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Highlights

BRICS | Loan Ever-greening |

Digital Marketing | Study on Cellphone Users |

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IMI Konnect, published quarterly from International Management Institute Kolkata, is an open access Scholarly Magazine in Management. It started its journey in December 2012, and publishes original research articles (non-technical) by scholars in the field of management and firsthand perspectives from business thinkers and practitioners on contemporary issues. *IMI Konnect* provides an intellectual platform for the national and international scholars and the industry experts to discuss and debate their opinions and thus contribute to the knowledge of management. It also publishes interviews with eminent personalities in the field of business.

The articles will go through a review process before publication. The issues are themed on Marketing, Finance, Organisational Behaviour & Human Resources (OB & HR), Information Technology & Operations (IT & Operations), Strategy, Economics and Management. The publication caters to academicians and practitioners in corporate and government organizations and departments.

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The article should be non-technical and should be of around 2500 - 4000 words. The research articles may be upto 7000 words. But no mathematical expressions or technicalities of methods should be contained in the main text. It should be typed in MS Word in Times New Roman 12 with paragraph spacing 1.5. Figures and simple, small tables can be incorporated. There should not be any notations or equations, at least in the main text. If required, it may be put in Appendix. The article should also contain a short abstract of 150 – 200 words. Full forms of each abbreviation should be mentioned at first instance. All figures and diagrams should be in black and white. Send your manuscript along with your name, institutional affiliation, email ID and contact number to the editorial office at imikonnect@imi-k.edu.in mentioning the area viz. Marketing, Finance, OB & HR, Economics, Strategy, IT & Operations, Management Education, Others or Themed Issue.

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Economic Development and Competitiveness: A Comparison among BRICS

Senjuti Ghosh Das* and Rajashri Chatterjee**

Introduction

BRICS brings together five growing economies namely Brazil, Russian Federation, India, China and South Africa that comprises 43 per cent of world population with 30 per cent contribution to world GDP and 17 per cent share in world trade (UNCTAD, 2017). BRICS economies exhibit a number of common features as well as significant differences. For example, Brazil is a domestically oriented service sector based economy; Russian economy is largely dependent on export of energy and natural resources; the Indian economy is predominantly service sector-led; China's economic development is based on manufacturing exports and foreign investment while South African economy is essentially natural resource based. With an increase in share in global GDP from 8 per cent in 2001 to 22.4 per cent in 2017, the BRICS is performing well in the recent past. In its recent summit in 2018, three important issues are discussed, viz. proposing a development paradigm, creating financial mechanisms and resolving political differences. Between 2001 and 2015, BRICS contribution to global exports and imports increased from 8 per cent to 18 per cent and 7 per cent to 15 per cent, respectively, despite two small setbacks following the global financial crisis in 2008 and the drop in commodity prices in 2014[1]. China, contributing on an average 60 per cent to exports and 53 per cent to imports of BRICS during 2001 to 2016, has been consistently the largest contributor to the BRICS trade. The establishment of the New Development Bank (NDB), a multilateral development bank for financing infrastructure projects in member nations and other emerging and developing countries has been a major development. The Bank's lending portfolio has increased to 23 projects aggregating US$ 5.7 billion, implying the accelerating momentum behind NDB and the strong demand for sustainable infrastructure financing[2].

The article tries to present a brief account of

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[1]BRICS 15 Year Review, http://www.brics2018.org.za/documents-0

[2]https://www.ndb.int/press_release/new-development-bank-concludes-successful-participation-at-brics-summit-2018-in-johannesburg-south-africa/

the recent trend and experiences of the BRICS economies in terms of economic growth and development, competitiveness in terms of attracting foreign investment, trading activities, liberalization status, ease of doing business etc.

Economic Growth and HDI

China and India remarkably maintained a steady GDP growth over the years, well above other BRICS economies. During the period from 2005 to 2017, both the countries have more than doubled their shares in world GDP while it remained either stagnant or marginally improved for other nations in BRICS bloc (Table 1). Global GDP growth rates remained sluggish in 2015 due to persistently low commodity prices, declining trade flows, rising volatility in exchange rates and capital flows and stagnant inflation. While economic growth moved in negative territory for Brazil and Russia along with slow growth for South Africa, China and India were able to keep their growth momentum intact. The above 8 per cent growth rate in 2015 made India the fastest growing country among G20 nations (OECD, 2017). In 2017, while global economy was in the process of fragile recovery, China registered a strong growth of around 7 per cent making it the fastest growing nation among the major economies followed by India.

As United Nations Development Programme (UNDP) puts it, human development is all about "building human capabilities…for everyone." Economic development is about economic well-being as well as the standard of living[3]. Human Development Index (HDI) is the most widely accepted measure to assess how a country is performing in terms of economic development. It is based on three

Table 1: Trend in Economic Growth for BRICS

	GDP (US$ billion)				Share in World GDP (%)				GDP Growth (annual %)			
	2005	2010	2015	2017	2005	2010	2015	2017	2005	2010	2015	2017
India	3238	5312	8025	9449	5	8	11	12	9.28	10.26	8.15	6.62
China	6639	12485	19814	23301	14	19	26	29	11.39	10.63	6.9	6.9
Brazil	2047	2803	3225	3241	4	4	4	4	3.19	7.54	-3.55	0.97
Russia	1697	2928	3622	3817	4	4	5	5	6.37	4.54	-2.8	1.54
South Africa	468	600	728	765	1	1	1	1	5.27	3.04	1.28	1.32

Source: World Bank

[3]Economic development is a much broader concept than economic growth. Economists opine that while economic growth or GDP growth is a pre-condition of economic development, it may not automatically lead to the latter.

basic dimensions, viz. the ability to lead a long and healthy life (measured by life expectancy at birth), the ability to acquire knowledge (measured as an weighted average of mean years of schooling and expected years of schooling) and the ability to achieve a decent standard of living (measured by gross national income per capita). Notably HDI is rising across all the regions over time, on an average (UNDP, 2018). Nonetheless, the extent of progress vary widely across countries. While South Asia witnessed the most significant improvement in its HDI from 1990 to 2017, OECD countries recorded a much slower progress during the same period.

Considering the grave importance of inequality, poverty and gender on development aspect, UNDP came up with a series of indexes apart from HDI that take into account these dimensions through Multidimensional Poverty Index[4] (MPI), Inequality adjusted Human Development Index[5] (IHDI), Gender Inequality Index[6] (GII) in 2010 and Gender Development Index[7] (GDI) in 2014.

The Human Development Report 2016 placed India in 131st place in a list of 189 countries, in the "medium" human development category. However, in 2017 India has moved up one notch further from 2016. There is a continuous and steady increase in HDI value for Indian economy from the 1990s, backed by robust social development programmes undertaken by the Government and UNDP appreciates this as an indicator of "remarkable achievement in lifting millions of people out of poverty". Between 1990 and 2017, India's life expectancy at birth increased by nearly 11 years; the expected years of schooling has increased by 4.7 years and mean years of schooling by 3.4 years while India's GNI per capita increased substantially at the rate of 266.6 per cent (UNDP, 2018) [Table 2].

However, on account of inequality adjusted HDI (IHDI) India does not fare well compared to her South Asian neighbours. In 2017, 26.8 per cent of India's HDI value is lost due to inequalities while the average loss is 26.1 per cent for South Asia (UNDP, 2018).

[4]MPI takes into account three dimensions and ten indicators. Each dimension as well as each indicator within a particular dimension is equally weighted. Three dimensions are Education, Health and Standard of Living. While indicators under Education are Years of Schooling and School Attendance Ratio, Child Mortality and Nutrition are indicators under Health dimension and Standard of Living is captured by Electricity, Sanitation, War, Flood, Cooking Fuel and Assets.

[5]IHDI is HDI discounted for inequality in each of the dimension of HDI namely health, education and standard of living and gives a composite statistic to measure HDI.

[6]GII measures gender disparity and quantify the loss of achievement in a country due to gender inequality. It uses three dimensions to capture gender inequality viz reproductive health, empowerment and labor market participation.

[7]The GDI measures gender gaps in human development achievements by accounting for disparities between women and men in three basic dimensions of human development—health, knowledge and living standards using the same component indicators as in the HDI.

Table 2: Trend in HDI for India

	Life Expectancy at Birth (Years)	Expected Years of Schooling	Mean Years of Schooling	GNI Per Capita (2011 PPP)	HDI Value	Rank	Out of Countries
1990	57.9	7.6	3	1733	0.427	121	160
1995	60.4	8.2	3.5	2015	0.460	118	166
2000	62.6	8.3	4.4	2470	0.493	124	173
2005	64.6	9.7	4.8	3157	0.535	128	177
2010	66.6	10.8	5.4	4357	0.519	119	179
2015	68.3	12	6.3	5691	0.627	131	188
2016	68.6	12.3	6.4	6026	0.636	129	189
2017	68.8	12.3	6.4	6353	0.640	130	189

Source: UNDP Human Development Report, Various Issues

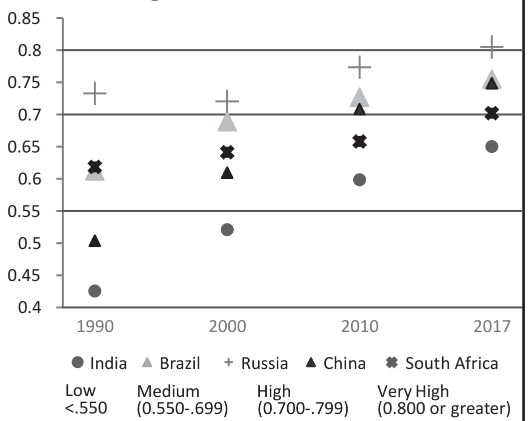
This reconfirms that inequality remains a grave challenge for Indian economy despite a number of Central and State initiatives towards more equality. Regional disparities are also significantly high for India. While all India average Gross State Domestic Product (GSDP) per capita stood at ₹100 billion in 2015, Goa with the highest GSDP per capita at ₹330 billion had almost ten times higher GSDP than Uttar Pradesh with the lowest GSDP at ₹35 billion. The Gini Coefficient[8], a widely used measure of income inequality, is estimated reasonably low at 0.36 for the year 2017 but there are arguments that this low value can largely be attributed to flawed accounting techniques (World Bank, 2018). The highest 1 per cent income earners in India held 55 per cent of total wealth in 2016 which is much higher than developed countries like Japan (18 per cent of total wealth), Korea (30 per cent), Singapore (31 per cent), China (42 per cent) and Brazil (49 per cent)[9]. Although the HDI value of 0.640 for India in 2017 is higher than South Asian average of 0.638, it is still below the average HDI value for medium group countries (0.645). Further, India's HDI significantly lags behind indexes of other BRICS nations (Figure 1).

