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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 ।

Printed by Shri J. N. Misra, **published by** Shri J. N. Misra on behalf of Indian Institute of Banking & Finance, and **printed at** Onlooker Press 16, Sasoon Dock, Colaba, Mumbai-400 005 and **published from** Indian Institute of Banking & Finance, Kohinoor City, Commercial-II, Tower-I, 2nd Floor, Kirol Road, Kurla (W), Mumbai - 400 070. **Editor** Shri J. N. Misra.

Dr. J. N. Misra
Chief Executive Officer, IIBF, Mumbai

Banking & Finance are two significant and dynamic areas on which, practitioners & researchers like to dwell further into the depths of the subjects. The Indian Institute of Banking & Finance (IIBF) continuously strives towards developing skilled banking & finance professionals through its various activities. The present issue of Bank Quest is a composite issue which brings together this year's Micro Research papers, Memorial Lectures & the takeaways from the International Conference 2018 organised by the Institute. The theme of the conference was "Banking - Stepping into the next decade."

The first article of this issue, "Training needs of future bankers", written by Mr. Raj Kumar Sharma, Assistant General Manager, State Bank of India, was awarded the 1st prize under Micro Research paper competition 2017-18. Mr. Sharma has contemplated that as banking needs are changing, the training methodology should also undergo changes. New relevant topics should be added to bring focus of the future generation on what bank expects from them in future.

The second article, "Aadhaar Enabled Lending System to Boost Micro Finance and Consumer Durable Loans" written by Mr. Vishal Daga, Manager, Allahabad Bank, was awarded the 2nd prize. Indian Banks have witnessed a radical change from conventional banking to convenient banking. Mr. Daga described how Aadhaar Enabled Lending System (AELS) has become a concept which blends Aadhaar with the emerging breakthrough technology and creates an ecosystem which is expected to revolutionize lending and borrowing in the banking domain.

The third article of this issue, "Challenges and opportunities in peer to peer lending", written by Mr. Vijosh Kumar S. V., Branch Manager, Oriental Bank of Commerce was awarded the 3rd Prize. The article explores opportunities & challenges of Peer to Peer lending for borrowers as well as lenders.

We are also featuring the 35th Annual Sir Purshotamdas Thakurdas Memorial Lecture on "Trust as the Foundation of Finance" in this issue. Sir Purshotamdas Thakurdas (fondly called as Sir PT) was an eminent banker and one of the founding members of the Institute. In his memory, since 1981, the Institute organises the Annual Lecture. This time, the lecture was delivered by Dr. Tarun Khanna, Jorge Paulo Lemann Professor, Harvard Business School & Director, Lakshmi Mittal & Family South Asia Institute, Harvard University on 25th September, 2018 as part of the International Conference. Trust being the foundation of any form of commerce was the central theme of Dr. Khanna's Lecture. The lecture was well attended & appreciated by bankers and members of IIBF.

We are also publishing the 9th R. K. Talwar Memorial Lecture 2018 on "The Reform Agenda", delivered by Dr. Bibek Debroy, Chairman of the Economic Advisory Council to the Prime Minister (EAC-PM) and Member NITI Aayog organised on 8th August 2018 in this issue. Dr. Debroy ingeniously gave an account of Reforms in India through a series of anecdotes.

The Institute had organized an International Conference on the theme ‘Banking: Stepping into the next decade’ on 25th September, 2018 in Mumbai to commemorate its 90 years of dedicated service to the banking industry. A brief account of this conference is included in this Bank Quest.

This issue also features, an article written by Dr. M. S. Ali, Chief Manager (Faculty Member–Credit Domain), Central Bank Officers' Training College and Dr. V. S. Kaveri, Former Professor, National Institute of Bank Management on “Loan Default Risk: A Diagnostic Study”. In this article, the authors carried out a diagnostic study of a case and pointed out to the fact that in majority of cases, the borrowers are mainly responsible for converting a good account into a non performing account.

The year 2018 has been an eventful and glorious year for IIBF. IIBF acknowledges & appreciates the support & trust endowed by the Banking & Finance fraternity.

Wish you all a very Happy New Year!

Dr. J. N. Misra

Micro Research - 2017-18
I PRIZE

Training Needs of Future Bankers

Raj Kumar Sharma*

Training is a continuous process and with the rapid changes that are taking place due to technological innovation and other relevant areas like increase in NPA, New Basel III norms, increase in compliance, increase in risk, integration of world economy, government priority the training content and methodology both needs to be improvised to align it with the need of the future bankers.

