ISSN 2321 – 9378

IMI Konnect

Volume 7, Issue 3, 2018

An IMI Kolkata Publication

The Stories of Indian Start-ups

Interviews

Leadership and Autonomy in Education

Indian Financial Sector

About *IMI Konnect*

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.

Editorial Team

Manuscript Submission Guidelines

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.

For copies/queries and submission, please contact *IMI Konnect* editorial team at imikonnect@imi-k.edu.in or call +91 33 6652 9664

Contents

Leadership and Autonomy in Educational Institutes can Create Wonders

Anil D. Sahasrabudhe
Chairman, All India Council for Technical Education (AICTE)

Introduction

Given the academic environment prevailing in the country today, with several key reforms being undertaken by the Government of India, MHRD, AICTE, UGC, NCTE, new education policy in the offing, etc., leadership and autonomy in educational institutes is a persistent issue. In the context of educational institutes, it is a very much contemporary topic to ponder over.

Background of Leadership in Education

As Swami Vivekananda puts it "Education is the manifestation of perfection already in man". It simply means, each individual is divine and has huge hidden potential, which only needs to be first identified, brought out, nurtured and allowed to blossom. This is what a guru does to each of his disciple, right from ancient times of gurukulas to Nalanda, Taxila, Vikramsila and modern residential school system. Each guru was a leader in his own right and commanded respect and also was autonomous to design the curriculum catering to each individual student. Somewhere down the line, we missed this basic tenet and got entangled in clerk producing rote learning education system.

Regarding bringing out the divine within, I wish to give the most recent example of Hima Das, a 400m gold medal winner for under 20 and a great hope for India in athletics in the future. Hima was spotted by Dipon Das, an athletic coach not even two years ago while this young girl in early teens was playing football with boys in her native village Kandhulimari Dhing in Nagaon district of Assam. Who would have imagined that she will bring the first athletics gold for India in international arena and glory for India but for the spotting of talent in her by Dipon and nurturing it over the next one and a half years. Same is the case of some of our best cricketers like Sachin Tendulkar and Mahendra Singh Dhoni. In academics, we all know the story of the greatest mathematician of the world Ramanujan.

It is interesting if we look at the story of founding of Indian Institute of Science (IISc), Bengaluru, a premier institute of India. Swamiji and Jamshedji had hardly any acquaintance but were travelling on a steamer ship from Yokohama to Vancouver on May 31, 1893, Swamiji to attend World Conference of religions in Chicago and Jamshedji hunting for modern steel plants. Both had intense discussions on modernization and industrialisation of India, higher education, research etc and Swamiji asked Jamshedji to

The present article is based on the Distinguished Lecture of Dr. Anil D. Sahasrabudhe at IMI Kolkata held on July 14, 2018 consider starting an institute for carrying out research in India for becoming self reliant in the future. Swamiji also advised to take the best from the West and the Eastern philosophy while setting up an institution of excellence. On return both had lot of exchange of ideas and Sister Nivedita was involved in helping drawing up a plan. Unfortunately, Swamiji passed away in 1902 and Jamshedji in 1904. But their dreams came true five years later in 1909. JRD Tata, Maharaja of Mysore and British Government made a true P-P-P model to emerge while setting up IISc.

Modern Education System

In today's education system, we are producing clones, who can mug up the contents from a text book or notes of a teacher, reproduce the same in the examination and get high marks, without even understanding the answers written. Why has it happened so? The trend is that right from nursery and primary schools, an answer written by a student rationally, innovatively in his or her own words, may be with a few grammatical errors, but with thorough understanding fetches very low or zero marks. Secondly, many a subjects, taught by some of the teachers are so uninteresting that even a topic in which a student was interested earlier starts hating the subject. Thirdly, inherently, some students do not like some subjects while they are too keen on some others. Our model of one cap fits all is so unworthy, that we create machines for reproducing answers rather than indulging in higher levels of learning, such as understanding, analysing, synthesizing, applying, creating and innovating. This is what modern day Bloom's Taxonomy talks about. The next issue is about holistic development of a student that encompasses not merely academic curricula, but a whole lot of co-curricular and extra curricular activities and life skills viz Debates, Sports, Music, Drama, Dance, Fine Arts, Painting, Sculpting, Pottery, Embroidery, Stitching, Gardening, Agriculture, Cooking, Carpentry etc.

Then comes set of communication skills, reading, writing, speaking and listening, where listening is the most important one. Most of the times, we tend to stop someone from expressing himself as we lack listening skills. Last but not the least ability to solve problems, working in teams, effective leadership, time management, empathy, honesty, integrity, sensitivity towards society, people, animals, inanimate objects, nature, mother earth etc. are as important to be dealt with in educational institutes as any other academic courses because students graduate into citizens and society and nation are shaped by them later.

In management, quite often a famous term 'VUCA' world is used which means, volatile, uncertain, complex, ambiguous world. The examples are the crisis of Lehman brothers of 2008, demonetisation in India in 2016 and so on. One has to grapple with the situation as it emerges.

Role of Leadership in Academics

It is indeed a challenge to deal with so many issues by academia. Some opine that it is impossible to do all these things in a limited period of 2 to 4 years that the students are in the institute, but there are others who have exemplified that it is indeed possible. What makes such a difficult thing possible?

Two important factors are cardinal principles of leadership; and need, scope and opportunities from autonomy, which will be illustrated here.

Leadership is a very important facet in educational institute. There are umpteen examples wherein a poor leader has spoilt or ruined the institute, while examples also exist wherein excellent leaders have turned around poor institutes into excellent institutes. If we look at the first three universities set up by British in 1857, viz. Calcutta, Madras and Bombay, they are nowhere in the top universities of India today. The selection of VCs based on considerations without weighing merit of the candidates and leadership qualities has led to the deterioration of quality of education in universities. On the other hand, there are universities like Punjab University and IISc, which are more than 100 years old, who have maintained their excellence and are amongst top universities in India. Then there are examples of B.E. College of Shibpur and College of Engineering, Pune (COEP) started in 1856 and 1854 respectively, which were great institutes till 1950s for over 100 years, but started slipping and were in poor shape by the turn of the century. They could be resurrected back to the old glory, thanks to good governance, leadership and autonomy. The COEP could be turned around to its old glory in a matter of 10 years from 2005 to 2015 through grant of autonomy and choice of an excellent Board of Governors chaired by Dr. F. C. Kohli, father of software industry in India. I was personally associated with its journey and I will narrate some startling examples from my own experience there.

Let's now focus on a corporate story related to Sumant Moolgaonkar, former chief of TELCO (now Tata Motors). In tribute to his contribution, Tata Group named one of their vehicles as SuMo. TELCO was developing its new truck model. Mr. Moolgaonkar used to take lunch together with his subordinates in the office. Suddenly for a few days, he started going out for lunch, and all staff suspected that he must be going to a 5 star hotel for lunch, but later it was learnt that he was going to a *dhaba* on the outskirts and having his lunch there in the midst of truck drivers, incognito so that he would understand the problems in the present model of Tata trucks and improvise the same. This is true sign of dedication to ensure customer satisfaction. There is another incidence of repairing the seats of Air India plane by JRD Tata when he was travelling on the flight of Air India which was owned by Tatas then. Simplicity, caring for employees, stakeholders and others is a hallmark of good leadership which is a part of Tata code of ethics to be followed by all their employees.

Role of Autonomy

In the academic arena, quite often, many institute heads and faculty crib about not being able to do what they wish to do due to restrictions imposed by regulators, universities etc. In academic circles, what is cherished is autonomy, freedom to pursue research in the area of one's own interest, independent thinking and innovations. Recently enacted IIM bill and UGCs regulation on graded autonomy have brought distinct freshness in academic world in India. AICTE has also planned to bring graded autonomy regulations to standalone management institutes in the immediate future.

Two things came out distinctly, that are, need for autonomy and leadership. The autonomy can be granted by the Government, or UGC, or AICTE or a university to its affiliated colleges or institutes based on an application made by the institute and no objection from affiliating university. Here there are multiple challenges in getting autonomy for colleges. There are cases where college faculty and staff are not interested and oppose autonomy due to unknown and unfound fears of increased workload, losing jobs etc. There are cases where management of the institute is unwilling to seek autonomy because autonomy brings accountability and management sometimes finds it easy to operate under the brand value of university rather than creating its own brand. There are also instances, wherein university does not grant no objection because university does not want to let go prized institution from its possession. In any case, process of getting autonomy starts with permanent affiliation after having existed for more than 10 years, accreditation of courses, NOC from the university and the state government, application to UGC, visit of an expert committee of UGC, recommendation and approval by UGC and finally university issuing the autonomous status.

Implications of Autonomy

What does full autonomy imply?

a. One can design one's own curriculum, number of credits, types of courses, mandatory generic core, discipline core, discipline electives and open electives. The students can be given choice of electives; freedom to choose; introduction of new courses in upcoming areas of study like Data Analytics, Machine Learning, Artificial Intelligence, Robotics, Deep learning, Cloud Computing etc. The curriculum can also have flexibility to make internships mandatory and may also encompass industry interactions along with mini projects, main projects and socially relevant projects.

Unnat Bharat Abhiyan, Skill India, Start up India, Swachha Bharat, Digital India, Smart cities have a role in the curriculum, making students self confident and helping them solve nation's and societal problems. Recent Smart India Hackathon run by AICTE with the support of MHRD was a classic example. More than a lakh students submitted their ideas to solve 300 plus problems of different central government departments and state governments, shortlisted 1350+ teams of 6 students each and two mentors working in 26 different centres for 36 hours non-stop was a record by itself creating the world's largest open innovation model. This year, apart from software hackathon, a hardware hackathon was held for 5 days at 10 different centres, wherein a hardware prototype was developed by students which can now convert itself into startups.

b. An autonomous institute can select faculty of their choice to cater to the designed curriculum. Teaching-learning experiments can be made, class room teaching on blackboard, power point based classes, learning through internet, Massive Open Online Courses (MOOCs), flipped classes, case studies, discussion classes, hands on practice and so on may be considered as pedagogical innovation.

c. Examination system can also be of different types for evaluating student outcomes. In today's world, with new way of accreditation system which is outcome based rather than input based, type of examination has to be different. Gone are the days of going by inputs like number of classrooms, buildings, laboratories, books in the library, computers, internet etc. It does not mean these infrastructure facilities are not required. They are certainly necessary, but emphasis is on how these facilities are used, what students are doing, how teachers are empowering students, how students are learning outside the classrooms in teams, applying the knowledge and so on. Hence quizzes, open book exams, seminars, data collection, analytics, critical thinking, team work, problem solving ability, projects for testing higher level of learning are significant.