Measures such as MPI, published by Oxford Poverty and Human Development Initiatives, reflect even gloomier picture for India. 41.3 per cent and 4 per cent people in India and

[8]It measures inequality by income distribution, assumes value between 0 and 1, 0 implying perfect equality and 1 perfect inequality

[9]*"An Economy for the 99 per cent"*, Oxfam Study, 2017

Figure 1: HDI in BRICS



Source: UNDP, Various Reports including Statistical Update, 2018

China respectively are considered as poor[10]. This stark difference in the level of poverty between India and China, the two nations often compared and considered the closest competitors in terms of GDP growth rates, provides much scope to ponder over the social and developmental issues in the two countries. Similarly if we look at GII and GDI figures, India remains way behind other large Asian economies and comparable only with South Asian economies like Bangladesh and Pakistan.

Brazil's HDI value for 2017 was 0.759 (UNDP, 2018) [Figure 1], marginally higher than the average (0.757) of high human development category and the average of countries in Latin America and the Caribbean (0.758). Russian Federation's HDI value for 2017 stood at 0.816, which put the country in the very high human development category, securing rank of 49. Its HDI value was lower than very high human development group's average (0.894), but it remained higher than each of the regional average including Europe and Central Asia (0.771) (UNDP, 2018). If we look at China, the HDI value for 2017 was 0.752, positioning it in high human development category with a rank of 86. This value was lower than the average HDI value for high human development category, but well above the average for East Asia and the Pacific (0.733). China's HDI values show a steady and upward rising trend since 1990 over the years. Among the BRICS economies, only South Africa falls in the medium human development category along with India. However, with HDI value of 0.699 and rank of 113 in 2017, it was still well ahead of India. Its HDI score was higher than the medium category's average of 0.645 and much higher than the average of sub-Saharan Africa at 0.537.

In last thirty years, China's considerable improvement in HDI was majorly driven by an astonishing increase in its GNI per capita (Table 3). India also has shown impressive improvement in HDI during the same period which can be attributed again to significant improvement in GNI per capita and life expectancy at birth.

The inequality adjusted HDI was consistently the highest for Russia among BRICS nations (Table 4). While Russia, China and Brazil

[10]For India the latest reference year is 2011-12, for China it is 2013-14.

Table 3: Change in HDI Value and Its Indicators from 1990 to 2017

Country	Life Expectancy at Birth (Years, in absolute terms)	Mean Years of Schooling (Years, in absolute terms)	Expected Years of Schooling (Years, in absolute terms)	GNI Per Capita (in Percentage)	Average Annual HDI Growth (in Percentage)
India	11	3.4	4.7	266.6	1.51
China	7.1	3.0	5.0	898.7	1.51
Brazil	10.4	4	3.2	28.6	0.81
Russia	3.2	2.8	2.7	17.2	0.40
South Africa	1.3	3.6	1.9	27	0.46

Source: UNDP, Various Reports

Table 4: Other Human Development Indicators in BRICS

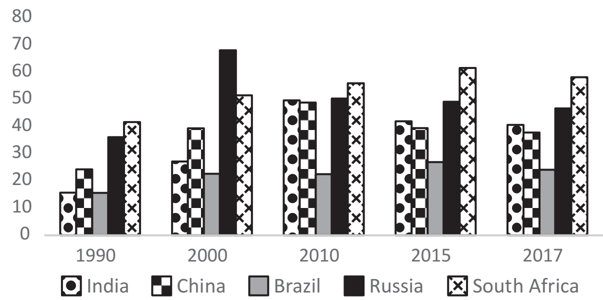
	IHDI		GII		GDI		MPI	
	2012	2017	2012	2017	2012	2017	2012	2017
India	0.424	0.468	0.567	0.524	0.979	0.841	0.283	0.121
China	0.56	0.643	0.117	0.152	0.961	0.955	0.056	0.017
Brazil	0.536	0.578	0.446	0.407	0.987	0.992	0.011	0.016
Russia	0.7	0.738	0.294	0.257	0.983	1.019	0.005	0.005
South Africa	0.441	0.467	0.412	0.389	1.005	0.984	0.057	0.023

Source: UNDP and Oxford Poverty and Human Development Initiative, Various Issues

have shown an improvement in their IHDI ranking during last five years, for India and South Africa, it moved downwards. The GII values were significantly lower for China with an impressive ranking for last five years. Notably all the BRICS countries except China have shown an improvement in their GII values in 2017 compared to 2012. India's performance on gender equality was worrisome. The GII values continue to remain much higher for India than other BRICS nations. On GDI front, though India's performance were comparable with Brazil and Russia and higher than China in 2012, it has declined sharply in 2017. The poverty level in Russia was historically low; it was also low for Brazil. China and India have witnessed massive decline in their poverty rates from '90s. However, India has the highest value of MPI amongst BRICS which was way above its peer nations. The MPI for all countries declined over the years barring Brazil which posted a marginal rise in its MPI.

Trade Openness

Figure 2: Trade Volume as % of GDP in BRICS Nations



Source: World Bank

Trade Openness is an important parameter to gauge competitiveness and external integration of an economy and all the BRICS countries have initiated trade liberalization measures mostly during the late 80s and 90s, although the process of liberalization varies widely across these countries. In terms of the measure of trade openness, viz. total volume of trade as percentage of GDP, the BRICS nations reveal some interesting phenomena.

It is often argued that the growth of BRICS economies are majorly trade-led. All the countries have increased trade penetration over the years with a remarkable increase in trade-GDP ratio. For India, it has increased from 15 per cent in 1990 to a hovering 40 per cent in 2017 (Figure 2). Brazil remained the most closed economy amongst the BRICS nations having lowest share of trade to GDP over the years. On the other hand, South Africa remained the most open economy in terms of trade parameters with the highest share of trade to GDP amongst all BRICS consistently except for the year 2000.

Brazil started its trade liberalization process from the late 1980s and made a clear switch from import substitution policies. Reduction in tariff and non-tariff barriers especially quantitative import restriction played an important role in increasing productivity and drawing foreign capital. Brazil's unilateral liberalization was followed by a number of regional and bilateral trade agreements like MERCOSSUR[11] in 1991 and proposed trade agreements like FTAA[12] in 1994.

Russian Federation was characterized with rigid protectionism and state-owned monopoly on foreign trade. After the fall of Soviet Union in 1991, the newly formed Russia clearly switched from protectionism to liberalization. It is a part of a number of bi-lateral and multi-lateral trade agreements like FTA of Commonwealth of Independent States (CIS)[13].

Till the first half of 1990s, China's export and

[11]A regional customs union with a common external tariff between Brazil, Argentina, Paraguay, Uruguay and Venezuela.

[12]Free Trade Area of Americas (FTAA) was a proposed trade bloc between USA and other Latin American countries with abolished or reduced trade barriers.

[13]Russia, Belarus, Ukraine, Moldova, Tajikistan, Armenia, Kazakhstan, Uzbekistan and Kyrgyzstan form Commonwealth of Independent States.

import policies were directly controlled by the State in a fixed exchange rate regime with too little scope for market mechanisms. Only in the latter half of '90s, China relaxed its tariff structure, removed import licensing mechanism and simultaneously adopted flexible exchange rate regime. China's accession in WTO in 2001 further integrated the economy to the rest of the world.

During the 1980s, South Africa shifted away from its import substitution policies due to decline in its growth and heavy dependence on gold reserves. In 1994, South Africa shifted from export promotion to greater openness through tariff reduction. Further, it made significant reductions in Most Favoured Nations' tariff rates during the same period and also pursued various new bilateral free trade agreements.

Prior to the liberalization measures taken in 1991 in India and formation of WTO in 1995, India remained largely isolated from world trade since independence. Decades of pursuit of import substitution, almost hostile attitude towards foreign trade and technology and overprotective policies towards domestic producers led to inefficiency impairing economic growth. The twin shocks of huge current account deficit and trade imbalance in a way pushed Indian policy makers to embrace liberalization and open economy policies. A number of trade reforms was also undertaken in tandem. Liberalization policies of 1991 brought some major overhaul in Indian trade and tariff structure. Average and weighted tariffs declined from 81.9 and 49.5 per cent in 1990 to 57.4 and 27.8 per cent in 1991, respectively (UNCTAD, 2017). The reduction in average and peak tariff happened in a phased manner. The simple average tariff declined from a very high of 80.85 per cent in 1990 to as low as 8.91 per cent in 2016, while the weighted average tariff recorded a steady decline from 56.36 per cent to 6.35 per cent. The peak tariff rate declined drastically from 520 per cent in 1990 to 233 per cent in 2002 and further to 150 per cent by 2016 (World Bank, 2017).

Nonetheless, the expansion in trade volume experienced by India post liberalization was substantially lower than China and other BRICS economies and its share in global trade is much lower compared to other Asian giants. However, it is important to note that India remained much resilient during the global downturn in trade in 2015, backed mostly by the steep decline in trade in East Asia. The contraction was largely attributed to decline in commodity prices especially in price of oil, leading to reduced real income in the commodity producing countries, China's diminished growth and gradual shift away from industrial production leading to weak import demand. While trade volume contracted for most of the developed and developing countries including Japan, Brazil, Russia, Singapore, and South Africa, the decline was less steep for Indian economy.

Trade Openness is related to tariff structure to a large extent as a relatively closed economy is expected to have stringent tariff measures and vice versa. The tariff agreements are significantly high for India and China compared to other peers in BRICS nations, reflecting the importance of import liberalization policies in their trade liberalization measures. Nonetheless, the maximum rate for tariff is exceptionally high for China compared to other BRICS nations (Table 5). Brazil which had the lowest share of trade to GDP ratio amongst the BRICS nations, had the highest level of average rate of tariff, both simple as well as weighted. However, India had the lowest share of duty free tariff line amongst BRICS closely followed by Brazil, while South Africa, which was the most open economy in terms of trade openness, had the highest share.

Financial Liberalization

Most of the developing countries including the BRICS have opted for financial liberalization by relaxing credit control, liberalizing interest rates and banking sector and have gone for openness of capital (Table 6).

Since the beginning of 1990s, Brazil implemented various financial sector reforms. From 1990 to 1999, Brazil had a crawling peg exchange rate regime. The currency crisis of 1999 led it to move towards floating exchange rate and inflation targeting. Financial liberalization policies included reduction and later elimination of both the minimum average maturity for external loans and the financial transaction tax on capital inflows, the elimination of restriction on investment in security markets by foreign investors and simplified procedures for capital remittances to other countries.

