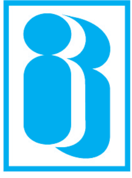

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# Bank Quest

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## Infrastructure Financing – New Normal

# IIBF CALENDAR OF TRAINING PROGRAMMES FOR JULY - SEPTEMBER 2021 QUARTER

| A. Open/Customised Programmes scheduled during July - September 2021 Quarter | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Month** | **Area** | **S. No.** | **Programmes** | **From** | **To** | **Duration** | **Fee per Participant** | **Coordinator** |
| **July 2021** | **Credit** | 1 | Fundamentals of Credit Analysis | 08.07.21 | 09.07.21 | 2 days | ₹4,000/- + GST | Mr. R Govindarajan |
| | **General Banking** | 2 | Customised Program on Effective Branch Management for TJSB Bank | 09.07.21 | 11.07.21 | 3 days | ₹60,000/- + GST per day | Ms. A K Mishra |
| | **Banking Technology** | 3 | IT Security & Prevention of Cyber Crimes | 12.07.21 | 13.07.21 | 2 days | ₹5,000/- + GST | Mr. Thiruma Valavan |
| | **MSME** | 4 | Program on MSME Lending & Restructuring | 15.07.21 | 17.07.21 | 3 days | ₹6,000/- + GST | Mr. M K Bhatia |
| | **Credit** | 5 | Customised Program on Credit Monitoring for UCO Bank | 19.07.21 | 21.07.21 | 3 days | ₹6,000/- + GST | Mr. Subhasis Chaudhury |
| | **Treasury** | 6 | Program on Managing Risks in Treasury Operations | 21.07.21 | 23.07.21 | 3 days | ₹7,500/- + GST | Ms. A K Mishra |
| | **Credit** | 7 | Program on Resolution of Stressed Assets through IBC Code | 26.07.21 | 27.07.21 | 2 days | ₹4,000/- + GST | Mr. M K Bhatia |
| | **Forex & International Trade** | 8 | Export Credit Management | 26.07.21 | 27.07.21 | 2 days | ₹4,000/- + GST | Mr. R Govindarajan |
| | **Credit** | 9 | Open Program on Credit Monitoring & Resolution of Stress in MSME & Mid/Large Corporate Accounts | 26.07.21 | 28.07.21 | 3 days | ₹6,000/- + GST | Mr. Subhasis Chaudhury |
| | **General Banking** | 10 | Program on Discipline & Disciplinary Action | 29.07.21 | 30.07.21 | 2 days | ₹4,000/- + GST | Ms. A K Mishra |
| **Aug 2021** | **Agri & Rural Banking** | 11 | Program on Priority Sector Lending with focus on financing Agriculture and Micro & Small Enterprises | 02.08.21 | 06.08.21 | 5 days | ₹8,000/- + GST | Ms. A K Mishra |
| | **Credit** | 12 | Program on Documentation & Charge Creation | 09.08.21 | 10.08.2021 | 2 days | ₹4,000/- + GST | Mrs. R Kanchanamala |
| | **General Banking** | 13 | Program on Effective Branch Management | 11.08.21 | 13.08.21 | 3 days | ₹6,000/- + GST | Ms. Ravita Wadhwa |
| | **MSME** | 14 | Program on MSME Lending & Restructuring | 16.08.21 | 17.08.21 | 2 days | ₹4,000/- + GST | Mr. Subhasis Chaudhury |
| | **Credit** | 15 | Program on Credit Monitoring | 16.08.21 | 17.08.21 | 2 days | ₹4,000/- + GST | Mr. M K Bhatia |
| | **Credit** | 16 | CCP for Jagdish Sheth School of Management (erswhile IFIM, Bangalore) | 23.08.21 | 24.08.21 | 2 days | ₹5,0000/- + GST per day | Mrs. R Kanchanamala |
| | **Audit & Compliance** | 17 | Program on KYC/AML & CFT | 23.08.21 | 24.08.21 | 2 days | ₹4,000/- + GST | Mr. Subhasis Chaudhury |
| | **Credit** | 18 | Advanced Corporate Lending | 23.08.21 | 25.08.21 | 3 days | ₹6,000/- + GST | Mr. R Govindarajan |
| | **Risk Management** | 19 | Risk Management in Banks with special emphasis on Credit Risk Management | 27.08.21 | 28.08.21 | 2 days | ₹4,000/- + GST | Mr. M K Bhatia |
| | **Treasury** | 20 | CTP for Jagdish Sheth School of Management (erswhile IFIM, Bangalore) | 30.08.21 | 31.08.21 | 2 days | ₹50,000/- + GST per day | Mr. R Govindarajan |
| **Sep 2021** | **Credit** | 21 | NPA Management | 02.09.21 | 04.09.21 | 3 days | ₹6,000/- + GST | Mr. Thiruma Valavan |
| | **Retail** | 22 | Customised Program on Retail Credit - Various Schemes & their Appraisal for Samata Urban Co-op Dev. Bank | 06.09.21 | 06.09.21 | 1 day | ₹2,000/- + GST | Mr. Subhasis Chaudhury |
| | **Forex & International Trade** | 23 | Program on Trade Based Money Laundering & Prevention of Frauds in International Trade | 06.09.21 | 07.09.21 | 2 days | ₹4,000/- + GST | Ms. Ravita Wadhwa |
| | **Credit** | 24 | Program on Balance Sheet Reading and Ratio Analysis | 06.09.21 | 07.09.21 | 2 days | ₹4,000/- + GST | Mr. M K Bhatia |
| | **Forex & International Trade** | 25 | Program on Foreign Exchange Operations | 13.09.21 | 15.09.21 | 3 days | ₹6,000/- + GST | Mr. R Govindarajan |
| | **Credit** | 26 | Program on Balance Sheet Reading and Ratio Analysis | 14.09.21 | 15.09.21 | 2 days | ₹4,000/- + GST | Mr. M K Bhatia |
| | **Agri & Rural Banking** | 27 | Preferred Sector Financing for RRBs | 20.09.21 | 21.09.21 | 2 days | ₹4,000/- + GST | Mr. R Govindarajan |
| **B. Blended Programmes and Contact Classes scheduled during July-September 2021 Quarter** | | | | | | | | |
| **July 2021** | **Credit** | 1 | Program for Certified Credit Professionals (CCP) | 02.07.21 | 04.07.21 | 3 days | 1st attempt NIL, 2nd attempt ₹1,000/ + GST | Mrs. R Kanchanamala |
| | **Credit** | 2 | Program for Certified Credit Professionals (CCP) | 21.07.21 | 23.07.21 | 3 days | 1st attempt NIL, 2nd attempt ₹1,000/ + GST | Mrs. R Kanchanamala |
| | **Risk Management** | 3 | Program on Risk in Financial Services (RFS) | 27.07.21 | 29.07.21 | 3 days | 1st attempt NIL, 2nd attempt ₹1,000/ + GST | Mrs. R Kanchanamala |
| **Aug 2021** | **Treasury** | 4 | Programme for Certified Treasury Professionals (CTP) | 10.08.21 | 12.08.21 | 3 days | 1st attempt NIL, 2nd attempt ₹1,000/ + GST | Mr. Thiruma Valavan |
| | **Credit** | 5 | Program for Certified Credit Professionals (CCP) | 19.08.21 | 21.08.21 | 3 days | 1st attempt NIL, 2nd attempt ₹1,000/ + GST | Mrs. R Kanchanamala |
| | **Audit & Compliance** | 6 | Program for Certified Accounts & Audit Professionals (AAP) | 24.08.21 | 26.08.21 | 3 days | 1st attempt NIL, 2nd attempt ₹1,000/ + GST | Mr. Thiruma Valavan |
| **Sep 2021** | **Risk Management** | 7 | Program on Risk in Financial Services (RFS) | 01.09.21 | 03.09.21 | 3 days | 1st attempt NIL, 2nd attempt ₹1,000/ + GST | Mrs. R Kanchanamala |
| | **Audit & Compliance** | 8 | Program for Certified Bank Compliance Professionals (BCP) | 07.09.21 | 09.09.21 | 3 days | First Attempt ₹4500/ + GST, Second Attempt ₹2000/ + GST | Ms. A K Mishra |
| | **Credit** | 9 | Program for Certified Credit Professionals (CCP) | 14.09.21 | 16.09.21 | 3 days | 1st attempt NIL, 2nd attempt ₹1,000/ + GST | Mrs. R Kanchanamala |
| | **Treasury** | 10 | Programme for Certified Treasury Professionals (CTP) | 21.09.21 | 23.09.21 | 3 days | 1st attempt NIL, 2nd attempt ₹1,000/ + GST | Mr. Thiruma Valavan |
| | **HRM & Vigilance** | 11 | Program for Certified Bank Trainers (CBT) | 27.09.21 | 29.09.21 | 3 days | First Attempt ₹4500/ + GST, Second Attempt ₹2000/ + GST | Ms. Ravita Wadhwa |

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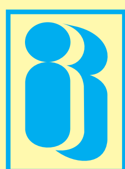
Bank Quest



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## MISSION

The mission of the Institute is to develop professionally qualified and competent bankers and finance professionals primarily through a process of education, training, examination, consultancy / counselling and continuing professional development programs.

## ध्येय

संस्थान का ध्येय मूलत: शिक्षण, प्रशिक्षण, परीक्षा, परामर्शिता और निरंतर विशेषज्ञता को बढ़ाने वाले कार्यक्रमों के द्वारा सुयोग्य और सक्षम बैंकरों तथा वित्त विशेषज्ञों को विकसित करना है ।

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**Mr. Biswa Ketan Das**
*Chief Executive Officer,*
*IIBF, Mumbai*

Infrastructure development is a *sine-quo-non* for sustained economic growth of a country. In India too, infrastructure sector gets the importance from all the stakeholders including Government of India. As you are aware, Government has announced a target of $1.5 trillion in infrastructure over a period of 2020-2025. A few characteristics differentiate infrastructure financing from others and make it more complex. Infrastructure projects are long term in nature and therefore, subject to various risks like delay in implementation, policy changes etc and have effects on techno-economic viability of projects. The fundamental problem of asset liability mismatch will be a hindering factor where debt financing of projects is dominated by banks in the absence of Development Financial Institutions.

Recognising that there is a need for an effective and efficient system that provides financial resources to this sector, the National Bank for Financing Infrastructure and Development Bill, 2021 was introduced in the Budget 2021. The Bill seeks to establish the National Bank for Financing Infrastructure and Development (NBFID) as the principal Development Financial Institution (DFI) for infrastructure financing. Given the importance of infrastructure financing, the current issue of Bank Quest is on the theme “Infrastructure Financing - New Normal”.

The Institute commenced its 10th batch of the Advanced Management Program (AMP) on 6th June, 2021. The 10th batch of the program was inaugurated virtually by Mr. Rajkiran Rai G, President, IIBF and Managing Director & CEO of Union Bank of India. He addressed all the participants with his words of wisdom and enlightened them about the progress made and challenges faced by the banking sector and what needs to be done further going forward. We are carrying the inaugural speech by Mr. Rajkiran Rai G. as the first article of this issue.

The second article of this issue has been authored by Dr. Vikas Srivastava, Professor, Finance and Accounts, Indian Institute of Management, Lucknow on “Financing Infrastructure Projects: Project Finance and Cost of Capital Conundrum”. According to the author, although, there is significant progress in diversifying sources of capital by bringing in policy level changes and innovation in products, the obstacle of lack of investable projects remains. A greater involvement of private investors and design of economically rational financing structures can mitigate such problems. The recently announced Development Financial Institution will have an important role to play.

The third article of Bank Quest is penned by Dr. Bibekananda Panda, Assistant General Manager (Economist), State Bank of India and Ms. Sara Joy, Chief Manager (Research and Analysis Group), EXIM Bank of India on “Infrastructure Financing in India: The Way Forward”. According to the authors, the complex nature of infrastructure projects calls for several policy changes. To ensure adequate and timely availability of capital for infrastructure development in the country, there is a need for new financing instruments that alleviate some of the investor concerns and provide relief to this sector. Factors delaying the

implementation of the projects need to be streamlined and addressed in the shortest possible time.

The fourth article of the journal is written by Mr. V. Vijay Anand, Chief Manager, State Bank of India titled “Financing of Green Field Projects.” The article focusses on a step-by-step approach for financing a green field project. The growth of green field projects in MSME’s are important both for customers and banks, due to its sustained growth potential besides providing employment opportunities to unskilled, semi-skilled and skilled workforce of the country which are important for growth of the nation.

The fifth article is authored by Mr. Rohan Prasad Gupta, Research Scholar, University of Calcutta and Dr. Bappaditya Biswas, Assistant Professor, University of Calcutta on “Social Infrastructure Financing in India- An Empirical Study”. The article mentions that social Infrastructure Financing, which is on a gradual rise in the past few years, positively and significantly impact the economic growth, human development and well-being of the nation.

The sixth article which is penned by Ms. R. Padmaja, PhD Research Scholar, Ayya Nadar Janaki Ammal College and Ms. M. Rifaya Meera, Assistant Professor, Ayya Nadar Janaki Ammal College on “E-HRM practices of Scheduled Commercial Banks – A Theoretical Framework”. Electronic Human Resource Management practices play a vital role in the performance of the employees in the banking sector. Employee performance is important for the success or failure of every organization. Workforce agility is the way through which organizations make the employees adapt to the changing working environment.

In this issue, we are publishing a summary of Diamond Jubilee & C.H. Bhabha Banking Overseas Research Fellowship Report (2018-19) on “A study of predictive strength of Indian Overnight Swap Market vs. other countries” by Ms. Dipanwita Dutta, Chief Manager, Punjab National Bank.

We are also carrying a review of the book on “Transformational Leadership in Banking: Challenges of Governance, Leadership and HR in Digital and Disruptive World” edited by Dr. Anil K. Khandelwal, Former Chairman and Managing Director, Bank of Baroda and reviewed by Dr. K. Srinivasa Rao, Adjunct Professor, Institute of Insurance and Risk Management (IIRM), Hyderabad, former General Manager, Bank of Baroda and Director, National Institute of Banking Studies and Corporate Management.

I hope the readers would find the articles published in Bank Quest informative and useful. The Institute aims towards excellence and quality and therefore, I welcome suggestions for improvement.

**Biswa Ketan Das**

# Inaugural Address: 10th Batch of Advanced Management Programme (AMP), IIBF

Rajkiran Rai G.*

Mr. Biswa Ketan Das, CEO, Indian Institute of Banking & Finance,

Dr. Rajiv Kumar, Professor -IIM, Calcutta

Participants of 10th Batch of Advanced Management Program, IIBF

Ladies & Gentlemen,

Very good morning to all,

1. It is a pleasure to interact with our young colleagues from the banking fraternity. I thank Mr. Das for having me here today at the inauguration of 10th batch of Advanced Management Programme. Indian Institute of Banking & Finance has played a great role in preparing bankers for the knowledge economy of today. While going through the participants profile, what struck me most is the diversity of institutions you all come from. We have a small cosmos of Indian banking & finance ready to acquire the knowledge and skills to be future ready.

2. For such a bright audience, I think it will be appropriate if I share my thoughts about state of banking industry in India and future of banking, in general. As you begin the learning journey, let me lead with you questions that define banking today, and how we are placed amidst it as professionals. My aim here is to flame your curiosity and challenge you to be the agent of change.

3. I can do no better than quoting an introduction about state of banking from 'The Economist' magazine special feature on banking released a couple of weeks ago. It reads as, and I quote,

   "Nobody likes banks. Their technology is often primitive. Their users are hit with unpredictable fees. Their functions matter, yet their coverage is incomplete. This can relegate swathes of people in rich countries, and entire populations of poor ones to the fringes of society. Many of the biggest make most profits from trading and fees, not providing services to ordinary customers. And worst of all, their failures can cause catastrophic damage for which they bear only a fraction of the costs. It would seem rational therefore, to cheer for the fierce new competition that is reducing banks' traditional role."-Unquote.

4. It runs like a rant of a bank pessimist, who cannot see anything but what is broken with banks, and banking system per se. Besides, it would seem silly to draw parallels between big rogue banks of the West, which caused Global Financial Crisis, driven by greed, vis-à-vis institutions we proudly identify with nation building in India.

5. As much heart burn as banking community may feel over this vilification, we can ill afford to dismiss the narrative painted by The Economist. It raises important questions that should force us to reflect on. If we juxtapose this narrative on India, we are actually not much different from our Western peers. Difference here may be more-of-a-degree than of-a-kind.

6. There are questions we must fathom as industry. Let me enumerate a few:

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*Managing Director & CEO, Union Bank of India.

Inaugural address of Advanced Management Program – 10th Batch was delivered virtually on 6th June, 2021.

- Do we really care for the trust of our customers, as much we believe we do?
- Do we offer best in technology, making life simpler for our users?
- If banking matters, how come a large section of population is not part of mainstream? Why there is so much inequity in access to finance?
- Are we helping to bridge the poor-rich divide or turning into instruments of alienation in society?
- In chasing profits from fee generating services, are we undermining basic services essential to majority of Indians?
- Do we also pose risks that threaten economy as a whole, much like the rogue banks of the West? Do we fully bear the costs of our actions?
- Is there indeed an alternative that challenges the traditional role of banks?

7. We can go on, posing questions reflectively. But the moot point I wish to draw your attention to is that our role as bankers is being questioned today in society, and our relevance as an intermediary by our new generation competitors.

8. Let me share a few observations from India, which will help us clarify objectives as bankers, and give ourselves a purpose.