Sky is the limit as far as academics is concerned and an autonomous institute can not only compete with other institutes efficiently, but can raise the bar for itself year after year and achieve excellence. The autonomous institutes could involve in nation building in their own way.

d. The autonomous institutes can award their own degrees, they can have foreign collaborations for student and faculty exchange, can charge fees as per the need of the curriculum and its delivery without indulging in profit, permit faculty members to do consultancy through which both faculty and institutes get benefitted.

e. Autonomous institutes can have their own admission process, set of rules for students, staff and faculty. Thus there is freedom in several domains with very few restrictions from the Government except in terms of following constitutional provisions.

Such institutes can easily be able to get full cycle of accreditation effortlessly since all policies are aligned for achieving outcomes based on the institute's own vision, mission and set of goals. Such institutes will figure in the top ranks of NIRF and global ranking too. These institutes will also have an excellent track record of placements with their students having all desired employability skills, entrepreneurship skills and leadership.

How to Achieve Excellence through Leadership and Autonomy

We often talk about out of the box ideas; moving from inside the box to outside the box. Inside the box, vision is limited, as soon as one goes outside the box, entire globe is visible.

Who all can achieve this? An institute with a good leader. Now the question is, can the leader be created by training or leaders are born as leaders. Both statements are correct to the limited extent as there are classic examples of both varieties. In fact, born leaders are very few- Martin Luther King, Mahatma Gandhi, Subhash Chandra Bose, Bal Gangadhar Tilak, Sardar Vallabhbhai Patel to name a few. Shivaji Maharaj was both a born leader and was trained well by his mother Jijabai and teacher Dadasaheb Kondke.

One can always create leaders by proper training. Shri S. Chandrashekhar, Chairman of Tata Sons, Satya Nadella, CEO of Microsoft and Sundar Pichai, CEO of Google, they were all moulded by some or the other Gurus. In academics, Pandit Madan Mohan Malaviya and Dr Radhakrishanan are classic examples of leaders. What distinguishes them from others is the qualities they had.

Six qualities of great leaders are: (1) obviously they lead, they are committed to a cause and work with passion; (2) essentially they are the role models; (3) they plan well and make a list of things to be done within time limits; (4) they listen to others; (5) they are not too rigid and amenable to develop and evolve themselves; (6) they delegate the work with full powers and accountability and finally despite being very busy, enjoy life, music, drama, films, painting etc.

Amongst the above traits, one trait which is important is their respect for others and therefore that of listening to others carefully, critically analysing strengths of team members and make judicious decision of allotment of work. They are friendly with the team members so that any member of the team will not be afraid of approaching the leader with a problem, or a different way of solution.

The Case of COEP

Here I would like to bring my experience of COEP as a director for 9 years. Imagine, a student of civil engineering who has just completed first year comes and says that he would like to work on a pico satellite and launch it by our space agency ISRO. In most cases, he would be dissuaded, with comments like "you cannot do it, it's not possible to ask ISRO to launch it, its too expensive", etc. But when Abhishek Bawiskar returned from his summer internship in IITB and made this proposition, he was asked to form a team and given all institutional support and in 7 years UG students of different disciplines and different classes (first to fourth year) working from one batch to the next, made history. Their SWAYAM satellite was launched by ISRO. Another student, Chinmay Joshi came with an idea of e-slate which will reduce the burden of carrying books and notebooks by school children, a faculty room was allotted for him to work at any time of his choice. Another student, Shashwat Pradhan, now CEO of Emberify working in niche areas such as Mobile Apps, AR, Machine learning had started a startup in the very first year initially to help fellow students in computer programming and later games for left and right brain winning several Blackberry awards for innovation and was earning US$5000 from his second year in college. The three world records created by students that of most students jumping on a single rope 14 times simultaneously by 136 students, the longest painting which was 600m long, solving Rubik's Cube by 3248 students within half an hour etc. are testimony to creativity and ability to accept challenge. Winning of BAJA competition in Indore year after year, finding a spot within top 10 in US competition, Robocon and many other competitions excelling better than IIT and NIT students was possible by just giving freedom with responsibility.

The World Bank funded TEQIP project monitoring team has selected this college for its good governance model over NITs and 200 odd Govt colleges in the country. According to the Chairman, Dr F C Kohli, being a member on the Board of Governors of a college is different from being on the Board of Directors of companies where one just attends meetings once in a quarter, but in institutes' Boards, one has to totally be involved in its progress by contributing at least 100 hours a year apart from routine meetings, so that the Institute may get the benefits of one's expertise.

Conclusion

An academic leader has to develop following traits in his team of faculty, staff and students like core employability skills, life skills such as knowledge, hard and soft skills, critical thinking, complex problem solving ability, people management, articulation, integrity, reliability, flexibility, ability to learn, empathy, creativity, awareness about society and surroundings, environment, etiquettes, culture, response to change etc. Collaboration, Cross disciplinary work, Cooperation, Cross cultural attitude and Core Competencies.

AICTE on its part has started several initiatives such as regular curriculum revision, teacher induction modules, faculty development programmes, three week long student induction, examination reforms, mandatory internships, industry institute interaction, innovation cell, entrepreneurship and startup support eco system, hackathon, National Doctoral Fellowship apart from QIP, several awards for industry interaction, clean campus, Chhatra Vishwakarma award for student projects, best startups from colleges, to name a few.

Students and teachers alike have to become life long learners. MHRD supported, AICTE developed MOOCs "SWAYAM" platform is available for anyone, any time to learn from the best in class in India, from any device, free of cost. Best use of this platform should be made. AICTE has also planned both leadership development programmes and mandatory semester long 6 module teacher induction programme for technical college teachers. Last but not the least, we need to bring and nurture values and professionalism amongst students by first person approach, leading by example.

We often talk about demographic dividend and Young India. In a nutshell, if we wish to be a developed nation with all rounded power, we need excellent leadership programmes and autonomy for institutes. Then 21st century and beyond will be reserved for India.

Indian Financial Sector – A Commentary

Rajashri Chatterjee* and Senjuti Ghosh Das**

Introduction

After coming a long way from a financially repressive regime to a modern financial sector in the last three decades India is now on its trajectory towards attaining a financially inclusive regime through the adoption of innovative policies. Efforts are being made on a continuous basis to maintain stability of the financial system as a whole amidst the risks emanating from global and domestic factors.

Significant structural reforms in recent years include the roll-out of the Goods and Services Tax (GST) which was targeted at improving tax compliance and boosting investments, and demonetization which was aimed at curbing black money and tax evasion, mitigating terror-financing and counterfeiting. The Insolvency and Bankruptcy Code (IBC) introduced in 2016 is targeted at major overhaul to deal with distressed or failed businesses by developing a robust framework. It is likely to help in cleaning up bank balance sheets when the banking system is troubled with rising non-performing assets (NPAs). In recent times, SEBI has also introduced important reforms related to the primary market, delisting, takeovers, buy-backs, commodity derivatives as well as cyber security and cyber resilience that stock exchanges, clearing corporations and depositories are required to adopt.

Financial inclusion has been recognized to be crucial to achieve several of UN's Sustainable Development Goals. Providing a bank account to the majority of the population is considered to be significant in this respect. Under the Pradhan Mantri Jan-Dhan Yojana (PMJDY) scheme which ensures universal access to banking facilities, financial literacy, access to credit, insurance and pension facility, around 1 per cent of PMJDY account holders have been found to use overdraft facilities available to them, and 17 per cent of PMJDY accounts are "zero-balance", implying they are unutilized according to a report published in May 2018[1]. However the percentage of "zero-balance" accounts has declined from 25 per cent in 2016 and 75 per cent in 2014. As on August 22, 2018, while the number of total beneficiaries has been 32.48 crore, balance in the beneficiary accounts has been 81523.12 crore under the PMJDY scheme.

In line with the turnaround of the global economy in 2017, the domestic growth in India also started picking up during the second quarter of 2017-18. Exports in India grew at its fastest pace in 6 years

---

*Sr. Research Officer, IMI Kolkata & **Editorial Officer, IMI Kolkata

[1]Business Standard, May 17, 2018. https://www.business-standard.com/article/finance/80-of-indians-now-have-a-bank-account-so-why-is-financial-inclusion-low-118051700150_1.html

due to the global growth momentum during 2017-18. Other encouraging signals of improvement include the decline in number and cost of stalled projects in the second quarter of 2017-18, the efforts made to improve the quality of government expenditure, improvement in the ease of doing business ranking, India's sovereign rating upgrade by Moody's and the bank recapitalisation announcement. For the first time ever, in 2018 India has jumped 30 positions to become the top 100th country in terms of ease of doing business ranking among 190 countries. However, the banking sector continues to face mounting challenges predominantly on account of asset quality concerns.

Of late, tightening of liquidity conditions in the developed markets, expansionary US fiscal policy and increase in the strength of US Dollar have started adversely affecting emerging market currencies, bonds and capital flows. In India, the conditions that helped in maintaining fiscal consolidation, controlling inflation and a benign current account deficit over the past few years are changing, thereby signaling caution. All these developments call for more vigilance over the financial system as a whole to maintain stability.

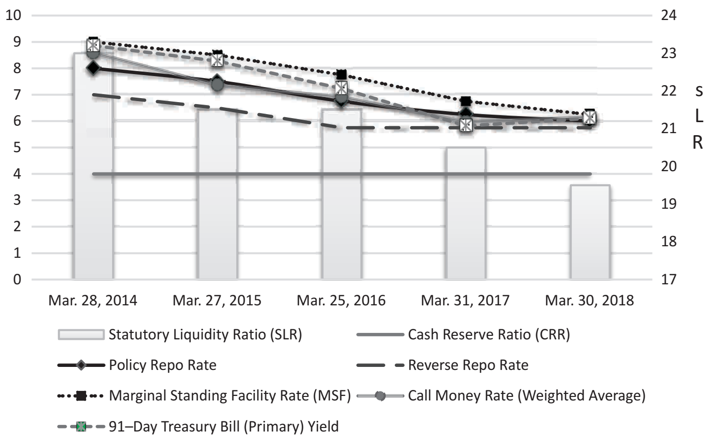
Past couple of years have witnessed intensive flows into investment avenues like mutual funds due to the creation of an enabling ecosystem by the regulators along with a serious government drive towards financialisation of savings. Moreover, demonetisation led to liquidity spurt which in turn resulted in unprecedented fund flows to both equity and debt mutual funds. Foreign portfolio investment flows into the capital market also continued to be buoyant with a greater preference for debt.

