

Culture, Science, Education

One of the biggest hurdles facing the BRICS nations to increase and improve cooperation amongst each other is that their societies remain relatively isolated from one another. This is due to a number of historical (different languages) and structural (different governing systems) factors. As a result, investors, academics and government officials often miss out on opportunities for cooperation for they are unaware such opportunities exist. Barring China- which has cemented its place as the leading trading partner when it comes to intra-BRICS trade- economic ties between BRICS countries are surprisingly low. Take for instance India's export to South Africa which actually fell from US\$ 5106.93 million in 2012-13 to US\$ 5076.94 million in 2013-14. Trends of India's exports to Brazil and Russia are starker with a fall in exports standing at 8.3% and 6.46% respectively.¹ The table below further illustrates this point.

China					
Export Destination	Share Of Exports	Rank Among Export Destinations	Import From	Share Of Imports	Rank Among Importers
US	17.99%	1	Japan	12.66%	1
Hong Kong	13.84%	2	Korea	9.91%	2
Japan	7.67%	3	Other Asian Countries, not specified	8.29%	3
Korea	4.36%	4	US	7.36%	4
India	2.59%	7	Brazil	2.73%	9
Russia	1.88%	12	Russia	1.86%	12
Brazil	1.55%	15	India	1.49%	15
South Africa	0.68%	29	South Africa	1.07%	23
India					
Export Destination	Share Of Exports	Rank Among Export Destinations	Import From	Share Of Imports	Rank Among Importers
United Arab Emirates (UAE)	12.44%	1	China	11.78%	1
US	10.70%	2	UAE	8.83%	2
China	7.91%	3	Switzerland	6.34%	3
Hong Kong	4.31%	4	Saudi Arabia	5.82%	4

¹ <http://www.infodriveindia.com/export-import/trade-statistics/trading-partners.aspx>

Brazil	1.66%	15	South Africa	1.97%	18
South Africa	1.66%	16	Russia	1.03%	29
Russia	0.63%	37	Brazil	0.92%	30
Russia					
Export Destination	Share Of Exports	Rank Among Export Destinations	Import From	Share Of Imports	Rank Among Importers
Netherlands	13.49%	1	China	15.69%	1
Italy	6.82%	2	Germany	10.74%	2
Germany	6.27%	3	Ukraine	5.69%	3
Ukraine	5.78%	4	Japan	4.90%	4
China	5.08%	6	Brazil	1.64%	17
India	1.60%	18	India	0.86%	26
Brazil	0.45%	35	South Africa	0.19%	49
South Africa	0.01%	104			
Brazil					
Export Destination	Share Of Exports	Rank Among Export Destinations	Import From	Share Of Imports	Rank Among Importers
China	15.58%	1	US	15.07%	1
US	9.75%	2	China	14.15%	2
Argentina	9.34%	3	Argentina	7.99%	3
Netherlands	5.18%	4	Germany	6.51%	4
Russia	2.10%	10	India	2.35%	10
India	1.76%	16	Russia	1.06%	21
South Africa	0.66%	35	South Africa	0.41%	38
South Africa					
Export Destination	Share Of Exports	Rank Among Export Destinations	Import From	Share Of Imports	Rank Among Importers
China	11.38%	1	China	14.35%	1
US	9.88%	2	Germany	11.29%	2
Japan	8.99%	3	US	7.28%	3
Germany	7.74%	4	Japan	5.30%	4
India	4.17%	6	India	3.54%	8
Brazil	1.00%	25	Brazil	1.69%	17
Russia	0.40%	41	Russia	0.13%	56
Source: UN Commodity Trade Statistics Database, Statistics Division. New York: UN, 2012.					

