.48	0.28
	Minimum	-0.45	-2.14	73.38	1.39	12.54	0.39	75.99	-19.92	0.84	-1.06
	Maximum	9.89	5.59	111.27	18.65	27.80	0.73	172.40	21.70	5.84	-0.15

Source: author's own calculation

Table 3 above provides an overview of the macroeconomic environment of each of the BRICS countries in terms of economic determinants for three decades long period (except for Russia, 21 years period), which is summarized as follows on an average basis:

- China has attracted the maximum FDI inflows followed by Brazil, Russia, India and South Africa.
- China has been leading in terms of largest market size and growth prospects as well. Its GDP growth rates are the highest among the other four countries which follow its path in this order: India, Russia, Brazil and South Africa.
- South Africa has the highest pace in terms of real production output in manufacturing, mining and utilities sector measured by the Industrial Production Index followed by India, Brazil, Russia and China.
- Brazil has been suffering from high inflation rates for long. Its average is the highest followed by Russia, South Africa, India and China.
- In terms of unemployment rates, South Africa stands at the top followed by India, Russia, Brazil and China.
- Trade openness, a measure of an economy's integration with the world economy, is highest in Russia followed by South Africa, China, India and Brazil.
- Real effective exchange rate is highest for Chinese Yuan followed by South African Rand, Indian Rupee, Brazilian Real and Russian Ruble.
- China has the highest gross capital formation growth rate during this period followed by India, Brazil, Russia and South Africa.
- China again is at the apex in terms of international liquidity by having maximum foreign exchange reserves to cover its import payments followed by Russia, Brazil, India and South Africa.
- Labour cost which is measured in terms of net workers' remittances is highest in India followed by China, Brazil, South Africa and Russia. It does not mean that the Indian labour is highest paid. Rather, its vice versa, the Indian labour is the least paid and that is why the net workers' remittances (workers' remittances received minus workers' remittances paid) are highest for India immediately followed by China. It is to be noted that both South Africa and Russia rather have a negative net workers' remittances on an average during this period. This is because the remittances paid are higher than remittances received in these two countries.

Table 4. *A summary of the institutional determinants used in this study to analyze macroeconomic environment of each of the BRICS countries for the period 1995-2015*

		INSTITUTIONAL DETERMINANTS									
Countries	**Statistics**	**X10**	**X11**	**X12**	**X13**	**X14**	**X15**	**X16**	**X17**	**X18**	**X19**
BRAZIL	**Mean**	2.10	2.71	3.38	10.94	8.40	9.50	2.13	4.00	6.00	5.74
	Median	2.00	3.00	3.00	11.00	8.89	9.65	2.00	4.00	6.00	6.00
	Standard Deviation	0.30	0.59	0.74	0.59	1.28	0.68	0.38	0.00	0.00	0.79
	Minimum	2.00	1.50	3.00	10.00	5.00	8.00	1.50	4.00	6.00	4.00
	Maximum	3.00	4.00	5.00	12.00	10.00	10.50	3.00	4.00	6.00	7.00
RUSSIA	**Mean**	1.10	1.83	2.71	9.08	10.14	8.53	3.76	4.24	5.17	5.13
	Median	1.00	2.00	3.00	9.00	11.00	8.50	4.00	4.50	5.50	5.81
	Standard Deviation	0.30	0.48	0.46	1.41	1.99	1.38	0.44	0.46	0.53	1.55
	Minimum	1.00	1.00	2.00	7.00	5.00	4.00	3.00	3.00	4.00	2.00
	Maximum	2.00	3.00	3.00	12.00	11.50	11.00	4.00	4.50	5.50	6.50
INDIA	**Mean**	3.00	2.52	2.29	9.06	8.30	7.88	4.00	4.05	2.38	4.79
	Median	3.00	2.50	2.50	9.83	8.12	7.62	4.00	4.00	2.50	4.95
	Standard Deviation	0.00	0.43	0.25	1.52	1.20	1.12	0.00	0.59	0.55	0.87
	Minimum	3.00	1.50	2.00	5.00	5.00	6.00	4.00	3.00	1.00	3.50
	Maximum	3.00	3.00	2.50	11.00	11.00	10.00	4.00	5.00	3.00	7.00
CHINA	**Mean**	2.05	2.06	4.27	9.97	10.74	10.21	4.57	2.64	5.00	7.24
	Median	2.00	2.00	4.02	10.00	10.70	10.00	4.50	3.00	5.00	7.50
	Standard Deviation	0.22	0.64	0.50	0.61	0.76	0.62	0.29	0.48	0.71	1.37
	Minimum	2.00	1.00	3.50	9.00	8.00	9.00	4.00	2.00	3.00	4.00
	Maximum	3.00	4.00	5.00	11.00	12.00	11.50	5.00	3.00	6.00	9.00
SOUTH AFRICA	**Mean**	2.14	2.90	3.81	10.52	8.37	9.10	2.57	4.95	5.33	4.61
	Median	2.00	2.50	4.00	10.50	8.00	9.00	2.50	5.00	5.00	4.31