Money Market

The RBI has been trying to provide more operational flexibility to market participants and align money market rates with the stance of monetary policy. The monetary easing which commenced in 2012-13 continued till mid-July 2013. Exceptional monetary measures to address exchange market pressures were taken up between mid-July 2013 and September in the same year. The monetary policy turned exceedingly anti-inflationary commencing from September 2013. During 2014-15, the introduction of the revised liquidity management framework attempted at making liquidity management operations more flexible and transparent. It aimed at anchoring the weighted average call rate (WACR) at or closely aligned to the repo rate. A significant agreement was also signed between the Government of India and RBI to provide the formal architecture for conducting monetary policy operations consistent with flexible inflation targeting. Data pertaining to end-March over the past five financial years shows that all short term key interest rates have overall shown a declining trend reflecting easy liquidity in the system [Figure 1]. The 91-day Treasury bill yield has been increased to some extent in March 2018 as compared to March 2017.

In order to mop up the surge in liquidity in the banking system in the wake of demonetisation, the RBI took various measures like temporary imposition of 100 per cent incremental CRR on the increase in net demand and time liabilities (NDTL) between September 16, 2016 and

Figure 1: Movement of Key Policy Rates and Ratios (in per cent)

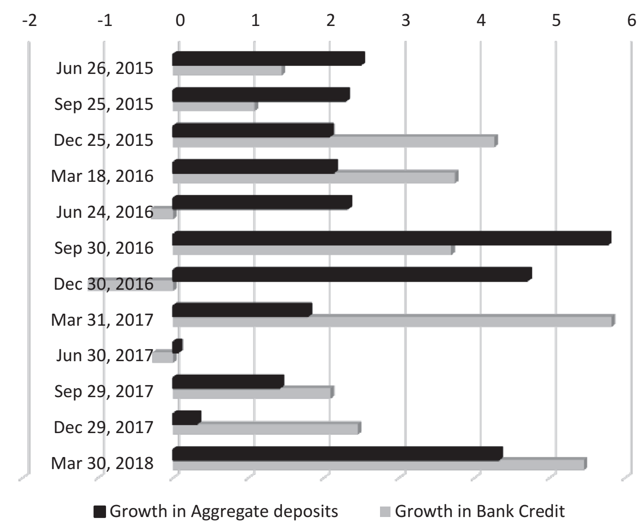


Source: RBI

November 11, 2016, issuance of cash management bills under Market Stabilisation Scheme and absorption through variable rate reverse repos of various tenures ranging from overnight to 91-days. The RBI shifted its monetary policy stance from accommodative to neutral in February 2017.

The recovery of the economy is reflected in the pick-up of deposit and credit growth in the banking system [Figure 2]. The aggregate deposits of the Scheduled Commercial Banks (SCBs) have risen over the past twelve quarters. During 2016-17, while growth in aggregate deposits (q-on-q) of SCBs picked up, bank credit growth remained comparatively sluggish, which picked up in 2017-18. The credit-deposit (C-D) ratio improved in March 2018 to 75.5 per cent as compared to 72.9 per cent in March 2017.

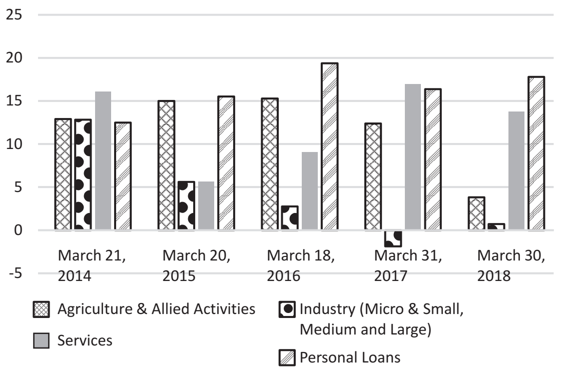
Figure 2: Growth in Deposit and Credit of SCBs (in per cent)



Source: RBI

Non-food credit that forms the bulk of bank credit is comprised of credit to various sectors of the economy, namely agriculture, industry, services and also personal loans. Year-on-year analysis of non-food bank credit pertaining to the month of March based on select SCBs shows that since 2015 till 2018 growth in non-food bank credit hovered around 8-9 per cent. Growth in credit to agriculture and allied activities declined drastically to 3.81 per cent in March 2018 as compared to 12.4 per cent a year ago, and around 15 per cent during March 2016 and March 2015 [Figure 3]. Growth in credit to industries declined from 12.84 per cent in March 2014 to just 0.73 per cent in March

Figure 3: Growth in Non-food Bank Credit for Major Sectors (in per cent)



Source: RBI

2018. However, credit to the services sector witnessed an impressive pick-up in growth since March 2017. Personal loans witnessed an impressive growth on average since March 2014.

Capital Market

The capital markets have seen phenomenal growth and significant changes in India over the last two decades. But the stock market participation on the part of the investors is still not very encouraging. The average daily turnover in BSE has grown from ₹2160 crore in January 2014 to ₹4784 crore in December 2017. Over the same period, average trade size and market capitalization have also shown significant growth, from ₹13,784 crore to ₹31,706 crore and ₹67,44,398 crore to ₹1,51,73,867 crore, respectively[2]. With a large informal sector the association between stock market and the economy is weak for India.

For India, according to World Bank data, market capitalization of listed domestic companies as percentage of GDP has been lower than the world over the years 2013-2017. It has been higher compared to the low-and-middle-income countries in East Asia and the Pacific and in Europe and Central Asia. It is also higher than South Asia [Table 1]. The turnover ratio of domestic shares[3] for India has been substantially lower compared to the world market. It is also much lower than the low-and-middle-income countries in East Asia and the Pacific and in Europe & Central Asia. It has been higher compared to South Asia.

Table 1: Stock Market Development Indicators

Country	Market capitalization of listed domestic companies (per cent of GDP)					Stocks traded, turnover ratio of domestic shares (in per cent)				
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
East Asia & Pacific (excluding high income)	46.2	60.6	73.0	66.3	72.4	152.5	160.9	403.2	216.0	168.8
Europe & Central Asia (excluding high income)	28.5	19.5	25.6	36.5	34.6	68.0	72.8	79.8	60.0	55.0
South Asia	56.2	70.1	65.3	61.2	83.0	44.8	44.3	49.9	49.6	50.4
India	61.3	76.4	72.1	68.9	89.8	47.2	46.9	50.9	51.2	50.9
World	87.6	90.2	95.3	97.8	112.3	102.3	112.0	162.7	102.0	100.4

Source: World Development Indicators, World Bank, 2018.

A developed primary market brings together investors looking for investment opportunities and issuers willing to mobilize resources to

[2] SEBI Handbook, 2017

[3] The value of domestic shares traded divided by their market capitalization.

finance their businesses. The Indian primary markets have been buoyant for the past couple of years, due to the bull-run in the secondary markets. Fund raising through initial public offers (IPOs) hit an all-time high during 2017-18[4]. 43 companies raised a combined ₹805 billion through IPOs, beating its previous record nearly a decade ago. The money raised during FY18 is almost 5 times higher as compared to FY17, when 25 firms mobilised ₹282 billion during the year.

In the Indian primary market, capital raised during 2017 was to the tune of ₹1.6 lakh crore, 3.6 times the amount raised in 2016[5], backed by initial public offers (IPOs) and qualified institutional placements (QIP). The number of IPOs in the Indian market has increased from 38 in 2013-14 to 200 in 2017-18, while during the same period the values of IPOs raised recorded a rise from ₹12.4 billion to ₹838 billion. The amount raised under QIPs also has shown substantial increase, from ₹136.6 billion in 2013-14 to ₹673 billion in 2017-18[6].

Equity Market

On the back of recovery in the advanced economies and strengthened liquidity condition in the money market, major equity markets across the globe performed well. The global private equity industry raised a record US$452 billion from buy-out funds[7] alone at the end of 2017, providing US$1 trillion surplus to the global market. Asia Pacific-focused fund-raising levels recovered to reach approximately US$66 billion in 2017. The growth was fuelled by phenomenal growth in Indian equity market aided by Government regulations and tax breaks, launching of new asset classes like Alternative Investment Funds[8] and new laws on distressed asset management through Insolvency and Bankruptcy Code.

The annual returns of international indices based on yearly closing values reflect a clear declining trend in developed as well as emerging market economies since 2013 to 2015 with a significant recovery in 2016 and gradual improvement in 2017 [Figure 4]. Movement of India's two benchmark indices viz. Nifty 50 and BSE Sensex registered return at 10.2 per cent and at 11.3 per cent respectively at the year-end of 2017, making India one of the most attractive equity markets in emerging market economies after Brazil (32.8 per cent) and South Korea (14.0 per cent). For all other countries barring Brazil and South Korea, the annual return based on yearly closing values varied between -13.4 per cent (Brazil's IBOV in 2015) and 58.9 per cent (Japan's NKY in 2013),

[4]Business Standard, March 29, 2018. https://www.business-standard.com/article/markets/fund-raising-via-ipo-at-all-time-high-of-rs-805-bn-in-fy18-up-5-fold-y-oy-118032800260_1.html

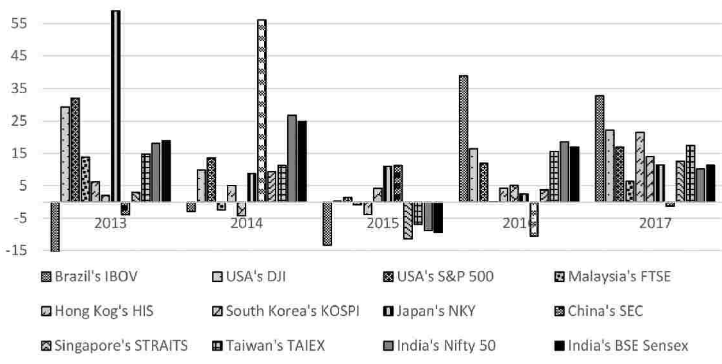
[5]Business Line, January 1, 2018, https://www.thehindubusinessline.com/markets/2017-robust-year-for-ipos-for-indian-primary-markets/article10007310.ece

[6]RBI Annual Report, 2017-18

[7]Buy-Out Fund is type of Private Equity Fund that specializes in acquiring other companies, making changes to boost profit and again sell them or taking them public

[8]Infrastructure Fund, Social Venture Fund, Venture Capital Fund, SME Fund etc.