Due to a number of political and strategic considerations, it is unlikely that in the short and medium term any major announcement such as a free-trade agreement between the countries will be announced to tilt the scales. A number of other initiatives however can be introduced to further people to people contact and build an environment where citizens of the BRICS nations have a better understanding of each other's cultures and sociological underpinnings. One such approach which has been adopted in recent years has been to relax

visa norms for tourist travel. A 2010 visa waiver agreement between Brazil and Russia has allowed tourism between the two countries to flourish with the number of visits by Brazilians to Russia almost doubling from 15131 in 2010 to 30049 in 2013.² A similar agreement between Brazil and South Africa too has yielded positive results. In 2013, China allowed Brazilian and Russian passport holders to spend 72 hours in Beijing or Shanghai without a visa.³ India, despite having no such agreements had in 2013 677,000 visits to China, 106,774 visits to South Africa, and ranked 16th for foreign tourists arrival in Russia. These developments have prompted the South African government to ease visa norms for Indians and it is hoped other nations will follow suit in the near future.⁴

The BRICS countries possess enormous potential for tourism as with better coordination between them and focus increasingly on better infrastructure and communication, the sector can be a crucial source of revenue. The intra-group flow of tourists itself boasts of massive potential for it accounts for 40 percent of world population.⁵ Going beyond just relaxing visa norms, China and Russia in particular have implemented policy directives to boost their respective tourism industries. This has in turn led to the world appreciating their cultural heritage and increasing the two countries' "soft power". The China National Tourism Administration, a government agency responsible for the development of tourism in the country, has worked extensively to promote travel to China leading to the country becoming the 3rd most visited nation in the world in 2010, recording 55.98 million international tourist arrivals.⁶ Two decades of rigorous planning was undertaken to restructure the framework of rules and regulations pertaining to tourism which has led to a strong foundation of China's tourism industry linked with the international market. Russia developed a new federal tourism development programme titled "Domestic and Inbound Tourism Development" in 2011 with the aim of improving the image of Russia

² http://brics.ibge.gov.br/downloads/BRICS_Joint_Statistical_Publication_2014.pdf

³ <http://www.postwesternworld.com/2014/05/31/brics-should-socialize/>

⁴ <http://www.musafirnamah.com/south-africa-to-ease-visa-norms-for-indians-eyes-double-digit-growth/>

⁵ http://in.rbth.com/economics/2013/03/11/boosting_tourism_between_the_brics_22787.html

⁶ http://theglobaljournals.com/paripex/file.php?val=January_2014_1389962313_6c3bb_66.pdf

as a tourism destination, promoting the national tourism product, stimulating foreign investment in tourism infrastructure, and increasing the competitiveness of the Russian tourism industry.⁷ Despite the fact that the programme was only signed in August 2011, initial results have proved promising as 29 million trips were made in 2013.⁸ The year also saw the highest number of inbound trips to Russia over the review period and arrivals show double-digit growth in Russia.⁹ The initial rebranding of Russia in the world tourism market has been successful, and the Government and private investors have made presenting Russia as an attractive destination country a priority.¹⁰ India too is stepping up its efforts. INTACH, a non-profit organization set up in 1984 with a mandate to protect and conserve India's vast natural, built and cultural heritage, has undertaken some great work in not just preserving India's cultural heritage but also in promoting the rich culture that is prevalent in India.¹¹

Another driver for enhanced cooperation between the BRICS nation is Education. The BRICS nations together account for one in three students in the world and the major challenge facing these countries is not only education for all, but *quality* education for all. Member nations are looking to overhaul their education systems to meet the growing demand. Brazil for instance plans to award 60,000 masters degrees and 25,000 doctorates locally every year by 2020. Further, through the government's Science Without Borders initiative, 100,000 Brazilian students studying science, technology, engineering and mathematics are being awarded full scholarships to study abroad; China is aiming to become a global powerhouse in higher education by 2020; and India has developed a 25 year plan titled *Rashtriya Uchchatar Shiksha Abhiyan*,

⁷ <http://www.tourismtattler.com/brics-tourism-analysis/>

⁸ <http://www.euromonitor.com/tourism-flows-inbound-in-russia/report>

⁹ *Ibid*

¹⁰ <http://www.tourismtattler.com/brics-tourism-analysis/>

¹¹ <http://www.intachdelhichapter.org/>

which aims to improve access, equity and quality in tertiary education by establishing new institutions and expanding enrolment in existing ones.¹²