INSTITUTIONAL DETERMINANTS											
Countries	**Statistics**	**X10**	**X11**	**X12**	**X13**	**X14**	**X15**	**X16**	**X17**	**X18**	**X19**
	Standard Deviation	0.36	0.92	0.60	0.73	1.69	0.86	0.58	0.15	0.48	0.87
	Minimum	2.00	2.00	3.00	9.00	5.00	7.50	1.50	4.50	5.00	4.00
	Maximum	3.00	5.00	5.00	12.00	11.00	11.00	4.00	5.00	6.00	7.00

Source: author’s own calculation

In terms of institutional determinants summarized in Table 4 above, following observations can be made for each of the BRICS countries:

- India has the highest rating on bureaucracy quality followed by South Africa, Brazil, China and Russia. This means that India is the most stable country among the group to have policy measures relatively untouched when its government changes.
- In terms of corruption, South Africa gets the maximum ratings on an average followed by Brazil, India, China and Russia. It means that South Africa is the least corrupt country among the BRICS countries.
- China stands at the top in terms of highest ratings on the threat of ethnic tensions within the economy i.e. at the lowest risk followed by South Africa, Brazil, Russia and India. India as a country of cultural diversities and various languages stands at the highest risk of ethnic tensions among the BRICS.
- The threat of external conflict is almost negligible in Brazil which has the maximum ratings near to the maximum score followed by South Africa, China, Russia and India. India since has the lowest ratings among BRICS is prone to foreign pressures on trade restrictions, threat of war etc.
- Chinese government seems to be the most stable among the BRICS as China has got the maximum ratings in government stability. It is followed by Russia, Brazil, South Africa and India. India in this case also stands at the last because of more than one political party fighting to get on the power, thus leading to large scams, red tapism, etc. at the root level.
- China has the least risk of any internal conflict within the economy in terms of any civil disorder or terrorism within the country. It is followed by Brazil, South Africa, Russia and India. India again has the lowest ratings among BRICS in this case meaning thereby that the risk of civil violence or terrorism is inherent in the Indian economy.
- China in the case of law and order mechanisms also comes at the first level among the BRICS followed by India, Russia, South Africa and Brazil. It signifies that the strength and impartiality of legal system in China is much better than the other counterparts in the consortium.
- South Africa has the highest ratings on the risk of involvement of military in politics. It is followed by Russia, India, Brazil and China. As per these ratings, China has the highest risk of military take over.
- In terms of religious tensions, Brazil stands at the top having the maximum ratings indicating no such threat at all. It is followed by South Africa, Russia, China and India. These ratings indicate that India has the highest risk of one religious group dominating the governance of the whole country.
- This is the most crucial factor in terms of institutional factors as this encompasses the basic problems at the root level in most of the developing

nations. This includes poverty, unemployment, inequality of income, confidence of consumer in the market which affects the individuals of the economy and the society at large. China has the highest ratings in socio-economic conditions indicating the goodness of the overall macro-economic environment. It is followed by Brazil, Russia, India and South Africa.

The above results indicate that China has been the most preferred destination for the foreign investors because of the above mentioned economic and institutional factors followed by Brazil, Russia, India and South Africa.

A further analysis is done to assess the trend of macro- economic determinants over the period 1983- 2015 (except Russia for which period is considered from 1995-2015) and of institutional determinants over the period 1995-2015 for BRICS countries as a group. Table 5 and 6 below analyze the trend over the said period to highlight the development process of BRICS nations:

Table 5. *A summary of the economic determinants used in this study to analyze the macroeconomic environment of BRICS countries as a group for the period 1983 – 2015 (except for Russia, 1995-2015)*

ECONOMIC DETERMINANTS											
Years	**Statistics**	**Y**	**X1**	**X2**	**X3**	**X4**	**X5**	**X6**	**X7**	**X8**	**X9**
1983	Mean	0.58	3.20	40.22	40.17	8.77	0.24	155.30	-0.85	6.50	0.54
	Standard Deviation	0.74	6.90	32.25	63.43	5.26	0.15	57.32	16.50	5.67	1.53
1984	Mean	0.82	7.35	43.07	53.69	9.04	0.25	140.13	7.35	6.98	0.46
	Standard Deviation	0.73	5.28	33.98	92.36	5.66	0.16	51.56	10.05	4.25	1.32
1985	Mean	0.69	6.39	44.70	64.29	8.97	0.27	125.06	14.16	5.37	0.51
	Standard Deviation	1.02	6.13	33.31	107.90	6.47	0.18	46.81	25.50	3.07	1.34
1986	Mean	0.57	5.43	46.91	45.26	8.74	0.26	112.21	2.07	4.51	0.47
	Standard Deviation	0.88	4.02	33.79	68.13	6.98	0.18	37.38	8.56	2.30	1.27
1987	Mean	0.88	5.35	47.66	65.13	8.89	0.26	111.85	6.61	5.36	0.46
	Standard Deviation	1.12	4.32	32.40	108.87	7.14	0.17	34.11	10.48	2.52	1.53
1988	Mean	1.56	6.26	49.62	167.50	9.08	0.27	110.51	11.90	4.48	0.39
	Standard Deviation	1.67	5.21	33.33	307.76	7.33	0.17	29.93	7.33	2.44	1.35
1989	Mean	1.14	3.96	51.28	366.76	9.13	0.25	117.91	5.88	3.93	0.45
	Standard Deviation	1.60	1.52	34.05	709.34	7.41	0.16	15.71	4.60	2.18	1.48
1990	Mean	1.16	1.51	48.85	743.52	9.45	0.26	110.33	-5.68	3.95	0.49
	Standard Deviation	1.61	3.94	29.66	1469.48	7.52	0.13	9.06	15.28	3.07	1.38
1991	Mean	1.45	2.70	48.32	116.38	9.86	0.26	99.75	4.21	4.44	0.99