   - Three Indian commercial banks[1] have fallen off grace in last eighteen months, threatening the depositor's hard earned savings kept in trust. Two of them were bailed out by merging with another; resolution of another is still giving nightmares.
   - Bulk of our economy stays informal, relying for credit from non-bank sources, and making cash based payments, especially trade-credit aspects. Cash continues to be dominant medium of exchange, costing as much as 1.7% of GDP annually. Cash to GDP ratio remains above 12%, within which high denomination notes share has bounced back above 80%, demonetisation notwithstanding.
   - Speaking of inequity in access to credit, our financial system remains concentrated towards large borrowers. A large section of India's population, especially entrepreneurial class doesn't satisfy the conventional credit worthiness metrics of banks. Only large and established borrowers have sufficient documentary trail to satisfy our credit underwriting standards.
   - Does that make large borrowers better at servicing debt? We like to believe so, but the facts speak otherwise. As per the Financial Stability Report of the Reserve Bank of India, large borrowal accounts (with exposure of ₹5 crore and above) constituted 80 per cent of NPAs and 54 per cent of total loans at end-September 2020.
   - Meanwhile, one study[2] pegged Indian MSME's credit needs met from informal sources at 40 per cent. Overall credit-gap in MSME sector is estimated at ₹25 trillion, which is one-fifth of current credit outstanding of banking system. It is affirming the extent of exclusion we have to bridge.
   - We have ample cases of mis-selling of financial products. At one point, Unit-Linked Insurance Products (ULIPs) mis-selling was estimated to cost ₹1.5 trillion to customers in decade to 2011, before regulator stepped in to curb such practices. Even within bank products, there are cases of mis-selling where a loan seeker gets burdened with buying investment schemes sponsored by banks. Cross-sell is fine, mis-sell is not.
   - We also have institutions that posed systemic stability risks, because of poor

[1] Yes Bank, Lakshmi Vilas Bank, and PMC

[2] Financing India's MSMEs; November 2018

corporate governance and managers engaging in unethical practices. ILFS comes readily to mind, where the scale of operation was such that its collapse was compared to India's Lehman moment. But, for prudential acts undertaken by Government and regulator, we would have seen several financial institutions crumbling under their weight of misdeeds. What is unfortunate is that taxpayers had to pay for their misadventures.

- Finally, Bank alternatives that promise better services, convenience, safety and control in the hands of customers, big or small. We have fin-techs solving problems of access, affordability and quality in ensuring last mile delivery. Do they qualify as challengers to conventional banks? Not yet, but we are not so sure if the situation will remain so in near future.

9. Friends, banking and finance, at its core, is about having the trust of citizens, that their life savings are safe, and available when they need it. Second, it is the vehicle of efficient utilization of resources, pooling savings towards investments, thereby helping create value for society. Our efficiency lies in reducing the cost of intermediation by skillfully managing risks.

10. I have shown light on the challenges we face as banking community. Our challenges are not just limited to managing everyday exigencies of business, which we anyway do, but to reclaim the real purpose of our being a banker.

11. The story of Indian banking so far appears to be perspective of 'Glass Half Empty'. Let me turn to a more positive narrative of becoming future ready.

12. India has accomplished universal mobile telephony access, internet connectivity and digital identity in AADHAAR. Data consumption per user per month has risen to 13.5 GB by end 2020 and is forecast to cross 25 GB by 2025. Data costs are a fraction of global average leading to democratisation of internet in India. India is on the way to becoming Asia's top financial technology hub with 87 per cent FinTech adoption rate as against the global average of 64 per cent[3].

13. We have made substantial gains on financial inclusion. Indian banks have opened 42 crore basic banking accounts, thus bringing all households into financial mainstream. This access has been leveraged to provide universal social security through insurance and pension. The Jan-Dhan, Aadhaar, and Mobile, what we call the JAM trinity, has revolutionised welfare payments in India. India processed 274 crore digital transactions to provide Direct Benefit Transfer (DBT) to the people straight into their bank accounts last year.

14. Indian banks meanwhile made long strides on operational efficiency and customer satisfaction journey. Three keys areas where leading banks[4] are making a distinction include:

    a. **Investing into new technologies:** Digital banking has gone mainstream from being an Alternative Channel for customer interaction. India is home to highest number of real time transactions in world, surpassing China and the USA. From new chatbot interfaces at the front-end to hosting data on Clouds and using sophisticated tools like Artificial Intelligence and Machine Learning at the back, Indian banks are embracing technology across the enterprise.

    b. **Focusing on customer needs:** Banks are positioning themselves as financial solution providers, offering products as per the unique needs of customer. Gone are the days of carpet bombing style of marketing based on broad customer segmentation. The leading banks are investing into understanding their individual customers at a much deeper level.

[3]Financial Sector in the New Decade; Shaktikant Das; 2021

[4]The Future is Open; KPMG, 2020

The winners of tomorrow will be those that know their customers the best. Analytics based decision-making is key to unlock the wealth of customer data, banks have.

c. **Expanding the ecosystems:** We have rich bouquet of digital products with low adoption by customers. Scaling up offerings continues to be a challenge. Conventional banks do not have all of the skills and capabilities required to remain competitive in digital-first environment. It is better pursuing partnerships. While some of leading banks have developed their talent for innovation in-house, others developed through partnership with fintechs, service providers, innovation labs and academia, to name just a few.

**To conclude,**

15. I have deliberately challenged you with a popular narrative on global banking. I also shared why Indian banks are not as different as we wish to believe. However, this cannot take away the great strides Indian banking has made in last few years in raising efficiency and customer service standards.

16. We are second to none in application to technology in banking. India has thriving digital ecosystem where banks have partnered with fintechs to offer best of customer conveniences. Our challenge, though, is scaling this up to cover 1.3 billion population. We must endeavour to serve the underserved, help them have opportunities to grow to the potential. Likewise, Indian banks also have the challenge of financing India's aspirations of becoming Aatm-nirbhar in its journey to become USD 5 trillion economy.

17. There cannot be a better preparation than having a skilled and knowledgeable human resource. I am confident that this younger lot of bankers will take the mantle of improving overall efficiency in their banks. I wish you all success!

Thank you!

**Changing Paradigm of Urban Cooperative Banks Supervision – Way Forward**

UCBs play a key role in furthering the financial inclusion agenda of the Reserve Bank and have obvious advantages in terms of servicing people of small means in semi-urban and urban areas. The UCB sector is unique in the sense that there is a significant degree of heterogeneity among banks in this sector in terms of size, geographical distribution, performance and financial soundness. The sector has unit UCBs, multi-branch UCBs operating within a state and multi-state UCBs with the area of operation in more than one state.

Cooperative banks with their better knowledge of customers and familiarity with the area of operation can attract new customers and retain the existing clientele with their unique selling proposition. This may require suitable changes in outlook, processes, business model and strategy.

However, cooperative banks are now functioning in a highly competitive environment. Entry of more players in the banking arena and technology have increased options to customers and banks have both opportunities to grow and challenges for survival. As banking business becomes more complex and competitive, the need for skilled workforce will increase, regular investments in IT infrastructure would be required and the cost of compliance would also go up.

The Reserve Bank has taken several measures to enhance supervision of UCB sector under the new unified Department of Supervision (DoS) such as implementation of core banking solution (CBS) in UCBs, revised CAMELS (Capital Adequacy, Asset Quality, Management, Earnings, Liquidity and Systems and Control) rating model for UCBs, detailed data analytics and assessment of vulnerabilities, assessment of cyber risk, centralisation of off-site/eXtensible business reporting language (XBRL) reporting mechanism and meetings/interactive sessions with chief executive officers (CEOs)/directors of weak/vulnerable UCBs.

The Reserve Bank has announced in the Statement on Developmental and Regulatory Policies of February 5, 2021, about setting up of an expert committee on UCBs involving all stakeholders in order to provide a medium-term roadmap to strengthen the sector, enable faster rehabilitation/resolution of UCBs, as well as to examine other critical aspects relating to these entities. The committee will suggest effective measures for faster rehabilitation/resolution of UCBs, assess potential for consolidation in the sector, consider the need for differential regulations and examine prospects to allow more leeway in permissible activities for UCBs with a view to enhance their resilience and draw up a vision document for a vibrant and resilient urban cooperative banking sector having regards to the principles of cooperation as well as depositors' interest and systemic issues.

Source : Annual Report 2020-21, Reserve Bank of India.

# Financing Infrastructure Projects: Project Finance and Cost of Capital Conundrum

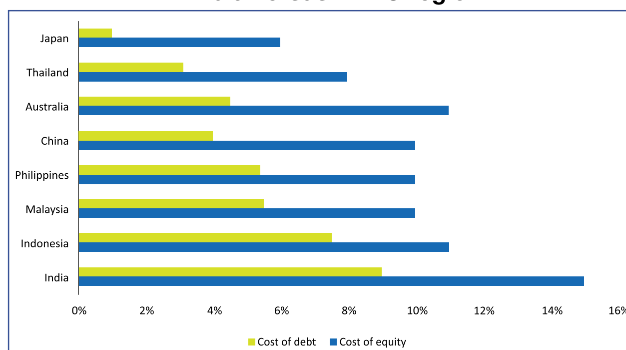
Dr. Vikas Srivastava*

Infrastructure is a key determinant for the growth potential of the economy. Infrastructure development gives multiplier effect to the economy and new infrastructure will be pivotal to the availability of safe drinking water, housing-urban and rural sanitation, access to health facilities and other vital resources. According to McKinsey Global Institute (2014), the projected portion of infrastructure funding in GDP must be increased approximately from 3.8 per cent to 5.6 per cent worldwide. On similar lines, the National Infrastructure Pipeline (NIP) in India detailed the roadmap of infrastructure development across sub-sectors by outlining an investment plan of over INR 100 lakh crore ($1360 bn) over the next five years.

Infrastructure investments require "certain" large initial investments and "uncertain" long term risky payoffs. This means that in order to maximize the value of infrastructure assets for both equity and debt investors, the cost of capital needs to be optimized. Cost of capital is a function of risk-reward and opportunity cost trade-offs sought by investors when they give capital. Simply put, there are theoretically just two ways to optimize cost of capital. One of them would be to reduce the riskiness/volatility around projected cash flows and the second being bringing in more diversified investors, thus optimizing the demand for compensation for unsystematic/project specific risk. It is clear from Exhibit One that the cost of both debt and equity capital in India is high when compared to similar countries in APAC region.

Thus, access to diversified sources of capital and investors means lower cost of capital. Now I look into the sources of funds and instruments, apart from sovereign budgets to study their impact on cost of capital. I would not be focusing on funds available through budgetary allocations as with the onset of COVID-19 and associated disruptions, the financing of infrastructure via Centre and State budgets would be constrained.

**Exhibit One: Cost of Capital (Typically for renewables) in India versus APAC region**




*Source: Tata CleanTech Capital Research*

## Cost of capital and diversified pool of infrastructure investors

Several innovations in financial products available to fund infrastructure, policy and regulatory guidelines and other such interventions have worked towards bringing in diversified investors towards bridging the infrastructure financing gap. This has led to a reduction in the cost of capital of infrastructure projects. I will now critically examine a few of these sources.

Bank financing has been a major source of funds for infrastructure projects. Outstanding credit to

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infrastructure sector, as a percentage of gross non-food credit, by banks was 15% until fiscal year 2016. Only due to rising non-performing assets in the banking sector, driven by declining asset quality, this share declined to 12% in the fiscal year of 2019. Power and Roads contributed to 70% of the outstanding bank infra credit. Though it is easy to see that dependence on bank funds, on paper, does not solve the access to the low cost *long term* funds problem, but bank financing does have its own advantages. Bank financing revalidates the project economics (credit decisions require due diligence on the contractual bundle and banks create escrow or Trust and Retention mechanisms for trapping project cash flows), provides effective monitoring support and is cheaper and easier to renegotiate than bond financing. Syndicated loans on common loan documentation means that credit and syndication risk is diversified and the cost of capital is thus reduced.

Why bank funding was so important, typically in early project stage, is because of a lack of depth and width in bond markets. The domestic debt market in India amounts to about 67% of the Indian GDP while the size of India's corporate bond market is a mere 16% of the same. Infrastructure projects in the under-construction stage are typically rated at BB or below, signifying the high risk in funding these projects and therefore these projects do not seem attractive to bond investors who are skewed towards top-rated and financial sector entities. Similar constraints on rating prevent pension and insurance companies to directly invest in highly leveraged infrastructure projects.

The proposed, *Development Financial Institution,* created with an aim of funding infrastructure projects, may be able to attract low cost funds with its dedicated corpus and sovereign backing. Though in theory, funds from Infrastructure Development Funds (IDFs) can refinance initial bank loans, in practice, a steady pipeline of operationally efficient infrastructure projects is unavailable. Banks are further hesitant to hold onto such assets, if the projects are doing well.

Infrastructure and Real Estate Investment Trusts (InvITs and REITs) solve this problem of investment in operational assets (thus limiting construction risks) and need to pass 90% of income as dividends. They are likely to play a significant role in future, bringing in diversified investors to infrastructure assets.

In addition to this, new Multilateral Development Banks like the New Development Bank, Asian Infrastructure Investment Bank are also investing in bankable projects, in addition to Asian Development Bank and International Finance Corporation. The norms for External Commercial Borrowings, Foreign Direct Investment, Foreign Institutional Investor route and offshore rupee bonds have also been eased to provide additional economical funds to infrastructure assets.

With the above discussion, we can easily conclude that decks have been cleared and significant steps have been taken to reduce cost of capital by bringing in diversified sources of capital and investors to invest in infrastructure assets.

However, unless equal attention is paid towards bringing down the risk around cash flows of infrastructure assets, the assets would still not be able to satisfy the returns expected by debt or equity investors. If the value of infrastructure asset drops below the value of debt, the developer is most likely to default. This may bring us back to another series of Non-Performing Assets, though the sectors may differ now.

## Project Finance, High Leverage and Risk Allocation

The common method for financing infrastructure assets is Project Finance. According to Esty et al. (2014), "Project Finance involves the creation of a legally independent project company financed with equity and non-recourse debt to finance a single purpose capital asset, usually with a limited life". Project Finance involves investment in an asset solely based on asset's capacity to generate returns, but due to non-simplicity in the application, there is no formal agreed-upon concept of PF (Srivastava and Kumar, 2010, Pinto, 2017).

The basic building blocks of Project Finance structures are the Creation of Separate Entities;

Concentrated Equity Holding Pattern; Usage of Non-recourse Debt; High Leverage; and Usage of Contractual Structure (Srivastava and Kumar, 2010; Pinto, 2017). Thus, Project Finance structures provide a mechanism to separate the new investment from existing block, thereby removing the problem of asymmetric information and using non-recourse debt with no additional charge on existing balance sheets. It is easy to see why highly leveraged project finance is a preferred financing mechanism. In theory, assets in the infrastructure sector are "Utilities" and thus have sure off takers/buyers. If there is a contractual agreement with a buyer (like in power projects), cash flows are definite and can be escrowed. This means that the projects can be supported by high debt ratios, as guaranteed cash flows are just sculpted around debt repayments with suitable reserves built in. As cost of debt capital is generally lesser than equity capital, the weighted average cost of capital comes down.

The above theory will work perfectly if all risk that comes to the cash flow is optimally allocated to counter-parties through contracts, hedging, insurance or securitization and the contractual counterparts behave as would be expected. However, if the contractual counter-parties do not behave as expected or the project faces construction delays, then the expected cash flows would not materialize and project finance lenders would start to face repayment stress, as they are bound by non-recourse/limited recourse debt.

The paper now investigates further into information asymmetries that create problems in risk allocation and sharing between several project parties and counter-parties. In a perfect world, high debt driven Project Financing increases equity value. Perfect covenant monitoring by bankers precisely show the picture of cash utilization while capturing the associated cash flows.

However, I present in Table One, two scenarios that exist for Project Finance. In the first scenario, the project is executed under perfectly symmetric information sharing amongst the key stakeholders, which include the Government, Corporate Sponsor, Bank and the Public at large. Under ideal conditions, the project would create value.

In the second scenario, I present more realistic scenarios, keeping in sight the "Information asymmetry" that exists between the key sponsors with respect to the nature of returns along with the risks faced by the project.

**Table One: Information Asymmetry and project finance**

| **Stakeholder One: Public Body /Government** | |
|---|---|
| *Scenario One: Information about risk and return is perfectly symmetric amongst key stakeholders* | *Scenario Two: Information about risk and return is asymmetric amongst key stakeholders* |
| 1. Decides to commercialize an Infrastructure asset only when there is an economic need and there is strong possibility of sure off take of the service. | 1. Sometimes commercialization of an asset is a political decision rather than economic decision. So a concession may come out for a six lane highway, where traffic is not even good for a successful four lane highway. |
| 2. Invites bids on a well thought out and drafted Concession Agreement wherein bidding process, criteria and scoring methodology is clearly laid out. | 2. Request for Proposals or Quotations are sometimes not well thought out leading to litigations on the Bidding Process or criteria. |
| 3. Important risk mitigators like, State support agreements, substitution agreements and Termination benefits are clearly listed and enforceable. | 3. Too many riders and conditions on Termination Benefits in case the asset becomes stressed or Substitution agreements makes it difficult for the Concessionaire or bankers to derive any benefit. |
| 4. Get clearances in place and sort out land acquisition issues. | 4. Clearances from several agencies like environment, forest etc. are delayed and land acquisition issues are not yet clearly sorted by policy. |
| **Stakeholder Two: Concessionaire/Corporate/Project Company** | |
| 1. Private sector calculates a fair bid value for the concession keeping in mind the negative and positive externalities and additional income streams that the project would generate. | 1. Overbidding of projects is a concern and corporates frequently ask for sweeteners post winning a bid. |

| | |
|---|---|
| 2. Private sector is comfortable loading the project with upfront equity and remains "skin in the game", till the time the project gets commissioned and starts generating cash flows. | 2. Most of the time the quality of equity infusion is suspect and the equity may sometimes come in the form of subordinated debt. Also the sponsors seldom bring in upfront equity, matching equity infusion with the drawdown schedule of bankers. |
| 3. Private sector is able to raise capital following the three principles: Right Kind (Instruments such as Bank Debt or Bonds) Right Amount(Optimum Debt equity ratios) and in the Right Sequence(that matches the assets with the financing instruments). | 3. The sources of debt and equity finance is limited in the light of the lack of breadth and depth of bond markets. (This issue though is now addressed by policy; execution remains to be tested). Even risky projects are loaded with huge bank debt and risk shedding to bankers' balance sheet acts as a major incentive for sponsors. |
| 4. In case the asset becomes stressed, private sector participates in the restructuring efforts and handholds the project till the time it starts producing cash flows again. | 4. Sponsors fail to bring in fresh equity, competent management or in some cases even a viable business plan when assets become stressed. In some extreme cases it is the sponsors who are overeager to park stressed assets in the restructuring mechanism. |
| 5. They present Financial Information to the bank correctly and on time. The debt contracts are respected. | 5. Early warning signal are often camouflaged and the sponsors may take one last gamble on debt. Debt contracts and covenants are often breached as there is hardly much at stake personally for the promoters. |
| **Stakeholder Three: Banks/Financial Institution/Fund Providers** | |
| 1. Have the right skill sets to appraise the contractual bundle around the project finance. | 1. Many banks join the syndicate project loans on the strength of lead banks appraisal skills and Information memorandum. This results in often missing the signals that emerge in the monitoring process. |
| 2. Every Project loan is appraised on its merit after a careful analysis of risk and interest and fee based yield that the loan is likely to produce. The loan is priced on the risk it brings to the capital. | 2. Banks often carry forward existing corporate relationships and project finance often becomes a "relationship" product. The loan is priced more or less keeping the competition in mind rather than risk. |
| 3. Understand the sector and offer repayment schedules only after sculpting it with cash flows of the sector. | 3. Banks often give aggressive repayment schedules and the right kind of reserves are often not built up during the project payback. |
| 4. Banks easily get refinancing and avoid all Asset Liability Mismatches on the balance sheet. | 4. Mechanisms are available in the form of Infrastructure debt funds, securitization etc., but banks are often reluctant to let go of good assets. |
| 5. Banks don't face the problem of moral hazard. | 5. Difficult to say, but at the end of the day, often the Government recapitalizes the bank after severe losses. |
| **Stakeholders Four : Members of Public** | |
| Infrastructure projects under PPP framework are highly visible and the fact that their end users are members of public means that the Public understands and accepts the nature of User charges and is willing to adhere to the tariffs fixed by Government agencies. | In reality, the tariff for infrastructure projects are easily subject to adverse public opinion and political opportunism when their fee is considered too high or services unsatisfactory. |

Source: *Adapted from Srivastava (2015), Journal of Structured Finance*

The table clearly shows that any of the above can trigger a less than expected cash flow and thus the infrastructure asset may quickly lose value for the equity holder. This triggers default. What it also means is that on one hand though, cost of capital for Infrastructure finance may be brought down by bringing in diverse sources of capital and investors with a diversified portfolio, but on the other hand, if the pipeline of investible projects is not maintained and the risk around cash flows continues to remain unmitigated or unallocated to suitable counter-parties, the resultant impact on cost of capital will not differ significantly.