This research enables us to relook at the existing mechanism and suggest on some crucial areas which can be focused on.

This research is conducted under the micro research initiative taken by IIBF.

Objective of the research study

- To help finding out ways to improve the present training methodology
- To identify the focused areas of banking on which trainings can be imparted to future generation to meet the changing needs

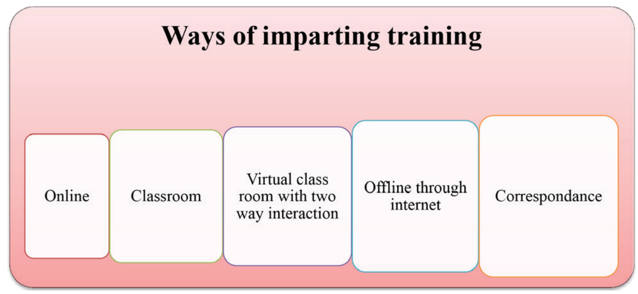
Methodology

Two way approaches have been used for this research

1. Sample collection from existing bankers: (Sample size of 154 has been collected)
2. Other available resources like Internet, Web-Journals, etc.

Findings and Analysis of Data

In learning and development area various new and customer friendly approaches have come into existence some of these are



- Online education: Every major university world across is providing online education (both paid as well as free courses) and thus the need for physical classroom learning is reducing day by day.
- Education beyond university: Various non-teaching avenues are realizing the importance of virtual education and have spread their wings in this area. Example Google is offering various free as well as paid courses.
- Modes of imparting education: From offline to online, various modes of online education are available. Example, by watching online video, or through knowledge web portals like Investopedia, Wikipedia, through virtual class rooms (both online and offline).

So, if someone wishes to learn vast resources are available at his disposal 24 X 7.

Training at banks should also undergo changes in line with the changing scenario on both the parameters

1. Modes of imparting training.
2. Contents of training.

*Assistant General Manager, State Bank of India.

Modes of imparting training

The modes could be

- Online class room training with two-way interaction.
- Offline training through courses made available 24x7x365(No direct interaction with faculty).
- Combination of Offline courses and online interaction for doubt clearing.
- Chat rooms along with online virtual class rooms to enable the participants to interact.
- Once in a while physical classroom training.
- On Job training to gain real experience.
- Training through correspondence.
- Focus on case studies instead of lecture method

Online / virtual class room training can have significant benefits, some of these are.

1. **Time saving:** Virtual training can be provided to employees at their workplace through a networked computer system. It reduces the journey time.
2. **Cost saving:**

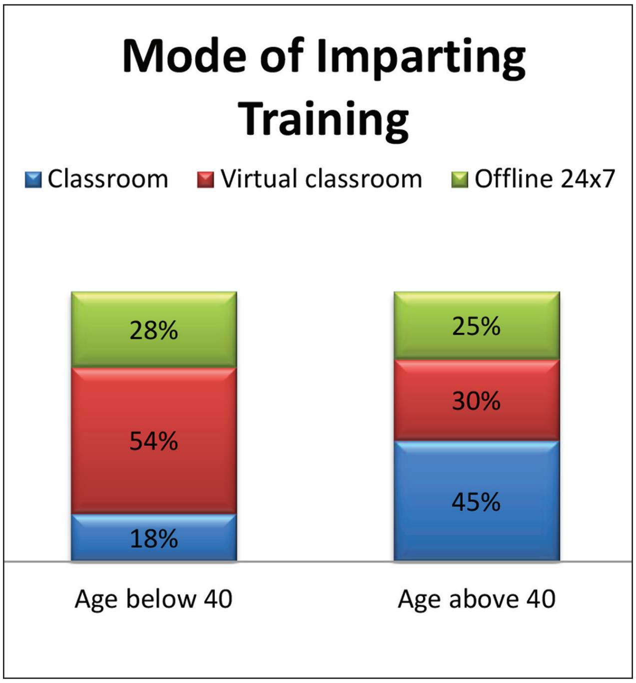
- Virtual classes will eliminate the need for physical journey between place of posting to training center thus saving significant cost to the bank under the travelling expense and halting allowance head.
- The recurring expenses on repeat topics can be saved as once a content is prepared than it just needs to be updated for which only a handful of subject matter experts are required.
- The needs for deployment of vast resources for training can be reduced i.e. land & building, employee cost, electricity, administrative expenses etc. This will save a significant amount of money, which can be used in a more productive way.
- The entire training related infrastructure of bank's can be replaced by a single office.