After the 1998 crisis, Russia has adopted administered floating exchange rate under the context of partial capital account convertibility. Controls on capital flows were introduced after 1998 crisis to help protect the Russian currency from speculative capital outflows and also to protect still weak banking sector. However, exchange controls were liberalized in a phased manner and since June 2005, Russian residents could open foreign exchange accounts with authorized banks without any restriction. In July 2006, Russian Government announced the gradual introduction of Ruble convertibility by eliminating all

Table 5: Tariff Structure in BRICS Nations, 2016

	Number of Tariff Agreement	Max Rate	Simple Average (%)	Weighted Average (%)	Duty Free Tariff Lines Share (%)
India	23	150	8.91	6.35	15.02
China	24	3000	7.88	3.54	25.51
Brazil	6	55	13.56	8.01	16.37
Russia	7	100	5.34	3.62	30.72
South Africa	5	315	6.48	4.51	67.52

Source: WITS, World Bank

Table 6: Exchange Rate Regime and Capital Controls of BRICS Countries, as of 2017

Country	Exchange Rate Regime	Current Account Convertibility	Capital Account Convertibility
India	Managed Float	High	Partial, with many restrictions
China	Pegged Exchange Rate	High	Partial, with many restrictions
Brazil	Dirty Float	High	High
Russia	Managed Float	High	Partial, with some restrictions
South Africa	Free Float	High	High

Source: "Financial Development and Economic Growth in BRICS and G-7 Countries", 2015 & "Financial Liberalization, Exchange Rate Regime and Economic Performance of BRICS Countries", 2008

restrictions on non-resident transactions in domestic securities.

After the external debt crisis faced by India in 1991, capital account has been gradually liberalized and the exchange rate regime changed from pegged to managed floating one. This was followed by the acceptance of full convertibility of current account in August 1994. The approach to capital account liberalization in India has been cautious; the economy has opened up for portfolio equity investment and geared up policies to attract FDI.

As a part of the economic reforms of 1990, China abolished its multiple exchange rates and adopted a managed floating exchange rate mechanism. In practice, however, Chinese currency Yuan or Renminbi was fixed to the US Dollar since 1995. In 1996, China liberalized its current account while the capital account remained partially convertible till date. The experiences of India and China also show that capital controls helped to protect these economies from destabilizing effects of capital outflows.

The end of apartheid in 1994 ushered in South Africa's reintegration into the global economy which included financial liberalization as well. South Africa experienced a harmonized liberalization of capital accounts, banking sector and interest rates during the second half of 1990s. Several relaxation mechanisms of exchange controls were also initiated simultaneously as a part of financial liberalization.

Role of Foreign Direct Investment

For many transition and developing countries, including BRICS, Foreign Direct Investment (FDI) has become one of the largest sources of external assistance, many times surpassing official development assistance[14]. In 2016-17, more than 40 per cent of US$ 1.75 trillion of global FDI was directed towards the developing world (Global Investment Competitiveness Report, 2017-18). Governments of the BRICS economies are counting on FDI attracting policies in order to bring in much needed capital in infrastructure, industry, education, health or tourism. However, the overall benefits of FDI extend well beyond getting capital. FDI is considered to be a much more stable source of investment than FII because of its long-run nature of investment[15]. Trade openness and liberalization policies are considered as critical parameters to attract FDI inflow in a country.

In recent years, the BRICS economies performed exceptionally well as recipients of global FDI. The World Investment Report 2018 suggests that although USA retained its position as the largest destination of FDI, all the BRICS economies barring South Africa, emerged in the list of top 20 global FDI destinations. Table 7 presents the major source countries of FDI and the sectorwise distribution of FDI in the BRICS counties for 2016-17.

Brazil was the fourth largest FDI destination in the world in 2017 (UNCTAD, 2017). Most of the inward FDI at the beginning of the 1990s occurred via mergers and acquisitions due to privatizations and was not focused towards industrial production. However, in the second half of the 1990s, the inflow of FDI steeply increased with a redirected focus towards industrial activity. Most of the FDI in Brazil comes from European countries. In 2016, the Netherlands was the largest investor followed by USA, Spain and Luxembourg. Service sector, especially commercial and financial services, real estate, management activities and IT services attracts majority of the FDI.

Russia was the eleventh largest FDI destination in the world in 2017 (UNCTAD, 2017). One of the most untapped area is its efficiency-seeking FDI. Natural resources including crude oil, technological capabilities along with human skills and upgraded infrastructure make Russia an ideal destination for foreign investment. However, the country needs to upgrade its foreign investment promotion policies to achieve the full potential. At present, mining and quarrying comprises almost 70 per cent of foreign investment followed by manufacturing, financial and insurance activities and wholesale and retail trading.

[14]It measures the international aid flow in a developing country.

[15]FDI influences growth by raising total factor productivity and, more generally, the efficiency of resources in the host country (OECD, 2002). A preponderance of studies show that FDI triggers technology transfers, assists human capital formation, contributes to international trade integration, helps create more competitive business environment and enhances enterprise development (Dixit, 2012; Danakol et al., 2013). It has been found in many studies that FDI plays a critical role in enhancing productivity in ancillary industries (Arnold et al., 2011).

Table 7: The Largest FDI Source Countries and Largest FDI Attracting Sectors in BRICS, 2016 (in percentage share)

India			
Country -wise		Sector -wise	
Mauritus	33	Services	18
Singapore	19	Telecommunications	8
Japan	7	Construction	8
UK	7	Trading	5
Netherlands	6	Automobiles	5
China			
Country -wise		Sector -wise	
Hong-Kong	75	Manufacturing	25
Singapore	3.7	Real Estate	12.9
Taiwan	3.6	Leasing and Business Services	12.9
South Korea	2.8	Wholesale and Retail Trade	9
Japan	2.5	IT Services	16
Brazil			
Country -wise		Sector -wise	
The Netherlands	25	Commercial Services	17
USA	19	Financial Services	10
Spain	11	Real Estate	10
Luxembourg	7	Management Activities	5
France	5	IT Services	5
Russia			
Country -wise		Sector -wise	
Singapore	49	Mining and quarrying	68
Bahamas	18	Manufacturing	15
Bermuda	7	Financial and Insurance Activities	10
France	6	Wholesale and Retail	5
Austria	3	Commercial Services	1
South Africa			
Country -wise		Sector -wise	
UK	38.4	Financial Services	42.1
The Netherlands	21.4	Manufacturing	20.8
USA	6.8	Mining	20.5
Germany	5	Transport & Storage	10.4
China	4.2	Trade & Catering Accomodation	10.4

Source: Dept. of Industrial Policy and Promotion, Central Bank of Brazil, Central Bank of Russia, National Bureau of Statistics, China and Santandertrade.com
Note: For China, the values are of the year 2017

Singapore was the largest source of FDI in Russia followed by smaller countries like Bahamas and Bermuda.

Chinese FDI is manufacturing sector driven. Being the second largest FDI destination in the world after USA (UNCTAD, 2017), China's major sectors that attract FDI are essentially manufacturing followed by real estate, leasing and business services, wholesale and retail trade and IT services. Notably, three-fourth of FDI in China comes from Hong Kong, while the rest are coming mainly from Singapore, Taiwan, South Korea and Japan.

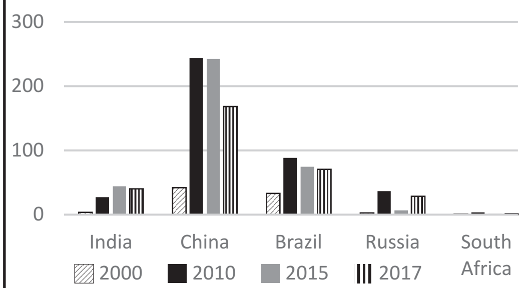
South Africa remained a laggard amongst the BRICS in terms of FDI inflow due to its political uncertainty and underperforming commodity market. While UK was the largest FDI source country for South Africa, financial services' share was the highest followed by sectors like manufacturing, mining, transport and trade.

India, backed by robust GDP growth, stable macroeconomic variables and attractive FDI policies, was the tenth largest FDI destination in the world in 2017, with an improvement by one notch compared to 2016 (UNCTAD, 2017). After liberalization, FDI of up to 100 per cent is allowed in sectors like e-commerce, railway infrastructure, defense, airports, construction development including township, housing, built-up infrastructure and real estate broking services, industrial parks, among others.

However, as per UNCTAD's World

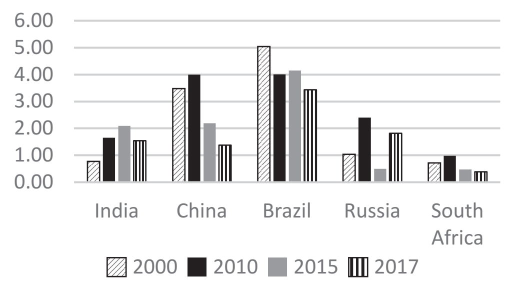
Investment Report 2018, FDI in India declined from US$ 44 billion in 2016 to US$ 40 billion in 2017. The sectors which attracted the highest FDIs are services sector and telecommunications (DIPP, 2017-18) with Mauritius, Singapore and Japan being the top three sources of FDI during the same period.

Figure 3.1: Net FDI Inflow in BRICS (US$ Bn)



Source: World Bank

Figure 3.2: Share of FDI in GDP in BRICS (per cent)



Source: World Bank

While China boasts of the largest volume of FDI, it is Brazil whose FDI to GDP share remained the highest over the years amongst all BRICS countries (Figures 3.1 and 3.2). South Africa's FDI share in GDP again remained the lowest. Notably, compared to 2015, the absolute value of FDI as well as FDI to GDP ratio has declined for all the BRICS countries barring Russia in 2017, following the declining volume of global FDI inflow due to sluggish growth on global front. However, Russia saw a significant spurt in its FDI inflows backed by strong recovery in GDP and robust export performance.

Competitiveness and Governance

Policy makers in developing or emerging countries are concerned about national competitiveness and governance as these are important factors of attracting foreign investments. The very notion of competitiveness varies according to the different levels of analysis, viz. firm, industry or country and different economists again hold different views about the competitiveness of a country (Petrylė, 2016). The classical and neo-classical economists thought competitiveness of a nation to be its power to gain from international trade. However, this competitiveness is now understood to be quite complex being driven by many variables. Hickman (1992) mentioned that international competitiveness possess many dimensions and it may be defined as *the ability to sustain, in a global economy, an acceptable growth in the real standard of living of the population with an acceptably fair distribution, while efficiently providing employment for substantially all who can and wish to work and doing so without reducing the growth potential in the standards of living of future generations.*

Zlatkovic (2016) on the basis of a correlation test between the competitiveness indicators that construct Global Competitiveness Index (GCI) and FDI stocks per capita observed that FDI stocks per capita was significantly correlated to the indicators viz. infrastructure, health and primary education, higher education and training, technological readiness and innovation[16].