ECONOMIC DETERMINANTS											
Years	**Statistics**	**Y**	**X1**	**X2**	**X3**	**X4**	**X5**	**X6**	**X7**	**X8**	**X9**
	Standard Deviation	2.00	4.51	27.95	211.00	8.04	0.12	18.88	11.80	3.67	1.67
1992	Mean	3.37	4.29	48.01	245.91	10.32	0.27	95.84	4.20	4.61	1.13
	Standard Deviation	5.27	7.42	25.75	470.50	8.29	0.10	25.21	12.72	2.74	1.51
1993	Mean	7.34	6.15	50.46	489.66	10.50	0.27	96.70	8.20	5.47	1.08
	Standard Deviation	13.46	5.45	25.84	958.89	8.68	0.10	24.52	17.94	3.40	1.62
1994	Mean	9.55	7.07	53.80	529.82	10.46	0.30	95.18	16.92	6.19	1.90
	Standard Deviation	16.20	4.25	26.14	1030.74	9.09	0.13	22.82	3.36	3.38	2.59
1995	Mean	9.23	4.39	56.68	59.86	8.92	0.35	92.12	8.87	5.16	1.52
	Standard Deviation	14.94	5.66	23.53	80.47	5.41	0.16	24.56	11.74	3.12	2.91
1996	Mean	11.44	4.08	58.43	17.63	9.85	0.33	96.50	-1.83	5.76	2.06
	Standard Deviation	16.57	5.21	23.87	17.16	6.65	0.15	16.40	9.31	4.05	3.73
1997	Mean	15.23	4.13	60.88	8.05	10.62	0.33	103.05	6.01	6.18	2.96
	Standard Deviation	17.57	3.01	24.08	4.33	7.28	0.14	15.47	8.20	4.23	4.65
1998	Mean	16.32	1.92	60.92	10.03	12.06	0.35	98.84	-7.06	6.12	2.48
	Standard Deviation	20.10	5.24	23.28	11.14	8.69	0.17	19.11	21.52	4.51	4.13
1999	Mean	14.86	5.15	63.02	19.81	11.37	0.39	84.33	1.71	6.19	3.03
	Standard Deviation	17.55	3.56	21.87	36.96	7.58	0.20	22.19	12.47	3.61	4.71
2000	Mean	16.46	6.12	67.74	7.48	10.67	0.42	86.89	17.01	5.94	2.68
	Standard Deviation	19.53	2.89	21.97	7.84	7.47	0.19	19.09	33.00	2.47	5.45

ECONOMIC DETERMINANTS											
Years	**Statistics**	**Y**	**X1**	**X2**	**X3**	**X4**	**X5**	**X6**	**X7**	**X8**	**X9**
2001	Mean	17.10	4.51	69.67	7.68	11.80	0.41	85.10	7.74	6.80	2.95
	Standard Deviation	18.56	2.56	21.50	8.04	8.40	0.16	16.82	7.79	3.13	5.93
2002	Mean	15.96	4.88	72.71	7.41	12.07	0.44	81.54	4.19	7.90	3.36
	Standard Deviation	21.56	2.43	21.64	6.13	9.21	0.16	16.45	6.66	3.69	6.32
2003	Mean	16.08	5.85	75.65	7.84	12.20	0.44	84.18	10.09	8.96	4.66
	Standard Deviation	23.66	3.68	19.32	6.05	9.09	0.14	15.85	8.18	4.25	8.60
2004	Mean	21.57	7.10	81.72	5.30	11.34	0.47	86.90	16.46	9.30	4.35
	Standard Deviation	26.98	2.11	19.83	3.62	8.14	0.13	15.90	8.98	4.15	7.57
2005	Mean	29.77	7.10	86.68	5.80	10.73	0.48	92.61	8.95	9.42	4.18
	Standard Deviation	41.78	3.24	19.83	4.26	8.04	0.14	10.87	5.32	4.80	9.54
2006	Mean	42.18	7.93	93.46	5.22	10.43	0.50	95.97	13.25	10.95	4.57
	Standard Deviation	52.57	3.38	20.85	3.01	7.63	0.15	5.26	4.15	5.85	13.16
2007	Mean	57.70	8.55	102.18	6.17	9.89	0.50	100.00	14.95	13.55	5.33
	Standard Deviation	58.21	3.47	23.72	2.08	7.57	0.16	0.00	5.23	6.68	18.38
2008	Mean	70.07	5.41	106.23	9.11	9.53	0.53	101.63	8.01	11.44	6.22
	Standard Deviation	61.29	2.51	25.54	3.67	7.39	0.16	8.50	5.92	6.27	25.31
2009	Mean	48.47	1.65	101.84	6.77	10.15	0.43	102.46	-3.75	16.26	7.86
	Standard Deviation	47.66	7.20	26.02	5.01	7.74	0.13	5.69	23.69	9.27	23.18
2010	Mean	81.28	7.19	111.17	6.29	9.84	0.45	113.53	14.98	13.92	9.48