3. **Access from anywhere at any time:** Virtual training can be provided in online as well as off-line mode. Offline mode eliminates the time restriction and employee can complete the learning process as per their choice of time.
4. **Better understanding of the subject:** In offline mode the participant can relook at the concepts many a time and can also contact the subject matter expert during virtual online sessions. Thus more clarity will be available and take home utility will be higher in comparison to the class room training.
5. **Reduction in forced training:** It has been observed that some participants attend the physical training class as a matter of compulsion and were reluctant to actively participate in the learning process. This attitude not only discourages the other participants but also put a question mark on the entire process. But in case of virtual class room only those who are willing to learn will be enrolling and thus making the process more effective.
6. **Immediate feedback:** Online training will enable the faculty to receive immediate feedback and given opportunity to improvise.
7. **Expanded horizon:** Through the chat rooms provided with online training, a participant can connect to other participants and can interact to gain knowledge through mutual discussion.

With the rapid changes taking place in banks the need for training is also changing. For example a credit proposal, which was earlier prepared manually, is now prepared through software which does all the job from analyzing the balance sheet to generating documents and assisting in post sanction follow-up by generating early warning signals.

Trainee's needs to be properly groomed in

- Understanding the revised way of working i.e. they should be made familiar with the operating software's packages.
- But the software packages cannot eliminate the need for understanding of fundamentals. Example: A credit person, how so good he may be in using the software package, if he does not understand the implication of various data and how they are worked out, then the entire process will be a waste as it will generate only machine operators and not the **logical thinkers.**
- So, a mix of offline and online virtual interactive training classes can be a solution to the above problem which will enable real time interaction through internet.
- It has been observed that with the pace of technological advancement, the pace of **technological frauds** has also increased multi-fold, thus grooming of employees in understanding and filling the loop-holes is a must. Example frauds related to ATM card are on the rise and it has been observed that employees many a times were not able to understand / interpret the modus operandi as they **lack in technical understanding** of the operations.
- Some **disruptive technologies** like Block Chain technology, virtual currency like bitcoin, Peer lending, aadhaar based payment systems etc. have shown green shoots of threat to the existing banking system. Employees should be made aware of disruptive technologies, their implications and the relevant regulation and how to handle such changes.
- Bank's being customer centric and their existence depends on customer satisfaction, so the bank's workforce should be groomed in personality & etiquettes related areas and a proper training on **Behavioral Science** should be made mandatory.



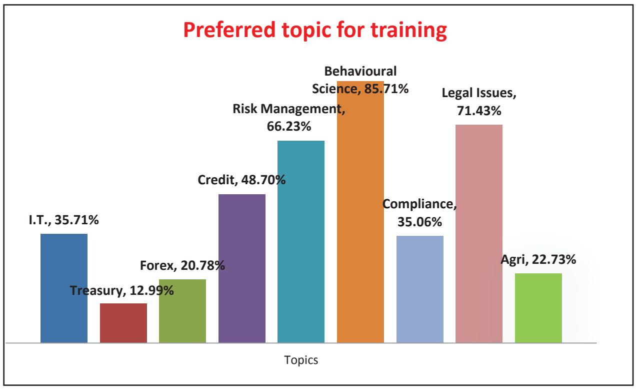
- Banks are gradually turning out to be a **financial super market** and thus customer expects bank employees to know about various financial services like mutual funds, insurance, demat, financial planning etc. Thus an effective and result oriented training is a must for future employees of bank in these segments to enable them to face the customer.

Out of the sample size of 154, 54% of the participants with age below 40 have recommended virtual training to be a better option than class room training. While in case of participants with age profile of above 40, 45% have preferred classroom training over virtual or offline training.

So a majority of future generation bankers have preferred virtual (with two-way interaction) and offline (24X7) training to be a preferred mode.

Further, in the online mode, the preferred mode of training was combination of video and virtual interactions.

The below mentioned topics were suggested by participants for developing and imparting training looking to the changing needs.