## Conclusion and Suggestions

The paper points out that there is significant progress in diversifying sources of capital by bringing in policy

level changes and innovation in products. However, the obstacle of lack of investable projects remains. As pointed out, sometimes projects are not properly designed and contractual arrangements imply a distribution of risks and returns that create the wrong incentives among the various partners. I believe that greater involvement of private investors and the design of economically rational financing structures can mitigate such problems. It will also improve the efficiency and success of infrastructure projects. However, creating a pipeline of suitable projects requires a coherent and trusted legal framework for infrastructure projects (Ehlers, 2014). Regulatory/ political risk is among the greatest concerns of private investors. But even where solid legal frameworks exist, institutions can still fall short of best practices. Positive efforts are needed to correct this.

In this regard, the recently announced Development Financial Institution will have a huge role to play. It needs a practice of recording and disseminating the best practices and contractual arrangements of successfully implemented projects. This may be implemented in a sector-wise fashion and would then serve as a blue print for transaction documents for any new project in that sector. While the establishment of such practices and institutions may take time, their development would significantly contribute in realizing enormous efficiency gains and enable governments to successfully undertake a larger number of infrastructure projects.

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**BANK QUEST THEMES**

The themes for "Bank Quest" are identified as:

1. July – September, 2021: Evolution & future of Monetary & Fiscal Policies – Sub Themes: Regulatory Framework, Monetary Framework, Fiscal Framework.
2. October – December, 2021: International Financial Centers.
3. January – March, 2022: Effective resolution of stressed assets.

# Infrastructure Financing in India: The Way Forward

Dr. Bibekananda Panda*

Sara Joy**

## Introduction

The classical economist Ragnar Nurkse defined infrastructure as an umbrella term for several activities commonly referred to as 'social overhead capital'. These activities are not just limited to physical infrastructure like transportation, telecommunications, power generation, transmission and distribution, port facilities, water supply, sewage disposal, irrigation etc. but also include social services like medical, educational, and other primary services.

Infrastructure development has a critical role in stimulating sustainable economic growth. It contributes to economic development, both by increasing productivity and by providing amenities that enhance the quality of life of the citizens. Adequate infrastructure investment is a prerequisite for higher economic growth as it helps businesses to grow, create jobs, improve ease of living, provide equitable access to infrastructure, thus making growth more inclusive. Better infrastructure accelerates economic activity and thereby improves the revenue base of the government.

## Infrastructure Gap: India vs. Peers

Quantity and quality of infrastructure is a prerequisite for developing countries to achieve their Sustainable Development Goals (SDG). Moreover, infrastructure is a critical component in economic growth. A World Bank report in 2011 has estimated that the output elasticity (percentage change in GDP to percentage change in infrastructure investment) of infrastructure remains in a range between 0.07 and 0.10. The Asian Development Bank (ADB) in its report 'Meeting Asia's Infrastructure Needs' has estimated that developing Asia needs to invest USD 26 trillion from 2016 to 2030, or USD 1.7 trillion annually in infrastructure to maintain its growth momentum, eradicate poverty, and respond to climate change. Of the sub-regions in Asia, South Asia lags other global regions in terms of infrastructural upgradation. South Asia has an investment need of USD 6.35 trillion over the period 2016-2030 and requires investing 8.8% of its GDP on infrastructure development, out of which, India alone requires an annual investment of USD 261 billion, with an investment gap of USD 144 billion (5.3% of GDP).

According to Global Infrastructure Hub (GIH), Asia requires investments of about USD 51 trillion by 2040, with an investment gap of USD 4.6 trillion. India alone would require investments of about USD 4.5 trillion to develop a sound infrastructure to improve its economic growth. Based on the existing investment trends, it is estimated that while India can meet around USD 3.9 trillion infrastructure investment out of USD 4.5 trillion, it would still have an infrastructure investment gap of USD 526 billion by 2040. (*Table 1*). Both the ADB and GIH estimates point out the existence of a huge investment gap in Indian infrastructure sector.

**Table 1: Infrastructure Investment Requirements 2016-2040**

| Country | Current Investment Trends | Investment Needed | Investment Gap |
|---|---|---|---|
| India | USD 3.9 trillion | USD 4.5 trillion | USD 526 billion |
| Brazil | USD 1.5 trillion | USD 2.7 trillion | USD 1.2 trillion |
| Russia | USD 1.1 trillion | USD 1.8 trillion | USD 727 billion |
| South Africa | USD 289 billion | USD 441 billion | USD 152 billion |

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**Chief Manager (Research and Analysis Group),Export-Import Bank of India, New Delhi.

| Table 1: Infrastructure Investment Requirements 2016-2040 | | | |
|---|---|---|---|
| Country | Current Investment Trends | Investment Needed | Investment Gap |
| China | USD 26 trillion | USD 28 trillion | USD 1.9 trillion |
| UK | USD 1.7 trillion | USD 1.8 trillion | USD 148 billion |
| USA | USD 8.5 trillion | USD 12 trillion | USD 3.8 trillion |
| Bangladesh | USD 417 billion | USD 608 billion | USD 193 billion |
| Germany | USD 1.5 trillion | USD 1.5 trillion | USD 728 billion |
| Indonesia | USD 1.6 trillion | USD 1.7 trillion | USD 70 billion |
| Japan | USD 3.8 trillion | USD 3.8 trillion | USD 91 billion |
| Source: Global Infrastructure Hub | | | |

As per the World Economic Forum Global Competitiveness Report 2019, India ranks 70 out of 141 countries in terms of infrastructure quality, where 'inadequate supply of infrastructure' is listed as the most difficult factor in doing business in the country. India's infrastructure rankings vary from 48 in quality of roads to 108 in quality of electricity supply. Investment in infrastructure development in India has been insufficient for long. In India, infrastructure investment is led by Government and by default, private participation has remained low. The policy formulation related delays and interruptions in implementation aspects relating to land acquisition, rehabilitation, environmental clearances etc. have further discouraged private participation.

## Infrastructure Financing in India

Infrastructure projects are characterised by large capital expenditure, higher investment risk, and longer gestation periods with limited transferability of assets and non-tradable nature of the services. The complexity of the infrastructure projects and involvement of many parties make it more difficult to get financiers.

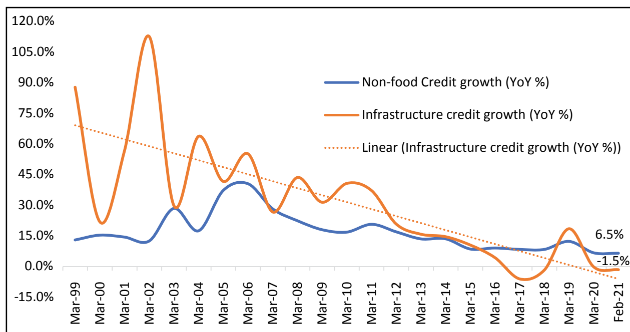
Infrastructure mostly comprises of necessary social goods such as highways, water supply etc. and to prevent an abuse of monopoly power, Government prefers to retain the ultimate control. Due to long gestation period, infrastructure projects are more prone to several risk factors arising from changing policies, delays in clearances and the implementation of a project, ultimately leading to overruns in cost and time and thus affecting the techno-economic viability of the project. Additionally, the fundamental problem of asset-liability mismatch is critical to infrastructure projects due to funding arrangements.

## Banks take the Onus to Finance Infrastructure Projects

Due to paucity of alternate long term funding options, bank credit has been playing a critical role in infrastructure financing in India. Commercial banks remain the second largest source of finance for infrastructure (24%), following budgetary support (45%). Banks have been extending financial support to infrastructure projects through takeout financing, inter-institutional guarantees, and financing promoters' equity.

Being the major source of debt finance, the flow of bank finance to infrastructure sector has remained high. It is noteworthy that the outstanding bank credit to the infrastructure sector, which stood at ₹31.6 billion in March 1998, increased to ₹10.03 trillion in February 2021, a compound annual growth rate (CAGR) of 28.5% over the last 23 years. This has grown vis-à-vis a CAGR of 16.4% in total credit (non-food). The credit offtake to infrastructure sector has remained buoyant during the first decade of the century, which is moderated in the later part. In March 2002, bank credit growth to infrastructure sector reached a record high of 112%, though started moderating thereafter. By February 2021, the annual credit growth to the infrastructure sector was negative -1.5% against a 6.5% growth in overall bank credit. The trend line in Figure1 shows the declining trend in bank credit growth to infrastructure sector. A contraction was witnessed in credit growth to infrastructure during 2019-20, mainly due to reduction in credit offtake by the power segment and deceleration in credit flows to the roads and telecommunications sectors. As banks have fixed their prudential exposure caps for infrastructure sector as well as its sub-sectors, credit beyond a level is difficult to flow from the banking sector. (*Figure 1*)

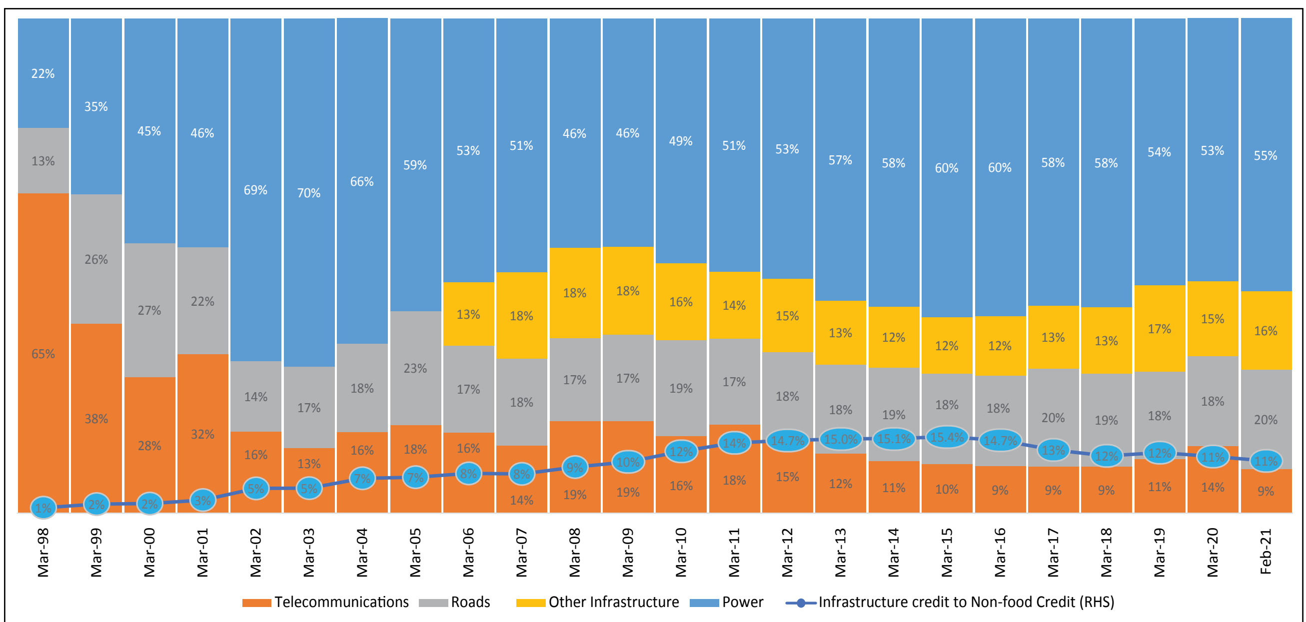
**Figure 1: Annual Credit Growth: Infrastructure vs. Total Credit**




*Source: Reserve Bank of India*

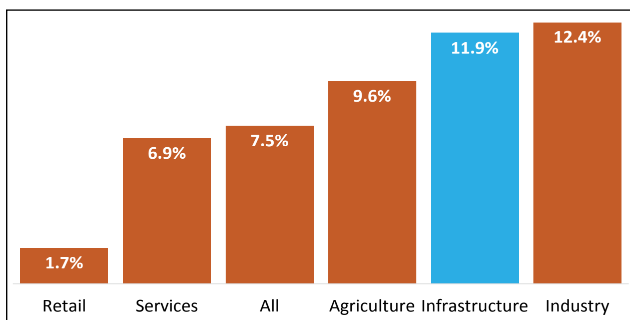
Among major infrastructure sectors, credit to power sector constitutes more than half of the total infrastructure credit, followed by roads sector. It is very pertinent that 37.3% of total credit offtake to the industry goes to the infrastructure sector. The share of infrastructure credit in total bank credit has grown from 1% in FY97-98 to 15.4% in FY15 and has moderated thereafter to stand at 11% by February 2021. (*Figure 2*)

**Figure 2: Share of Infrastructure and its sub-sectors in total credit offtake**




*Source: Reserve Bank of India*

**Figure 3: Sector specific GNPA Ratio: September 2020**




*Source: Reserve Bank of India*

Among a set of factors, rise in non-performing assets in infrastructure credit has remained as one of the most important reasons for the contraction of infrastructure credit in recent years. As on September 2020, Gross Non- Performing Assets (GNPA) ratio of the infrastructure sector was recorded at 11.9%, only after GNPA level of industry (12.4%). (*Figure 3*)

Factors leading to surge in stressed assets in the infrastructure sector are many. Firstly, the timelines for completion of projects are not getting assessed realistically upfront. A major factor is the fixation of the Date of Commencement of Commercial Operations (DCCO) without regard to a realistic projection of time taken for executing long term projects. Though a conservative estimate of the completion time

reduces the project cost, it potentially becomes the prime reason for delays and cost overruns. Similarly, unrealistic repayment schedules that are not synchronised with the cash flows persuade borrowers to raise fresh loans to pay the existing ones, resulting in further increase in the cost. Thirdly, factors like change in policies, non-availability of raw materials, clearances etc. lead to the deterioration of asset quality in infrastructure loans.

## Constraints in Infrastructure Financing

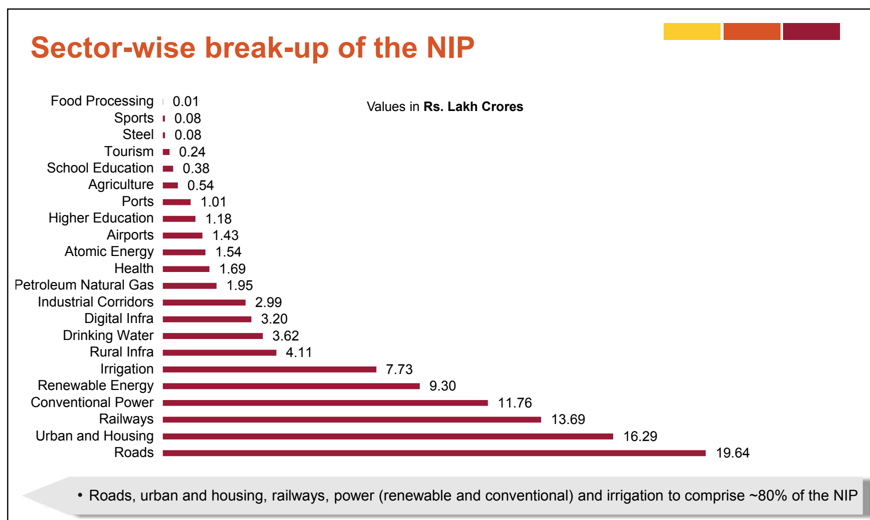
Two issues are most pertinent while analysing the financial constraints faced by the Indian infrastructure sector. In addition to having adequate levels of investment, the other key requirement is longer tenure of financing. Currently, infrastructure financing in India is dominated by direct equity investments and bank loans. As infrastructure projects typically involve large capital expenditure, huge investment risk, and longer gestation periods, bank lending may not be the most suitable option. Asset-liability mismatch remains another major issue for commercial banks, as infrastructure funding requires substantial long-term capital, which is to be mostly funded from short-term liabilities such as deposits, thus distorting and adversely impacting the appetite for such investment. The sectoral exposure norms along with other limits also restrict commercial banks from extending limit-less credit to infrastructure sector, thus, necessitating the need for a broader mix of financial instruments.