Fair governance is again another buzzword worldwide in recent times as sustainable development of a nation is largely dependent on it. Mengistu and Adhikary (2011) explored the impact of the indicators of good governance on FDI inflows for 15 Asian economies over the period 1996–2007. They concluded that a nation which has the capability to enhance its governance milieu in general is expected to attract more FDI. Alemu (2015) attempted to explore whether good governance infrastructure influences the "ease of doing business" for a sample of African countries during 2005 to 2012 and found that government efficacy, political stability, rule of law, regulatory quality and absence of corruption are strong determining factors for creating a favourable business atmosphere.

Therefore, in this article, widely accepted global competitiveness and governance indicators are discussed for BRICS.

Ease of Doing Business

India has jumped 23 notches to the 77th place in the World Bank's 'ease of doing business' ranking in 2018. It has attained the topmost rank among countries in South Asia for the first time, and it is third among BRICS. Covering 190 economies across the world Doing Business Report 2019 has highlighted that both India and China – two of the world's biggest economies are among the 10 economies displaying the most improvement. Notably, for several years the government of these two countries are said to have undertaken serious reform agendas aiming at improving the business regulatory environment. The BRICS economies have introduced 23 reforms in total during 2018 to ensure that doing business is easier with getting electricity being the most common area of improvement (Table 8). Majority of these economies have also focused on making it easier to start a business and to trade across borders . From the perspective of reforms that make it easier to get electricity, modernization of network, expansion of network capacity, introduction of software programmes or mobile applications, cheaper connections are some steps undertaken. Steps taken for making it easier to start a business include reduction of fees for incorporation; introduction of online systems for registration, licensing and employment notifications; integration of multiple application forms to a general one and introduction of a congenial taxation regime. From the point of view of simplifying trading

[16] However, Petrylė (2016) found a weak or no relationship between the GCI and the GDP growth of countries and claimed that the GCI is incapable of predicting the GDP growth rates in future of a country.

across borders the countries have focused on reduction in time and cost related to export and import activities.

The ranks of the BRICS economies on the 10 broad subindices considered in Doing Business 2019 report are presented in Table 8. Brazil, which secured 109th rank in the Ease of Doing Business, has not displayed an impressive performance on most of the subindices. None of the subindices displayed a rank within top 25. However, the country has recorded the largest score improvement in Latin America and the Caribbean during 2017-18. Russian Federation and China being 31st and 46th on the ease of doing business index have performed well on most of the dimensions. Russian Federation has secured the first position among BRICS on the overall ease of doing business ranking and has secured ranks within top 25 for the subindices viz. getting electricity, registering property, getting credit and enforcing contracts. China did exceptionally well from the point of view of getting electricity and enforcing contracts with ranks within top 25.

While India has performed exceptionally well from the point of view of protection of minority investors, getting credit and getting electricity, it has displayed a gloomy picture in terms of starting business, registering

Table 8: Performance (Ranks) of BRICS in Doing Business in 2018

Economies	Ease of Doing Business	Starting a business	Dealing with construction permits	Getting electricity	Registering property	Getting credit	Protecting minority investors	Paying taxes	Trading across borders	Enforcing contracts	Resolving insolvency
Brazil	109	✔140	175	✔40	✘ 137	✔99	48	184	✔106	48	77
Russian Federation	31	32	✔48	✔12	12	22	57	✔53	✔99	18	55
India	77	✔137	✔52	✔24	166	✔22	7	✔121	✔80	163	108
China	46	✔28	✔121	✔14	✔27	73	✔64	✔114	✔65	6	61
South Africa	82	✔134	96	✔109	106	73	23	46	143	115	66

Source: World Bank Doing Business 2019 Report
Note: ✔ symbolizes reform making it easier to do business;
✘ symbolizes change making it more difficult to do business

property, payment of taxes, contracts enforcement and insolvency resolution. South Africa did not display any impressive scenario on several subindices. It is below India on the overall ease of doing ranking, at 82. It is within top 25 occupying a rank of 23 in terms of protection of minority investors. Though it is difficult to establish the optimal level of business regulation without an in-depth research, higher ranking indicates superior and simpler regulatory framework for the business community to prosper.

In Doing Business 2015 report the number of economies considered were 189. When compared to the current year's report Doing Business Report 2015 depicted a number of diversions. South Africa secured the first position among the BRICS in the overall ease of doing business index in 2014 and India lagged far behind. It has been a remarkable turnaround for India and China during 2018 in terms of their ranking among all economies considered. Russia has improved further since 2014 to occupy the 1st rank among the BRICS in 2018, while South Africa's status has deteriorated much over these years. The improvement in ranking status for the nations demonstrate the fact that the nations have taken steps to improve their regulatory framework in terms of simplicity and transparency to ensure effectiveness of business activities while protecting public interests at the same time.

Global Competitiveness Index (GCI)

The index put forth by the World Economic Forum comprises of 98 indicators at present organized into 12 pillars signifying the degree and complexity of the drivers of productivity and the competitiveness ecosystem which are again grouped under 3 broad categories viz. basic requirements, efficiency enhancers and innovation and sophistication factors. Table 9 presents a glimpse of the ranking status of the BRICS economies pertaining to each pillar to portray how these economies have transformed from 2013-14 to 2017-18[17]. It is observed that ranks obtained by Brazil on most of the pillars have surprisingly deteriorated over these years and the overall GCI ranking has therefore fallen from 56 in 2013-14 to 80 in 2017-18. Russian Federation displayed notable improvements on 11 out of 12 pillars with significant improvement in terms of institutions, goods market efficiency, business sophistication and innovation. GCI ranking has improved from 64 to 38. India has advanced well in terms of 9 pillars viz. institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labor market efficiency, business sophistication and innovation with significant progress in terms of institutions, macroeconomic environment and goods market efficiency. India has occupied the 3rd rank among all economies considered in the

[17]The number of economies considered in the index has been 148 in 2013-14 and 137 in 2017- 18.

Table 9: Assessment of Competitiveness of BRICS in Terms of Their Ranks during 2013-14 and 2017-18

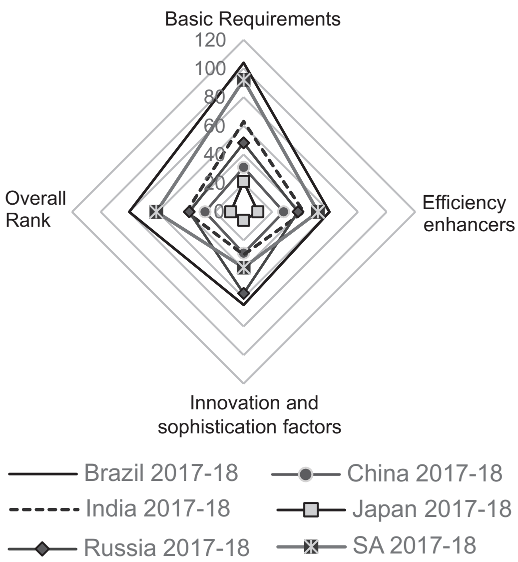
	Brazil		China		India		Russian Federation		South Africa	
Pillars of Competitiveness	**2017-2018**	**2013-2014**	**2017-2018**	**2013-2014**	**2017-2018**	**2013-2014**	**2017-2018**	**2013-2014**	**2017-2018**	**2013-2014**
Institutions	109	80	41	47	39	72	83	121	76	41
Infrastructure	73	71	46	48	66	85	35	45	61	66
Macroeconomic environment	124	75	17	10	80	110	53	19	82	95
Health & primary education	96	89	40	40	91	102	54	71	121	135
Higher education and training	79	72	47	70	75	91	32	47	85	89
Goods market efficiency	122	123	46	61	56	85	80	126	54	28
Labor market efficiency	114	92	38	34	75	99	60	72	93	116
Financial market development	92	50	48	54	42	19	107	121	44	3
Technological readiness	55	55	73	85	107	98	57	59	54	62
Market size	10	9	1	2	3	3	6	7	30	25
Business sophistication	56	39	33	45	39	42	71	107	37	35
Innovation	85	55	28	32	29	41	49	78	39	39
Global Competitiveness Index Ranking	**80**	**56**	**27**	**29**	**40**	**60**	**38**	**64**	**61**	**53**

Source: The Global Competitiveness Index Historical Dataset 2007-2017, World Economic Forum

index in market size during both the years considered. In financial market development the nation has deteriorated by several notches. Though the country has improved over these years on several parameters, special emphasis is needed on improving its competitiveness from the point of view of macroeconomic environment, health, education and labor market efficiency and technological readiness. GCI ranking improved from 60 during 2013-14 to 40 during 2017-18. China's GCI status has been the best among the BRICS as it occupied the rank of 29th in 2013-14 among all economies considered in the index which further improved to the 27th position in 2017-18. The nation has developed further on 9 drivers of productivity viz. institutions, infrastructure, higher education, goods market efficiency, financial market development, technological readiness, market size, business sophistication and innovation. China occupied the 1st rank in 2017-18 in terms of the market size. South Africa improved on 6 pillars and its overall ranking in GCI dropped from 53 in 2013-14 to 61 during 2017-18.

In Figure 4, the ranks of BRICS in 2017-18 with respect to three broad categories viz. basic requirements, efficiency enhancers and innovation and sophistication factors are presented. China as an emerging country has performed the best among BRICS and hence the quadrilateral formed using China's ranks on the three broad categories and in the overall GCI is closest to the quadrilateral formed by the indicators pertaining to Japan. China is followed by Russia, India, South Africa which move further respectively with the farthest being Brazil. In terms of innovation and sophistication however China and India may be held at par.

Figure 4: GCI Ranks of BRICS 2017-18



Source: World Economic Forum Global Competitiveness Index Dataset

Governance

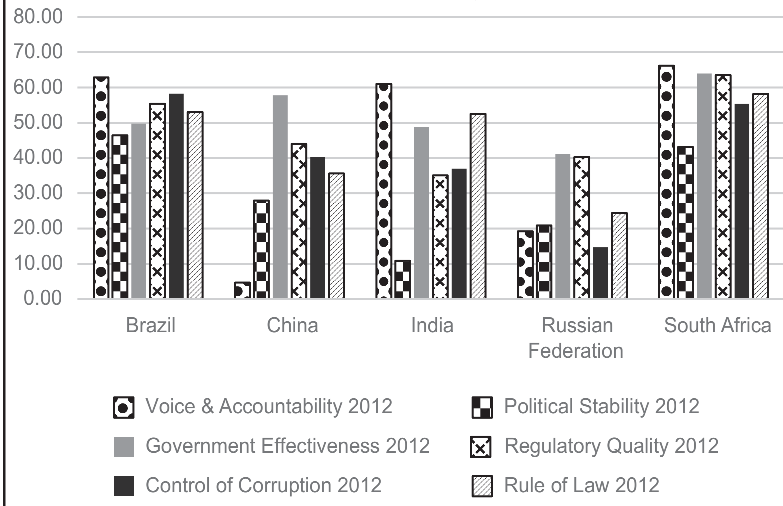
The Worldwide Governance Indicators (WGI)[18] are a dataset that summarizes the views of citizens, entrepreneurs and experts in the public, private and NGO sectors on quality of governance for more than 200 countries and territories across the world. The change in the governance performance of the BRICS from 2012 to 2017 has been explored here on the basis of percentile ranks pertaining to six indicators included in the dataset viz. *voice and accountability, political stability and absence of violence, government effectiveness, rule of law, regulatory quality, and control of corruption*.