It is in light of these developments the November 2013 conference of Ministers of Education from the BRICS nations at UNESCO headquarters in Paris takes prominence. The Ministers, discussing for the first time opportunities for cooperation in education, concluded the meeting with a unanimous agreement that the BRICS countries stood to gain enormously by encouraging student mobility within the member nations. As of 2014, the main destination of foreign students from the BRICS alliance is the United States, where China has over 210,000 students, India 97,000 and Brazil 9,000. Other key destinations include Britain, Japan, Australia and Germany. In the last 10 years however, the BRICS nations have increasingly become an important destination for foreign students with Russia leading with 174,000 students, followed by China with 99,000, South Africa with 70,000, India 31,000 and Brazil 14,000. With plans underway to establish a BRICS Network University which will enable universities in the group to collaborate on development and teaching of courses along with facilitating mutual recognition of qualifications and the transfer of credits between participating institutions, the aim is to attract students from fellow BRICS nations and further strengthen people-to-people contact.¹³

The 6th BRICS Summit, held in Brazil, in 2014, further cemented this commitment with the BRICS leaders affirming the strategic importance of education to sustainable development and inclusive economic growth and pledged to strengthen cooperation. Following this, the following 12-points were recommended by UNESCO as areas of cooperation¹⁴:-

- Share knowledge of governance and financing mechanisms, to enhance equity and quality in public schools

¹² <http://www.universityworldnews.com/article.php?story=20141008165201566>

¹³ <http://www.universityworldnews.com/article.php?story=20141008165201566>

¹⁴ <http://unesdoc.unesco.org/images/0022/002296/229692e.pdf>

- Compare experiences in designing and implementing national assessments of student achievement
- Join forces to improve the quality of education data
- Manage the rapid expansion of higher education
- Facilitate the mobility of students and teaching personnel, in particular among BRICS
- Develop labour market information systems and capacity for skills analysis and forecasting
- Design and implement national qualifications frameworks and standards for skills
- Strengthen the links between companies and TVET institutions, and facilitate workplace learning, in particular at the secondary level
- Design policies to meet the training needs of women and disadvantaged groups, and facilitate their transition to the labour market
- Establish a hub to share information and data on development cooperation in education
- Create a joint fund/programme to support education in Africa
- Engage in joint advocacy for education

It is not just cultural interaction where the BRICS have been surprisingly distant from each other. Collaboration in the sphere of Science, Technology, and Innovation (STI) has also been significantly low. The table below presents the basic data on BRICS country pair co-publication as per the data from Web of Science.

	Brazil	Russia	India	China	South Africa
Brazil	36111	533 (2.0)	373 (0.8)	623 (0.3)	266 (2.9)
Russia	533 (1.5)	27303	393 (0.8)	898 (0.5)	237 (2.6)
India	373(1.0)	393 (1.4)	46348	699 (0.4)	262 (2.8)
China	623 (1.7)	898 (3.3)	699 (1.5)	183760	325 (3.5)
South Africa	266 (0.7)	237 (0.9)	262 (0.6)	325 (0.2)	9217

Source: Kahn, M. (2014). *BRICS cooperation in science, technology and innovation: rhetoric and realities*. Available: <http://www.federalismi.it/nv14/articolo-documento.cfm?Artid=27751>. Last accessed 6th May 2015

The columns give the twenty country pair co-publication counts with the ratio of this count to each country total shown as a percentage in brackets.