ECONOMIC DETERMINANTS											
Years	**Statistics**	**Y**	**X1**	**X2**	**X3**	**X4**	**X5**	**X6**	**X7**	**X8**	**X9**
	Standard Deviation	95.93	3.38	28.80	3.44	8.49	0.13	4.67	9.90	8.04	24.65
2011	Mean	95.39	5.50	116.46	6.87	9.43	0.48	116.06	10.44	12.06	11.06
	Standard Deviation	109.04	2.57	30.35	1.74	8.64	0.14	6.63	6.14	6.73	29.27
2012	Mean	81.41	4.20	119.08	5.61	9.11	0.48	113.71	4.53	12.10	10.95
	Standard Deviation	94.48	2.46	30.30	2.40	8.84	0.14	5.60	2.55	6.54	33.10
2013	Mean	93.14	4.17	122.02	6.39	9.41	0.48	112.48	1.62	11.84	10.10
	Standard Deviation	113.69	2.83	30.44	2.99	8.63	0.14	12.45	6.28	6.68	34.34
2014	Mean	85.34	3.37	124.31	5.77	9.35	0.46	109.81	0.11	11.54	13.20
	Standard Deviation	107.84	3.58	32.77	2.20	8.86	0.14	15.85	6.67	6.28	33.65
2015	Mean	75.44	1.64	124.85	7.29	9.81	0.45	107.00	-5.23	13.33	15.76
	Standard Deviation	101.99	5.52	38.29	5.35	8.85	0.13	25.92	10.93	6.03	31.16

Source: author's own calculation

Following observations on account of economic determinants can be made from the above table for BRICS countries as a group:

- FDI inflows has increased from 0.58 billion USD in 1983 to 75.44 billion USD in 2015 on an average, which is almost 130 times in three decades.
- In terms of GDP growth rates, BRICS have not performed well, it has deteriorated from an average of 3.20% to 1.64%. It is majorly because of low or negative growth rates of Brazil and Russia over this time period.
- The real output measured in terms of Industrial Production Index has gone three times high as compared to the position in 1983, i.e. the average value in 1983 was 40.22 which has increased to 124.85 in 2015.
- The situation of inflation rates has improved significantly, i.e. from a high 135.03% it has dropped down to an average 7.29% in 2015.
- Unemployment rates on an average have been more and less same with a minor increase from year 1983 (8.77%) to 9.81% in year 2015.
- Trade openness also has increased over these years with a small addition on an average from year 1983 (0.235%) to 0.45% in 2015.
- A fall in the Real Effective Exchange Rate on an average can be seen from the year 1983 (155.30) to 107.00 in the year 2015 meaning thereby that the net exports would have gone high as the domestic goods become more competitive.
- BRICS performance in annual percentage growth rates of gross capital formation has deteriorated even further as compared to 1983. On an average BRICS had -0.85% gross capital formation growth rate which has fallen down to -5.23% in 2015.
- International liquidity has gone two times high in 2015 as compared to 1983, i.e. the import cover ratio has improved from an average of 6.50 months to 13.33 months.

In terms of labor cost, net workers' remittances have increased almost 29 times during this period. From an average of 0.54 million USD, it has increased to 15.76 million USD.