## Alternate Financing Avenues for Infrastructure Financing

As seen in the earlier section, enhancing infrastructure investment requires a broader mix of financial instruments, enlarging the potential group of investors and tapping capital markets for its vast financial resources. The complexity involved in such transactions and large funding requirements in the sector necessitate an innovative approach towards financial structuring of infrastructure financing, through usage of a variety of financial instruments. As large gaps in the physical infrastructure have adverse impact on productivity and efficiency of the system, the need for diversifying infrastructure financing options in India has been long felt. The setting up of the National Investment and Infrastructure Fund (NIIF) in 2015 was a major strategic policy response in this direction.

To expand quantity as well as the quality of infrastructure in the country, the government task force on National Infrastructure Pipeline (NIP) has recently projected total investment of Rs 111 lakh crore in infrastructure projects over five years (FY20-FY25), with the Centre, States and the private sector sharing capital expenditure in a 39:39:22 formula. The NIP thrusts upon sectors such as power (24%), roads (19%), urban (16%), and railways (13%), and irrigation (8%), together amounting to around 80% of the projected capital expenditure on infrastructure in India by FY25. (*Figure 4*)

**Figure 4: Sector-wise Break-up of the NIP**




*Source: India Investment Grid*

Given the fact that government revenue sources are drying out due to reduced tax collection impacted by the prolonged economic slowdown and emergence of the Covid-19 pandemic, the government has allocated ₹20,000 crore in the Union Budget 2021-22 to set up and capitalise a Development Financial Institution (DFI) to act as a provider, enabler, and catalyst for infrastructure financing.

Unlike India, sources of infrastructure financing in advanced economies are quite diverse and are a mix of debt and equity, while these are highly tilted in favour of debt in India. This necessitates specific measures to alleviate the growing financing concerns in the infrastructure sector. The mechanism to focus on exploring new avenues of infrastructure finance needs to be looked at from two aspects: quantum of investment and the tenure of investment. Based on the experience of advanced as well as emerging economies in connection to infrastructure finance, some of the potential sources of finance are presented for evaluation and implementation.

**Setting up of Development Finance Institutions (DFIs):** DFIs are specialised institutions having expertise in financing long term projects through project finance and through a blend of debt and equity exposures. In India, for providing project finance, several such specialised institutions are being supported by the Government of India. IFCI was the first development finance institution to be set up, followed by ICICI, IDBI, National Housing Bank, NABARD, EXIM Bank, IREDA, SIDBI, REC, and PFC. As commercial banks are constrained by the time profiles of their asset and liabilities, they restrain from taking equity positions in projects. Government has recently decided to set up a new DFI, with the purpose of providing long-term-finance for social and economic infrastructure sector projects. Limited success of the government owned DFIs in the past and success of private DFIs in other economies have brought forward the idea of setting up a private DFI with minority shareholding of the government.

**Institutional finance mechanism:** Pension, Provident and Insurance funds hold the advantage of providing a better maturity match for infrastructure financing. Experiences of other countries have also demonstrated that long-term sources of finance like pension and provident funds and insurance companies are better suited for infrastructure financing. Given the rise of insurance penetration in India, there exists considerable untapped potential for domestic pension funds and insurance companies. These institutional investors are well-positioned to address the longer-term capital requirements of this sector. For instance, the Canadian model of pension funds making direct investment in select infrastructure projects may be explored in India. A relaxation in guidelines for pension funds and insurance companies along with necessary easy governance may invite fresh capital to the sector.

**Infrastructure Investment Trusts (InvITs)**: InvITs are one of the more recent financial instruments for attracting pension funds and insurance companies. InvITs use the existing investor funds in the sector and typically have a longer tenure, thus not only fitting in with the requirements of the sector but also enable individual investors, foreign investors, and insurance companies to subscribe to units of the InvITs. The recent measures by the Government in allowing higher debt to equity levels and streamlining InvITs are expected to bring more capital in coming days.

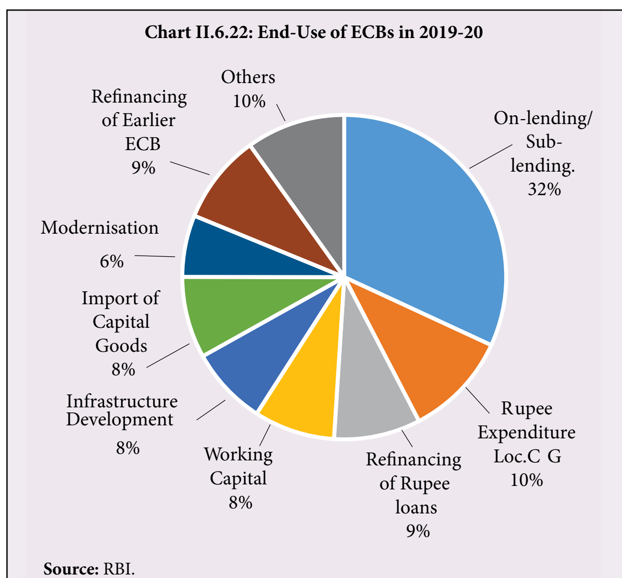
**Development of Corporate Bond Market:** Though Government of India along with the RBI has been trying relentlessly to develop a corporate bond market in India, trading in the bond markets continues to be narrow and remains limited to shorter duration instruments having credit ratings above a minimum threshold. There is need for a vibrant infrastructure bond market in India to support liquidity of longer tenure bonds.

**Non-Bank Financial Companies (NBFCs):** Along with banks, NBFCs are also one of the growing segments of infrastructure financiers in India. Unlike Banks, some of the NBFCs are specialising in financing to specific sectors. There is also a need for enhancing the number and roles of these specialised NBFCs termed as Infrastructure Finance Companies.

**Equity Capital:** Equity finance through capital markets and FDI could attract investors looking for a relatively longer-term investment that is conducive to attracting durable capital as well as embedded technology.

**Securitisation:** Securitisation is one of the successful techniques implemented in several developed countries for infrastructure financing. Through securitisation, illiquid assets are transferred into a more liquid form of assets and distributed to a broad range of investors through the capital markets. As securitisation increases, the number of debt instruments in the market increase resulting in additional liquidity. The lending institution's assets are removed from its balance sheet and are instead funded by investors through a negotiable financial instrument. Securitisation facilitates better asset-liability management for the lender by reducing market risks resulting from interest rate mismatches. The security is backed by the expected cash flow from the assets. Given the huge infrastructure investment requirement in the economy, India needs to explore possible opportunities for more investor participation. Additionally, it will enhance the capacity of banks to extend further credit to the infrastructure projects.

**Figure 5: End-use of ECBs in FY20**




*Source: RBI Annual Report 2019-20*

**Simplified External Commercial Borrowing (ECB) Regulatory Regime:** India has relatively tight ECB regulatory regime which at times has a detrimental effect on access to cheap capital. There are certain restrictions on the end-use of the ECB too, such as refinancing of existing domestic debt, which needs to be re-examined to enable higher flow of capital. As per the data provided by RBI, on end-use of ECBs, only 8% of ECB is used for infrastructure development. (*Figure 5*)

**Investment Incentives:** Given huge infrastructure investment requirement in the country, Government needs to offer certain incentives to invite more and more capital towards infrastructure sector. These may include tax holidays, income tax exemption to individual taxpayers above the existing limits etc. In line with the proposed tax exemptions to sovereign wealth funds in the Union Budget 2021-22, this could be extended to other investors as well.

**Better Risk Management:** There is a need for improving the underlying risk profile of infrastructure projects through increased involvement of specialists having expertise in areas like project identification and structuring, feasibility assessment etc. The timelines for completion of projects need to be assessed realistically upfront, repayment schedule needs to be aligned to revenue generation by the project, and pricing of the loans needs to be commensurate with risk. All these will lead to timely completion of projects and hence invite more private participation.

**Public Private Partnership (PPP):** Considering that infrastructure development requires huge upfront investments, PPP as a means of augmenting investment in infrastructure is very critical for India. Besides supplementing the available public resources, PPPs provide an opportunity to exploit the private sector efficiencies in project implementation. Though the hybrid annuity model of PPP has had limited success in India, it needs to be revived, and introduced for selected sectors. The Union Budget 2015-16 has also emphasised on the need to revisit and revitalise the PPP mode of infrastructure investment in the country.

## Conclusion

A sound and efficient infrastructure is a must for sustainable economic development. It is estimated that India would need to spend USD 4.5 trillion on infrastructure by 2030 to sustain its growth rate. Irrespective of the progress made on building a modern physical infrastructure in almost all the sectors in the country over the last decade, the large infrastructure gap remains in India. While banks have been meeting a large part of the infrastructure financing needs, the

underlying asset liability mismatches are creating stress in the banking system. As infrastructure projects are vulnerable to regulatory and policy changes and are also dependent on supportive infrastructure; political, environmental, and legal risk factors which are adversely impacting projects and leading to delays and cost overruns. Hence the complex nature of infrastructure projects calls for several policy changes in the country. To ensure adequate and timely availability of capital for the infrastructure development in the country, there is a clear need for new financing instruments that alleviate some of the investor concerns and provide relief to this sector. Factors delaying the implementation of the projects need to be streamlined and need to be addressed in the shortest possible time.

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# Financing of green field projects
## *(A Step by Step Approach in a Banker's Perspective)*

V. Vijay Anand*

Green field (GF) project is one where a company will build its own brand new facilities from the ground up (scratch). Here it is not affected by the constraints imposed by the prior work on the site. On the contrary, Brown field Project is where a company purchases or leases an existing facility. In banking terms, it is a project started from scratch i.e. from construction of new factory/production facility/office or setting up of a new business enterprise. It is more than just construction of production facility, it may include set up of premises or place for business in case of Trade & Service industry, construction of office, hiring of staff, accommodation for staff and management creating supply chain or distribution network, construction of godown/warehouse for raw materials and finished goods.

In this article, we will restrict our analysis to MSMEs (in terms of investment in Plant & machinery or equipment's from ₹10 lakh to ₹50 cr). We will be discussing Green field projects about both manufacturing as well as Trade and services sector. The aim of the article is to understand more about the GF projects, the processing of GF projects, challenges involved, benchmarks and standard practices followed and common mistakes done in financing of GF projects, from point of view of an appraising Bank Official. Few examples of GF projects are setting up of paper plate, paper cup & paper bag manufacturing unit, manufacture of auto ancillaries, fabrication unit or food processing or dairy foods manufacturing unit. In case of trade & services, setting up of Shopping Mall, Departmental stores, new 3-star hotel, warehouses & commercial complex for rent, opening of testing laboratories, two-wheeler/car dealers, provisional stores, petrol bunk, dealer of FMCG products etc. Very often we think that only manufacturing units are GF projects but even setting up of provisional store or mobile & accessories showroom is also a GF project/ investment.

Generally, in banks due to various reasons like lack of staff, lack of expertise/knowledge to assess proposals, fear of NPA, fear of accountability, lack of time etc, GF projects are not financed/encouraged compared to our existing/established units. Over the past few years, due to tightened approval/licensing norms, government regulations, investment cost involved, fear of failure, there are only handful of GF projects being taken up by entrepreneurs. Remember when a GF project is started, a budding entrepreneur is born and hence has to be nurtured with care to develop as a business enterprise.

In MSME sector, GF projects play a very vital role in employment generation, for creation of new ideas, business model etc. but of late we see less than 5% of GF projects find place in our Bank's SME portfolio and in some areas it is also NIL. These start-ups or new projects only grow up gradually as a large business enterprise. For example, established brands like GRB Dairy Foods Pvt Ltd., MDH Masala, Agarwal Eye hospital, AMUL etc were all started a few decades back with only few lakhs of investments as GF projects and now doing turnover of more than ₹500 Cr and giving employment to thousands of people.

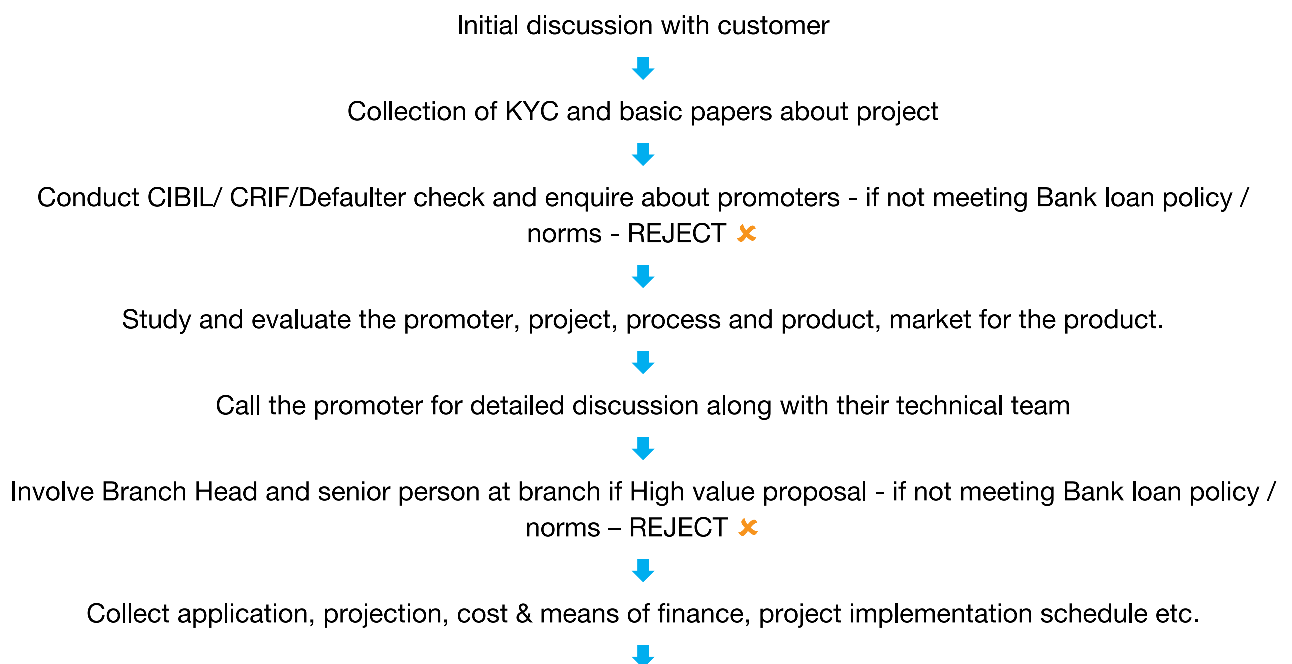
* Chief Manager, SME HOSUR, State Bank of India.

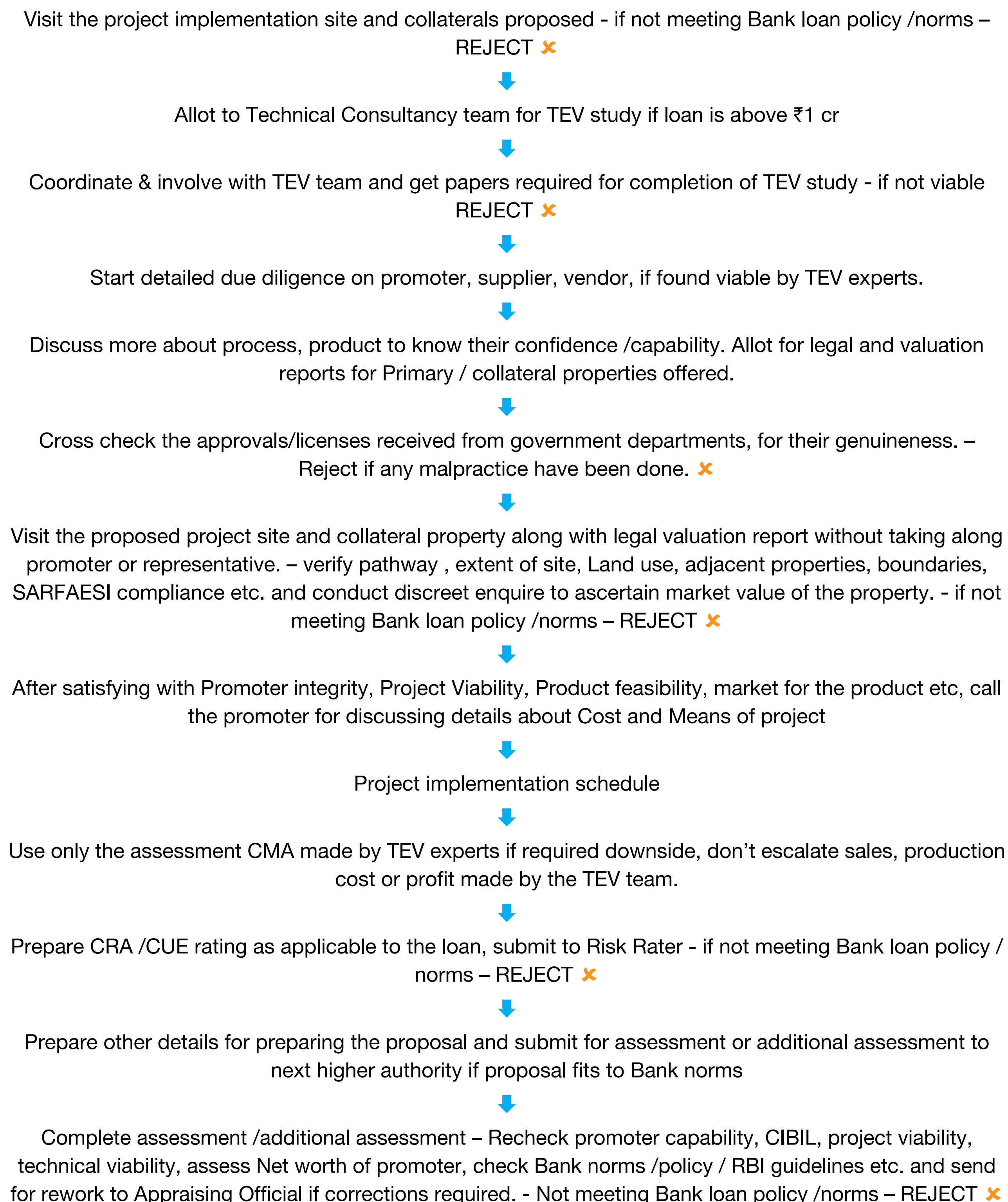
Due to the above factors, we easily reject these GF projects or sanction a few without proper appraisal or assessment, which will end up as quick mortality NPA accounts in our books and good GF ventures are financed by our competitors with which they grow profits exponentially in short duration of time. Rule no 1, should be to not reject any loan or GF proposal at the 1st meeting or instance unless he/she is a defaulter, give a patient hearing of about 5 minutes to know about the person, project, product, project cost, loan amount requested, targeted customers or market for their products, experience or expertise in the field, collect basic details like KYC, cost and means of finance and ask them to call on us after say 10 days or 2 weeks so that we will have time to do basic CIBIL check, due diligence about person/ promoters, basic viability of the project, acceptability of the product, market or buyers for the product etc.