Figure 4: Annualised Return of International Indices (in per cent)



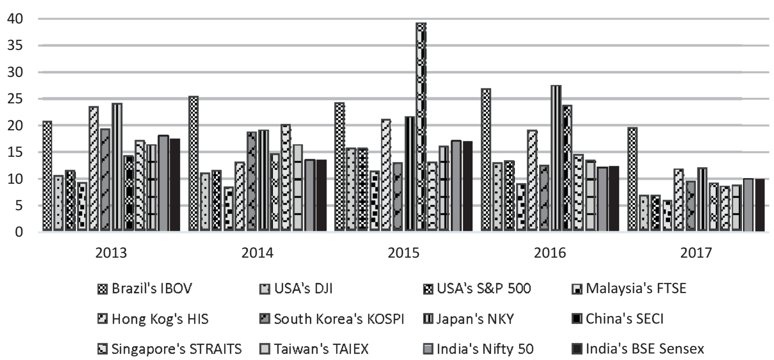
Source: SEBI, Note: For India only, it is financial year

during the period 2013 to 2017 while for India the range hovered between -9.4 per cent and 26.7 per cent during the same period (considering both the indices). The robust performance of Indian equity market was majorly driven by surge in Domestic Institutional Investment (DII) in 2017 specially in mutual fund industry where investment touched a record high of ₹1.15 lakh crore, the highest ever in a single year.

The annualized volatility of India's Nifty 50 and BSE Sensex has been on a declining trajectory for last five years, barring 2015 [Figure 5]. Notably almost all the major indices including USA's Dow Jones Index and S&P 500 have also shown an overall declining trend over last five years, except the year 2015. During 2013 to 2017, the annualized volatility of indices ranged between 5.75 per cent (Malaysia's FTSE in 2017) and 39.29 per cent (China's SECI in 2015) while for India the volatility was much low, varying between 10 per cent and 18.1 per cent during the same period (considering both the indices). In 2017, however, Brazilian IBOV (19.47 per cent) has shown the highest level of volatility amongst the major economies, which is reasonably high in comparison to its peer economies.

India's leading benchmark indices, viz. Nifty 50 and BSE Sensex have registered significant growth in the recent past. Not only the indices

Figure 5: Annualized Volatility of International Indices (in per cent)



Source: SEBI, Note: For India only, it is financial year

[9] Calculated as standard deviation of the logarithmic returns of the closing level of indices multiplied by the square root of no of trading days assumed to be 252, volatility estimates give an idea of the impact and duration of information shock in the market

have touched 10000 and 30000 marks, respectively during 2017-18, the price earning ratio (P/E ratio) for Nifty 50 also has increased from around 20 per cent on March 31, 2015 to around 25 per cent on March 31, 2018; during the same period, P/E ratio for BSE Sensex recorded an increase from 18 per cent to 23.3 per cent. An international comparison of P/E ratios at the end of 2017-18 indicate that Indian markets were comparatively priced higher among other emerging market economies as well as developed markets. In 2017-18, the P/E ratio of Nifty 50 and BSE Sensex stood at 24.7 and 22.5 respectively while Japan's Nikkei Index stood at 23.1, Brazil's IBOVESPA at 21.5 and USA's Dow Jones Industrial Index at 19.4. As of 2017-18, the stable movement of P/E ratio in the secondary market reflects the positive sentiment of investors. In synchronisation with the steady movement of P/E Ratio, the Price-Book Value Ratio (P/B Ratio) also remained stable, the P/B ratio for BSE Sensex remain unchanged at 3.0 at the end of 2017-18 compared to 2016-17 while for Nifty 50 it declined marginally from 3.5 to 3.4 during the same period[10].

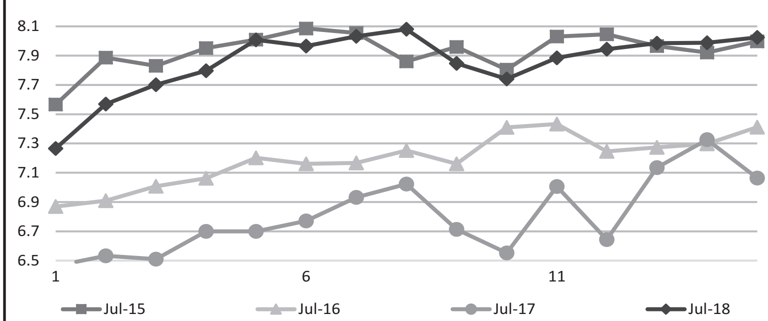
During the last six months, BSE Sensex has risen from around 34,000 in March 2018 to around 38,000 in September, 2018. However, the sentiment is dampened by factors like increase in world crude oil prices, persistent fall in rupee, widening current account deficit etc.

Bond Market

In 2018, domestic bond yields have hardened considerably over last few months due to volatile external factors such as rising oil prices and surge in US bond yields, falling rupee and a rise in fiscal and inflationary risks. In early September, the benchmark 10-year bond yield is hovering around 8.11 per cent, highest since November 2014. Trading in the bond market was significantly thin since May 2018. However, RBI's policy stance, the benchmark yield of 10 year G-Sec ranging comfortably between 7.75 per cent and 7.9 per cent and strengthened macro-stability helped the market to start its revival. The state-run banks, the largest holder of bonds, turned net buyers in the month of June and foreign investors also started buying since July for the first time after January 2018.

The yield curves for the Indian economy during last three years from 2015-16 to 2017-18 clearly point out decline in yields across all maturities, till July 2018 [Figure 6]. However, during July 2015, the yields ranged between 7.5 per cent to 8.1 per

Figure 6: Yield Curve in India (Maturity in Years)



Source: RBI

[10]SEBI

cent for 1 to 10 year bonds, while for the same maturities, yields came down to the range of 6.5 per cent to 7.1 per cent during July 2017. The spread between 1 and 5 year government securities stood at 20 basis points in July 2017, narrowing from 50 basis points two years back. However, yields across the spectrum started to harden after July 2017 owing to factors like rise in inflation in the face of oil price rise, loss of attractiveness of Indian bond returns as Indian rupee depreciated against Dollar while other Asian currencies have appreciated and the hardening of US bond yields. The yield curve for the economy has shifted entirely upwards with significant rise in yields across all maturities. However, yields have hardened more on the longer term compared to the shorter term, e.g. yield on 1-year government security has increased by 77 basis points whereas that on 5-year and 10-year securities increased by 131 and 114 basis points, respectively, between July 2017 and July 2018. Consequently, the spread between 1-year and 5-year government securities have widened to 74 basis points.

Though corporate bond market in India has witnessed a rapid growth in recent years, it still remains a limited source of funding as Indian firms heavily opt for bank credit. In 2017-18, the size of the market accounts for 17 per cent of GDP compared to equity market's share at 80 percent. A number of policy reforms have also been initiated to revive Indian corporate bond market including the launch of repo platforms by the BSE and NSE[11] for tripartite repurchase of corporate bonds, implementation of Insolvency and Bankruptcy code 2016[12], etc. According to the BIS, India's corporate debt-to-GDP ratio stood at 51 per cent in March 2016, compared to 72 percent in USA, 169 percent in China or global average of 95.6 percent. The total corporate bond issuance is highly fragmented in India as the bulk of the debt is raised through private placements[13]. Further, the market is bogged down with multiple challenges including low issuance leading to lack of liquidity in the secondary market, narrow investor base and high cost of trades which need to be addressed at the earliest.

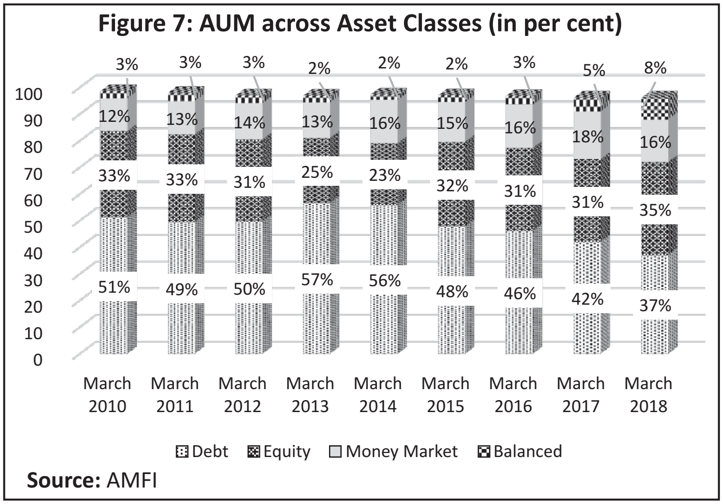
Mutual Fund

Significant participation from retail investors, robust inflow in equity mutual funds and extensive investor awareness campaign led to strong growth in Indian mutual funds (MFs) in the recent past. An interesting characteristics of Indian MFs is that debt schemes continued to comprise the majority of industry's Asset Under Management (AUM), contrary to the global trend. However, since 2015, increased demand for equity and money market funds have led to decline in the share of debt funds in the overall AUM. Factors such as favourable demographic profile, rising income levels, increasing financial

[11]It is a kind of repo contract where a third party called tri-party agent acts as an intermediary to facilitate services like collateral selection, payment and settlement, custody and management etc amongst buyers and sellers

[12]The law aims to consolidate the laws relating to insolvency of companies, limited liability entities, unlimited liability partnership and individuals into a single legislation and ensure an early identification of financial distress

[13]Private placement is capital raising event by selling directly to private investors rather than as a part of initial public offering

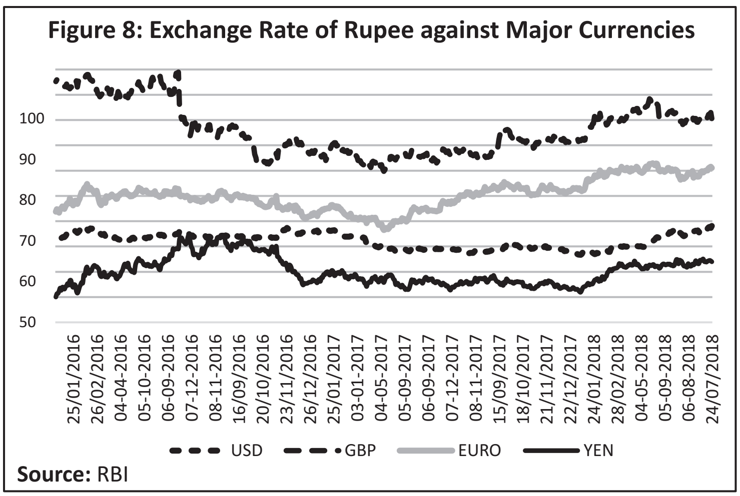


in growth helped gain momentum in foreign investment in Indian equities. The weakened Dollar provided a further boost to Indian rupee. Further, Indian political stability also provided a boost to investors' confidence. It is interesting to note that most of the emerging market currencies viz. South African Rand, Malaysian Ringgit, Chinese Renminbi and Russian Rouble strengthened against Dollar during this time period due to weak Dollar. The sound performance of rupee against Dollar seemed a bit volatile from the beginning of 2018. Increasing trade deficit, rising crude and gold prices and widening external debt pulled the rupee downwards. However, from the middle of 2017, Pound and Euro are getting stronger against Rupee reflecting the post-Brexit recovery of Euro as well as British Pound.

literacy and buoyancy in the capital market have contributed to such developments [Figure 7].