Recommendation

Areas for focus on future training

Compliance: A banker has to meet various regulatory compliances. A proper understanding of the process related to compliance and the impact of false or wrong compliance is a must. Some of the areas of compliance on which training can be imparted are

- KYC/AML/CFT
- FATCA/CRS
- FEMA/FEDAI/UCP-600/URDG-758/URC-522/ISBP-745/URBO-750/DOCDEX
- Income Tax/GST/TDS & other Government related compliances
- RBI Audit/Credit Audit/Income Leakage Audit/Information Security Audit etc.
- Various laws governing the banker-customer relationship
- Relevant RBI guidelines
- Compliances in foreign country

Risk Management: Risk management has become a buzz word now a days as banking can not be separated from risk. Some of the areas of risk management where training can be imparted are:

- Enterprise risk management.
- Foreign exchange risk management.
- Credit Risk management.
- Operational Risk management (Which can cover IT, Human, Process risk).
- Compliance.
- Asset Liability Management (Liquidity Risk Management).
- Market risk management on foreign exchange, bonds, credit exposure etc.
- Impact of reputational risk.
- Systemic risk/ Business risk etc.

Credit Life Cycle Management & Corporate finance/SME: The rise in NPA has clearly indicated that the knowledge of credit risk management is lacking in Indian Banking system and thus a need for better understanding of the process related to Credit Life Cycle and assessment methodology is required. The areas which can be covered are:

- Loan Life Cycle Management (Pre Sanction, Sanction, Post Sanction Credit Process).
- Balance sheet/cash flow/ fund flow/ profit and loss statement analysis.
- Assessment of Fund based and Non Fund based facilities (A new thought process should be explored as the traditional way of working out these limits seems to be inadequate).
- Credit risk management (External rating, Internal risk rating parameters).
- Legal issues and recovery process.
- Project Finance/Merger, Acquisition, JV.
- FDI/FII/Reverse FDI/ Overseas JV etc.
- Government schemes to encourage SME's like Mudra Loan.

- Government Schemes to encourage exports like duty draw back
- Concessional facilities available for exports like PCFC, EBR etc.

The quality of balance sheet analysis has scope for improvement and proper development of employees in the segment can bring good results to the banks.

Agriculture Financing: Agriculture is the backbone of Indian economy but the Agriculture financing is being treated as a simple process and not much avenues are made available to understand the intricacies involved in agriculture financing. Even IIBF is also not providing any significant certification course in agriculture banking. This segment needs a significant support and appropriated training should be imparted to employees to understand this segment and develop this segment. Some areas on which course can be designed and training can be imparted are

- Agriculture pre & post-harvest financing.
- Financing for allied activities.
- Financing against ware house receipt, contract farming.
- Development of horticulture.
- Self-help group financing.
- Indian agriculture scenario and the needs of the agricultures.
- Training on government initiatives like Agri Export Processing Zone, Interest Subvention, Crop Insurance etc.

Information System: Technological changes are taking place in a very rapid way and employee need to be updated on technological changes to face the challenges posed by these changes. The present state of technological knowledge of bank employees is pathetic. Employees should have minimum acceptable knowledge of computers, applications and other relevant operating software's. The dependence on the service provider is very high and bank should develop their own staff to overcome this dependency. The areas on which training can be imparted are

- Cyber security.
- Emerging technological changes and their impact on banking.
- Relevant software packages.

Further encouragement schemes should be there to encourage a selected lot of employees to develop technical skills in various areas of information system like

- Block Chain technology and its impact on the banking/Automation.
- Oracle/ JAVA/ C++ etc. as the case may be.
- Quantum Computers/Web and application development etc.

It may seem to be a little unrealistic to advice learning computers for a banker but the future is of those who understand and use this segment.

Alternate/ technological Channels: Training should be given on alternate channels like ATM, CDM, GCC, Cheque Truncation, RTGS, NEFT, Internet banking, Mobile banking, SWIFT etc.

Behavioral Science: It should be a compulsory requirement, as being a banker an employee has to deal with customers and behavioral aspects have a significant impact on customer service. The topics which can be covered under this head could be

- Leadership
- Customer Orientation
- Team Orientation
- Inter Personal Relationship
- Intra Personal Relationship
- Assertiveness

- Self Esteem
- Communication and listening etc.