Rejection of GF projects even without hearing the customer or rejection at 1st instance leads to customer complaints from DLBC, SLBC, consumer forum, MSME Ministry, CMO and PMO, Banking Ombudsman etc. In this process we tend to lose a potential walk-in client, which is very difficult in case of established units. After say 2 weeks of study/analysis, reject proposal if promoter is a CIBIL defaulter, have overdue loans, have recently taken huge loans etc. If the resident is not from the locality or not residing in the area of operation for quite a few years, example a resident having KYC from Jharkhand who has settled in Coimbatore, within last 6 months wants to set up a restaurant at Coimbatore city. Here the promoter lacks knowledge of local language hence cannot connect with customer easily may not know the taste and flavour of locality, culture and approach differs so he may be considered with caution.

Assessment of GF projects involves both assessment of Term loans for fixed costs or capital expenditure and working capital limits for their day-to-day operational needs. Very often, we miss the assessment of working capital in the 1st instance during loan appraisal and borrower will be short of funds to run the unit for want of working capital. If we approach the appraisal and assessment of the project/loan in a systematic way, then it will give us new business growth and avoid potential NPA or complaints due to wrong selection of customer or approach or appraisal.

**Flow chart of GF project appraisal**




Visit the project implementation site and collaterals proposed - if not meeting Bank loan policy /norms – REJECT
Allot to Technical Consultancy team for TEV study if loan is above ₹1 cr
Coordinate & involve with TEV team and get papers required for completion of TEV study - if not viable REJECT
Start detailed due diligence on promoter, supplier, vendor, if found viable by TEV experts.
Discuss more about process, product to know their confidence /capability. Allot for legal and valuation reports for Primary / collateral properties offered.
Cross check the approvals/licenses received from government departments, for their genuineness. – Reject if any malpractice have been done.
Visit the proposed project site and collateral property along with legal valuation report without taking along promoter or representative. – verify pathway , extent of site, Land use, adjacent properties, boundaries, SARFAESI compliance etc. and conduct discreet enquire to ascertain market value of the property. - if not meeting Bank loan policy /norms – REJECT
After satisfying with Promoter integrity, Project Viability, Product feasibility, market for the product etc, call the promoter for discussing details about Cost and Means of project
Project implementation schedule
Use only the assessment CMA made by TEV experts if required downside, don't escalate sales, production cost or profit made by the TEV team.
Prepare CRA /CUE rating as applicable to the loan, submit to Risk Rater - if not meeting Bank loan policy / norms – REJECT
Prepare other details for preparing the proposal and submit for assessment or additional assessment to next higher authority if proposal fits to Bank norms
Complete assessment /additional assessment – Recheck promoter capability, CIBIL, project viability, technical viability, assess Net worth of promoter, check Bank norms /policy / RBI guidelines etc. and send for rework to Appraising Official if corrections required. - Not meeting Bank loan policy /norms – REJECT

Submit proposal to sanctioning authority -if not meeting Bank loan policy /norms – REJECT ✖

If sanctioned, note down the sanction conditions put by the sanctioning authority, prepare documentation incorporating the sanction terms and conditions.

Complete Loan Documentation, mortgage of property and MOD, ROC filing etc.

Disburse loans as per stages after inspection by operating official, compliance of conditions as per sanction terms.

Check the progress of the project at stipulated intervals, if required, more than the inspection frequency stipulated and sometimes with surprise element without informing the customer.

Check if the project is running as per implementation schedule submitted, if not take remedial measures and follow up for sanction conditions to be complied.

In case of disbursement of vendors / suppliers, due diligence on supplier to be carried out along with discreet enquiries apart from DNB report, CIR report etc.

If project is delayed due to various genuine reasons, propose shifting of DCCO appropriately till project completion, after thorough discussion with customer.

Before final disbursement take Branch Head / senior functionaries for inspection of the project and disburse only when satisfied with the quality of the work completed and as per estimate / plan submitted during sanction.

Disburse working capital limits only if project is implemented fully and commercial production is about to commence and preferably directly to supplier of raw material supplier etc. at least for next 6 months to 1 year period.

Closely monitor progress / production and hand hold the account / customer for next 1 year after DCCO.

**Five P's of appraisal of any loan are:**

1. People/ Promoter.
2. Project.
3. Product.
4. Place (Market Place).
5. Price (Cost).

### Promoter

Promoter/Owner is the person behind the show in the project. Most of the factors like ability to bring in capital, technical know-how, practical work experience, previous experience and the successful implementation of project depend on the promoter.

Few polite questions to the main promoter after making them explain the project will give us a lot of insight in their know-how, experience, confidence etc.

1. Age of the Promoter.
2. Education Qualifications.
3. Prior work experience.
4. Prior Business/Ventures already done and involved.
5. Net worth of promoters.
6. Technical know-how.
7. Relationship between partners in case of partnership, their shareholding pattern and relationship between directors in case of companies and their share holding pattern.
8. Background of their family, their residence location, other interests etc. also be asked & known.

Integrity of the Promoter is the Key aspect in any loan appraisal & rightly so it is kept as an entry barrier.

Few discrete enquiries about the promoter can be done through the peers in the business, who may be our customers, or their vendors or dealers etc. From Chartered Accountants in that area, through friends or neighbours whom we know well or any government officials etc. It is fair to get enquiries through two or more persons before coming to a judgement about the person. Integrity of the promoter should be beyond doubt. Promoter should have financial/ technical capabilities to overcome any cost overrun or time delays during project implementation. Hence net worth/ background/expertise of promoter should be carefully examined.

### Project

The crux of the appraisal is in analysis of various aspects like cost and means of finance. The cost of the project should be evaluated carefully through various sources like comparing with competitors, internet sources, discreet enquiries with suppliers/ vendors/contractors etc.

Vetting the cost of the project plays a crucial role as it should not be the case of the inflated project cost to minimise promoter's margin and get higher loan amount. Every aspect of cost like **Land**, if it is owned by promoter for decades, it should be removed from project cost and also, if the land is recently purchased within 1 year, then sale deed cost is to be considered for project cost and not the market value. If it is a lease land or rented premises, then there is no place for land cost in the project.

Building factory/office/premises forms a considerable part in the overall project cost. The design of the building/factory is to suit the industry needs. An auto ancillary industry needs factory shed space enough for production/storage and avoid unwanted expenses like interior decoration/furniture, posh office building etc. These are to be excluded, if not necessary for project/ business. The approvals for construction from the appropriate authority like DTCP/TPA should be in place & estimates should be vetted against approved plan and not against additional/actual/ unapproved constructions. Discussion with panel valuers and existing customers will be very helpful in vetting the **construction cost**.

On the contrary, ground levelling cost, approval cost, preliminary expenses etc, also should be included in the project, else it may result in underfinance and may hamper project completion on time. Calculating the approximate timeline for completion of the project should be carefully done and DCCO be fixed as per validated project implementation schedule. We need to be liberal and practical in fixing project implementation period (moratorium period). We should not fix shorter moratorium period say six to eight months if construction itself involves one year.

A more liberal longer moratorium to be given, as there will be delays anticipated due to various reasons like approval delays, non-availability of labour, raw materials like sand, cement, steel, water etc., extreme weather conditions like rain, flood, fire and any type of natural disaster etc. Comprehensive Insurance should be taken, Contractors All Risk (CAR) policy should be taken from the day of commencement of construction as it will protect bank's interest from any loss due to fire, earthquake, flood etc.

**Table: 1.1 Cost and Means of Finance (For Illustrative purpose only)**

| COST OF FINANCE | Amount in ₹ | MEANS OF FINANCE | Amount in ₹ |
|---|---|---|---|
| Land cost | 1,25,00,000 | Equity capital or Promoter capital | 2,00,00,000 |
| Construction and Building cost | 2,75,00,000 | Preference share capital | 0 |
| Cost of Plant & Machinery | 4,00,00,000 | Debentures Raised | 0 |
| Other Fixed Asset Costs | 50,00,000 | Govt Grant / Subsidy | 1,00,00,000 |
| Interest During Construction (IDC) | 60,00,000 | Unsecured Loan | 1,00,00,000 |
| Preliminary &Preoperative expenses | 20,00,000 | Term loan | 6,00,00,000 |
| Provision for Contingencies | 20,00,000 | | |
| Working capital Margin | 50,00,000 | | |
| **Total Cost of Project** | 10,00,00,000 | **Total Means of Project** | 10,00,00,000 |

Various other costs like Interest During Construction (IDC), the interest debited for the term loan from 1st date of disbursement till start of 1st EMI. It has to be calculated as per draw down schedule (Disbursement Schedule), e.g.: 1st disbursement of ₹2.00 Cr, then the interest should be calculated from 1st month for ₹2 cr only and not for entire ₹6 Cr from the start of disbursement. Preliminary and pre-operative expenses are usually taken at 1 to 3% of the total project cost. Preliminary expenses are those that are usually incurred before the incorporation of the company. E.g. Expenses incurred for preparation of MOA, AOA, project report, feasibility study, registration charges, legal charges, travelling expenses etc.

Pre-operative expenses are incurred during the post incorporation period but before the commencement of commercial production. IDC also is a part of Pre–operative expenses but since it forms major portion of expenses, it may also be classified separately. E.g. Day-to-day administrative expenses, rent, taxes, cost on account of creation of mortgage/charge on security, stamp duties, insurance, stationery, travelling expenses, trial run expenses prior to commencement of commercial production etc.

Provision for contingencies is the cost escalation that may occur in project cost due to various reasons like cost of main items including construction costs, duties and taxes on plant and machinery purchase, fixed asset cost, transportation charges, insurance costs, increase in duties and taxes. The provision for contingencies will normally be between 2 to 5% for smaller projects and between 5 to 10% for bigger projects, if it is found to be more than 10%, then entire project cost and project must be revisited carefully.

Machinery cost should be arrived at after vetting by TEV experts, in case of bigger projects and in any case be cross checked with other similar industry or other customers for validating the cost of machinery. Domain experts help can also be taken if the machinery cost is more and complex manufacturing processes are involved. Any Invoice/quotation obtained should be cross checked with the supplier for genuineness of the quote besides due diligence on the supplier of the machinery, their technical capability, their financial standing from Probe 42, MCA portal, verifying CIBIL of Supplier etc. Banker's opinion (CIR) also can be obtained from suppliers' bank apart from DNB or MIRA like credit information company reports. Various costs like taxes and duties, transport cost, freight, loading and unloading cost, insurance, installation, testing expenses, professional expertise fee etc should also be considered to calculate the overall cost of the machinery.

**Table 1.2 Calculating the overall Cost of Machinery**

| S.NO | MAJOR ITEMS | PRICE IN ₹ (Cr). |
|---|---|---|
| 1 | Gross price of the Machinery | 1000 |
| 2 | GST @10% Add | 100 |
| 3 | Less Discount 5% Less | 50 |
| 4 | Transport/ Freight charges Add | 25 |
| 5 | Marine Insurance Cost Add | 10 |
| 6 | Additional Parts, Moulds, Dyes, Assemblies required Add | 50 |
| 7 | Installation cost Add (civil construction, fixtures etc) | 20 |
| 8 | Testing cost / Add | 20 |
| 9 | Professional fee Add | 25 |
| 10 | **Overall Cost of Machinery TOTAL** | 1200 |

Working Capital Margin is also one of the important components which is very often excluded from project cost of GF projects erroneously. Working capital margin is calculated for the 1st full year of operation or based on 1st year full commercial sales after DCCO. Working capital margin is to be funded by term loan or promoter margin, basically from long term sources in case of GF projects. Since the company doesn't have other sources of income/ revenue, WC margin is normally funded by means of term loan only. For example, in a manufacturing unit, the sales for 1st full year of operation is ₹8 cr, then as per Nayak Committee method, ₹2 Cr is eligible for Working capital finance and normal WC margin, say 25% of WC limit i.e. 25% of ₹2Cr-₹0.50 Cr is working capital margin to be funded by term loan. (Refer Table 1.1- ₹5,00,000 taken as working capital margin).

## Means of Finance

### *Equity capital/Promoters capital*

Equity capital is the capital brought in by the promoters. We need to ensure that it is not borrowed capital and to ascertain this we have to carefully examine the source of equity capital through various means like Assets and Liability statements, analysis of Bank statements, IT returns of the promoters in the past few years. In case of Proprietor or Partnership firms, Chartered Accountant certificate along with proof of capital investment should be obtained and verified. In case of Private limited, LLP companies, ROC, MCA site should be verified to check the authorised capital and paid up capital infused in the company. The capital infused should be used in major items of the cost of the project say construction expenses, margin for purchase of machinery etc and should be infused as per sanction terms and conditions. For example, if ₹1 cr is estimated as Capital in company for the 1st year itself, then that should have been invested before the balance sheet of that year.

### *Preference share capital/Debentures*

These are not generally used means of finance by MSME's as only Listed companies can issue preference shares and debentures.

### *Government Grant/Subsidy*

Under various Central and State Government schemes like Capital Subsidy Schemes, PMEGP, Ministry of Food Processing Industry subsidies etc, MSME units are eligible for these subsidies. While assessing the means of finance, government grant or subsidy can be considered as a means only if the subsidy amount is sanctioned to the unit prior to the submission of the proposal and subsidy is front ended and coincide with the project implementation timeline. As a measure of precaution, we need to verify the genuineness of the government subsidy by writing directly to the Government department or talking to them or verifying the list of beneficiaries released on their websites. In case the subsidy is back ended, say 2 to 3 years after successful implementation of the project, then it cannot be considered as a means of finance and promoter should be advised to bring in additional capital or USL or increase term loan proportionately.

### *Unsecured Loans (USL)*

USL has become a regular means of finance for MSME's, however we need to scrutinise from whom USL is taken. If it is taken from moneylenders or third parties with higher rates of interest, then it will affect the project viability as interest outgo will be more. If USL is withdrawn in-between the project implementation, then it will adversely affect the project and hence general sanction condition of USL should not be withdrawn during the currency of the

loan, should be put and followed up closely. Further if USL is from Promoters family or friends or relatives, then payment of interest on USL should be lesser than the term loan interest rate which the company is paying the Bank.

The remaining portion of the means is to be funded by the term loan. In case of MSME, it is preferable to have sole banking for a single project as monitoring, follow up and supervision is easier.

### *Techno Economic Viability (TEV) study or Technical Study*

As per Banks' loan policy norms, all new loans above ₹1 Cr is to be subjected to TEV study or can take a specific approval from the sanctioning authority for waiver of TEV study for various reasons like promoter/company's experience in the field, higher promoter margin compared to term loan, project is already approved for subsidy/grant by Government agencies (APEDA, MOFPI, DIC etc.). TEV study is conducted to ascertain the technical feasibility of the project, economic viability and financial viability of the project. TEV study is normally conducted by Domain experts approved by the bank in various fields they are also empanelled like valuers and advocates.

TEV study generally covers the following areas- approvals, licences to be obtained for running the unit or enterprise, manufacturing process involved, discussion with the technical team involved in production process, flow of manufacturing involved, various machineries required for manufacturing process, list of machineries submitted by the company and the due diligence on supplier/price of the machinery, validation of the installed capacity stated by the company, assessment of capacity utilisation assumed for revenue estimation, cost of various machines to be purchased, cost of raw materials, depreciation method followed and revenue assumption based on sale of product or service and per unit price of the product/service. Project implementation schedule should be analysed and comments on moratorium period are required as well. Revenue estimation is the crux of the TEV study and it determines the profitability and viability of the unit. It has to be cross checked with similar industries, internet sources.

**Table 1.3 Revenue Estimate Calculation**

| | 1year of operations | 2nd year of operations |
|---|---|---|
| Installed capacity | 100 units per day | 100 units per day |
| Capacity utilisation assumed at 1st year | 50% - 50 units per day | 65% - 65 units per day |
| No of working days in a year | 300 | 300 |
| Total production per year | 50*300 - 15000 units | 65*300 -19500 units |
| Per unit price | 1000 | 1050 |
| Total revenue / Sales estimated for 1st year | 1000*15000 - ₹1,50,00,000 | 1050*19500– ₹2,04,75,000 |

### Product

It is ultimately the product that is going to be sold to get the revenues/profit. The product which is being produced or service which is being offered has to comply with the quality standards like FSSAI, BIS, IATF, ISO etc, as applicable on the industry. The produced product should have adequate storage place, insurance cover, and packaging as per industry standards. If the product is a perishable commodity then storage place should be close to the market place. Example, if the customer is an auto ancillary manufacturing industry, then material strength, finishing, measurements have to be accurate as per standards. An export oriented unit should meet quality standards of the exporting country and comply with the quality norms of the exporting country. The cost of raw materials, production cost involved be validated in the project appraisal. The product should be generally acceptable as per the expectations of the target population.

### Price

The revenue estimate we make in project assumptions/analysis depends on two factors- Production capacity/capacity utilisation and per unit price of the product. Per unit price of the product is

to be validated carefully by comparing with market, interaction with existing customers and comparison of similar prices online. If the final product of the customer is Business to Customer (B to C) then pricing strategy plays a key role. Price refers to the amount a customer pays for a product. It is from the price, we get revenue for the project. Various features determine price like quality of the product, demand for the product, payment terms and most importantly production cost and intended profit margin etc. If the product is B to B product, then per unit price has to be compared with 3 or 4 other suppliers of similar products.

## Most Important points to be checked in project Appraisal

### *Entry Barriers*

1) **The Integrity of the promoters and guarantors** of the project, company should be beyond doubt. If there is any default by the borrowers in the recent past or convicted for any involvement in any criminal/unlawful activities, then we should reject the proposal and not proceed further into processing the loan.

2) **Compliance of statutory, regulatory and environmental norms -** The proposed project, product should comply with all statutory laws in place and all necessary approvals like pollution clearance, building plan approval by Town planning authorities and factory license to commence production in case of manufacturing industry must be in place. In case of service industry, it should be approved by concerned Government departments e.g. Health Department in case of hospitals, FSSAI and HAPP approvals in case of Food processing industries etc.