Forex Market

In the financial years 2016-17 and 2017-18, rupee remained robust against Dollar and Yen [Figure 8]. The appreciation in the value of rupee was driven by a number of factors. India stood strong on macro-economic fundamentals while recovery

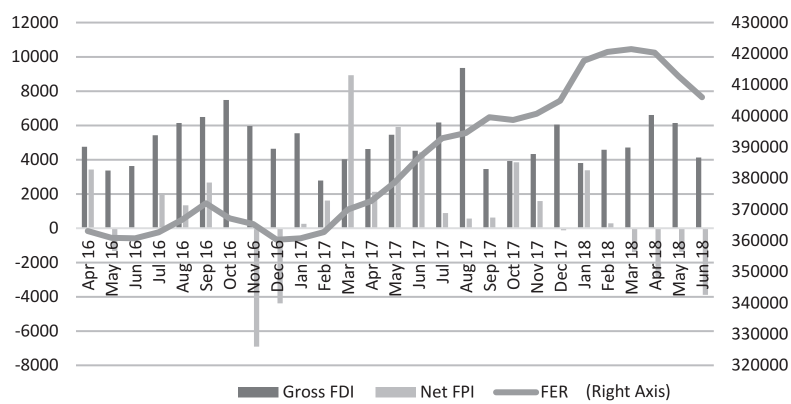


Global investment has remained conducive in India. Strong macroeconomic fundamentals, favourable policy regime and robust business environment fuelled the steady growth of Foreign Direct Investment (FDI). India moved up 30 notches in one year to be at the 100th places in World Bank's “Ease of Doing Business” ranking in 2017-18. According to the Department of Industrial Policy and Promotion (DIPP), total FDI in India rose from US$45.14 billion in 2015-16 to US$60 billion in 2016-17 to US$ 61.96 billion in 2017-18 with services sector having the highest share (18 per cent), followed by Computer Software and Hardware (8per cent), Telecommunication (8per cent) and Construction Development(6 per cent). However, as per AT Kearney's FDI Confidence Index 2018, India was ranked 11th while it was ranked 8th in 2017 and 9th in 2016. The fall in India's ranking may be attributed to the temporary instability in domestic market occurred by demonetization initiative in 2016 and nationwide implementation of Goods and Services Tax in 2017.

Net Foreign Portfolio Investment (FPI) in the Indian securities market also remained positive and robust over last few years except for the year 2015-16 reflecting the confidence of global investors in stability and growth potential of Indian market. The net outflow of FPI in 2015-16 was driven by the negative sentiments amongst investors due to slowdown in China, rising apprehension over a rate hike by the US Federal Reserve and Indian tax authorities imposing taxes on capital gains of FPIs. However, in recent months the net outflow of FPI from India is observed owing to higher interest rates in the USA, a buoyant economy at US and the lowered return on Indian market due to depreciation of rupee against Dollar [Figure 9].

The build-up of foreign exchange (forex) reserves in India over the past few years can be explained primarily by an increase in foreign currency assets. The reserves touched a record high to cross the US$ 400 billion mark for the first time in September 2017 mainly due to huge inflows through foreign direct investments in projects and portfolio investment in capital market. India now holds the sixth position in forex reserve ranking while China leads the list with reserves of US$3053 billion. However, May 2018 onwards the FER started to decline due to RBI's policy interventions to strengthen Rupee. External factors like increase in crude prices, uncertainty in international trade scenario, and strengthening Dollar have created downward pressure on rupee and RBI intervened by selling US Dollar to support rupee. Concomitantly, import cover (in months), one significant trade-based indicator of foreign exchange reserve adequacy to absorb

Figure 9: Gross Foreign Direct Investment and Net Foreign Portfolio Investment in India (US$ Mn)



Source: RBI and IndiaStat

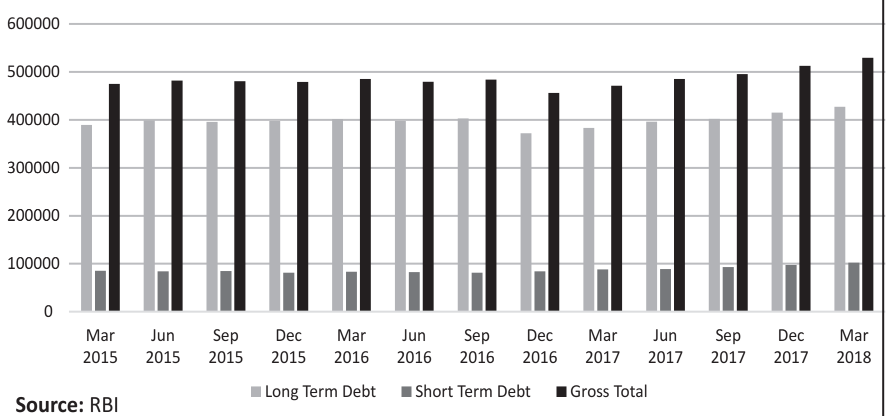
external shocks, has also started to register declining trend, from 11.3 months in March 2017 to 10.8 months in December 2017. However, India's forex reserve remains in a resilient position.

During the last three years, the external debt remained stable with a slight upward trend in 2018 [Figure 10]. The rise was due to consistent rise in External Commercial Borrowing (ECB), NRI deposits and short-term debt. Part of the increase in debt was also due to valuation loss resulting from the depreciation of US Dollar against major currencies. ECB, the largest component of external debt, accounted for 38.2 per cent at end March 2018, while NRI Deposit and Short Term Debt held 23.8 per cent and 19.2 per cent respectively. The other components of India's external debt were Multilaterals (10.8 per cent), Bilaterals (4.8 per cent), Trade Credit (1.78 per cent), IMF (1.09 per cent) and Rupee Debt (0.22 per cent). At end-March 2018, long-term borrowing comprised more than 80 per cent of India's external debt while the remaining 20 percent was short-term external debt. However, India continues to be among the less vulnerable countries in terms of external debt[14]. With continuing depreciation of rupee against Dollar and widening of current account deficit, external debt indicators show deteriorating trends. The debt-to-GDP share has increased from 20.2 percent in end-March 2017 to 20.5 percent in end March 2018 while the foreign exchange reserve–to-total debt increased from 78.5 per cent in 2016-17 to 80.2 percent in 2017-18.

The Banking Sector

The asset quality of banks, especially the public sector banks (PSBs), has been eroding sharply, necessitating ample provisioning and reduction in level of debt in recent times. This has led to adversely affecting their lending capacity, profitability and capital positions. An increased inclination of businesses shifting towards alternative and more cost-effective sources to meet their financing needs has thereby been witnessed. The banking sector is facing several challenges as it attempts to tackle asset quality concerns as well as

Figure 10: External Debt of India (US$ Mn)



Source: RBI

[14]World Bank, International Debt Statistics, 2018

conform to the convergence with Basel III and international accounting standards simultaneously.

On the regulatory front, the enactment of Insolvency and Bankruptcy Code (IBC), 2016 and promulgation of the Banking Regulation (Amendment) Act, 2017 have been aimed at reduction of stress on balance sheets of banks. Banks can take the advantage of IBC to remain competitive. Instead of awaiting regulatory instructions, banks can now file for insolvency proceedings on their own for the realization of the best value for their assets in a prompt manner. Banks also need to fortify their due diligence, credit evaluation and post-sanction loan monitoring to minimize risks. Capital, asset quality, profitability and leverage are again the key areas for monitoring under the revised prompt corrective action (PCA) framework introduced by RBI with effect from April, 2017. The RBI thus endeavours to strengthen the regulatory framework through significant policy interventions. Recently, the banking regulators are also emphasizing on the full implementation of Basel III norms. Furthermore, the SCBs, excluding regional rural banks were required to implement Indian Accounting Standard from April, 2018 which has been deferred by a year.

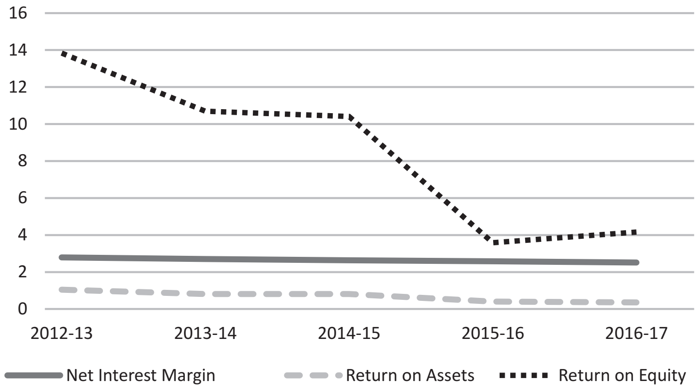
The technology-enabled innovations and the growth of crypto currencies are presenting both opportunities and challenges for the banking sector as a whole. Creation of a less-cash economy depends on the security of financial transactions supported by a strong cyber-security framework. The banks are therefore advised to improve their security issues on a continual basis. Finally, the banks and other financial institutions can benefit each other by improving their corporate governance in the increasingly interrelated financial system.

Demonetisation had an unprecedented impact on the banking system in the country. With banks crediting the accounts of the depositors with the value of surrendered demonetised bank notes, CASA (Current Account Savings Account) deposits of banks increased steeply. With weak credit demand, term deposit rates were reduced significantly towards end-December 2016/early-January 2017. Surplus liquidity, feeble credit demand, lower cost of term deposits and sharp rise in low cost CASA deposits compelled banks to declare a large cut in their Marginal Cost of Funds Based Lending Rate (MCLRs) in January 2017. Since demonetization in November 2016, 50 million new accounts were opened under PMJDY by October 2017. Digital banking got an impetus with private sector banks taking the lead with innovative technology and government support to ensure that transactions move online.