Ethical Marketing: The trend in banking is towards forced selling and mis-selling. This trend is alarming as trust by customer is at stake and if the trust is broken then the relationship will discontinue for a long period with banks earning bad name. This gives a scope for imparting value based marketing. Every employee of the banks should be aware of the importance of ethical marketing and should understand what is right and what is wrong.

Laws and practices related to banking: With the increased dependency on computers, employees are getting vulnerable to laws and practices related to banking, so training should be imparted on these relevant areas like:

- Negotiable Instrument Act
- Payment and Settlement Act
- Information Security Act
- FEMA
- Types of customers/Cheques/Accounts and type of relationship.

International Banking: With the financial integration of world, the opportunity for international banking and finance is increasing. The arbitrage, which is the backbone of development of this integration, has provided significant opportunity to the financial world at large to explore opportunity for cheap credit. The areas which can be focused under this segment are:

- Foreign exchange dynamics and risk management.
- Non fund based exposures (Letter of credit, Bank Guarantee, Credit Exposure limit (for derivatives), Letter of comfort / letter of undertaking.
- External commercial borrowings, trade credits.
- Correspondent relationship, lines of credits.
- Fund based and non-fund based credits.
- Export & import of goods and services.
- FEMA/Different regulations governing the international trade like UCP-600, URDG.
- Regulatory requirements both at domestic and at the place of operations.

Though Indian banks have presence in various countries, but are not yet major players in the world financial markets and hence a vast potential is available.

A proper development of knowledge base in this segment will enable us to bring various loss making foreign branches to profit and enable bank to achieve growth.

Treasury Operations: It has been seen in the past two years that bank's treasuries have contributed in a big way in maintaining the profitability of various banks. Further treasuries have become integral part of banking operations. The areas which are significant and needs a thorough grooming of participants are:

- Foreign exchange
- Money Market
- Capital Market
- Meeting Statutory reserve requirements
- Portfolio management
- Financial derivatives
- Bond Markets (G-Sec & Corporate bonds)
- Commodity (Gold, etc.)
- Asset Liability Management

Various processes are involved in handling the above treasury segment which includes from monitoring of risk limits, framing of policies, adherence to stipulated norms, back office functioning for settlement of positions, regulatory compliances.

Courses can be designed in these segments to enable the bankers to have a significant pool of talented employees capable of handling this demanding segment.

Commodity hedging is a big challenge and presently most of the Indian customers are presently relying on either futures or options available through MCX/NSE or through international exchanges but no mechanism is available to hedge commodity through bank. It results into various problems, so a mechanism to hedge risk related to commodity should be developed and made accessible to customers through banks.

Other relevant topics:

Training can also be imparted on various other relevant topics useful in banking like

- NRI Business and relevant regulations.
- Banking Ombudsman.
- Economic concepts like, Inflation, Purchasing Power Parity, Deflation, Balance of payment, Trade deficit, Inflation targeting, Stagflation, GDP, GNP, GST, Direct and indirect taxes, Current account deficit, Public borrowings etc.
- Mutual Fund, Demat, Primary Market, Secondary Market, ASBA, Futures, Options, Swaps (through exchange).
- Government schemes like Mudra Loans, PMJJBY, PMSBY, APY, Sukanya Samridhi Account, PPF, PMAY etc.

Conclusion

The aim of future training should be to enable the bankers to play their role more effectively in the path of India's race towards development and not playing role of a hurdle. This can be made possible only with the right training which will encourage the employees to work with a right perspective. A knowledgeable employee will be the one who can convert this dream into reality. As the needs are changing so the training methodology should also undergo changes. New relevant topics should be added to bring focus of the future generation on what bank expects from them in future. Areas of trouble like credit quality, risk management, compliance should be given more focus and specified courses should be designed and in line with RBI guidelines a mandatory learning should be introduced.