Table 6. *A summary of the institutional determinants used in this study to analyze the macroeconomic environment of BRICS countries as a group for the period 1995 – 2015*

INSTITUTIONAL DETERMINANTS											
Years	**Statistics**	**X10**	**X11**	**X12**	**X13**	**X14**	**X15**	**X16**	**X17**	**X18**	**X19**
1995	Mean	2.80	3.60	3.80	10.60	6.20	10.00	3.80	3.80	5.20	6.40
	Standard Deviation	0.45	0.89	1.64	1.34	1.30	1.22	0.84	1.30	1.30	0.89
1996	Mean	2.60	3.00	4.00	10.60	8.00	9.80	4.00	3.80	5.20	5.60
	Standard Deviation	0.55	1.22	1.41	1.95	2.45	1.30	0.71	1.30	1.30	1.14
1997	Mean	2.20	3.00	3.60	11.60	10.00	10.00	3.60	4.00	5.20	5.40
	Standard Deviation	0.84	1.22	1.14	0.55	1.22	0.71	1.14	1.22	1.30	1.14
1998	Mean	2.00	2.60	3.20	9.40	9.80	9.00	3.40	4.00	5.20	5.00
	Standard Deviation	0.71	0.55	0.84	2.70	1.64	0.71	1.14	1.22	1.30	1.73
1999	Mean	2.00	2.40	3.00	9.60	9.20	7.80	3.20	3.60	4.80	4.00
	Standard Deviation	0.71	0.89	1.00	1.14	2.39	2.28	1.30	1.14	1.64	1.22
2000	Mean	2.00	2.20	2.80	9.00	10.60	8.20	3.00	3.60	4.20	3.80
	Standard Deviation	0.71	1.10	0.84	1.73	0.89	1.48	1.00	1.14	1.79	1.10
2001	Mean	2.00	2.00	2.80	9.90	9.20	8.80	3.00	3.60	4.40	5.10
	Standard Deviation	0.71	1.00	0.84	1.14	1.99	1.10	1.00	1.14	1.67	1.56
2002	Mean	2.00	1.50	3.00	9.50	8.70	8.80	3.10	3.90	4.00	5.00

INSTITUTIONAL DETERMINANTS											
Years	**Statistics**	**X10**	**X11**	**X12**	**X13**	**X14**	**X15**	**X16**	**X17**	**X18**	**X19**
	Standard Deviation	0.71	0.61	1.22	1.66	2.51	1.40	1.47	0.82	1.87	1.27
2003	Mean	2.00	2.20	3.00	10.20	9.80	9.50	3.30	4.00	4.50	5.30
	Standard Deviation	0.71	1.04	1.22	0.91	1.35	1.46	1.25	0.61	2.00	1.52
2004	Mean	2.00	2.10	3.50	10.40	9.80	9.60	3.50	4.10	4.80	5.20
	Standard Deviation	0.71	0.22	1.00	0.65	1.64	1.34	0.94	0.74	1.35	1.52
2005	Mean	2.00	2.10	3.40	10.10	9.40	9.20	3.50	4.10	4.80	6.00
	Standard Deviation	0.71	0.42	0.82	0.65	1.98	1.04	0.94	0.74	1.35	1.90
2006	Mean	2.00	2.10	3.40	9.80	9.40	8.80	3.50	4.10	4.80	5.70
	Standard Deviation	0.71	0.42	0.82	1.04	1.52	1.30	0.94	0.74	1.35	1.82
2007	Mean	2.00	2.30	3.40	9.90	9.30	9.00	3.40	4.10	4.80	6.00
	Standard Deviation	0.71	0.27	0.82	0.82	1.82	1.46	1.08	0.74	1.35	1.90
2008	Mean	2.00	2.50	3.40	9.60	8.90	8.70	3.40	4.10	4.80	5.70
	Standard Deviation	0.71	0.35	0.82	1.47	2.33	1.44	1.08	0.74	1.35	1.44
2009	Mean	2.00	2.50	3.20	9.60	9.30	8.60	3.40	4.10	4.80	5.90
	Standard Deviation	0.71	0.35	0.57	1.47	1.25	1.29	1.08	0.74	1.35	1.39
2010	Mean	2.00	2.40	3.20	9.80	9.30	9.40	3.40	4.10	4.80	6.00
	Standard Deviation	0.71	0.42	0.57	0.67	1.25	1.08	1.08	0.74	1.35	1.46
2011	Mean	2.00	2.36	3.32	9.74	9.24	8.90	3.42	4.10	4.80	5.86
	Standard Deviation	0.71	0.25	0.70	1.05	1.52	1.08	1.05	0.74	1.35	1.52

INSTITUTIONAL DETERMINANTS											
Years	**Statistics**	**X10**	**X11**	**X12**	**X13**	**X14**	**X15**	**X16**	**X17**	**X18**	**X19**
2012	Mean	2.00	2.41	3.30	9.73	9.21	8.92	3.40	4.10	4.80	5.89
	Standard Deviation	0.71	0.27	0.68	1.07	1.56	1.04	1.08	0.74	1.35	1.47
2013	Mean	2.00	2.43	3.28	9.69	9.19	8.90	3.40	4.10	4.80	5.87
	Standard Deviation	0.71	0.32	0.65	1.12	1.55	0.96	1.08	0.74	1.35	1.42
2014	Mean	2.00	2.42	3.26	9.71	9.25	8.94	3.41	4.10	4.80	5.90
	Standard Deviation	0.71	0.31	0.62	1.06	1.41	0.88	1.07	0.74	1.35	1.43
2015	Mean	2.00	2.41	3.27	9.73	9.24	9.01	3.41	4.10	4.80	5.91
	Standard Deviation	0.71	0.31	0.64	0.98	1.45	0.85	1.07	0.74	1.35	1.44