Profitability

In terms of profitability, Return on Equity (ROE) of SCBs has demonstrated an overall sharp declining trend during the period 2012-13 till 2015-16 [Figure 11]. There has been a slight improvement in the ratio during 2016-17. The SCBs recorded lower Return on Assets (ROA) during the period 2012-13 to 2016-17. ROA has revealed a declining trend over these years. The net interest margin (NIM) has been more or less consistent during the same period. During 2016-17 interest income growth for the SCBs was

Figure 11: Profitability Ratios of SCBs (in per cent)



Source: RBI

restrained by subdued credit growth and rise in non-performing assets (NPAs). Interest expended demonstrated a trivial growth due to the surge in low cost funding from CASA deposits because of demonetisation and the sluggish transmission of policy rate cuts. Nonetheless, with the introduction of the MCLR since April 2016 banks seemed to have tweaked their spreads over the MCLR aiming at maintaining their NIM.

Soundness

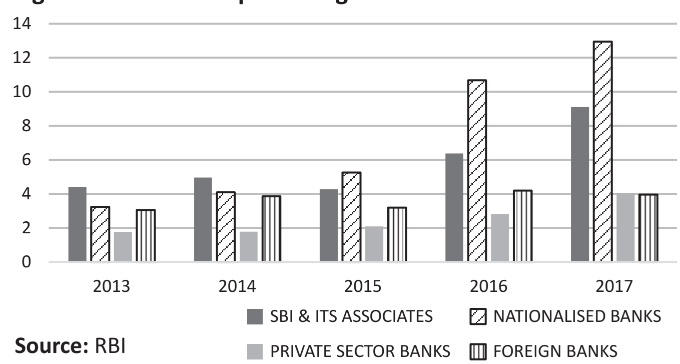
Basel III capital requirements have provided a major thrust to the banking system to scale up capital to risk-weighted assets ratio (CRAR) in order to promote financial stability and efficiency in economic systems. The CRAR for SCBs improved from 13.4 per cent to 13.6 per cent between September 2016 and March 2017 due to the improvement in capital adequacy of private and foreign banks. RBI's sensitivity analysis shows that any severe shock to the gross non-performing assets (GNPA) ratio could bring down the CRAR of around 21 banks, mostly PSBs, below 9 per cent by March 2019.

Non-Performing Assets (NPAs)

The Indian banking sector is beleaguered with the stress from the rising NPAs. GNPAs as percentage of gross advances has overall shown a rising trend for the SCBs over the last 5 years. [Figure 12]. The rise has been quite sharp for State Bank and its associates and the nationalized banks. The profitability of SCBs declined, partly due to enhanced provisioning. This in turn has added pressure on SCBs' regulatory capital ratios. The GNPA ratio of banks is expected to rise to 12.2 per cent by March 2019 from 11.6 per cent in March 2018 if same economic conditions prevail.

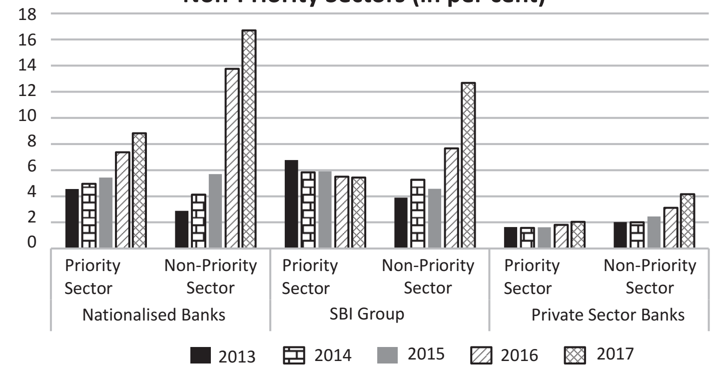
In the context of GNPAs as a percentage of Gross Advances pertaining to the domestic banks for priority and non-priority sectors, it has been

Figure 12: GNPAs as percentage of Gross Advances of SCBs



Source: RBI

Figure 13: NPAs of Domestic Banks by Priority and Non-Priority Sectors (in per cent)

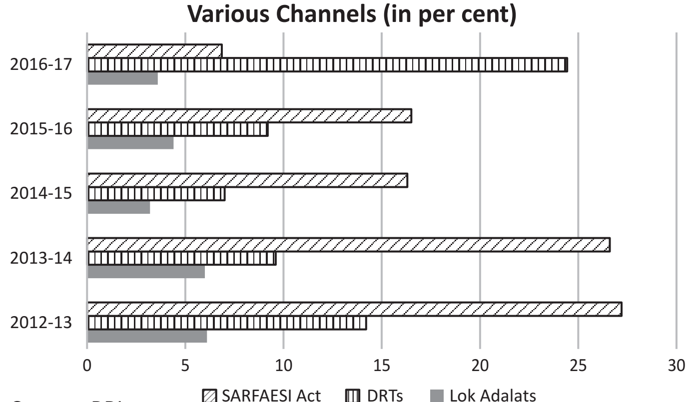


Source: RBI

found that for the nationalized banks the percentage for both sectors has risen consistently over the years 2013 to 2017, the rise being sharper for the non-priority sector [Figure 13]. For the SBI group, while the percentage for the priority sector has overall fallen, the percentage has risen drastically for the non-priority sector. For the private sector banks, interestingly the ratio of GNPA to gross advances has been quite low for both the sectors. However the share of GNPA in gross advances has risen over these years to some extent. Percentage of NPAs recovered through existing legal recovery channels, namely, Securitisation and Reconstruction of Financial Assets and Enforcement of Securities Interest Act (SARFAESI Act 2002), Debts Recovery Tribunals (DRTs) and Lok Adalats, out of the total amount involved has degenerated from 22 per cent in 2012-13 to 10 per cent in 2016-17 [Figure 14]. Amount recovered has been on average the maximum through the SARFAESI Act over the past five years. But in 2016-17 the highest recovery took place through DRTs at 24 per cent, up from just 9 per cent in 2015-16, and this is attributed to the opening of new tribunals, strengthening existing infrastructure and computerised processing of court cases. Banks are now largely been focusing on NPA recovery through resolution under the IBC. The law stresses on time bound resolution allowing a maximum of 270 days for resolution or the defaulting company goes into liquidation.

The spate of frauds exposed recently in the Indian banking sector are again adding to the woes of the sector already laden with the mounting toxic loans. In February 2018, the $2 billion scam at Punjab National Bank, one of the country's largest public sector banks is the biggest ever

Figure 14: NPAs of SCBs Recovered through Various Channels (in per cent)



Source: RBI

banking scam in the country. In June 2018, the state-run Bank of Maharashtra (BoM) and in April, 2018, UCO Bank were also accused of committing fraud. According to RBI, 8,670 cases of fraudalent loans totalling ₹61,260 crore have been reported by state-run banks over 5 financial years up to March 31, 2017[15]. Business sentiments thus have been severely hit in the wake of such alleged frauds.

Conclusion

According to the World Bank, while growth in emerging market and developing economies overall is anticipated to strengthen in 2018 and more so a year later, there is an increased possibility of muddled financial market volatility posing enormous risks[16]. A rise in the spillover risk from advanced to emerging markets is claimed by the latest RBI financial stability report. However, the recent policy initiatives undertaken in India strengthened the underlying regulatory and institutional framework of the financial sector and helped maintaining stability in the financial system as a whole. According to a RBI survey, banks' asset quality deterioration, risk on account of extra capital requirement and cyber risk are now perceived as high risk factors for the sector. Regulatory initiatives have also been taken recently in the insurance and the pension sectors. While initiatives in the insurance sector is targeted at broad-basing the investor base, those taken for the pension sector aim at rationalising requirements for appointment as Retirement Advisors, along with easing partial withdrawal demands from pension investors.

Availability of credit continues to be a major roadblock for a vast majority of the population, especially for the unbanked segments[17]. The major deterrent to solve the issue has been the lack of tangible data to help the credit bureaus put together better underwriting models for these unbanked clienteles. Nonetheless, the rise of unique credit models backed by increasing data availability is establishing a new paradigm for lenders.

References

Association of Mutual Funds in India (AMFI), *AMFI Newsletters, Various Issues*

The Reserve Bank of India, *Annual Report,* various issues

The Reserve Bank of India, *Financial Stability Report,* various issues

The Reserve Bank of India, *Handbook of Statistics on Indian Economy,* several issues

The Reserve Bank of India, *Trends and Progress in Banking Sector,* various issues

The Securities and Exchange Board of India, *Handbook of Statistics on Indian Securities Market,* 2017

The World Bank, *World Development Indicators,* 2018

[15]Livemint, June 20, 2018. https://www.livemint.com/Industry/Uo3F75DAOJ12Z6cjH3mUzN/Bank-of-Maharashtra-CEO-executive-director-arrested-in-Rs3.html

[16]World Bank Press Release, June 5, 2018

[17]The Hindu BusinessLine, April 3, 2018. https://www.thehindubusinessline.com/opinion/columns/financial-inclusion-the-road-ahead/article23426996.ece

A Journey from Information to Insights and Impact

Prithvijit Roy*

Recognized in Gartner's Market Guide for Data and Analytics Service Providers 2018, BRIDGEi2i is a global Analytics solutions company offering services in Marketing Analytics, Sales Analytics, Risk Management, Supply Chain Analytics, Employee Engagement Analytics and Customer Analytics. Apart from India, it has presence in the United States and works for a wide array of sectors including Technology, Financial Services, Insurance, Retail, Consumer Packaged Goods, Education and Hospitality. With a motto to transform Information to Insight to Impact, BRIDGEi2i endeavours to create a sustainable business impact by leveraging data-science through advanced analytics.

IMI Konnect: *How would you rank Indian Analytics Industry in comparison to its global peers? What are its major advantages and disadvantages?*

PR: The Indian Analytics industry has gone from strength to strength over the last two decades majorly due to a lot of global Analytics work getting done from here. Also, in the recent years, as Indian companies are becoming more digital, more and more data being generated, the growth of Analytics industry has been accelerated with applications in Indian market also.

The main advantage of this development is that India has become a major hub of Analytics globally. And the downside could be – the data science knowledge is very broad as against the deep knowledge that matured markets like the US has developed. However, this could also be considered as an opportunity, in some ways.