### *Other Important Check points*

***Promoter Margin***

Generally, for GF projects, promoter margin is fixed at 33% and can be reduced up to 25% on a case to case basis. Margin must be brought in upfront as stipulated and during each term loan disbursement in proportion to the completion stage and Chartered Accountant certificate with UDIN number has to be obtained along with proof of investment, in case margin is already brought in. Source of promoter margin also needs to be examined and it should not be from outside borrowings.

***Debt/Equity Ratio***

It is the ratio of total Debt in the project/Total Equity infused, here equity can include Government subsidy, USL- in case of USL undertaking that it will not be withdrawn during the currency of the loan needs to be obtained from the company. The benchmark for Debt to Equity ratio is 2:1.

***Debt Service Coverage Ratio (DSCR)***

$$\text{DSCR} = \frac{\text{PAT + Depreciation +Term loan Interest}}{\text{Term loan instalments + term loan Interest.}}$$

Gross DSCR should be minimum 1.75 YoY and can also be reduced to 1.50 in certain cases, also Average Gross DSCR should be more than 1.75. Higher the ratio better is the repayment capability.

***Fixed Assets Coverage Ratio (FACR)***

The Depreciation should be calculated as per IT Act and Companies Act norms and it should be ensured that TL should be liquidated before the book value of the asset becomes zero. In case of purchase of machinery, FACR needs to be carefully validated and tenure of loan fixed accordingly.

$$\text{FACR} = \frac{\text{Book value of the Fixed Assets Financed}}{\text{Term loan Outstanding}}$$

Benchmark value of FACR is minimum 1.25, the higher the FACR the better.

Term loan repayment schedule should be carefully designed keeping in mind the PAT, DSCR and FACR ratios.

***Interest Coverage Ratio (ICR)***

$$\text{ICR} = \frac{\text{Profit after Tax}}{\text{Interest Expenses}}$$

Interest Coverage ratio represents the interest paying capability of the company, the benchmark value of ICR is minimum 2.60. Higher the value the better.

***Current Ratio***

The current ratio determines the liquidity of the company and the flow of funds available for day-to-day operations. Current ratio is seen along with Net working Capital (NWC). The current ratio is calculated by formula Current Assets over Current liabilities. Current ratio plays a major role in assessment of working capital limits.

The benchmark for Current ratio for manufacturing units is 1.33 and for Trade and services is 1.20.

***Break Even and Sensitivity Analysis***

Breakeven point is where the company achieves no profit or no loss.

$$\text{Break-even Point (BEP)} = \frac{\text{Fixed Cost}}{\text{Contribution (Sale price per unit – variable cost)}}$$

BEP should be achieved at lower capacity utilisation say with 60 to 65% or even lesser. If the BEP is more than 70%, then the viability of the project is in question.

Sensitivity Analysis is carried out with intent of finding the resilience of the project to withstand even if there are one or more adverse features, say drop in sales by 2 to 5%, increase in RM cost by 2 to 5% etc. After sensitivity analysis, if the DSCR remains above 1.25, then the project is viable.

## Practical Tips (Do's)

1. Installed Capacity of the project is to be verified and the capacity utilisation is not to be taken more than 50% for 1$^{st}$ year of operation and should not be more than 85% overall. BEP should preferably be at less than 60 to 65% capacity utilisation.

2. Revenue estimate needs to be discussed thoroughly with the customer as it forms the sales data with which we arrive at other financial data-capacity utilisation, per unit cost of product, production schedule (to be calculated at 300 days 2 shifts not 3 shifts of 350 days).

3. Raw material cost, energy consumption, salary and wages data, depreciation rate needs to be carefully validated item wise & compared with similar industry and product.

4. The project cost should be arrived at reasonably, either escalated project cost or under reported project cost will result in project failure and loss to the customer and bank. All items as discussed in the Cost and Means of Finance need to be examined carefully and validated.

5. Means of project, equity capital or promoter contribution need to be brought in upfront and source of capital must be ascertained. It should not be borrowed capital. CA Certificate with UDIN number for capital infusion must be obtained and also verified. The capital should be employed judiciously.

6. Government grant subsidy order must be cross verified with the concerned department and checked, if it is front ended or back ended. If it is back ended subsidy, it should be removed from the means of finance.

7. USL, if any infused to be scrutinised ledger wise, if it is from friends/ family members, it should not be withdrawn during currency of the loan.

8. TL for GF project should be preferably with sole banking arrangement in case of MSME Advances.

9. Disbursement be done directly to suppliers/ vendors along with customer margin and in no case, reimbursement should be given to customer unless specific approvals for reimbursement is taken.

10. Thorough due diligences on suppliers/ vendors needs to be carried out like capability of suppliers (technical, financial) their past experience, location, duration with which materials will be supplied apart from taking DNB report, bankers opinion CIR from supplier's bank. (probe 42, MCA portal also can be verified to check their financial worth, sales trend in past etc).

11. Both TL repayment and moratorium period must be fixed liberally say 3 to 4 months more for moratorium and 6 months to 1 year more for repayment period. Repayment schedule needs to be fixed in such a way that there is little burden during the initial years of the project and is increased gradually and not ballooned

suddenly. DSCR and FACR on YOY basis should be guiding the repayment schedule of the project.

12. In case of GF project, 3 months to 6 months Debt Service Reserve Account (DSRA) needs to be created and brought in by promoter and kept as Deposit with lien marked till loan tenure, before the commencement of the repayment.
13. In case, if completion of project is delayed for various genuine reasons, shifting of DCCO by 1 year for non-Infra projects and 2 year for Infrastructure projects and subsequent increase in repayment schedule could be redrawn as per RBI guidelines and repayment in any case should commence only after commencement of commercial production.
14. Strong collateral security for above ₹2 Cr limits should be obtained at least to an extent of 75 % to 100% in case of GF projects.
15. Disbursement must be done as per sanction terms, as per stage completion after inspection by operating officials.
16. Handholding of unit is to be done (working capital release to be done directly to the supplier as per production level to the maximum possible extent) and account should be closely monitored even after 1 year of start of commercial production and then as per stipulated inspection frequency.
17. Legal and valuation should be allotted by bank and not the other way of getting legal / valuation themselves by customers, rather be done from our panel of advocates and engineers, who are allotted with in-depth knowledge, experience and integrity, which is beyond doubt.
18. Collateral security offered should be accepted only after proper due diligence and physical inspection by operating official and taking guidance from legal and valuation reports.

**Common mistakes done in appraisal/ financing of Green field projects:**

1) Project cost is escalated in every possible way to bring down the promoter margin and increase the term loan.
2) Land cost which is already owned is included in the project cost.
3) Construction estimate is given for actual construction whereas approved construction area is lesser.
4) Preliminary and pre-occupied expenses, contingencies are quoted on higher side to increase project cost and may not be actual expenses.
5) Capital, as stated in means of finance may not be brought in, will remain in paper only.
6) Government grant/ subsidy envisaged may be reduced or given as back end subsidy but considered as means of finance.
7) USL may be bought in first year and withdrawn in subsequent years.
8) Capital infused itself may be borrowed funds, so assessment of net worth is essential.
9) Giving shorter moratorium or shorter loan term will make project Ab-initio.
10) Project may be started without necessary statutory approvals in place.
11) Disbursement may be given as reimbursement to customer without taking approvals during sanction.
12) Working capital requirement may not be assessed at all or sometimes would be released even before start of commencement of commercial production.
13) Disbursement may be given to different vendors other than submitted by customer during loan approval or purchasing different machine altogether.
14) Disbursement given without proper inspection and assessment of implementation of project.
15) Collaterals accepted without proper due diligence and title is not clear, overvalued and not SARFAESI complaint.

### Conclusion

If we approach the appraisal and assessment of the project /loan in a systematic way then it will give us solid new business growth and avoid potential NPA or complaints due to wrong selection of customer or approach or appraisal. The growth of Green Field projects in MSME's are not only important for the customers but also to banks, due to its sustained growth as it puts engines of our economy into fast-track growth by providing numerous employment opportunities to unskilled, semi-skilled and skilled workforce of the country but also important for the growth of a nation. We support Green field MSME projects as we are **Banker to Every Indian**.

### Abbreviations:

GF –Green Field

TL – Term loan

CAR – Contactors All Risk Policy

DSCR – Debt service coverage ratio

FACR – Fixed asset coverage ratio

ICR – Interest coverage ratio

PAT – Profit after Tax

KYC – Know your customer

RBI – Reserve Bank of India

ROC – Registrar of Companies

NPA – Non Performing Assets

MSME –Micro small and medium enterprise

CIBIL –credit Information bureau of India Limited

DNB – Dun and Bradstreet report

RBI – Reserve Bank of India

TEV –Techno economic viability study

DCCO – Date of commencement of commercial production

IDC – Interest During construction

CIR – Credit Information Report

PCB –Pollution control Board

BIS –Bureau of Indian Standards

JIT – Just in time.

DTCP – District Town and Country Planning

TPA – Town Planning Authority

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# Social Infrastructure Financing in India- An Empirical Study

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## Abstract

Development is incomplete without improvements in social infrastructure and would require focused strategy for strengthening the social sector in India. Education and health provide biggest guarantee for social security. This paper made an attempt to study the relationship between the social sector financing and the economic growth and wellbeing in India. Multiple regression models have been used for evaluating the impact of social infrastructure financing on various socio-economic indicators. Moreover the past trends of the social sector expenditure and the policy measures taken in the new normal scenario are also analysed. The study found a positive and significant relationship between the social infrastructure expenditure and economic growth and wellbeing in India. Based on the results derived suitable conclusion and suggestions have been drawn.


## 1. Introduction

Social infrastructure of a country is the basic infrastructure that supports the minimum necessities for human development which includes healthcare services, education, drinking water and sanitation. Investments in education sector and healthcare infrastructure tend to achieve long term benefits both to individuals as well as for the society at large. A society comprising of educated workforce brings considerable pressure on the policy makers for improving the standards for education and healthcare infrastructure which aids in improving the levels of social security.

Investment in social infrastructure assists in strengthening the basic health and educational facilities which results in improvement in the standard of living of the masses and hence is considered to be the 'hardware' of the country. From the last decade, the investments in the social infrastructure in India has significantly increased from the government's end. Apart from this, the investment in the social infrastructure by the private sector investments and Public Private Partnership (PPP) has also increased significantly.

According to the Economic Survey of India 2020-2021, expenditure on social services (health, education and others) by the Centre and States combined as a percentage to GDP has increased from 6.2% in 2014-2015 to 8.8% in 2020-2021 and expenditure on social infrastructure as percentage to total expenditure have increased from 24.7% in 2010-2011 to 26.5% in 2020 -2021 (Budget Estimates, Economic Survey 2020-21, Volume II) . It is also evident that in recent years the government intervention to this sector has increased through implementation of various schemes such as the *Ayushman Bharat Abhiyan, Swachh Bharat Abhiyan, Nirmal Bharat Abhiyan, Skill India Mission, Jal Jeevan Mission, etc.*

In this paper an attempt has been made to examine the relationship between the social infrastructure financing and the economic growth and well-being of India. The paper also analysed the impact of social infrastructure financing on various socio-economic indicators in India. Apart from that, the past trends


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of the social infrastructure expenditure and the policy measures taken in the new normal scenario are also analysed.

## 2. Past Studies

Nandyet. al.(2021) investigated the impact of investments by different states in social sector infrastructure, such as health and education, and their readiness for better management of the COVID-19 situation in India and their findings indicated higher investments in healthcare and education sector leads to reduction in infection spread.

Agrawal (2020) intended to study the infrastructure development in India and examined the sources as well as assessed the actions taken by government to facilitate infrastructure financing. The researcher found that though Government and RBI have taken several initiatives for infrastructure financing, but the efforts are not adequate.

Kaur & Kaur (2018) analysed the impact of social and economic infrastructure in economic development of the state of Punjab. Their study pointed out that there exist considerable effects of the health infrastructure and the economic infrastructure investments on economic development of the state but the impact of education infrastructure on the economic development is insignificant.

More & Aye (2017) pointed out that there is positive and significant relationship between investment, education sector and economic growth as well as negative but insignificant relationship between health sector investment and economic growth and further extended that there is a positive and significant relationship between economic growth and inequality in South Africa.

Kumari & Sharma (2015) studied the status of infrastructure in India and their study covered both the economic sectors as well as social infrastructure sectors and their findings suggested that Indian infrastructure needs more investments, better operators, and specialized workforce for its development as well as PPP needs to be emphasised for infrastructural development.

## 3. Social Infrastructure Financing and the 'New Normal'

It is evident that India is experiencing a significant progress in per capita income and improving standards of living over the past few decades. With the implementation of Liberalization, Privatization and Globalization (LPG) policy in July 1991 in the context of the structural adjustment programmes, the percentage of population below the poverty line continues to decline and many social indicators, mainly health and education continue to improve.

Amid the spread of the COVID-19 pandemic, the need for strengthening the social infrastructure has significantly increased throughout our country. Healthcare sector, especially require focused investment in this pandemic scenario to sustain in the 'New Normal'. The Union Budget 2021 rightly identified the need of the hour and hence healthcare and education sectors were the cheer sectors of this budget. Union Finance Minster proposed a big push for social infrastructure for this fiscal year 2021-22. The aggregate estimated budget outlay for health and wellbeing is ₹2,23,846 crores for the year 2021-22, with a remarkable increase of 137 per cent from the outlay during 2020-21.

The government also announced a new scheme *PM Swasthya Yojana* accounting an outlay of approximately ₹68,180 crores over a period of six years for capacity building of primary, secondary, and tertiary healthcare systems as well as for strengthening the existing infrastructure and creating new framework to serve the need for detection and care of new and emerging diseases.

Apart from health care, *Mission Poshan 2.0* has been launched for strengthening the nutritional content and outcome to the rural masses. The Budget also proposes for improvements in sanitation system and water supply to the urban areas. For increasing the production of the Covid-19 vaccine, ₹35,000 crores has been provided. (Source: Budget 2021-2022, Government of India)

The budget allocation to this sector is evidently backing the health crisis which we are experiencing

now due to the second wave of the pandemic but the current scenario demands for strengthening of infrastructure to ramp up the vaccination process. In recent years, social infrastructure financing in India have increased significantly which is depicted in the tables below:

**Table 1: Expenditure on Social Services as percentage to GDP**

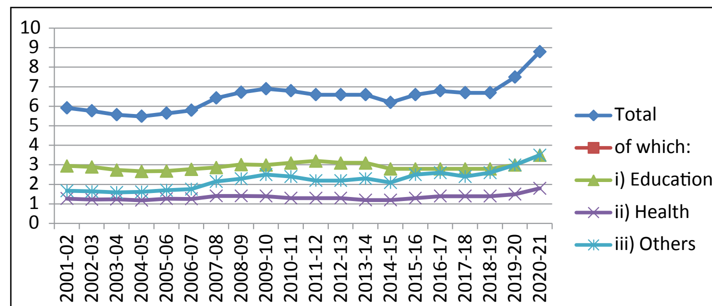
| Year | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 5.92 | 5.77 | 5.57 | 5.49 | 5.65 | 5.8 | 6.43 | 6.72 | 6.9 | 6.8 |
| of which: | | | | | | | | | | |
| i) Education | 2.95 | 2.9 | 2.74 | 2.67 | 2.69 | 2.78 | 2.87 | 3.02 | 3 | 3.1 |
| ii) Health | 1.28 | 1.23 | 1.24 | 1.19 | 1.27 | 1.26 | 1.41 | 1.41 | 1.4 | 1.3 |
| iii) Others | 1.68 | 1.64 | 1.59 | 1.62 | 1.7 | 1.76 | 2.15 | 2.29 | 2.5 | 2.4 |
| Year | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21* |
| Total | 6.6 | 6.6 | 6.6 | 6.2 | 6.6 | 6.8 | 6.7 | 6.7 | 7.5 | 8.8 |
| of which: | | | | | | | | | | |
| i) Education | 3.2 | 3.1 | 3.1 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 3 | 3.5 |
| ii) Health | 1.3 | 1.3 | 1.2 | 1.2 | 1.3 | 1.4 | 1.4 | 1.4 | 1.5 | 1.8 |
| iii) Others | 2.2 | 2.2 | 2.3 | 2.1 | 2.5 | 2.6 | 2.4 | 2.6 | 3 | 3.5 |

*Source: Data collected from various economic surveys and compiled by the researchers*

**Budget Estimates*

The average expenditure on Social infrastructure as percentage to GDP is 6.50 for the last twenty years, i.e. from 2001 - 2002 to 2020-2021. The expenditure on Social infrastructure as percentage to GDP for the year 2019-20 is 7.5% which is slightly high from its twenty years average and for 2020-21 is 8.8% which is significantly high from its average, due to the covid-19 pandemic and the resultant new normal.

**Figure 1: Expenditure on Social Services as percentage to GDP**




*Source: Data collected from various economic surveys and compiled by the researchers*

It is seen that there is a steady growth trend in the social infrastructure financing as percentage to GDP for the last twenty years as shown in the figure above.