Source: author’s own calculation

From Table 6, following points can be summarized in the context of institutional determinants of BRICS countries as a group for the period 1995-2015. As per the ICRG Methodology issued by the PRS Group from where the data on institutional determinants (country risk ratings used as proxy) has been extracted, a fall in the value of ratings over a period of time symbolizes more risk and vice versa:

- In terms of bureaucracy quality, corruption, external conflict and internal conflict the performance of BRICS has diminished.
- In terms of ethnic tensions, law and order mechanism, and socio- economic conditions the situation is almost the same with a slight fall in the average ratings.
- The situation of BRICS as a group has improved significantly in terms of government stability, military in politics and religious tensions.

The above analysis shows that each of these five countries has varied strengths and capabilities because of which some of them are leaders in some areas whereas some others are laggards in those areas.

Figure 1 below shows the summary of trends and patterns analysis of the determinants impacting the macro- economic environment and institutional quality of the BRICS countries and also shows the ranking of countries as per these parameters. This analysis will help the policy makers of these countries to understand the areas where they are leading and where they are lagging behind.

Figure 1: Flowchart elaborating the summary of trends and patterns of macro- economic environment and institutional quality of BRICS nations (country wise and period wise)

Period Wise performance of BRICS nations as a group

Economic determinants

Y-FDI inflows increased
X1-GDP Growth Rate reduced
X2-IPI increased
X3-Inflation rates reduced
X4-Unemployment rates increased
X5-Trade Openness increased
X6-REER reduced
X7-Gross Capital Formation reduced
X8-International Liquidity increased
X9-Labour Cost increased

Institutional determinants

X10-Bureaucracy Quality reduced
X11-Corruption increased
X12-Ethnic Tensions almost same
X13-External Conflict increased
X14-Government Stability increased
X15-Internal Conflict increased
X16-Law and Order mechanism almost same
X17-Military in Politics reduced
X18-Religious Tensions reduced
X19-Socio- economic conditions almost same

Country Wise ranking as per economic and institutional determinants

Determinant	Brazil	Russia	India	China	SA
Y(high=1, low=5)	2	3	4	1	5
X1(high=1, low=5)	4	3	2	1	5
X2(high=1, low=5)	3	4	2	5	1
X3(high=5, low=1)	5	4	2	1	3
X4(high=5, low=1)	2	3	4	1	5
X5(high=1, low=5)	5	1	4	3	2
X6(high=1, low=5)	4	5	3	1	2
X7(high=1, low=5)	3	4	2	1	5
X8(high=1, low=5)	3	2	4	1	5
X9(high=5, low=1)	3	5	1	2	4
X10(high=1, low=5)	3	5	1	4	2
X11(high=5, low=1)	2	5	3	4	1
X12(high=5, low=1)	3	4	5	1	2
X13(high=5, low=1)	1	4	5	3	2
X14(high=1, low=5)	3	2	5	1	4
X15(high=5, low=1)	2	4	5	1	3
X16(high=1, low=5)	5	3	2	1	4
X17(high=5, low=1)	2	4	3	1	5
X18(high=5, low=1)	1	3	5	4	2
X19(high=1, low=5)	2	3	4	1	5
Total no. of Rank 1	2	1	2	13	2
Total no. of Rank 5	3	4	5	1	6

Economic Determinants

Institutional Determinants

Note: Rank 1 indicates the leader and 5 indicates laggard

Depending on the leader- laggard ratio in terms of macro- economic environment and institutional quality, following is the ranking of countries

1 China | **2 Brazil** | **3 India** | **4 South Africa** | **5 Russia**

The significant factors discussed in this study are only one set of reasons explaining such phenomenon. However, it also depends on the kind of structure of their economies. Therefore, the next section analyzes the structure of their economies which in turn makes a difference in their positions in the world forum in terms of being leaders and laggards in attracting FDI.

4.2. CURRENT STRUCTURE OF ECONOMY IN EACH OF THE BRICS COUNTRIES

This section of the study shows some basic characteristics of these five countries with respect to their economic structure:

(I) Brazil

As per the World Development Indicators (WDI) issued by the World Bank, as on 2015, Brazil has a population base of 207.85 million people (5th largest country in the world and represent 2.83% of the world's total population), a GDP level of 1.77 trillion USD (9th largest country in the world and represent 2.39% of the world's total GDP levels) with an overall surface area of 8.52 million square kilometers (5th largest country in the world and represent 6.34% of the world's total surface area in sq. km.). All these facts make it an attractive destination for the MNCs investing via FDI route and that is the reason it holds second position in attracting maximum FDI net inflows (average FDI net inflows of 27.12 bn. USD) among the BRICS during the past three decades.