IMI Konnect: *With a number of competitors in Analytics space, what kind of challenges does a start-up in this area face?*

PR: The competition comes from multiple directions – consulting companies, IT, BPO are also getting into Analytics along with many pure-play Analytics companies, as the entry barriers are low. The challenge lies in scaling up the start-up, as scaling not only requires capabilities but also structured thinking on how to sell globally, how to differentiate from other companies, how to drive innovation and how to marry technology with business context etc. Creating awareness to work with big enterprises and be in their consideration set, to be able to partner with them is another major challenge.

*CEO and Co-founder, BRIDGEi2i Analytics Solutions

IMI Konnect: *What motivated you to start a company in Analytics?*

PR: Having spent more than a decade in Analytics industry with HP and GE with intrapreneurial roles of building Analytics organizations, it was a natural conclusion to continue in this space. Also, as the industry was gaining momentum, I wanted to build an organization that can partner with many enterprises in their journey from Information to Insights to Impact, leveraging my experience of working on the diverse business models in my earlier roles.

I strongly believe that analytics will not only drive business transformation but also solve social problems, enabling people to live better lives. With that thought I helped launch the community of Humans of Analytics as an initiative to celebrate the people who make this industry what it is today.

IMI Konnect: *How enthusiastic are Indian companies in using big data and Analytics for business decisions?*

PR: A large part of our clientele are large enterprises like Fortune 500 companies, globally, and our focus industries are financial services, insurance, consumer goods and technology. Until two years back we hadn't focused on India as a market, but, we have seen a sea change over the last two years, especially large financial institutions and large conglomerates. They have realized they are sitting with a humongous amount of data which could act as a competitive advantage as well as a better lever to drive more business through enhanced customer experience and operational effectiveness and hence the market is just building up.

IMI Konnect: *Are the Indian companies using marketing Analytics, sales Analytics, and customer Analytics solutions?*

PR: Yes, they are. A lot of marketing Analytics is applied to ensure acquisition of the right customers and to take the right product to the right customer. On sales, enabling sales organizations to offer the right product based on the need of the customer is a major use case. The ultimate aim is improving customer experience, operational effectiveness and developing new digital business models. Banks, insurance, telecom and retail companies majorly focus on these areas.

IMI Konnect: *How keen are Indian companies to use supply chain Analytics and HR Analytics solutions?*

PR: Manufacturing companies are implementing supply chain Analytics in areas such as demand planning, inventory optimization, procurement planning, predictive maintenance, etc. HR Analytics adoption in India is low compared to global companies. Currently, the use cases are restricted to conducting employee surveys and analyzing employee engagement and satisfaction. Recruitment and employee engagement are the areas where there is more interest, and it is picking up.

IMI Konnect: *Which are the kind of solutions or* *tools (like forecasting) that Indian companies ask for from a firm like Bridgei2i?*

PR: Companies are looking for solutions that can enable humans to drive better decisions or automated Artificial Intelligence (AI) solutions for their digital enterprise. BRIDGEi2i uses machine learning techniques to learn from structured and unstructured data to enable AI actions like:

a) Proactive Alerting, b) Personalized interventions & enablement, c) Dynamic planning & optimization, d) Automated interactions with the user using chatbot, voice, game etc.

The AI actions are then contextualized to a domain like sales, marketing, customer support, supply chain, risk management, pricing etc. offered as a smart application for Indian businesses.

IMI Konnect: *What role is Analytics playing in sectors like education, insurance and hospitality?*

PR: Insurance is much more matured in Analytics adoption compared to hospitality and education. In insurance, areas such as customer experience and sales effectiveness are becoming key focus areas. The sales agent of insurance companies is armored with Analytics to drive more sales based on the behaviour of the customers, and also there is an increase in online buying and Analytics is being embedded at the point of sales and service as well.

Hospitality on the other hand has focused majorly on customer experience management and revenue management whereas recommendation of appropriate course/ interventions to the right student may be the key use case for the education industry.

IMI Konnect: *Recently Hyderabad and Bangalore are becoming hubs for start-ups. What proportions of them are sustainable in next 15-20 years, given the challenges and policies in place?*

PR: Bangalore and Hyderabad are the biggest hubs owing to the IT ecosystem that the Analytics industry can leverage. Those states/cities which create the infrastructure conducive for the industry will eventually win. Having said that, cities like Pune and Kolkata have a lot of potential for becoming such hubs, especially for Analytics industry.

IMI Konnect: *In next 5-10 years, what sectors, according to you, will be the biggest bets for an analytics start-up?*

PR: Industries which are becoming digital and generating a lot of data such as Financial Institutions, E-commerce, Healthcare, and Manufacturing are the industries with huge potential. Also, the government is sitting on a gold mine of data and used cases through its digital initiatives, and it is one of the potential sectors that Analytics start-ups can bet on.

IMI Konnect: *What are the global trends in Analytics with respect to start-ups? Is Indian scenario any different from them?*

PR: Focused business applications leveraging data and Analytics with a technology layer is a trend that is working globally. India has been primarily a services story in Analytics. Given the huge talent availability, a combination of services and technology applications will work well for the Indian players. It is less of an outsourcing and more of a technology and consulting play that Indian companies will have to focus on. India has the ability to create AI applications that global companies need, and cater to a big portion of the market in coming years.

IMI Konnect: *Do you feel that the Analytics industry is going to face a dearth of skilled manpower in the near future?*

PR: The answer could be yes as well as no. There will not be a dearth of talent as there is an abundance of raw talent available in the areas such as engineering, mathematics, statistics, etc. At the same time, emphasis and focus is required on Analytics as a subject of curriculum to build domain knowledge and expertise.

IMI Konnect: *What are the major constraints faced by you as an entrepreneur?*

PR: Building a global brand of consideration is never an easy task – there are constraints and it takes time. But it has been a fun journey so far.

IMI Konnect: *Do you think policy makers should be more focused to provide a better business environment for this industry?*

PR: More articulated black and white policies around 'usage of data,' will be helpful as data security and privacy is still left to interpretation in many scenarios. Government and public data-digitial initiatives could be more start-up friendly.

Start-ups in Human Resources: An Unleashed Potential

Monali Basu*

GRIP Consulting is a HR Solutions Firm that works with the motto of "Building People to Build Organizations". With a robust experience in HR services and thorough understanding of the nuances of job market, the leadership of GRIP consulting endeavours to lessen the much talked about but less worked out breach between industry and academia. The company is an end-to-end HR service provider whose HR activities span across recruitment solutions, learning solutions, embedded HR solutions and executive coaching. GRIP consulting is actively engaged in designing and providing certificate courses, entrepreneurial courses and other basic soft-skill enhancement courses for various age groups ranging from school goers to job-seekers.

IMI Konnect: *What motivated you to go for a start-up in HR Consultancy?*

MB: There are two reasons which motivated us. First, Human Resource (HR) is the only thing that we knew and we considered if we need to do something, we should have enough knowledge on the subject. Second, which is more pertinent, as we had spent number of years in the HR field we have seen that there is lot of noise but hardly any action. We wanted to move beyond jargons and actually show revenue out of a so called support function. One of our visions is to establish HR as a revenue function so that all organizations should recognize the importance of strong people practices.

IMI Konnect: *How are the concept of HR start-ups distinguished from other start-ups in the service sector?*

MB: One of our clients once said about our business that, "there is a huge need but no demand". The primary reason behind is that the sector we serve is not sure about the exact ROI (Return on Investment) which can be extracted out of the services provided. HR as a function is highly diluted and does not get equal status as other tech or social startup as it is more observed as professional services rather than an organized way of doing a business.

IMI Konnect: *Can you elaborate on the kinds of consulting activities you focus on?*

MB: We help organizations to solve people issues. We start from basic documentation, process and policies and then we cover services at every step of an employee from hiring to firing. The entire cycle of our services starts from

*Co-founder, GRIP Consulting

manpower planning and manpower optimization in the first stage; to HR interviews, negotiations, employer branding in the second stage; to proposing HR policies, statutory compliance, HR documentation, on-boarding of new employees in the third stage; to performance management, explaining Job Description, Key Responsibility Area, Key Performance Indicator and taking care of other strategic process implementation in the fourth stage; to gauging employee engagement, retention, benefits, rewards and recognition in the fifth stage; to benchmarking salaries in the sixth stage; to compensation structure and structuring organization in the seventh stage; to assessing competency i.e. selecting right people for the right job in the eighth stage; to succession planning i.e. identifying high potential employees in the ninth stage; to organizing exit interviews and analyze the reason behind retention at the tenth and final stage. Then again starts the process of manpower planning and manpower optimization as the first step and the cycle continues.

IMI Konnect: *What are the major constraints you faced while establishing your start-up?*

MB: The major constraints we faced as a start-up were actually defining our target market and client acquisition. Other standard challenges like funds and capital are always there as you do not always have a rolling capital to infuse in the start-up to scale up as per your expectations. Another major constraint we faced was gaining the trust and faith of our customers, it took quite a while for us to convince customers that we will not run away and we are not start-up just for the sake of it.

IMI Konnect: *Much is said about "demographic dividend" in India as India boasts one of the largest numbers of young population ready to join workforce. Do you think enough jobs are created in the job market to absorb the young educated Indians?*

MB: Yes, we strongly believe there are enough jobs. The challenge is the gap in expectations. At one side there is huge unemployment and on the other side there is huge need of good people with relevant skills. What is more worrisome is the fact that this gap is widening.

IMI Konnect: *How would you compare the scenario in Indian job market with job markets in other countries like China which also comprises of huge workers?*

MB: We feel that the Indian Job market is yet to mature to the level of China. Our training facilities are below par and the wages are still unbalanced. The workforce is still largely unorganized and politically powered. We feel with Government focusing on projects like "Skill India", this scenario will change soon.

IMI Konnect: *What is your view on employability of fresh graduates joining the workforce every year?*

MB: There has been a lot spoken on this and our thoughts are no different. There lies a huge gap in the industry requirements and what skill levels come out of the colleges. We feel the blame should not entirely be given on the education system or the colleges; problem lies also in the way our current generation is brought up. The socio economic conditions, peer pressure and instant gratification from childhood is creating a different level of expectation in the minds of students. They are in a make wish world of how they should be treated in the work places which entirely change when they get into the jobs. It is also somewhat related to the marketing of various educational institutions where they market more about placements than about research papers submitted and patents acquired. Thus each educational institution is treated as factories where the parents feel the moment the child gets admitted, he/she will come out with well-paid job worth the investment-irrespective of skill and capability. We at GRIP Consulting are working with number of colleges and schools helping them bridge this gap.