These ratios show that South Africa, though the smallest of the BRICS, has the highest intensity of BRICS country pair collaborations (significantly above the mean of 1.4%). Russia stands second, while China is last. Only 4,609 or 1.5% of BRICS total scientific production of 302,739 articles involves another BRICS country. The authors of the Thomson-Reuters 16 evaluation of FP7 outputs had theorized that significant collaboration requires at least 7.5% of a country partner's publications to be concentrated in a field of common interest.¹⁵ As per this framework, there is very little significant scientific collaboration among any of the BRICS country pairs.¹⁶

These figures have not gone unnoticed by the five countries and in line with the Fortaleza Declaration and the Action Plan adopted at the 6th BRICS Summit, a Ministerial conference of the Ministers for Science, Technology and Innovation was held in Brasilia, Brazil, on the 18th of March 2015. It was held here that innovation in Science and Technology will play a central role in developing and promoting inclusive macroeconomic and social policies that would ensure growth in the developing world was both equitable and sustainable. To cement their commitment towards achieving this goal, the countries signed a Memorandum of Understanding (MoU) and agreed to develop and negotiate a World Plan 2015-2018 which would focus on the following five key areas- (i) prevention and mitigation of natural disasters, to be led by Brazil, (ii) water resources and pollution treatment, to be led by Russia, (iii) geospatial technology and its applications, to be led by India, (iv) new and renewable energy, and energy efficiency, to be led by China, and (v) astronomy, to be led by South Africa. Further, the five member countries agreed to the launch of a

¹⁵ THOMSON REUTERS, Expert Group for the Interim Evaluation of Framework Programme 7 Bibliometric analysis – final report. London, Thomson Reuters, 2010

¹⁶ Kahn, M. (2014). *BRICS cooperation in science, technology and innovation: rhetoric and realities*. Available: <http://www.federalismi.it/nv14/articolo-documento.cfm?Artid=27751>. Last accessed 6th May 2015

BRICS Research and Innovation Initiative and supported the creation of a BRICS Young Scientists Forum proposed by India.¹⁷

While agreements towards collaborating on Education and Scientific Innovation were the result of the summit in 2014, the Health sector took prominence at the Sanya BRICS summit in 2011. Followed by a ministerial conference in Beijing in the same year, the countries together decided for greater participation of the developing world in the reforms process at the institutions like WHO and promoting BRICS as a viable platform for coordination, cooperation and consultation on the matters related to global public health. The member countries today are playing a greater role within the global public health space by supporting a large number of initiatives. South-South cooperation in this sector has evolved considerably and the focus is now to consolidate this cooperation with the common objectives of agencies like the UN.

The five countries together have contributed nearly \$200 million to global health initiatives in 2007-2008- this excluding bilateral assistance in the sector. The major chunk of this South-South collaboration has focussed on Human Resource Development- China for instance has invested heavily in Africa for the past four decades and has over 700 medical doctors practicing in the continent through bilateral arrangements. The other area which has got significant attention is the development of infrastructure and health systems- Brazil is building pharmaceutical plants in Mozambique and Namibia to manufacture generic anti-retroviral medicines which are essential to these countries' fight against HIV/AIDS; China has built clinics and hospitals in countries such as Democratic Republic of Congo and Tunisia many of which specialise in traditional Chinese medication; India's effort in health delivery are routed through the PanAfrican e-network which looks to deliver telemedicine services along with training sessions for local doctors. The India, Brazil, South Africa (IBSA) initiative has also established an IBSA Fund to improve health

¹⁷ <http://www.brics.utoronto.ca/docs/150318-sti.html>

systems in the developing world. In Burundi, it is helping the health system in its battle against HIV/AIDS, and in Sao Nicolau, Cape Verde it has rehabilitated and equipped two health care centres and is providing a water desalination plant that will produce safe drinking water for the population the region. The BRICS nations have also committed significant funds in supporting international mechanisms. South Africa has pledged \$20 million for the next 20 years at the GAVI Alliance (Global Alliance for Vaccines and Immunization), while Brazil, China, India and South Africa have committed more than \$40 million in total to support various activities of the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM).¹⁸