In terms of *voice and accountability*, i.e. the degree to which a nation's citizens possess freedom of expression and association and free media, South Africa occupied the topmost rank among the BRICS nations during 2012 and 2017 followed by Brazil, India, Russian Federation and China. While Russia continued to score exceptionally low, China portrayed even weaker governance performance on this parameter (Figures 5 & 6).

In terms of *political stability*, India continued to be at the bottom of the ranking pillar among the five nations during these years. The governance performance of Brazil and South Africa on this indicator deteriorated over these years in terms of the percentile rank while China and India improved their ranking status

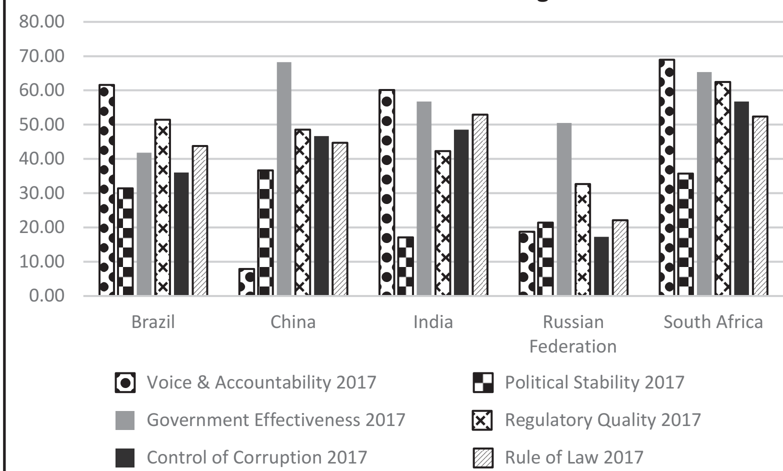
[18] http://info.worldbank.org/governance/wgi/index.aspx#home

Figure 5: Performance (percentile ranks) of BRICS in Governance during 2012



Source: The Worldwide Governance Indicators, World Bank

Figure 6: Performance (percentile ranks) of BRICS in Governance during 2017



Source: The Worldwide Governance Indicators, World Bank

to some extent. Russia's improvement has been negligible. In 2017 China occupied the highest rank among these five economies with a close second being South Africa. However, the rankings of all these five nations during these years have not been imposing at all.

With respect to *government effectiveness* in terms of quality of public services as well as civil services, the quality of policy formulation and execution along with government's commitment to such policies, China occupied the topmost rank in 2017 among the five countries followed by South Africa, India, Russian Federation and Brazil. Percentile ranks of all BRICS economies except Brazil have improved to some extent over the period from 2012 to 2017.

If one takes *regulatory quality*, on the basis of the capability of the government to frame and implement policies that assist in promoting the private sector, while China and India have improved over these years, the ranks of the other three have stumbled. The best performer in this governance indicator in 2017 is South Africa with 62.50 percentile rank while the weakest among the five is Russian Federation with rank of 32.69.

Control of Corruption is very important as corruption in any country may have far reaching implications for the economic development of a nation as a whole through injudicious usage of the available resources. India though does not still demonstrate an imposing grade in this regard, its rank has however improved to some extent from 2012 to 2017. In order to tackle corruption, apart from the existing decrees[19] the more recent efforts like the Prevention of Money Laundering Act, 2002, the Lokpal and Lokayuktas Act 2013, Whistle Blowers Protection Act 2014, certain provisions of Companies Act 2013 and demonetization of high value currency have all been aimed at combating corruption. The Indian government has also sought international cooperation in G-20 meetings on destroying offshore tax havens. Again in this indicator, Russian Federation continues to be at the bottom among the BRICS with very weak performance in both the years. South Africa occupied the top position in 2017. Brazil, which displayed the best performance among the five nations in 2012 has lost its position to a large extent during 2017.

With respect to *rule of law,* i.e. the extent to which agents abide by the rules of society, while India is at the best position among BRICS in 2017 followed by South Africa, a close second, Russian Federation occupied the lowest rank in percentile terms. However, none of these ranks are impressive enough when all economies across the world considered in the WGI dataset are taken in to account. The percentile ranks for Brazil, Russia and South Africa have even dropped from 2012 to 2017. China has however displayed some progress in this indicator during the period.

It should be noted that the BRICS nations could not even manage to achieve 70 in terms of percentile rank on any of the dimensions in any of these two years.

Conclusion

It is observed that the momentum of growth, human development and other indicators of competitiveness have been uneven and disparate in BRICS economies as these economies are at various stages of development and have considerable differences in socio-economic conditions which are designed by local contexts. Nevertheless, there are some common goals of more openness and competitiveness adopted by all the BRICS member countries. The BRICS economies have shown remarkable progress in terms of global integration through their liberalization process, outreaching external policies and FDI

[19]For example, the Indian Penal Code, 1860, Prevention of Corruption Act, 1988, the Benami Transactions (Prohibition) Act, 1988.

attracting measures. All these five economies have made marked progress on human development goals, though at varied degees, which are bound to complement the common economic agenda of higher growth. It is no denying the fact that Brazil, Russia, India, China and South Africa are becoming more and more important in the global economic scenario and are considered as having the potential to form a powerful economic alliance. Thus, exploration of the factors the improvement in which assist in their advancement is crucial for policy makers, analysts, business practitioners and the researchers.

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Digital Vs. Traditional Marketing: Success Comes with the Right Mix

Mahul Brahma*

Founded in February 2001, *mjunction services limited* is today not only India's largest eCommerce company but also runs the world's largest eMarketplace for steel. It is a 50:50 venture promoted by SAIL and TATA Steel. In a span of 17 years, it has established a national footprint with presence in more than 25 locations all over the country. Today, *mjunction* offers a wide range of eSelling, eSourcing, eFinance and Knowledge services across diverse industry verticals that empower businesses with greater process efficiencies. It has service offerings spanning the entire eCommerce spectrum.

IMI Konnect: *Do you think that the marketing communication scenario has really changed over time? Do Digitization and social media really impact the way we brand or market today?*

MB: There has certainly been an evolution as far as the marketing communications are concerned. The communications have become much more targeted and there has been a steady shift towards digitization. Depending on the demographics of the target audience one has to choose the message and the medium. So if it is promoting something targeted at men in the age-group of 40 plus newspaper advertisements still work wonders. However, from launch of a new iPhone to promoting Justin Bieber rock concerts, you can't imagine a world without digital. The choice of the media in digital, however, is dependent on the target audience. For example, for a young audience, video formats of communication in Instagram or Snapchat are more effective than LinkedIn or even Facebook for that matter. The youth is steadily finding social media platforms which have a predominance of videos and photographs to be more appealing and thus have a higher engagement.

IMI Konnect: *What are the day to day challenges faced by you as a Head of CSR, Corporate Communications and Branding of a well-known and reputed organization like mjunction?*

MB: In B2B e-commerce, the challenges are manifold. First, being in the B2B space carpet bombing solutions for communication, for example, advertising in all editions of a

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national newspaper like *Economic Times* does not work effectively. Every marketing or branding communication has to be targeted towards the clients or prospects or influencers, and thus the formats, frequency, medium and packaging are also very different. The objective is to be relevant with the news. So while there is an internal newsletter as well as slides for our internal stakeholders, there are mailers, eDMs, PR as well as targeted social media for reaching out to the external stakeholders. The biggest challenge that I faced was in making *mjunction's* story relevant to media. I overcame this problem by successfully positioning *mjunction* as leader in B2B e-commerce.

The challenge with CSR communication is that one has to be very sensitive to make sure the organization does not sound boastful and the sincerity has to come out. There is a huge demand for CSR news across different segments of the audience. Again the challenge is that a right mix of PR, videos, photographs and stories of touching lives need to be shared to make the maximum impact on the audience and to build a brand of a socially-responsible organization.

IMI Konnect: *Talking about CSR, how has communicating it changed with the dominance of digital media?*

MB: CSR is a great tool for any marketer for building the brand of an organization, showcasing the social responsibility of the company. It is the subtle art of marketing CSR. Here, content is the king. So the objective is to generate compelling human interest stories that will strike a chord with the target audience and make them take interest. The only thing that needs to be kept in mind is to communicate truthfully the benefits that the society is receiving. This will eventually help associate the right virtues to the overall corporate brand.

With the dominance of digital, it is important that communication should also be made keeping in mind the format. There has to be a balanced media-mix. If it is for a traditional newsletter this will have more a company's perspective and if it is for print media it will have more of the beneficiary's perspective. If it is for social media it has to be very crisp in communicating the story as the attention span is the lowest here.

Media has become multi-faceted and thus every media needs a different format of content and thus a different packaging of stories. The story has complicated manifold with the onset of social media. Earlier communication was limited to newsletters and newspapers. Today, to that list is added social media's owned channels of an organisation as well as channels of its clients, prospects as well as public.

An organisation can only control its owned media but has to strive to generate authority with earned media in the digital platform wherein others are talking about the good work that the organisation is doing in CSR. This is a challenge no doubt but this is also a huge opportunity. This multiplies the channels through which the good work done by organisation in CSR can be communicated to key stakeholders as well as audience and influencers in general.

A word of advice to all CSR communicators is always be balanced in your communication and stories. Your stories cannot sound like a sales pitch. Marketing has to be subtle. It is the unbiased voice of sharing how your organisation touches lives, lends credibility to your communication and thus to your organisation in turn.

In today's digital age you need to have a fair share of voice, across all channels, and that voice needs to be honest, unbiased and credible – this will eventually lead to the brand building of your organisation.

IMI Konnect: *It is argued that digital communications will replace other mediums of communications in future. What is your take on that?*

MB: One of the primary reasons why there is an increase in the dominance of digital communications is the shift in demography in India towards the youth. Small wonder, their choice of media will be the ultimate potent choice for all marketeers. Having said that, there will always be a relevance of traditional media. It is still regarded as a more credible and serious form of communication. In an integrated marketing scenario there is a strong possibility that digital will find its percentage increasing, but traditional will always play a significant role in that media mix.