The expenditure on social services by the central government and the state governments is increasing significantly as a percentage of total expenditure which is depicted in the Table-2 below:

**Table 2: Expenditure on Social Services as percentage to total expenditure**

| Year | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 20.6 | 20.4 | 19.3 | 19.9 | 21.1 | 21.6 | 22.4 | 24.1 | 24.1 | 24.7 |
| of which: | | | | | | | | | | |
| i) Education | 10.3 | 10.3 | 9.5 | 9.7 | 10 | 10.3 | 10.3 | 10 | 10.8 | 11.4 |
| ii) Health | 4.5 | 4.3 | 1.3 | 4.3 | 4.7 | 4.7 | 4.9 | 4.6 | 4.8 | 4.7 |
| iii) Others | 5.8 | 5.8 | 5.5 | 5.9 | 6.3 | 6.5 | 7.5 | 9 | 8.7 | 8.6 |
| Year | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21* |
| Total | 24 | 24.4 | 24.9 | 23.4 | 24.3 | 24.4 | 25.2 | 25.4 | 26.1 | 26.5 |

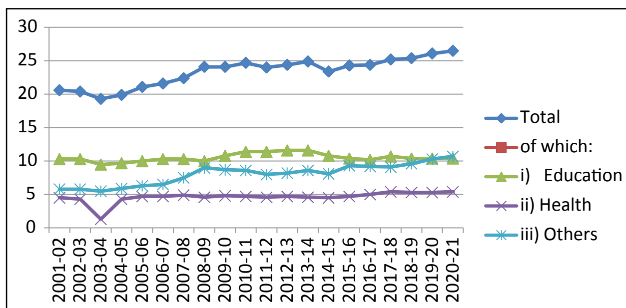
| of which: | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| i) Education | 11.4 | 11.6 | 11.6 | 10.8 | 10.4 | 10.2 | 10.7 | 10.4 | 10.4 | 10.4 |
| ii) Health | 4.6 | 4.7 | 4.6 | 4.5 | 4.7 | 5 | 5.4 | 5.3 | 5.3 | 5.4 |
| iii) Others | 8 | 8.2 | 8.6 | 8.1 | 9.3 | 9.2 | 9.1 | 9.6 | 10.3 | 10.7 |

*Source: Data collected from various economic surveys and compiled by the researchers*

**Budget Estimates*

The average expenditure on Social infrastructure as percentage to total expenditure is 23.29% for the last twenty years, i.e. from 2001 - 2002 to 2020-2021.The expenditure on Social infrastructure as percentage to total expenditure for the year 2019-20 is 26.1 % and for 2020-21 is 26.5 % which is slightly high from its average due to the COVID-19 pandemic and due to the increased infrastructural investments due to the new normal.

**Figure 2: Expenditure on Social Services as percentage to total expenditure**




*Source: Data collected from various economic surveys and compiled by the researchers*

The above figure depicts that there is a stable growth trend in the social infrastructure financing as of total expenditure from the last twenty years.

## 4. Impact of Social Infrastructure financing on economic growth and well-being

In this section, seven linear regression models have been used to analyse the impact of social sector infrastructure financing on economic growth and well-being of India. Social infrastructure financing by the Government in India has been considered as the independent variables for this purpose. The expenditure on social infrastructure sector includes the expenditure on education, health and others by both the central and state government. Here education expenditure includes expenditure on education, sports, arts and culture. Health expenditure includes expenditure on medical and public health, family welfare and water supply and sanitation. Other expenditures include expenditure on housing, urban development, welfare of SCs, STs and OBCs, labour and labour welfare, social security and welfare, nutrition, natural calamities relief etc. as defined by the Economic Survey of India.

The dependent variables selected, being the proxy for overall economic and social wellbeing of the masses and are considered to be the indicators of the Human Development Index (HDI) are Life expectancy at birth (years), Fertility rate (births per woman), Expected years of schooling (years), Education index, Gender Development Index (GDI), Gender Inequality Index (GII) and Income Index. For the purpose of analysis, the researchers have collected twenty years data from the year 2001 - 2002 to 2020-2021, the source being the Economic Surveys of India for the independent variables and the Human Development Index (HDI) reports relating to India published by United Nations Development Programme (UNDP) for the dependent variables.

India's HDI value for the year 2020 is 0.645 and has been positioned at 131 out of 189 countries and territories, and which represents India is in the medium human development category as per the Human Development Report 2020.

**Table 3: Regression Analysis**

| Dependent / Independent | Education, Health & Others (Adjusted R Square) | F Sig. (5% Level) |
|---|---|---|
| Life expectancy at birth (in years) | .914 | .000 |
| Fertility rate (births per woman) | .901 | .000 |
| Expected years of schooling (years) | .877 | .000 |
| Education index | .893 | .000 |
| Gender Development Index (GDI) | .544 | .017 |
| Gender Inequality Index (GII) | .617 | .013 |
| Income index | .940 | .000 |

*Source: Computed by the researchers*

On analysing the above results, it is identified that the relationship between the dependent variable and independent variables are more than 50% for all the cases with the values being significant at 5% level. Independent variables explain 91.4% of the changes in Life expectancy at birth (years) which resembles that over the years improved health and education services have increased the life expectancy of the masses. Similarly fertility rates have decreased resembling improvement in women health and family planning. Independent variables explain 87.75% of the changes in expected year of schooling and 89.3% education index.

The dependent variables - education, health and others explains 54.4% change in Gender Development Index (GDI) and 61.7% change in Gender Inequality Index (GII) depicting the overall societal improvement. This represents that the government expenditure on the social infrastructure has a direct and significant positive impact on the overall socio-economic well-being of the Indian population. On the other hand, 94% changes in income index are explained by the dependent variables which represents that investment in social infrastructure not only improves the social well-being but also supports economic growth of the masses. Irrespective of the fact that there is a significant positive impact of the social infrastructure on the Income Index, the per capita income has not increased significantly, inequalities in income and distribution of wealth in India has increased which is a matter of concern.

The model depicts that there exists positive impact of the social sector expenditure on the economic growth and overall well-being in India. HDI of India in the year 2000 was 0.495 and it has increased to 0.645 in 2020 which signifies positive impact of the investment in social infrastructure by the government on the overall human development and wellbeing. Irrespective of the improvement in the index, HDI ranking of India has deteriorated from 127$^{th}$ position in 2000 to 131$^{st}$ position in 2020, the probable reason behind it is that India is still struggling to improve its per capita income and standard of living as compared to other nations.

### *Public Private Infrastructure and Social Infrastructure*

Apart from the direct government expenditure allotted to the social sector, the Public Private Partnership (PPP) Model is also having significant role in development process. The role of Public Private Partnership is significantly witnessed in the private collaborations of the private sector companies with the *Gram Panchayats* and village councils as a part of their social responsibility.

Emphasis has been put by the Government of India to achieve overall socio-economic development for its citizens. But the efforts need to be supported by the private sector. An aggregate of ₹2100 crore till 2024-25 has been approved by the cabinet for continuation and revamping of the scheme for financial support to Public Private Partnerships in strengthening social infrastructure. (Source: Cabinet Committee on Economic Affairs, November 11, 2020)

## 5. Concluding Remarks & Suggestions

On the basis of the above analysis, it may be concluded that there is a positive and significant impact of social infrastructure financing on the economic growth, human development and well-being of India. It has been witnessed that since the last few decades, the expenditure on this sector is gradually improving. In spite of the positive impact of the social infrastructure investments on the economic growth and social wellbeing, HDI ranking of India has not improved, rather deteriorated, though human development index value has improved over the years. In the last few decades, the education and healthcare sectors of the country have expanded but still the quality education and appropriate health care services are dreams for many, especially for the rural and marginalised population.

The present pandemic situation and the new normal scenario demand for more investment towards social infrastructure but scarcity of resources and funds available in the hands of governments has always remain a limiting factor. Instead of that, various schemes have been launched and funds have been allotted by the Government of India during this

pandemic for securing the livelihood and health of the common people. Government, Non-Government Organisation (NGOs) and corporates should work hand in hand for improving the education system, child development, women empowerment as well as healthcare services. With the presence of huge infrastructural deficits in India, both public and private sectors need to seek for cost-effective and prompt methods for financing social infrastructure. Hence, more transparent and accountable PPP models need to be developed to support the social sector financing in India.

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**Bank Quest included in UGC CARE List of Journals**

IIBF's Quarterly Journal, Bank Quest has been included in the UGC CARE list of Journals. The University Grants Commission (UGC) had established a "Cell for Journals Analysis" at the Centre for Publication Ethics (CPE), Savitribai Phule Pune University (SPPU) to create and maintain the UGC-CARE (UGC – Consortium for Academic and Research Ethics). As per UGC's notice, research publications only from journals indexed in UGC CARE list should be used for all academic purposes.

# E-HRM practices of Scheduled Commercial Banks – A Theoretical Framework

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M. Rifaya Meera**

## Abstract

This paper focuses on the model framework designed for the Electronic Human Resource Management and employee performance through workforce agility of the bank employees. Electronic Human Resource Management practices play a vital role in the performance of the employees in the banking sector. Employee performance is important for the success or failure of every organization. Workforce agility is the way through which the organizations make the employees to adapt to the changing working environment. Thus, the researcher has designed model frameworks for the study which describes Electronic Human Resource Management and employee performance through workforce agility.

## Introduction

Human resource management is a department which handles all the aspects of employees that includes functions such as human resource planning, job analysis, recruitment and job interviews, selection, training, compensating, providing benefits and incentives, career planning, quality of work life, appraising, retaining, HR auditing, welfare of employees and safety issues, communication with all level of employees and maintaining awareness of and compliance with local, state and federal labor laws.

## Electronic Human Resource Management

Electronic Human Resource Management (E-HRM) is the use of technology to manage employees' records and develop Human Resources (HR) processes, including role analysis, recruiting, selection, training, performance management, and compensation. E-HRM includes the process and transmission of digitized information of the human resource. It helps in easy interaction between the employer and the employees. In other words, through the guided help of web technology-based networks, E-HRM is a way of enforcing HRM methods, policies and practices in an enterprise.

When the HR policies, strategies and practices are fully enhanced through web-based technology, it is termed as E-HRM. The time taken for doing the paperwork is reduced by the usage of e-HRM. The use of e-HRM enhances efficiency of banking by reducing the time for processing the paper work. In order to provide solutions to the management, the organizations depend on the e-HRM functions which includes e-recruitment, e-selection, e-training, e-compensation, e-performance appraisal and e-communication (Ahmad Mofaddi Al-kasasbeh, Muhammad Abi Sofian Abdul Halimand Khatijah Omar 2016).

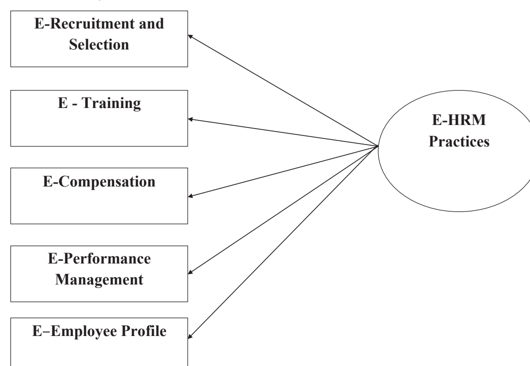


**Figure 1: E-HRM PRACTICES**

*(Ahmad Mofaddi Al-kasasbeh., et.,al (2016)*

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For the theoretical model of this study, the E-HRM practices are divided into five categories namely

- E-Recruitment and Selection
- E-Training
- E-Compensation
- E-Performance Management
- E-Employee profile

### E-Recruitment and Selection

E-recruitment or Internet recruitment is the way of advertising for the posts through online mode. It was first introduced during the mid-1980s. The recruitment of the employees through online process has already become very usual in the IT companies. The people who need jobs are also using internet as a medium for seeking jobs. Utilization of the electronic recruitment is seen as an advantage both by the recruiter and the employee. The advantages of electronic recruitment include quick, easy access to information, wide range of opportunities. It may also provide technically good candidates. Companies nowadays are using the electronic recruitment process in order to simplify the selection procedure and it also helps in return on investment. (Masese Omete Fred, Uttam M. Kinange, 2018)

Electronic recruitment helps the companies to identify suitable number of applicants for the jobs available. The best qualified candidates can be chosen in a cost-effective manner. It includes process such as attracting candidates, job requirements, screening applicants, hiring and welcoming the new employee to the organizations. E-Recruitment process helps in attracting large number of potential employees and helps in the selection process. (Anand J, Chitra Devi S, 2016)

E-Selection is usually done through interactive online interviews either through video conferencing or through telephonic interviews. The potential employee is asked to complete the assessment and other formalities through interactive forms and submit it online. (Kamel Omran, Noha Anan, 2018)

E-Recruitment in banking sector is done with help of the Institute of Banking Personnel Selection (IBPS) in which the entire process of application is through online mode. The hall tickets for the examination are intimated through email and SMS which can be downloaded from the website. The examination is entirely conducted through the online mode. The results of the examination are also published on the website. E-Selection is the next process, which is nowadays done through the telephonic interviews or video conferencing. Once the candidate is selected, he/she may be intimated through SMS or email.

### E-Training

E-training is defined as "a process of distance training through the use of the Internet or Intranet, providing the individual the necessary knowledge on various selected subjects or chosen specialty, in order to raise the scientific level or to achieve rehabilitation, using the computer, sound, video, multimedia, e-books, email, chat and discussion groups". It is possible to train many number of trainees in a short duration of time without any obstacles of place. (Naoual Ben Amara, Larbi Atia, 2016)

The performance of the employees in the organization can be increased by improving their ability to work with the help of the training and development initiatives. In order to reduce the direct cost and the indirect costs, organizations are utilizing the online learning process made available anywhere and anytime. The main characteristics of electronic training are virtual, training from the place of work, accessing etc. (Pinki J Nenwani and Manisha D Raj, 2013)

In banking sector, E-Training and learning are given through various methods such as audio lesson, images, animations, streaming videos, applications, television, CD-ROM and web-based learning. The materials of the electronic training methods are converted to CD-ROM and given to the employees for e-learning. Most e-learning uses combinations of techniques, including blogs, collaborative software, and virtual classrooms.

### E-Compensation

All the organizations and companies, no matter small or large, it must engage in compensation planning. It is the process of allocation of salary and other

compensations within the budget. E-Compensation Management is the usage of intranet or internet for compensation planning. (Pinki J Nenwani and Manisha D Raj, 2013)

E-Compensation is a way in which the employees are getting their salary and other benefits directly to their accounts on the exact day of pay. It helps in encouraging the employees' performance, strengthen organization culture, recognize efficiency and effectiveness, promote professional development and teamwork. If the objectives of an organization are clearly defined and transparent, e-compensation acts as a methodology that measures performance and compensation in terms of both quality and quantity.

E-Compensation helps in gathering, storing, analyzing, utilizing and distribution of compensation data and information. Almost all the banks started using e-compensation for salary fixation, salary payment, salary calculations, fixation and calculation of various allowances, fixation and calculation of various employee benefits, welfare measures and fringe benefits.

### E-Performance Management

The process of planning, implementation and application of the technology in the performance management system is termed as E-Performance Management. It is part of Human Resource Information System. E-performance management system plays an important role in managing the performance in an organization by maintaining a cordial and harmonious relationship between individual employees and the management based on trust and empowerment.

E-Performance Management in banking plays an important role in the motivation and performance evaluation of the employees. A periodic performance evaluation of the employees is done in the banking sectors. In order to motivate the employees awards and recognition are provided to the employees by the way of monetary and other benefits. Everyday performance of the employees is recorded in their Human Resource Management System (HRMS), with the help of which the performance appraisal is done easily.

### E-Employee Profile

In order to get the best out of the employees it is essential to maintain employee records in an organization. E-Employee profile helps in the overall planning of the human capital needs in the organization. Formulation of the employment policies will be easier by maintaining the employee profiles. The employee profiles page act as the heart of the employee database and an essential part of HRM operation. E-Employee profile consists of the employee database which includes contact information, past work history, honor/award, employee availability, leave history, employee tools, job information, employee locator, service details etc.

### Workforce Agility

'Workforce Agility' is defined as the ability to make the employees to accept the new roles or changes made in the organization. Workforce agility may not be in permanent condition, it can be temporary or seasonal. Work force agility has become important for the modern business because the digital economy is fast paced, dynamic and continually evolving. The agility and adaptability are the most important in such an environment. Quickness and effectiveness will be more in the agile workers. Agile workers will be more resilient in the face of disruption, adapt to the working environment and more productive in the modern economy.

Without proper agility, no employee can be made to adapt to the changing environment of the banking sector. In the banking sector, updating of the software is done frequently. Therefore, the employees' are expected to be updated regularly. Work force agility can be inculcated to the employees by the way of providing proper training programs, motivating them, providing monetary benefits, appreciation etc.

### Employee Performance

Employee performance is defined as how the employee is willing to discharge his/her duties within the stipulated working hours. It can be said as the effectiveness, quality and efficiency of the work done by the employees. Performance of the employees and the output yielded by them will be a greater part of

the success or failure of an organization. In this study the performance of the employees is measured using various factors such as compliance, work attitude, work outcome, self-improvement and contribution (PhanThi Phuong Hoa and Nguyen Bao Thoa, 2016).

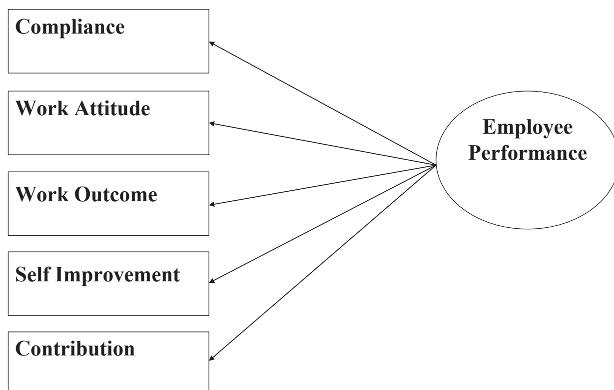


**Figure 2: EMPLOYEE PERFORMANCE**

*(PhanThi Phuong Hoa and Nguyen Bao Thoa, 2016)*

## Compliance

Compliance is described as the rules and regulations, policies framed, law or standard of a concern which must be followed by the management and the employees. In the present scenario, every aspect of life as well as business needs certain rules and regulations. Every organization should set compliance to educate their employees and to set the consequences for the violations (PhanThi Phuong Hoa and Nguyen Bao Thoa, 2016). Regarding the E-HRM practices, the banking sector gave a clear set of rules and regulations and training to their employees. In order to maintain internal control, banking sector is using compliance management system.

## Work Attitude

Work Attitude of an employee has a direct effect on work performance in an organization. There are various other factors that affect the employee attitude in an organization. The work-related attitude of the employees may include the job satisfaction, job commitment, leadership and involvement of the employees (Habeeb Ur Rahiman and Rashmi Kodikal, 2017). When an employee reports to work, the work performance will be affected by attitude which may have an impact on the employee morale. The employees with a good attitude may be a strong performer and the employees with poor attitudes may perform low. Bank employees' attitude is measured with regard to the Electronic human resource management practices followed in their bank branches. It may reveal the loyalty of the employees towards their bank. The efficiency and effectiveness of the employees while accessing E-HRM practices have an impact on work nature. Workload plays a major role in the attitude of the employee and has a greater influence on employee performance.