The developing world is also increasingly signing agreements that encourage scientific and technological collaboration, and joint research on shared health problem. These collaborations have been in the form of both bilateral and multilateral initiatives to encourage closer linkages amongst researchers. These initiatives however still have a long way to go when compared to North-North collaborations. Between 1994 and 2005, over 640,000 papers were published in health biotechnology worldwide of which only 8.2 per cent had authors from developing countries. Further, collaboration amongst developing countries is limited, with only around 3 per cent of their papers being South-South co-authored compared to about 40% being South-North co-authored. Even so, the BRICS nations have taken the lead when it comes to undertaking research- Brazil had the highest number of South-South co-authored papers at 423 publications between 1994 and 2005, followed by China with 287 papers and India with 223. The latter two countries have seen publications triple since the 1990s signalling a positive trend and boding well for future works.¹⁹

Competitive Advantage

¹⁸ http://www.ris.org.in/images/RIS_images/pdf/dp177_pap.pdf

¹⁹ http://www.ris.org.in/images/RIS_images/pdf/dp177_pap.pdf

In this section, particular sectors are highlighted where each country has over the years made its mark. The purpose behind this exercise is to identify starting points for collaboration amongst member nations and develop policy initiatives whereby one's success can be used as a policy tool for others.

Brazil

Brazil is the fifth largest country by geographical area but largest in terms of arable land. In Brazil, currently only 50m hectares are used for crop production from a potentially 400m hectares. This has meant Brazil can potentially lead the global agricultural sector in the medium to long term. Blessed with a bountiful supply of natural resources—water, land and a favourable climate—it is more than likely that the country becomes the largest agribusiness superpower, supplying the world market while also being able to ensure food security for domestic consumption. The country has the following competitive advantages:-

- Climatic conditions which allow for two or more harvests per year;
- Vast extensions of arable land which is cheap and has the potential to double crop area;
- Copious amounts of water;
- Technologically adept farmers; and
- Diverse soil types allowing for variety in crop production.

The following table highlights the strength of Brazil's agribusiness sector and how it is expected to go from strength to strength.

Brazil's global market share projections (%)			
Product	2009/10	2014/15	2019/20
Sugar	47	47	50
Green Coffee	27	27	27
Soybeans	30	33	36
Soybean meal	22	21	20
Soybean oil	21	16	18
Corn	10	11	13
Beef	25	31	30
Pork	12	14	14
Poultry	41	48	48

Over the past two decades, agricultural productivity in Brazil has sky-rocketed. For instance despite planted area increasing by only 30%, farmers more than doubled crop production and this is expected to grow even further (as the table above points out). According to the Ministry of Agriculture, Brazil's share in world chicken meat exports will grow from 41% to 48% and in the sugar market by 47% to 50%, by 2020²⁰. While the foundations of such growth can be sought in favourable climatic conditions, various institutions, organizations and indeed the government have taken numerous steps to bolster this sector. Some such initiatives are as follows (i) Brazilian farmers have converted the savannah region into a vast agricultural frontier which is now responsible for 70% of the country's farm produce; (ii) Private Research firms have played their part by helping develop means by which produce such as soyabean seeds which is a temperate climate crop can be grown in Brazil; (iii) Farmers have been quick to gauge new opportunities too as highlighted by the mass migration to the south in the 70s and 80s; and (iv) Corporatisation of farming by combining professional attitudes with the latest technical know-how and abundant financial resources has had a huge impact on the sector.²¹

Russia

During and post the USSR era, the Russian aerospace industry was by a plethora of separate state and privately held manufacturers and design bureaus. Such decentralization meant there was no central authority that could oversee research and development, design, manufacture, sales or marketing. Consequently, when the Soviet Union collapsed and Russia began to compete with the U.S. and other Western European powers for market share, they came to the realization that their product was far inferior and non-competitive in comparison to those made by the likes of Boeing and Airbus. Further, by 2005,

²⁰ http://www.economistinsights.com/sites/default/files/Accenture_Agribusiness_ENGLISH.pdf

²¹ http://www.economistinsights.com/sites/default/files/Accenture_Agribusiness_ENGLISH.pdf