Digital media has also increased the challenge for marketing communicators as even a tweet today can snowball into a crisis that may seriously erode the reputation of an organization. There is an instance where a singer Dave Carroll wrote a song "United Breaks Guitars" and put it up on youtube. This is his protest against United Airlines which broke his Taylor Guitar. The song went viral reaching millions in a few days ruining the reputation as well as the revenue of United Airlines. This was in 2006, so imagine the extent of growth of the power of social media in the next 12 years. So every tweet, every post needs to be monitored and handled accordingly. Communicators today do not have the luxury of waiting a day before responding to a potential threat to its reputation – it has become real time.

IMI Konnect: *Indian e-commerce market has grown by leaps and bounds during the last decade or so. What are the biggest triggers according to you?*

MB: There are multiple reasons that triggered the success of e-commerce. First is the sheer convenience of the consumers. Who would have thought buying clothes and shoes will be ever possible via mobile or laptop windows. We are so used to trying them on and then there is always the issue of the right size and the right fit. E-commerce was able to disrupt that market and change the way people shop. What aided the pace was the unbelievable discounts that they were able to offer. So this eventually changed the buying scene and e-commerce became an integral part of our daily lives. Technology advancement, especially mobile technology has played a very important role in the success of e-commerce and in getting customers hooked.

While e-commerce has been such a success story everywhere, it has done more harm than good in the luxury brands segment. Growing at a compounded annual growth rate of almost 40-45 per cent, the counterfeit luxury products market in India is likely to more than double to ₹5,600 crore from the current level of about ₹2,500 crore. A reason why the market of luxury fakes is growing at such a fast pace is the advent of e-commerce platforms selling them at lucrative prices. Web shopping portals account for over 25 per cent of the fake luxury goods market in India. The size of the counterfeit luxury industry in India is currently about 5 per cent of the overall market size of India's luxury industry which currently is worth over $14 billion. With a share of about 7 per cent, fake luxury products account for over $22 billion of the global luxury industry worth about $320 billion.

Luxury counterfeits are not a new phenomenon, but with technological advances and sophisticated new ways to reach consumers, the business is increasing rapidly.

IMI Konnect: *How do you cope up with the increasing pressure coming from peers in ever-changing e-commerce market in India?*

MB: It is a very challenging environment for us in the e-commerce space, even in B2B, as new players keep entering the domain with fresh ideas. We keep a close eye on their developments via various means such as media reports and advertisement. At *mjunction*, we study and prepare regular reports on competition.

IMI Konnect: *As a prolific writer on luxury marketing, what are your views on the opportunities and challenges of the Indian luxury market?*

MB: Indian luxury market is a multi-billion dollar market, growing in double digits. We have had a great history with luxury brands. As a matter of fact in 1920s, over 20 per cent of Rolls-Royce's global sales used to come from India alone. Indian Maharajas had been very luxury brand conscious – DeBeers for diamonds, Cartier for jewellery, Louis Vuitton for customized trunks and Harley Davidson for motorcycles (Nizam's postmen used to ride them). Today they are replaced by the New Maharajas – the industrialists and the Richie rich from all walks of life. So the opportunity lies in the size. Unlike those days today the definition of "maharajas" has expanded and so has the customer base. A significant contribution is made by the Indian great middle class who keep the counters ringing for these luxury brands.

The challenges are that these foreign luxury brands have not been able to understand the traditions and culture of the Indian market. Why are we ready to pay a huge premium? This is the question they need to first get the answer of. To get a bigger pie of this fast-growing market in India, all luxury brands need to understand the mindset, traditions, culture and the history of Indian customers. One size fits all the markets is history and doomed for failure.

Another challenge is the growing market of counterfeit, which now has the support of e-commerce wherein these dealers are showcasing photographs of original luxury goods and selling fakes.

IMI Konnect: *What makes a brand powerful? Is it the logo, the style, the luxe, the promotions, the brand ambassadors or is it the exclusivity factor?*

MB: It is all that and a lot more… it is whether a brand is able to live up to its promise at every touchpoint with its customers, it is whether the brand is able to ensure every moment of discipline — this, dear readers, is the brand experience. The brand experience is a holistic parameter of the power of a brand – luxury or otherwise. It is that x-factor that is a heady mix of all the brand elements that keep a customer loyal and make him/her a strong advocate of the brand.

Not only the CEO, but every executive and every element of the brand is responsible for making or breaking it and delivering a world-class brand experience to its customers, and making a brand powerful.

It is the customer's aspiration and love for it that empower a brand, and as long as the brand is able to keep that love and aspiration alive in the hearts of its customers it will remain powerful. Brand experience is the only strategy by which a brand can ensure that customers will always be by their side … making the brand, in turn, powerful.

IMI Konnect: *In today's world of powerful marketing, communications and PR, how important is keeping brand promise?*

MB: I would rather say that because marketing, communications and PR, especially in this digital age have become so powerful that keeping your brand promise has become non-negotiable. Brand is a promise that the product or service will perform or deliver as per the expectations of its stakeholders. Branding unlike sales does not cater to only clients but has a bigger picture in mind. It is not about its client list but about the perception that one wants to create in the overall scheme of things.

Why customers need to trust a brand and stick to it is because it lives up to the brand promise. For example, Britannia's "Eat Healthy Think Better" promise. If now they start manufacturing cold drinks and potato chips, they will lose their customers. So whatever brand extension they get into, they need to be in the 'healthy' segment, no matter what the opportunity cost to business is. So the glue will be how one delivers and lives up to the promise to the customers and stakeholders. Another example is FedEx's promise 'When it absolutely, positively, has to be there overnight'. So small wonder, if it fails to deliver overnight, no matter what you communicate, the customers will not trust its promise anymore. In today's digital world it will spread like wild fire.

For establishing a brand one needs to dwell with the intangibles such as trust or innovation or efficiency or transparency and similar attributes. We, brand custodians, are still story tellers, we still have our wands to weave magic. What we need to additionally work on is to convince the management the criticality of keeping promises.

Loans on Loans: The Ever-greening of Bank Loans in the Indian Corporate Sector

Radhika Pandey* **Amey Sapre*** **Pramod Sinha***

Abstract

Restructuring of debt or the practice of ever-greening of bank loans to repay old loans has a direct bearing on the problem of stressed assets and the overall financial health of banks. In this article we highlight the problem of such ever-greening of bank loans in the corporate sector and provide some evidence of the extent of the problem. We use historic firm level data from CMIE Prowess and build a simple method that collates additions to incremental bank borrowings given deteriorating financial health of firms. Our analysis shows that metal and metal products and construction sector witness the bulk of loans getting evergreened. The practice of evergreening does not bode well for the investment climate in the economy as it ends up crowding out credit for genuine productive sectors of the economy.

The Problem of Ever-greening of Bank Loans

Historically, the banking sector has played a crucial role in facilitating the flow of credit across sectors in India. One of the off-shoots of such flow of credit is that when bank borrowers are faced with financial stress, banks resort to several unhealthy financial practices in order to keep borrowers from defaulting on their obligations. Restructuring loans by changing terms and conditions, moratorium on interest rates, rescheduling loan by lowering installments and extending the line of credit are some of the usual practices banks follow with accounts that were on the edge of default at some point of time. In a nutshell, ever-greening of loans, i.e. using a means to grant fresh loans to repay, extend or delay payment of existing loans is a problem that has unintended consequences for the banking sector and the economy as a whole.

Drawing on the recommendations of the Narasimhan Committee report (1991) on Financial System, RBI introduced prudential norms for income recognition, asset classification and provisioning for the advances. To address the problem of stressed assets in the banking sector, RBI, over the last few years has introduced a host of measures to curb the growing NPAs. These include the

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Joint Lenders' Forum, Strategic Debt Restructuring (SDR), Scheme for Sustainable Structuring of Stressed Assets (S4A). However these schemes did not address the problem of stressed assets.

It was also recognized that these schemes largely resulted in delay of recognizing stressed assets of banks and hence were ineffective in correcting lending practices of banks. [See Agarwal and Prasad (2018) for an overview of limitations of these erstwhile schemes.]

As the problem of hiding bad loans grew deeper, the RBI disbanded the erstwhile loan restructuring schemes such as; Corporate Debt Restructuring (CDR), Strategic Debt Restructuring, Sustainable Structuring of Stressed Assets (or S4A) and the Flexible Structuring of Existing Long Term Project Loans as they were unable to resolve the rising NPA crisis. The Joint Lenders Forum initiated to resolve potential bad debts was also scrapped.

In February 2018, the RBI introduced a harmonised framework for stressed asset resolution under the Insolvency and Bankruptcy Code. The new framework mandates banks to identify signs of incipient stress and put forward board approved policies for the resolution of stressed assets, including the timeliness for resolution [RBI (2018)].

Ever-greening is a practice representing mis-governance. From banks' perspective there is an incentive to evergreen assets so that provisioning do not make a dent on their profitability. Banks hide bad loans through extending new loans to enable their troubled borrowers to repay existing loans. This leads to camouflaging of the bad loan position. The practice is prevalent in economies where accounting conventions for classifying loans as impaired or non-performing are not stringent.[1]

The P. J. Nayak Committee on reviewing governance practices of banks recommended that the boards, the audit committee of banks, and the auditors need to be vigilant to detect such malpractices. Despite this if significant ever-greening is detected, it would imply that ever-greening is wilful. It then becomes imperative on part of the RBI to levy penalties on such banks [Nayak (2014)].

Despite several regulatory interventions, the practice of restructuring overdue loans along with other stressed assets of banks has evolved into a much larger banking crisis. In general, the instances of ever-greening of bank loans is better understood on a case-to-case basis or at an individual firm level. This case is because changes in repayment conditions or grant of fresh loans is done by banks after detailed due diligence and project appraisal of the financially ailing firm. Thus, it requires a detailed assessment of a firm's cash flow, debt structure and overall financial performance. In this article we take one such approach to quantify the extent of ever-greening of loans

[1]See Goldstein and Turner (1996) https://www.bis.org/publ/econ46.pdf

particularly in the private corporate sector. We use firm level borrowings data from CMIE Prowess and develop a simple method to identify the potentially ever-greened loans of firms across industries.

As earlier, identifying ever-greening of loans is a situation where firms are granted loans despite having existing repayment obligations and the inability to repay such debts. Thus, an identification strategy could be built on the premise that firms show positive incremental bank borrowings despite worsening financial indicators. We exploit this condition to construct a time series of incremental borrowings of firms that show worsening financial health. In what follows, we first discuss the trend of borrowings and construct a set of firms that indicates potential ever-greening of loans from the banking sector.