However, in terms of certain economic and institutional factors, it still needs to work harder and improvise its processes. For instance, among 189 countries of the world, it has a GDP per capita level of 8538.59 USD (stands at 173 rank); in terms of ease of doing business index, it is placed at 120 position; in the parameter on start up procedures to register a business, it holds a very low position of 162 and even lesser rank on account of time required to start a business, i.e. 181. Brazilian economy has also been the topper in having the highest average inflation rates over the last three decades as compared to other four countries in the group leading to a possibility of higher cost of production. But, the data also shows that Brazilian economy does not have any threat of external conflict and religious tensions making it very convenient for the foreign investors to operate freely in this country.

(II) Russia

As per the World Development Indicators (WDI) issued by the World Bank, as on 2015, Russia has a population base of 144.10 million people (9th largest country in the world and represent 1.96% of the world's total population), a GDP level of 1.33 trillion USD (12th largest country in the world and represent 1.78% of the world's total GDP levels) with an overall surface area of 17.10 million square kilometers (1th largest country in the world and represent 12.73% of the world's total surface area in sq. km.). All these facts make it an attractive destination for the MNCs investing via FDI route and that is the reason it holds third position in attracting FDI net inflows (average FDI net inflows of 24.52 bn. USD) among the BRICS during the past three decades.

Russia also has an advantage over all other four counterparts in this group in terms of holding 35th position in ease of doing business index and 19th rank in start- up procedures to register a business as compared to 189 countries of the world. In terms of openness of trade also, during the last three decades, Russia tops the charts among the BRICS and thus become a favourite place for FDI players. However, it needs to improvise its processes for reducing the time required to start a business in which it holds 74th place and in per capita GDP level of 9057.11 USD where it holds 67th position in the world.

(III) India

As per the World Development Indicators (WDI) issued by the World Bank, as on 2015, India has a population base of 1311.05 million people (2nd largest country in the world and represent 17.85% of the world's total population), a GDP level of 2.07 trillion USD (7th largest country in the world and represent 2.79% of the world's total GDP levels) with an overall surface area of 3.29 million square kilometers (7th largest country in the world and represent 2.45% of the world's total surface area in sq. km.). All these facts indicate about the capabilities of India to be a favourite destination for the foreign players, however, it holds only fourth position in attracting FDI net inflows (average FDI net inflows of 11.05 bn. USD) among the BRICS during the past three decades.

India needs to work really hard in all other factors impacting the FDI decision of MNCs like in terms of ease of doing business index, it comes on 130th position out of 189 countries of the world. It also has a disadvantage of long start-up procedures to register a business because of which it falls on 177th place in the world. The country is also not doing anything better in time required to start a business where it is at 144th rank in the world. The situation at the GDP per capita front is no different where it falls in the bottom position at 145th place out of 189 countries of the world. In terms of very high unemployment rates and labour cost, it has to put its earnest endeavours to correct the situation otherwise it may signal a bad image among the investors putting their funds in India. Although there are various issues where it is a laggard, still some of the most important areas where it is proving its mettle are acquiring 2nd position among BRICS in terms of GDP growth rates, Industrial production Index and high gross capital formation growth rates. Thus, if it continues to work in this direction, it may achieve higher ranks in other indicators too and remain as a top destination for FDI.

(IV) China

As per the World Development Indicators (WDI) issued by the World Bank, as on 2015, China has a population base of 1371.22 million people (the largest country in the world and represent 18.66% of the world's total population), a GDP level of 10.87 trillion USD (2nd largest country in the world and represent 14.63% of the world's total GDP levels) with an overall surface area of 9.56 million square kilometers (4th largest country in the world and represent 7.12% of the world's total surface area in sq. km.). Results of this study prove that over the last three decades, China has the highest GDP growth rates on an average representing the large market

size and growth prospects, it also has the highest gross capital formation growth rate along with a maximum international liquidity ratio. In terms of institutional variables also, it is the least risky country in terms of ethnic tensions and internal conflicts. The country also has a strong law and order mechanism in place, a stable government and most importantly conducive environment to work having favourable socio-economic conditions. All these facts make it the most attractive destination for the MNCs investing via FDI route among BRICS and that is the reason it holds first position in attracting FDI net inflows (average FDI net inflows of 85.95 billion USD).

However, the country needs to be vigilant about other concerns impacting the FDI decisions of MNCs in which it is a laggard. For instance, in ease of doing business index, it holds 79th position among 189 countries of the world. For start- up procedure to register a business, it is at 163rd place and on the parameter of time required to start a business, it is at 153rd rank. The GDP per capita is quite low too, i.e. 7924.65 USD only (76th rank in the world). This clearly represents that it might be a top destination for FDI among BRICS but certainly not in the world.