Russia was producing only 10 aircrafts a year as opposed to Boeing and Airbus booking orders of over a 1000 each. With domestic demand high, Russia was faced with two choices- they could either go for western made aircrafts or overhaul their own industry to make it a viable and competitive sector for the Russian economy.²²

Russian President Putin chose the latter of the two options and in 2006 announced the decision to establish an open joint stock company that would consolidate many of the state-owned aerospace companies under a single entity, the United Aircraft Corporation.²³ 8 years later, in May 2014, the Russian government approved plans to invest \$28 billion by 2025 into Russia's aviation industry to propel it into one the world's top three aircraft manufacturers. The success has been so far reaching the government is now looking to manufacture 3000 airplanes and 5,500 helicopters by 2025 and increasing the Russia market share from 0.6% in 2011 to 3.2% in 2025. Following projections further validate Russia's growing strength in the sector- market share of civil helicopter to be increased from 6% to 12%; of aircraft engines from 0.4% to 1.4%; and military aircraft engines from 6.7% to 13%, all by 2025.²⁴

China

In the last thirty years, China has revolutionised global manufacturing and with it moved 500 million people from primary to secondary sector. One of the major factors behind this success story was the abundant labour at the manufacturer's disposal which meant workers were available at relatively lower wages. Other factors which supplemented the cheap labour force were high levels of public expenditure in infrastructure, a stable political environment and respectable level of education. All of this combined meant China eclipsed the U.S. as the

²² http://www.trade.gov/static/aero_rpt_russian_industry_consolidation.pdf

²³ Ibid.

²⁴ <http://www.themoscowtimes.com/business/article/russias-aviation-industry-gets-28bln-to-become-global-powerhouse/500331.html>

world's manufacturing hub in 2010 when its value of goods produced in US dollar terms exceeded that of the western giant.

In recent years however it has been suggested that with rising wages and upward social mobility of the Chinese labour force, China is set to lose out on its competitive advantage. However a 2014 study of the Economist Intelligence Unit points out, in the short-to-medium term, this claim is overstated. The study claims wages are only one factor in relocation decisions and that production is also dependent on the cost and availability of capital, infrastructure, inputs and the operational risks prevalent in the market. By mapping productivity growth against a score for operational risk, the study found most emerging economies riskier places to do business than China, most notably Argentina, Egypt and Nigeria.²⁵ The study is given further credence when it is put in conjunction with the 2013 Global Manufacturing Competitiveness Index report from Deloitte Touche Tohmatsu Limited's (DTTL) Global Manufacturing Industry group and the U.S. Council on Competitiveness. The report, which undertook an in-depth survey of 550 CEOs in China concluded that the country remained the top choice for manufacturing for that year and would continue to remain so at least until 2018.²⁶

India

2012 was a landmark year for the Indian IT sector as aggregate revenues crossed \$100 billion. India has been largest recipient of the global outsourcing pie with a market share of 55% in the financial year 2013 and the industry has grown over 21% during the period 1998 to 2014. The factors behind this success story can be divided as follows:-

- Lower Wages- Indian software professionals have tended to enjoy (absolute) wage advantages when compared to their counterparts in the US and Europe. Estimated wage costs in India in 1997 were about one-

²⁵ <http://www.eiu.com/industry/article/1671844151/china-to-maintain-manufacturing-supremacy/2014-05-27>

²⁶ <http://www.cfoinnovation.com/story/6117/china-still-most-competitive-manufacturing-hub-say-ceos>

third to one-fifth of the US levels for comparable work. This cost advantage still remains despite the wage inflation due to a decline in billing rates by around 5% in the past four to five years.²⁷ While these wages have been relatively low when compared to similar jobs in the West, within India these have remained much higher than other sectors such as manufacturing ensuring a steady supply of labour.