## Work Outcome

Work outcome is considered as the things or habits that employees learn from the day to day work in an organization. Generally, the work outcome may be being punctual, proper way of communication, discipline, maintaining cordial relationship and gathering knowledge. Work outcome of the employees plays a major role on the employee performance and their satisfaction towards work.

The working pattern of the bank employees has entirely changed after the introduction of the E-HRM practices of the banks. Outcome of the employees, when recognized will definitely make the employee to work efficiently and effectively. Thus, the work outcome of the employees has a greater impact on employee performance. When a compensation or recognition is given to the employee as a way of acknowledging their good work, the employees will be motivated to perform well and get more rewards. (PhanThi Phuong Hoa and Nguyen Bao Thoa, 2016)

## Self Improvement

In the present-day scenario, self-improvement is very essential. The employees must make themselves adapt to the updating work nature, in order to gather knowledge and get recognized. Self-improvement helps in making the work environment a comfortable place to work. It helps in creating awareness and gives confidence. The employees working in the banking sector must be ready to adapt the changing circumstances in their day-to-day practice.

## Contribution

If the HRM practices of the organization are good, the employees will definitely be loyal to the management

and work for its betterment. With the help of Electronic Human Resource Management, organizations can attract the employees by providing proper monetary benefits, training, compensations, rewards and recognitions etc. If the employees became loyal, they will be ready to work overtime, finish the work properly, share their work knowledge, will be punctual and sincere towards their work.

## E-HRM practices and Employee Performance through Work Force Agility

This paper intends to study the e-HRM practices and employee performance through work force agility. Opinion on E-HRM practices is measured using the model components which include the basic HR functions through electronic means. The performance of the employees is considered, as e-HRM practices have a greater impact over the employee performance. Taking work force agility as a mediator or moderator variable enhances the E-HRM practices and its impact on employee performance, which is expressed in the model framework.

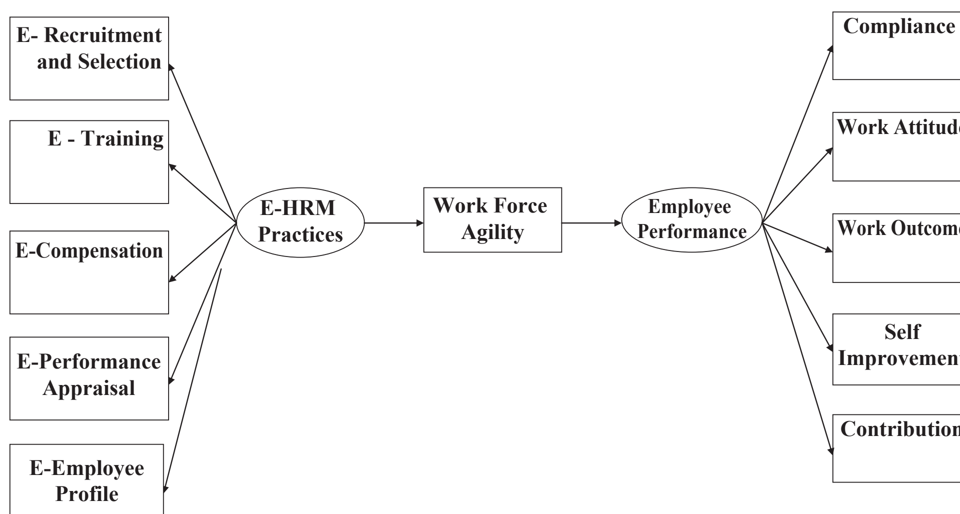


**Figure 3: Theoretical Model Framework of E-HRM practices on Employee performance**

*(Ahmad Mofaddi Al-kasasbeh., et.,al (2016) and PhanThi Phuong Hoa and Nguyen Bao Thoa, 2016)*

## Conclusion

Banks are important for the development of the nation. Banks are facing new challenges such as competition, technological update, customer retention etc. Due to increase in the working population, the usage of banking services is rapidly increasing in India. The employees of the banks are solely responsible for the banking operations. Bank employees will face all the hurdles and work towards the mission/vision of the banks. Bank employees nowadays are facing many challenges in their work environment. Hence, proper managing of human resources in the banking sector is considered very essential. Banking sector has its own responsibilities in developing the rural areas and helping the rural people. Electronic Human Resource Management practices play a vital role in the performance of the employees in the banking sector. Employee performance is important for a success or failure of every organization. Workforce agility is the way through which the organizations make employees adapt to the changing working environment. Thus, the researcher has designed model frameworks for the study which describes Electronic Human Resource Management and employee performance through workforce agility.

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# Summary of Diamond Jubilee Diamond Jubilee & C.H. Bhabha Banking Overseas Research Fellowship Report

**Title: A study of predictive strength of Indian Overnight Swap Market vs. other countries.**

**Researcher: Ms. Dipanwita Dutta, Chief Manager, Punjab National Bank.**

**Year: 2018-19**

Interest Rate Derivatives (IRDs) have been by far the most actively traded global OTC derivative instrument, and within this segment, Interest Rate Swaps (IRS) hold the largest market share. The most commonly used IRS in India is the Overnight Index Swaps (OIS) where the floating leg of the swap is linked to an overnight index.

Overnight Index Swaps (OIS) created between two market participants when one participant is swapping an overnight interest rate, and the other one is swapping a fixed interest rate. This instrument allows financial institutions to swap the interest rates they are paying without going for a refinance or change the terms of the loans they have taken.

OIS carries significant weight in the interest rate derivative market. Due to its multidimensional usage, the global OIS market has recorded spectacular growth, especially, post-financial crisis. The growing importance of OIS is also stemming from the fact that it is used as a predictor of future interest rate trajectory and its usage for hedging interest rate risk of the balance sheet.

There has been a considerable amount of studies on interest rate futures, but there has been limited study on the predictive power of OIS in emerging markets and their limitations, ways and means to improve them.

In this study, the primary objective is to assess the market depth and liquidity of the Indian OIS market vis-à-vis some other markets. Second, the study tries to assess the effectiveness of OIS as a predictor of interest rate in India and whether the liquidity impacts its effectiveness.

The swap market has witnessed exponential growth in the past few decades. In India, interest rate swaps are commonly traded on 2 benchmarks viz MIBOR and MIFOR. Scheduled commercial banks (excluding Regional Rural Banks), Primary Dealers (PDs) and all-India financial institutions (F.I.s) are the main participants of the Interest Rate Derivative market.

Next, the market liquidity of OIS is measured by vis-à-vis other markets. The countries which show better liquidity are U.S., U.K., New Zealand as their zeros (a measure of liquidity higher zeros imply more liquidity) are lower than their counterparts. In terms of market resilience, the European Union and the U.K. is scoring better than their counterpart as their Market Efficient Coefficient (MEC) value tends towards 1. India lags behind both in terms of zeros and MECs making it an average country in terms of OIS market. Indian OIS market is a developing one. However, it is not the one with the highest volume, highly resilient and has high liquidity. However, it is slowly catching up with the world.

OIS rates are widely perceived as investors' expectations of future overnight interest rates over the horizon of the contract. The predictive prowess of Indian OIS market vs. two other highly liquid markets is tested. It was found that in Indian Market OIS in 1-year and 5-year category is most liquid and deep and thus manifests market viewpoint more accurately than their shorter-term counterpart. In the developed market, however, the predictive capacity is higher for short term OIS as markets are resilient and liquid in the shorter term too.

Banks are exposed to interest rate risk as to the main chunk of its asset and liability interest-rate sensitive.

It is important for banks to manage their interest rate risk. Further, financial institutions using OIS as a hedge will contribute to the depth of the market. This Overnight Index Swap has the potential to help banks and financial firms in India to assess expectations for borrowing costs and hedge the risks of rate changes to their bond portfolios.

Indian OIS curve has the predictive capability, and the financial institution may leverage OIS for hedging their interest rate risk. Indian OIS market has undergone many reforms and constantly improving and much ahead of the OIS market of some developing economies.

There is further scope for estimating the hedging effectiveness of OIS in the different financial institution and also the impact hedging on the predictive power of the OIS.

## DECLARATION FORM

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# BOOK REVIEW

**Name of the book:** Transformational leadership in Banking: Challenges of Governance, Leadership and HR in Digital and Disruptive world

**Edited by:** Dr. Anil K. Khandelwal, Former Chairman and Managing Director, Bank of Baroda

**Publisher:** Sage Publications

**Price:** $45

**Reviewed by: Dr. K. Srinivasa Rao, Adjunct Professor, Institute of Insurance and Risk Management (IIRM), Hyderabad. (Former General Manager, Bank of Baroda and Director, National Institute of Banking Studies and Corporate Management (NIBSCOM), Noida).**

The edited volume of the book by Dr. Anil K. Khandelwal comes right at a time when the banking system in India is in seminal transformation. Large scale mergers, increasing competition from differentiated banks, greater scope for collaboration of banks/non-banks, increasing scope of co-origination of business with non-banks including Fintech companies are adding new dimensions to the banking landscape.

Privatization of state-owned banks, entry of bad bank and formation of a Development Financial Institute (DFI) and other game changing developments when seen together with new found power of digital banking and proliferation of 'neo banks', clearly reflect upon the scope for major transformation in banking space in next 2 to 5 years. The leadership at all levels has to gear up to meet the new set of challenges in banking and finance. The bank reforms so far were strengthened by various policy initiatives, Índradhanush' in 2015, Enhanced Access and Service Excellence (EASE) reforms in 2018 and Merger of Public Sector Banks (PSBs) in 2019/2020 that can combine into an integrated unprecedented phase of transformation.

The book exactly becomes more relevant now. Its well-blended inputs contributed collectively by senior scholars/academicians and professionals of proven repute, scripts a right pathway for grooming next generation of transformational leadership.

Dr. Khandelwal, the editor of the book is an accredited transformational leader. Besides his key leadership roles in multiple institutions, he led Bank of Baroda as its Chairman at a critical transitory phase to turn it into tech savvy modern Public Sector Bank (PSB), setting challenging standards for its peers. His expertise has been internationally recognized bestowing upon him the Asian Banker Singapore's 'Life Time Achievement award' (2007). Similarly, at the industry level, National HRD network also awarded him 'Lifetime Achievement Award' affirming his strong credentials. Besides his practical experience and knowledge, his constant networking with academicians, knowledge management forums and industry leaders provided him an in-depth well blended understanding of transformational leadership in large and complex organizations.

The book designed by such visionary with proved leadership acumen makes an interesting and unique reading experience. The contents have been well planned fusing together three distinct sources of learning - (i) well-documented chapters built upon management views of industry experts and academicians pooling their vast leadership

BOOK REVIEW

experience. (ii) Lessons drawn from prominent transformational case studies of large successful astounding market leaders (iii) Excerpts from the interviews of select personalities who practically led, thrived and achieved success in their pursuit. The three sources combined together makes the book unique and comprehensive.

**1. The essence of chapters:**

It is a rare academic rigor to compress such wide range of intellectually accredited essays into a book that requires vision, forethought and experience. With his flair for transformational leadership, Dr. Anil K Khandelwal designed the book into well-orchestrated chapters combining four distinct themes to drive transformational leadership. 1. Future of banking environment 2. Governance 3. Leadership 4. Human Resources.

Written by acclaimed industry stalwarts, these insightful chapters bring together their decades of cultivated intellect and diversified leadership experience. Thus, when gone into, the readers will find it as a handy compendium of rich leadership learning for every aspiring leader, present and potential. It can be a reference material to drive the corporate transformational mantle not only in Banking, Financial Services and Insurance (BFSI) sector but worthy for every sphere of management.

While keeping the big picture of transformational leadership at its epicenter, the well-lined inputs of knowledge and experience has been reinforced into chapters, case studies and interviews. While keeping the tinge of their diversity, the contents of the book has been thoughtfully converged into a convincing narrative to help corporate honchos to lead, navigate and win in a fast transforming business ecosystem.

While maintaining the central theme of the book, Dr. Khandelwal edited and brought the four striking sub themes into a right rhythm to make its reading a distinct learning experience.

In Section- I - Future of banking environment, Prof. Sriram puts together an array of thoughts on the Changing context of governance and leadership in Public Sector Banks while Mr. Shushil Saluja focuses on how the digital revolution can drive banking system, highlighting the need to prepare for greater interface with technology.

Another cryptic narrative by Mr. Akhil Handa brings the changing shape of future of work in BFSI and its implications on the banking ecosystem. In nutshell, the section pump primes an understanding about the dynamics of future shape of banking. The synthesis of the section can be of immense value to the leadership to transform the policy framework and governance structure to make the organizations future ready.

Section - 2 is thematically focused on governance mining valuable insight on the methods of harnessing Human Capital, ethics and governance, highlighting nuances of how to strengthen governance by inculcating sustained organizational culture. The chapter on ‘Strategic human capital management and banking governance: an unexplored symbiotic relationship in PSBs, co-authored by the editor Dr. Khandelwal with Mr. Anujayesh Krishna, adds wealth of discussions on the nuances of optimizing human resources. The pragmatic standpoint to the section comes from discussion on the need for a balanced view on honoring legacy amid evolving work culture authored by Mr. Atul Kumar.

Section - 3 dwells upon the leadership paradigms in navigating transformation. The essay on actionable insights by Dr. Khandelwal can pave a concrete way for leading banking transformation with clarity of tasks and forward views/perceptions. Late Prof. Pritam Singh with his rich academic research experience on organizational leadership, captures and draws the essence of learning in the form of an agenda for Indian banks that can be a reference literature for leaders for generations to come.

Mr. Abinash Panda adds another significant leaf to the section by proposing leadership development process to groom pipeline leaders in developing organizations on a sustained mode. The significant contributions on coaching, mentoring, leading in crisis situations, employer branding, living up to the values and culture of the organizations and trade union management and significance of maintaining harmony and industrial relations makes the section comprehensive with leadership centricity.

Section-4 broadly mobilizes the methods to reinforce human resource capabilities to align to the evolving transformative workspace. Mr. Nishchae Suri aptly describes skilling human resources as the new currency and underlines that skill development can only be the competitive differentiator. Perpetual learning ecosystem will enable organizations to look at the whole vision to drive growth. In evolving gig economy, skill decides the relevance of human resources more than their physical presence. The inputs on changing role of Chief Human Resources Officers (CHRO) in digital age, how to make people adoptive to latest technology, transition of human resources from transactional to transformational function, coping with challenges of HR in PSBs, highlights on the need for continuous transformation and a valuable discourse on wellness and yoga by Mr. Ashish Pandey completes the agenda of optimizing human resources to effectively manage transformation.

**2. Discussions on Case studies:**

The essence of the chapters in part - I of the book are further decked with pointed discussion based on classic transformational case studies of large banks – SBI, Bank of Baroda, ICICI and Union Bank. It expands the scope of applicability of knowledge in practicing leadership in industry.

It is noteworthy that as part of HR transformation, SBI launched two flagship initiatives *'Nayi disha'* for mindset transformation and project 'Saksham' for optimizing process efficiency through people engagement. The success of BoB's leadership development strategy built upon several sequential initiatives to groom future leaders signifies the need to invest and nurture people to lead various facets of the organization. ICICI Bank's talent development strategy has led to creation of 'Leadership Factory' that provides talent to many of its peers. The case study of Union Bank provides an insight on how use of digital and analytics driven approach in HR management could reinvent its people capabilities to realize its transformational vision.

These experiences demonstrate that some of the large well diversified PSBs, despite the limitations within which they operate, have done extremely well to transform and stood tall to compete with their private peers demonstrating 'can do' commitment.

The shift in the speed of decision-making, implementation of transformational objectives, monitoring and control with the help of technology demonstrates the agility latent in PSBs provided the leader at the top is capable to harness the competency of its work force. It is the editor's vision to contextually include these transformational experiences of PSBs- to highlight to the potential leaders that it is possible to lead successfully such institutions to harness their transformative zeal. It adds immense value to the book.

The addition of case studies when read together with the academic and professional driven chapters brings out the relevance of comprehending the link between theory and practice and guide how management theories can help make work place productive and responsive to ever evolving challenges and how to attain desired transformational goals. The twists and turns reflected in case studies provided the right depth of understanding. It adds another fact that if management theories are well implemented in work situations in letter and spirit, it is possible to lead transformation journey and attain its objectives as is evident from the case studies. It also provides guidance on how to navigate through the challenges and unleash opportunities in leading transformational projects.

**3. Excerpts from interviews:**

The professional pursuit of the editor is evident from the fact that it is not only necessary to look into the interface between management literature shared by experienced iconic leaders but to talk to those who have/are grappling with similar challenges and working out practical solutions. The pragmatic perspectives of industry experts drawn from the interviews of current spectrum of leaders assembles another building block of learning, to make the book comprehensive in helping transformational leadership.

It will be quite interesting that first time induction of Non-Executive Chairman and private sector MD & CEO brought about, as part of PSB reforms has been an interesting turning point. Using it as an opportunity, the Editor's interface with Mr. Ravi Venkatesan makes an interesting conversation, mapping the whole sequence of transition in Bank of Baroda. Its excerpts, step-by-step initiatives and learning from the conversation will be of great value to the potential leaders, who aspire to transform even large and complex organization.

In the interview section, it is interesting to observe that the sum and substance exchanged by the iconic personalities from the industry who led large organizations and steered changes, explain the significance of implementing calibrated transformation. They all point to the sense of urgency in building a right culture and initiatives by the policy makers that can catapult change management. The common agenda for reforms surrounding governance, leadership, talent and customer centricity, when pursued with passion and mission mode can bring the desired change. The well-integrated section of the book converges into a common theme – Transformational leadership in Banking.

The thought process that has gone into in bringing out the comprehensive building blocks of knowledge, experience, perspectives and vision can be a reference book for every aspiring leader, that will have perpetual shelf life with its contents relevant for every generation of leaders. Every executive of the financial system should read it in particular to get a hold on how to drive transformation at any level.

# IIBF - PUBLICATION LIST

| Sr. No. | Examination | Medium | Name of the Book | Edition | Published By | Price (₹) |
|---|---|---|---|---|---|---|
| 1 | JAIIB / Diploma in Banking & Finance | English | Principles & Practices of Banking | 5th Edition, 2021 | M/s Macmillan India Ltd. | ₹830/- |
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| Sr. No. | Examination | Medium | Name of the Book | Edition | Published By | Price (₹) |
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