(V) South Africa

As per the World Development Indicators (WDI) issued by the World Bank, as on 2015, South Africa has a population base of 54.96 million people (24th largest country in the world and represent 0.75% of the world's total population), a GDP level of 0.31 trillion USD (31st largest country in the world and represent 0.42% of the world's total GDP levels) with an overall surface area of 1.22 million square kilometers (24th largest country in the world and represent 0.91% of the world's total surface area in sq. km.). The country has a per capita GDP level of 5691.69 USD (93rd rank in the world). Over the past three decades, South Africa has the highest average Industrial Production Index among the BRICS which indicates about the capabilities of South Africa to become a favourite destination for the MNCs investing through FDI, however, it holds last position in attracting FDI net inflows (average FDI net inflows of 2.39 bn. USD) among the BRICS during the past three decades. There are some other positives about South African economy too like it is proven in this study that it is the least corrupt country and has the least risk of military take over among BRICS. Also, it has got better prospects to attract these foreign players as it stands next to Russia (among the BRICS) in terms of holding 71st position in ease of doing business index which is better than Brazil, India and China.

South Africa needs to put efforts in other factors impacting the FDI decision of MNCs like in terms of start- up procedures to register a business, it comes on 86th position out of 189 countries of the world. It also has a disadvantage of very long time required to start a business where it is at 168th rank in the world. Another problem that the country needs to combat is very high unemployment rates over the past thirty years.

5. CONCLUSION

It can be concluded from the above analysis that for several reasons, BRICS have acquired a key role in the world economy. Their large population (more than 40 per cent of world population), big size middle class, huge share of land (nearly 30 per cent of global share), work force availability and natural resources could be some of those reasons. These countries have also shown their robust macro-economic fundamentals by their speedy recovery from the global economic crisis. Still, there are several challenges in front of these economies that they should address in a timely manner helping them to become super powers of the world in the near future.

One common challenge that BRICS economies face is the need for institutional development without which sustainable growth cannot be ensured. After the global economic crisis, most economies (including the developed or advanced economies of the world) are adversely affected by financial instability and weak growth. In such a scenario, the BRICS countries have an amazing opportunity to coordinate their economic policies and discreet strategies not only to enhance their position as a group in the international forum but also to bring some stability in the world economy as a whole.

It's a big challenge in front of the BRICS countries not only to sustain their position but also to increasingly harmonize and coordinate their policies to face global turbulence in future too.

Recommendations for the BRICS as a group or commonly to all the five countries are to make friendly policies related to starting a business, dealing with construction permits, getting electricity, registering a property, getting credit, protection of intellectual property rights, paying taxes, trading across borders, enforcing contracts and resolving conflicts (as defined in the ease of doing business index as per World Bank). Also, BRICS group should make proper policies to handle the following issues as suggested by this study:

i. In terms of GDP growth rates, BRICS have not performed well, it has deteriorated from an average of 3.20% to 1.64% over a period of thirty three years. It is majorly because of low or negative growth rates of Brazil and Russia over this time period.

ii. Unemployment rates on an average have risen with a minor increase from year 1983 (8.77%) to 9.81% in year 2015.

iii. BRICS performance in annual percentage growth rates of gross capital formation has deteriorated even further as compared to 1983. On an average BRICS had -0.85% gross capital formation growth rate which has fallen down to -5.23% in 2015.

iv. In terms of bureaucracy quality, corruption, external conflict and internal conflict the performance of BRICS has also diminished.

Thus, it is suggested to the policy makers of the BRICS to take proper corrective measures and improvise their macro- economic situation as well as institutional quality so as to become the supreme powers of the world.

It is also observed that the volume of trade between these BRICS countries is inadequate, their industries do not complement with each other and there information exchange is also very weak. Also, it is to be noted that BRICS countries compete against each other on the international platform as well. For example, in the World Trade Organization (WTO), the maximum number of complaints against the Chinese companies, on account of lack of transparency in transactions and infringement of intellectual property rights, has been initiated by Brazil. Other grave issues among BRICS are for instance the security matters between China and India on their territorial borders. In addition to this, there are differences within the group on values and ethics, economic structures, political structures and geopolitical interests and that is the reason that the group is incapable of playing a leading role in the world.

However, whatever points of differences exist between intra- BRICS, it can not be inferred that there is no future of BRICS and the differences can not be resurrected. Rather, this shows a lot of opportunities in the future for these five countries to work upon and achieve them through the process of confrontation, negotiation and cooperation. Some of such opportunities lie in:

- Bringing economic reforms in their respective nations that can not only promote their economic development but also give power to their togetherness.
- Increasing innovative abilities with the promotion of continuous integrated technological processes.
- Improvising the economic innovation by imparting training facilities to the talent so that they can become better decision makers and kingpins.
- Protecting intellectual property rights with the most stringent measures in place so that when they invest in other counterparts of this group, their rights are equally protected, and they can operate freely.

Opening up of New Development Bank (NDB), also known as BRICS Development Bank, is also one such step in the process of cooperation among the five countries. With such initiatives in future, it is expected that the relationship between these countries will pave the way for more and better opportunities towards persistent economic growth and development.

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