- **Suitable Resources-** The attributes of the India's resources suited the IT sector perfectly i.e. more emphasis on a skilled workforce as opposed to well developed physical infrastructure. India, with the world's second largest English speaking population at 72 million and second highest number of engineering graduates, was able to provide a labour force with excellent communication and technical skills.²⁸
- **The Indian Diaspora-** The presence of the large number of Indian-origin people in the West, particularly in the Silicon Valley, acted as credibility intermediaries that brought back substantial business opportunities in India. With the Indian diaspora based out of the Silicon Valley having large contacts within India, their worth in terms of knowledge and financial capital increased manifold as reverse migration picked up.²⁹

South Africa

South Africa has become an economic force in the rapidly evolving global economic and geopolitical environment. The reason behind this position of strength is the South African government's long term vision on socio-economic policies. Good policy making and implementation has meant South Africa enjoys high rankings in key influential indices such as the World Economic Forum Global Competitiveness Report, the World Bank Ease of Doing Business Index, and the World Economic Forum Travel and Tourism Index.

²⁷ NASSCOM The IT-BPM sector in India: Strategic review 2013

²⁸ Joshi, K., & Mudigonda, S. (2008). An analysis of India's future attractiveness as an offshore destination for IT and IT-enabled services. *Journal of Information Technology*, 23(4), 215e227

²⁹ http://ac.els-cdn.com/S097038961500004X/1-s2.0-S097038961500004X-main.pdf?_tid=54406a58-f4aa-11e4-a6d4-00000aacb35d&acdnat=1430997492_74d26fd442037df008c84114593874d0

As per the World Economic Forum's Global Competitiveness Index, the country ranks as high as 7th when it comes to Financial Market Development, ranks the country's financial services sector, banks and stock exchange as the top global performers, while the country places 15th globally for the quality of its air transport infrastructure. When compared with other BRICS nations, South Africa ranks 1st on all major indicators that help determine the ease of doing business, namely time taken and procedures involved when starting a new business, availability and affordability of credit, strength of investor protection, and effect of taxation on incentives to invest. The World Bank's Ease of Doing Business Index also offers the same narrative and it can therefore be safely concluded that South Africa offers protection to foreign investments and a business-friendly environment wherein new trade, investment, and related economic transactions can be nurtured.

Some of the key policy directives that led to this strong position of the South African economy are as follows- (i) the implementation of a new company law that eliminates the requirement to reserve a company name and simplifies the incorporation documents, (ii) the transfer property has been made less costly and more efficient by reducing the transfer duty and introducing electronic filing, (iii) a new reorganisation process has been introduced to facilitate the rehabilitation of financially distressed companies, and (iv) the roll-out of a government policy that addresses the need to decrease the time, cost, and red tape companies have to deal with to get products to port and shipped to international markets has meant trading across borders has been made easier.³⁰

Conclusion

As has been established by this paper, collaboration amongst member countries on cultural exchange, education, and STI, thus far has been limited. However the primary purpose of the nations coming together was precisely to correct this

³⁰ <http://www.mediaclubsouthafrica.com/economy/3676-south-africa-s-competitive-advantage-in-the-developing-world>

aberration and the first steps in this direction have been made by way of ministerial meetings of education ministers and ministers of science, technology and innovation. Having identified in this paper sectors which have historically proven to be the strength of each of the five nations, the aim is to recommend policy initiatives by which one nation can pass on its success story to the other. India in particular has a lot to gain from the experience of other BRICS nations:-

- From Brazil its success in agribusiness since 60% of India's population is still employed in the field yet its contribution to India's GDP is only about 14%;³¹
- With Russia, India is already implementing a broad range of joint programmes. These programmes have moved on from only licensed production to joint development and designs which is different level of cooperation altogether.³²
- From South Africa its success in improving ease of doing business as India's current ranking is a dismal 142;
- China today is India's largest trading partner and the two countries seem on course to reach their target of \$100 billion in annual trade this year. With PM Modi's visiting Beijing later this month it is hoped he brings back with further investment to India, particularly in the manufacturing and infrastructure sector.

³¹ http://www.in.undp.org/content/dam/india/docs/india_factsheet_economic_n_hdi.pdf

³² <http://bricsmagazine.com/en/articles/a-common-cause>