IMI Konnect: *Where does the major gap lie between industry requirements and academic curriculum, according to you?*

MB: We feel there should be more courses with practical applications not only in the software but also in every field. If the student is studying HR, the student should actually sit and do payroll processing and performance management rather than just read from books. Educational institutes should also develop courses for corporate readiness which will prepare them for the future with a vision of not only just landing up with a job but to succeed and grow.

IMI Konnect: *How does your organization work to bridge the gap?*

MB: We have our signature programme which is called Bench+, which is for the undergraduate students and Bench Pro+ which is for Post Graduate students. It starts from goal setting, we develop a generative success model and then groom them to be true professionals. We also conduct entrepreneurial courses to help students who are interested to establish start-ups with guidance and right ingredient of how to start a business, writing a business plan etc. We also prepare them for campus interviews which are specific industry trainings depending on which campus the students will be appearing for. Thus we provide a full customized programme to help them get the exact grooming as per his/her expertise.

IMI Konnect: *How are the courses of Grip Consulting modelled to enhance the soft skills of school-going children which is a unique feature of your organization?*

MB: We believe that most of us are stuck to time zones and we don't get to learn the things which we should learn when the time is there. Life Skills is a very important part for a child who is growing up and the way he/she is modelled will result in how he/she will face the world. We have a very strong GRIP Bench programme for class 9-12 where we help these great minds to nurture them to think, explore, improve and apply the skills that they will need the most to grow in life.

IMI Konnect: *What are the major advantages and disadvantages of working as a start-up in India according to you?*

MB: We feel the greatest advantage of working as a startup is the learning phase and the opportunity to do something you love and create a difference. The disadvantage is to manage peer expectations as well as managing an addiction called the "salary"!

IMI Konnect: *How is India Inc going to be affected by the latest technological trends like AI, Digitalization, machine learning, etc. Is the role of HR going to change in this context? Please share your views.*

MB: We feel with the socio economic condition of India, latest technologies will take a considerable time to make an impact. 60 per cent of India Inc falls under MSME who are still struggling to create enough process and systems. We still have numerous organizations who have an attendance log book in spite of having biometric systems. The role of HR will definitely change in the context and it will evolve many folds. If we observe, most organizations do not suffer from business problems, they suffer from people problems and the HR function has to give strategic inputs to business to get rid of this. With time the HR function will become more business centric and over time we believe the built in Return on Investment (ROI) that is made for people development will be so much efficient that not a single penny spent on an employee would be a bad investment.

IMI Konnect: *What are your learnings from your start-up experience?*

MB: We have three distinctive learnings:

a) The problem of an organization that we perceive and try to address as an HR is not always what the customer perceives as his organization's problem; b) Patience is the key, you have to keep going; c)Direction is more important than speed.

IMI Konnect: *One of the areas most start-ups ignore is the HRM function- how important is the role of HRM in a start-up?*

MB: People build organizations and most start-up owners feel they are the best people managers. As an owner if you are spending more than 30 per cent time in managing people issues then you are wasting your time and then you need to think of building a strong HRM function. As the saying goes "Building People to Build Organization", we feel every start-up however big or small it is, should and must invest in good and strong people practices, as people are the ones who will build your organization.

IMI Konnect: *What will be your suggestions to the policy makers to induce a more conducive business environment for start-ups in India?*

MB: We feel there should be more flexibility in disbursement of funds for the service sector. There are lot of schemes for manufacturing sector, but for a business like ours there are not much scope. There should be specific schemes for people intensive services like ours.

Connecting the Marginal to the Consumers – The Amar Khamar Story

Sujoy Chatterjee*

Amar Khamar is an initiative that works with the objective of offering organic products directly from the farm to the doorsteps of urban consumers, online, using state-of-the-art digital technology, without any middlemen. What makes Amar Khamar, which means 'my farm', distinguished from its peers is the profile of its sellers. It works mostly with the smallholder women farmers from remote villages, who sell traditional products like rice, lentils, turmeric and spices. Working with the objectives of small-farm-based entrepreneurship, women entrepreneurship and empowerment, Amar Khamar also provides a face to the farmers and is ready to spread its reach with fuller store and stronger network of farming community in near future.

IMI Konnect: *What motivated you to start an organization focusing on organic farming and that too with women farmers in rural areas?*

SC: I co-founded a management consultancy firm in Germany in the year 2014, which was founded with an objective of offering consulting services with not-for-profit spirit, to international agencies who are designing their projects or trying to understand what is happening with their money in a particular project. So this took me to many places not only in India but in Africa also where focus of our clients was on socio-economically disadvantaged community. Globally, they are largely agrarian. Development is a major necessity for the bottom of the pyramid irrespective of their location and as I was into management consultancy, I thought my experience would help me to start working for a sizeable change to reduce the demand and supply mismatch.

One of the major problems faced by the farmers in developing world is the lack of connectivity to the market. Most of the organizations who are buying from them are buying at the minimum cost and selling at a very high price, thus making the entire process grossly unremunerative for the farmers. To make agriculture profitable it is of utmost importance to offer farmers better remunerations. Organic farming is much more difficult and laborious than doing farming with fertilizers. So why will a farmer do it? It can only happen with larger market access and Amar Khamar's motto is enhancing the market reach of the farmers.

*Founder, Amar Khamar

IMI Konnect: *What exactly does Amar Khamar focus on?*

SC: What prompted Amar Khamar is the fact that in last 20 years across the world there was a drastic improvement in usage of technology and the idea that you can take advantage of it in the 'development initiatives of the future'. Reach of technology in terms of mobile phone is really vast at the village level as it is affordable. The price of a mobile is within the reach of the village community.

What we try to do in Amar Khamar is not that what is already done but do something which is contemporary in the urban space also. Here an urban development gradually spreads into rural space. So there are three major factors behind establishing Amar Khamar: first is our experience of lack of market access to the farmers, second is the understanding of disruptive technology and third is the drive to make a creative change.

IMI Konnect: *That means the organization is here for helping the farmers on technological aspects as well as increasing marketability?*

SC: Yes, Amar Khamar works with the philosophy of creating entrepreneurs. The men and women who are associated with Amar Khamar have the understanding of business, price and market and they are even aware of customer preferences. It also helps them differentiate their products from rest of the products available in the market. They also have a feeling of direct presence in the market. Further, we have not-for-profit nodal organizations connected with Amar Khamar who can transform themselves fully or partly as social enterprises. Many organizations who are training or teaching on agriculture also face the difficulty in continuing training when the donations are not coming as they don't have any other alternative revenue model. We have farmers' group who are associated with not-for-profit cooperatives who are involved in training. Now they have the additional responsibility of ensuring quality, packing the product and operating the nodal terminal that we have from where the farmers can directly know their orders. So it serves both the purpose, it helps sustainable farming and at the same time it is a pure entrepreneurship from the absolute bottom of the pyramid.

IMI Konnect: *Can you elaborate on the revenue model of 'Amar Khamar'?*

SC: Amar Khamar is a social enterprise. The revenue model solely lies on the fact that when 1Kg rice is sold, the farmers know the exact price break-up. As a facilitating platform, Amar Khamar receives a small percentage of the price as a compensation to its expenses.

IMI Konnect: *Do you have any plan to collaborate with major agri-retailers?*

SC: No plans for such collaboration as it does not match with our working philosophy. We are trying to give face to the farmers and their products. If you buy from Amar Khamar, you can see the farmer from whom you are buying with all other relevant details. Today the agrarian community remains backward but we have to go back to them. We are creating a node in North Bengal with a Women Cooperative who are producing superior quality spices, mushrooms, etc. We are also extending to the Eastern part of West Bengal. So gradually we are in the process of making a network of farmer-managed online market where every node has the responsibility that every farmer knows the entire price construction. Thus we strive to ensure complete transparency and fair mechanism of price settlement.

IMI Konnect: *Do you have any storage facility as storage is a critical aspect of farming?*

SC: No, we have a totally different model where farmers have to own his or her own inventory and Amar Khamar do not manage inventory on their behalf. The moment an order is placed by someone from somewhere the system searches for the product which we group under self-help group or farmers' interest group. It will then search the cumulative sell of each group of that particular product in the market. Then it will go to the lowest selling group. Then it will go to the farmer whose sell is the lowest in that group. So we try to make the selling an even process across the farming community by distributing the prospective customers. Thus it is a distributive model and not an accumulative model. At times when the product is coming from North Bengal or some other far away places, we offer them a transit storage point so that they can overcome their locational disadvantage. On the other hand, if a farmer wants to remove any product from the list of the digital platform of Amar Khamar he or she is free to do so.

IMI Konnect: *How many farmers are associated with Amar Khamar approximately?*

SC: 280 farmers in total are working with Amar Khamar at present. A number of Self Help Groups are also actively associated with our organization. The number of such Self Help Groups are 48.

IMI Konnect: *Why did you choose Sundarbans? What was special about it?*

SC: One reason behind choosing Sundarbans was that we were involved in developing 'a knowledge centre' where most of the farmers were women, since the last 4-5 years approximately. We had witnessed the hardship and challenges faced by them because of the river, the isolated location and other geographical constraints. Despite these obstacles, the Sundarbans also offer huge potential with its vastly available fertile land and natural competitive advantage on agrarian products. However, logistics is a major problem as our products have to be transported through various islands like Sandeshkhali, Dhamakhali and Hingalganj, increasing the transportation cost as well. Hence the primary reason of selecting the Sundarbans was the challenge and the secondary reason was the acquaintance and discussions with the local people along with the determination that we can be change-makers.

IMI Konnect: *Amar Khamar sells only traditional products. Do you have any plan to venture into processed food market?*

SC: Very soon Amar Khamar is going to come up with newer products on its digital shelf. We are trying to set up a commercial processing unit owned by the farmers and value added products like Bori, Chire, Muri along with Dheki Chata Chal (hand-pounded rice) are on the offing. Soon we are going to offer organic vegetables on our website. We are also planning to add honey which is largely available in the Sundarbans. We are going to take help from outside experts to make things work. So from January 2019, the store of Amar Khamar will be fuller with more farmers offering more products from different corners of West Bengal.

IMI Konnect: *What is your take on the future of start-ups in India?*

SC: The overall scenario on start-ups is very encouraging I would say. In Calcutta and around India, you can feel a positive vibe and increase in entrepreneurial spirit of people. There is an increasing trend of fresh graduates from leading colleges trying their hands in start-ups as they are eager to have hands-on experience of running a start-up.

International Management Institute
Kolkata

International Management Institute Kolkata
2/4C, Judges Court Road
Alipore, Kolkata 700027
Telephone: +91 33 6652 9658
website: www.imi-k.edu.in