Loan Ever-greening: A Possible Approach

We begin by considering the total borrowings of the Private Non-Financial firms. We use data on private non-financial firms from CMIE Prowess for the years 2002 - 2017. We use a rolling sample of 5 years such that a firm is included in the current year only when it has financials of previous five years. This step ensures a stable sample of firms in terms of data availability. In the next round of selection, we apply the following filters to select a comparable set of firms that have both a necessary and sufficient amount of borrowing over the years. Specifically, we select firms with;

- Bank borrowings (B) greater than INR 10 Million (1 Crore)
- Sales greater than INR 10 Million (1 Crore)
- Total assets greater than INR 10 Million (1 Crore)
- Interest expenses greater than zero

Total borrowings is an indicator of the extent of debt that has been raised by firms over time. Within total borrowings, we separate bank borrowings to get a sense of the exposure that banks have had over the years in terms of outstanding credit to firms. Table 1 shows the amount of total and bank borrowings for the selected number of firms. Historically, bank borrowings have been the largest component of borrowings of firms. As an example in the year 2017, the total borrowings of non-financial firms in our sample set amounted to ₹20.77 lakh crore. Out of which 53 per cent of borrowings were from banks. This fact alone is sufficient to examine the extent of loans that were re-financed or rolled over.

Since at an aggregate level there are no specific avenues to assess the extent of rolled-over loans, we adopt a relatively simple mechanism to identify the amount of potentially rolled-over or ever-greened loans. Within the available sample, we select firms that fulfil the following two conditions;

- Incremental net bank borrowings being positive, i.e. $(B_t - B_{t-1})$ or ? $B_t > 0$.
- Interest Coverage Ratio (ICR) for the previous two years, i.e. $(ICR_{t-2}, ICR_{t-1}) < 1$

Table 1: Total Borrowings of Pvt. Non-Financial Sector Firms, INR Lakh Crore

Year	Total borrowings	Bank borrowings	% of Bank borrowings	N. Firms
2002	2.57	0.93	36.19	1973
2003	2.52	1.06	42.06	2085
2004	2.6	1.21	46.54	2119
2005	2.81	1.37	48.75	2118
2006	3.55	1.96	55.21	2181
2007	4.82	2.84	58.92	2497
2008	6.44	3.96	61.49	2640
2009	8.77	5.57	63.51	3105
2010	10.14	6.34	62.52	3457
2011	12.24	7.11	58.09	3505
2012	14.09	8.00	56.78	3545
2013	16.45	9.34	56.78	3584
2014	19.11	11.01	57.61	3665
2015	20.98	11.86	56.53	3707
2016	23.25	12.68	54.54	3784
2017	20.77	11.02	53.06	3133

N. Firms are number of firms on a 5 year rolling sample

Positive incremental net bank borrowings is the first condition that shows addition to existing stock of debt for each firm. Since a firm may also repay part of its debt, the net increase in borrowing over the previous year clearly shows fresh loans taken from banks. From a financial health perspective, the interest coverage ratio is an important summary indicator of a firm's debt repayment situation [IMF (2015)]. ICR is defined as the ratio of operating profit to total interest expense and a ratio value in excess of 1.5 is widely accepted as a sound financial condition of the firm [IMF (2015)]. A threshold value of unity implies that the firm's operating profits are near-enough to cover the interest burden, and hence a value less than unity is a clear sign of a firm's inability to pay the interest burden on debt.

We select firms that have ICR values less than unity for two successive years as it gives us a much stricter condition for selecting firms with deteriorating financial health. Combining the two conditions gives us a set of firms that have positive incremental borrowings and ICR of less than unity for two successive years. Table 2 shows amount of loan that qualifies these two criteria. For comparison, we also tabulate the value of loans if we consider the ICR value of less than unity only for the previous year. The figures show a sizable amount of loans for firms that have stressed financial conditions. For instance, the value of loans accessed by financially stressed firms has shown a steep rise since 2011 if we consider the financial position only of the previous year (i.e. with ICR < 1 for the previous year). However, as financial conditions may change and even improve within a short span, a two year period of financial stress is perhaps reasonable to understand and infer about the repayment ability of firms.

Table 2 shows that in the year 2017, 172 firms

Table 2: Incremental Bank Borrowings of Firms with ICR Less than 1, INR Crore

	ICR <1 for 1 yr		ICR <1 for 2 yrs	
Year	Incremental bank borrowings	N. Firms	Incremental bank borrowings	N. Firms
2002	2951.61	294	2141.95	197
2003	2759.40	254	1322.64	174
2004	1738.51	217	1189.39	157
2005	3418.42	187	3059.86	153
2006	1776.25	120	1345.44	78
2007	2310.24	87	2020.36	53
2008	5866.70	104	3897.59	50
2009	10784.94	95	9654.32	45
2010	6684.73	169	4273.54	56
2011	8396.15	128	3146.19	74
2012	13648.81	128	8289.36	58
2013	18702.10	196	10274.01	63
2014	20761.55	230	8216.06	102
2015	32536.13	270	17017.26	150
2016	44285.87	275	21460.69	162
2017	19468.07	172	13193.69	108

had an ICR of less than unity in the previous year, and their aggregate incremental bank borrowings amounted to ₹19,468 crore. If we apply a stricter benchmark of firms having ICR of less than unity for consecutive two years, we find that 108 financially stressed firms had an aggregate incremental bank borrowings of more than ₹13 K crore.

From the available set of firms, the extent of loans with financially stressed firms leads to several concerns; (i) rolling over debt (i.e. positive incremental borrowings) adds to the existing debt burden of firms that have a limited ability to repay, (ii) with financially stressed firms, the probability of default is likely to be much higher as compared to other firms, (iii) ever-greening of loans delays the recognition of stressed assets from the banks and thus presents an inaccurate picture of debt profile of banks, (iv) incremental borrowings in such cases also sends incorrect signals about firm performance and its viability. Other than problems at the firm level, increasing borrowings of financially stressed firms raises several questions about due diligence and project appraisal practices of banks as such lending may be commercially unviable.

An Industry -wise Assessment

In addition to an overall assessment of the private corporate sector, we can make an industry wise assessment of ever-greened loans. Using the previous set of firm with ICR less than unity for two successive years, we separate the amount of loans with firms across different industry groups. Table 3 shows the breakup of ever-greened loans across different industries over a five year period.

In 2002, Metal Products, Textiles and Chemical industries were amongst the large borrowers. Compared to 2012, by 2017 Metal and Metal Products, Construction Materials and Industrial and Infrastructure firms had

Table 3: Industry-wise Amount of Loans Ever-greened, INR Crores

Year	2002-03-31	2007-03-31	2012-03-31	2017-03-31
Metal & metal products	600.27	163.02	68.22	6482.01
Construction materials	34.71	18.79	0.80	1937.74
Industrial & infrastructural construction	15.18	94.59	32.29	1219.35
Food & agro-based products	108.40	129.83	230.78	569.41
Textiles	516.70	32.32	802.32	480.28
Wholesale & retail trading	10.67	3.71	378.89	352.52
Machinery	196.14	4.01	49.33	349.28
Chemicals & chemical products	401.09	61.16	78.73	286.90
Transport services	-	481.35	541.66	229.20
Miscellaneous services	-	26.94	239.89	229.07
Miscellaneous manufacturing	26.03	1.67	104.80	208.38
Transport equipment	67.98	1.75	8.04	204.08
Diversified	38.26	-	67.17	192.75
Coal & lignite	0.56	-	-	161.05
Hotels & tourism	-	41.34	-	137.38
Consumer goods	34.80	0.32	0.66	105.43
Electricity generation	14.96	-	-	47.55
Information technology	-	-	-	1.31
Communication services	57.46	959.56	5685.78	-
Minerals	18.74	-	-	-
Total	2141.95	2020.36	8289.6	13193.69

shown a substantial increase in loans despite onset of financial stress in these sectors. As of 2017, these few industries showed a major share of loans (approx 73 per cent) of the total amount of ever-greened loans. It is undeniable that several factors may operate from the bank's perspective while rolling over previous debt of a firm. However, an industry wise picture shows that the extent of loans are largely in sectors that have experienced unfavorable market conditions in the past.[2]

While the understanding of rolling over of debt requires a detailed analysis at the firm and bank level, there are few takeaways from this

[2] Concerns have been raised about the high rate of bank credit in the high-risk metal and metal products. Bank credit to this sector grew 7.9 per cent in FY 2016 and 9.2 per cent for the period ending June 2016, despite a massive ₹4.2 trillion outstanding loan to this sector. The growth of bank credit in this sector surpassed the growth of bank credit to industrial sector. See https://thewire.in/banking/ its-time-to-be-cautious-about-the-loan-growth-in-the-retail-sector

analysis. First, as there are limited avenues to identify loans that were re-financed by any means, a simple method of identifying incremental borrowing of financially stressed firms provides a summary assessment of potentially ever-greened debt.

Since bank borrowing is amongst the largest source of borrowings of firms, the extent of debt with financially stressed firms becomes a precursor to analyze debt defaults and potentially stressed assets of banks.

Conclusion

Credit is critical for investment growth. Ever-greening of loans, i.e. using fresh loans to repay existing loans is a problem that has unintended consequences for the banking sector and the economy as a whole. While, the practice of ever-greening may delay the official acknowledgment of bad loans, such practices, create an imbalance in the credit market with zombie firms being given loans at the cost of genuine credit needs of more productive firms.

In this article we use a simple mechanism to identify the amount of potentially ever-greened loans of firms in the private corporate sector. We use positive incremental bank borrowings of financially stressed firms across industries over 15 years to identify the amount held by such firms. By our assessment, we find that metal and metal products and construction sectors constitute the bulk of ever-greened bank loans.

Our study has implications for regulatory framework of banking India. A regulatory framework that is lax towards evergreening may end up creating a swathe of zombie firms that creates challenges for investment growth in the economy. While the recognition of bad loan may be delayed, eventually such firms are caught in a web of debt overhang. A study of default probability of firms that engage in persistent roll-over of debt could be an area of future research.

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Churn Analysis of Indian Telecom Customers

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Abstract

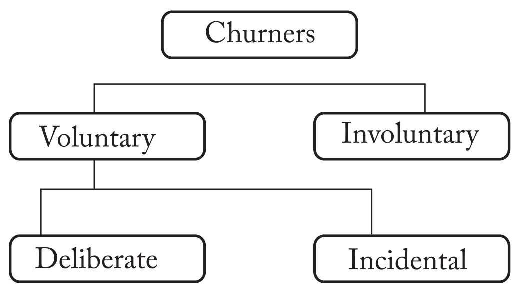
To sustain in the challenging environment of business, it is imperative that a company understands the behaviour of its customers and their responses towards the various attributes of the products and services offered by it and its competitors. It is also essential to analyse the reasons why customer make shifts for the same product from one firm to another, i.e. churn analysis. Here, we make an attempt to understand the impact of service factors like network connectivity, data and call tariffs, roaming facilities on the probability of customers' churn.

Introduction

Berson et al. (2000) defined 'customer churn' as the process of subscribers (either prepaid or postpaid) switching from one service provider to the other. Churn can be active, deliberate, rotational, incidental, passive, involuntary. With proper management of customers, firms can minimise the susceptibility to churn and maximise the profitability of the company. Churn Prediction can also be described as a method which helps in identifying possible churners in advance. There are two main categories of churners viz. voluntary and involuntary.

Voluntary churners are more difficult to determine and occur when a customer initiates termination of service. Involuntary churners are easier to identify and include those customers who are disconnected by the company for fraud, non-payment or underutilization of services. Voluntary churn can further be categorized as deliberate and incidental churn. Incidental churn happens because of any unexpected incident in customer's life such as change in financial condition churn and location churn etc. (Figure 1).

Figure 1: Types of Churners



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Deliberate churn happens because of many reasons like change in technology, service quality factors, economic, social and psychological factors, and convenience. The customer churn analysis feature helps firms identify and focus on higher value customers, determine what actions typically precede a lost customer or sale, and better understand what factors influence customer spending. When firms improve customer retention, it substantially improves the bottom line. Existing customers are the most valuable asset of any company. So the best marketing strategy is to retain such customers. Many studies have established that it is more profitable to keep a company's existing clients satisfied than to constantly attract new clients (Van Den Poel & Larivière, 2004:197; Coussement & Van Den Poel, 2008:313).

This article aims to find out the effect of quality of customer service and location on subscriber behaviour and churn rate because of the preference available to the subscriber. Mobile prepaid customers are vibrant in changing their mobile operators within a very short span. Churn rate increases pungently in parallel to the growth of prepaid mobile subscribers. Customer churn happens to be the most challenging issue for telecom industry. Customer retention, therefore, is becoming critical. In this regard, it is essential to investigate the basis for switching of the prepaid mobile users in India.

Background of Churn Analysis in Telecom

India has more than 15 mobile operators. It is a highly competitive market, predominantly pre-paid market. Mobile phone users appear to be moving from pricier postpaid platforms to value-rich prepaid plans. The monthly churn rate in India averages approximately 6 per cent (Economic Times, 2018). Churn analysis is an important tool to understand the underlying reason for the churn. There are some other factors describing the use of churn analysis in the telecom sector. First, it is used for ascertaining the level of customer satisfaction about their purchasing decision, corporate image, the performance of mobile operator, customer relationship management process, service quality and price. Second, it helps in estimating customers who are more likely to switch service provider. Third, it helps to know the root cause of why the company is losing its customers. Fourth, it helps to focus on existing customers and lowers the need to find new customers with uncertain level of risk. Finally it helps the company in building relationships by planning and executing successful retention programs. It also increases sales of the company by saving the cost of finding new customers.

Literature Review

In the first subsection, the significant tools and techniques associated with churn analysis are summarized. The second subsection entails a brief review of field studies from different companies that survey customer behaviour as a basis for churn analyses.

Churn Analysis Techniques

To survive in an increasingly competitive marketplace, many companies are turning to a wide range of methods for churn analysis. The approaches to explore customer churn employed by some studies are presented in Table 1.

Field Studies

Song and Kim (2001) used a simulation to evaluate change in the Korean mobile phone market structure that had resulted from customer churn. Choi, Lee, and Chung (2001) analyzed the impact of business strategies on customer loyalty at the five dominant mobile service providers in Korea. Their analysis revealed that higher customer welfare and better competitiveness require overall and complete deregulation of the Korean mobile industry. The factors that customers consider while selecting a mobile telephone operator were studied by Kim and Kwon (2003). Their research showed the impact factors like inter-network call discounts and quality of a connection have on the choice of a customers' mobile phone operator. Apart from it, Kim and Yoon (2004) also surveyed 973 users of Korea's five main mobile telephony operators and identified determinants of both churn and loyalty. Their study revealed that the probability that a customer will switch operators depends on his or her level of satisfaction with various attributes of the service operator like call quality, tariff plans and flexibility, handsets and brand image among others along with income levels and subscription duration. Loyalty turned out to be a direct function of factors like call quality, handset type and brand value wherein loyalty means the degree to which a user would recommend his service operator to other users. Although subscription duration bears a negative relationship with churn probability, it is insignificant for loyal customers, who recommend their mobile operators to others. Hence, among non-loyal subscribers, a lock-in effect is observed where switching costs play a huge role.

Table 1: Approaches to Explore Customer Churn

Method	Reference
Balanced random forests	Xie, Li, Ngai, & Ying, 2009
Customer lifetime value; Neural networks	Glady, Baesens, & Croux, 2009; Tsai & Lu, 2009
Decision tree analysis	Chu, Tsai, & Ho, 2007
Regression techniques	Lariviere & Van den Poel, 2005
Support vector machine; Association rules	Xia & Jin, 2008; Tsai & Chen, 2010

Research on the German mobile communications market was conducted using data from a sample of 684 residential mobile communications users (Gerpott, Rams, & Schindler, 2001). These results suggested that customer satisfaction, customer loyalty and customer retention are strongly correlated. Also, mobile service cost and perceptions of personal service benefit were found to affect customer retention. The analysis supported a two-stage model where overall customer satisfaction significantly impacts customer loyalty, which in turn influences a customer's intention to terminate (or to continue) their relationship with his or her mobile telephony operator. Mobile service costs, personal perceptions of services and the transfer of phone numbers among operators were identified as supply-related factors with the strongest effects on customer satisfaction.

Previous surveys have focused mainly on finding specific determinants of user churn, such as customer dissatisfaction and loyalty. Such studies were performed in lieu of examining a more comprehensive model that incorporated relationships between alternative constructs like service usage, switching costs, usefulness of services and other customer related variables. Other weaknesses of previous surveys were associated with type of data and samples collected. Consequently, there was often an assumption that the consumers' perceptions of and intentions towards their service experiences remain constant over time. Comparing actual user transactions and billing data does not permit one to describe or estimate customers' actual future decisions.

Based on the literature review, authors have developed the hypothesis on two major parameters: location and quality of customer service.

H1: Location affects churn rate.

Customers nowadays have more choices to select network service. The service and signal quality of operators vary from location to location; hence moment-customer moves from one location to another, interacts with locals and make decision for switching the operator.

H2: Quality of customer service affects churn rate.

This is the most common criteria for customer churn. Quality of service includes signal quality, signal strength, after sale services etc.

Research Methodology

Data Collection

Survey method is employed using structured questionnaire as mentioned. The questionnaire was floated between the age group of 20-27 years. The survey was floated both in the online and offline mode to gather responses. The secondary data is gathered from the literature reports and telecommunication reports from TRAI, international journals and news articles having substantial source material apart from various websites. Primary data was collected from September 1, 2018, to December 1, 2018, and secondary data is gathered from 2010 onwards.

Convenience sampling technique to collect data is employed for the study. We received 150 responses. Collection of data is made by interacting with existing customers of network operators in Delhi-NCR region.

Data Analysis

Customer churn occurs when customers or subscribers stop doing business with a company or service, hence firms try to minimize the same. Customer churn impedes growth, so companies should have a defined method for calculating customer churn in a given period of time. Survival analysis as a tool predicts such customer churn. Churn analysis has been done for three factors: customer service, location and budget. The three major factors for customer churn comes out from the analysis are: a) Network connectivity issues; b) Tariff and c) Customer Service.

Table 2: Churn Rate of Consumers in Rural/Urban/Sub Urban Areas

Time (in days)	Churn Rate - Rural Area (in percentage)	Churn Rate - Urban Area (in percentage)	Churn Rate - Sub Urban Area (in percentage)
0	0	0	0
20	0	10	9
40	0	70	30
60	35	82	65
80	82	82	90
100	82	85	100
120	100	100	100

Table 3: Survival Rate of Consumers in Rural/Urban/Sub Urban Areas

Time (in days)	Survival Rate - Rural Area (in percentage)	Survival Rate - Urban Area (in percentage)	Survival Rate - Sub Urban Area (in percentage)
0	100	100	100
20	100	90	91
40	100	30	70
60	65	18	35
80	18	18	10
100	18	15	0
120	0	0	0

Results

Location-wise Churn Rate

The results of the survival analysis are presented here. The churn rate in rural areas are bit stable than urban and suburban areas (Table 2). From Table 2 it can be easily interpreted than churn in rural areas usually begins after 50 days of taking connection while in urban areas it starts after 10 days only and 12 days for sub urban area. For a firm, it can be said that rural area people are more loyal and can be focused on for better revenue generation. In the same way Table 3 explains the survival of consumers with respect to timeline.

From the above results it is evident that churn rate is swift in suburban location. 50 per cent of churn in urban area happens between 0-30 days while rural area has the lowest churn rate as it takes almost 80 days to attain the churn of 50 per cent.

Reasons for Churn

Table 4 and 5 shows the results for the reasons for churn. Poor network comes out as the primary reason of customer leaving the services of network provider followed by call tariff, relocation and customer service.

From the above table we can infer that the reason for churn is predominantly due to customer services. The test of the model has been done by log rank and Kaplan-

Table 4: Survival Reasons of Consumers in Rural/Urban/Sub Urban Areas

Time (in days)	Survival Rate - Network (in percentage)	Survival Rate – Call Tariff (in percentage)	Survival Rate – Customer Service (in percentage)	Survival Rate – Relocation (in percentage)
0	100	100	100	100
20	85	82	100	80
40	50	30	70	70
60	30	30	0	25
80	25	18	0	10
100	18	18	0	10
120	0	0	0	0

Table 5: Churn Reasons of Consumers in Rural/Urban/Sub Urban Areas

Time (in days)	Churn Rate - Network (in percentage)	Churn Rate – Call Tariff (in percentage)	Churn Rate – Customer Service (in percentage)	Churn Rate – Relocation (in percentage)
0	0	0	0	0
20	15	18	0	20
40	50	70	30	30
60	70	70	100	75
80	75	82	100	90
100	82	82	100	90
120	100	100	100	100

Table 6: Summary of Results

Hypothesis	Result
Hypothesis 1: Location affects churn rate.	Accepted
Hypothesis 2: Quality of customer service affects churn rate.	Accepted

Meier test. The curves are significant and the model fit is good. Based on the analysis, the conclusion related to the two hypothesis is presented in Table 6.

Conclusion

Telecom companies should come up with attractive packages at competitive rates for urban market. Suburban customers tend to attain 50 per cent churn post 50 days; then rapidly attains 100 per cent post 80 days. So in this timeframe, attractive packages need to be provided. Customer service is impacting more than any other factor. So customer service should be the priority for any service provider. A longtime strategy will provide better connectivity and relocation plans to retain customers.

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