Annexure -1

S. No.			
1.	Designation		
2.	Age		
3	Which method of training you prefer (Please rank from 1 to 4. 1 being most preferred)	Online with two way interaction	
		Offline through internet for 24x 7 availability	
		Classroom	
		Correspondence	
4	Which mode of online training you prefer more	Video Lecture	
		Literature	
		Virtual Class room interaction	
5.	Which topic you think should be more focused upon and training should be imparted looking to the future needs of bank	Agriculture	
		Corporate credit	
		Treasury	
		Forex	
		Compliance	
		Risk Management	
		Laws and practices	
		Information technology	
		Behavioral Science	
6.	Any other remark		

Aadhaar Enabled Lending System to Boost Micro Finance and Consumer Durable Loans

Vishal Daga*

Beginning of the 21st century saw major technological revolutions with laptops bringing the World Wide Web to homes, smart phones not only replacing cell phones but also cameras and scanners, online conveniences to book, buy/sell and pay, thus, reducing the need of brick-and-mortar stores, etc., thereby laying a foundation for Digital India. India is the fastest growing major economy in the world and Government's thrust on digitization is that multiplying force. As per Morgan Stanley, India's GDP could reach $6 trillion and financial and consumer sectors to hit $1.8 trillion and $2 trillion respectively by 2027. With the ever growing need to digitize and upgrade the technologies, it is imperative for a vast, diverse and fast developing nation like India to be at the forefront of digital revolution. This will maximize the benefits of economic development that are targeted to reach the remotest locations and touch every Indian's life. Government of India having strongly realized the criticality of introducing and executing the state-of-the-art technological advancements and therefore, has speed tracked the process of digitization.

Following the initial thought process, initiatives like the Direct Benefits Transfers (DBTs) belonging to various government welfare schemes, and employing biometric and demographic database to have the Unique Identification based id were taken. And that was how Aadhaar was conceived. Aadhaar, with its de-duplication and biometric authentication, was able to weed out fake beneficiaries, leakages and pilferages from various government welfare benefits schemes. India has been taken over by storm with digital revolution and today, 1.33 billion Indian population is warming up to digitization. The National Payments Corporation of India (NCPI) has registered 145.46 million transactions with a value of ₹ 131.44 billion on its digital payment app named UPI.

The consumer durable market which was ₹ 812 billion in FY16 is now projected to grow to ₹ 1,340 billion by FY20. This growth will mostly be driven by middle income households, shortened replacement cycle, and rise in disposable income. As per the Investment Information and Credit Rating Agency of India Limited (ICRA), the consumer durable loans portfolio is expected to be ₹ 700 to ₹ 750 billion.

As per annual publication of NABARD report on Status of micro finance in India, over 10 crore households – through more than 8.5 million Self Help Groups (SHG) – have nearly ₹ 616 billion outstanding loan. EShakti, a pilot project of digitization, has been started by NABARD for capturing financial and non-financial information of the SHG.

However, micro finance and consumer durable loans have not really proven to be attractive propositions for the Banks as these are 'small ticket, large volume' loans which don't justify the amounts of resources involved in processing them. This is where the JAM Trinity, Blockchain, Artificial Intelligence, and Machine Learning can be put to good use by the Banks. Startups like Fin-tech and Peer to Peer lending companies are already using this technology to lend anytime anywhere. And to keep up with the pace, there is a strong requirement that the Banks also

*Manager, Allahabad Bank.

employ these technologies and upgrade their lending behaviors for a profitable balance-sheet.

Today, JAM – Jan-Dhan, Aadhaar and Mobile trinity – is the key driver for India's digital revolution. This trinity was also vital in migration from Aadhaar based DBTs to Aadhaar Enabled Payment System (AEPS). Further employing the security features of Aadhaar, this paper talks about the **Aadhaar Enabled Lending System (AELS)** which blends the benefits of Aadhaar biometric authentication along with the new age technology like Blockchain, Artificial Intelligence, Big Data Analysis and Machine Learning.

Talking about the Bank's lending cycle which involves rigorous work in all its stages of customer identification, credit evaluation, sanctioning of loan, documentation, disbursement, monitoring, repayment and recovery, **Aadhaar Enabled Lending System** or A**ELS** envisages to digitize the entire lending cycle thereby reducing time, reducing cost, and providing 'Any Time Any Where' lending, all while maintaining world-class security and authentication of the data.

Banks with well establish network of branches, existing state-of-the-art infrastructure, and a massive customer base have a high caliber to explode the micro finance and consumer lending space. Once the **AELS** infrastructure is in place, the lending scope can also be expanded to retail credit loans like Car Loan, Housing Loan, Mortgage Loan, etc.

AELS Model

Any lending facility available can be availed only when the identity of the beneficiary is verifiable. Though, we have had a range of identity verification cards such as PAN Card, Voter Id, Driving License, and Passport etc., all of these have the potential to either be easily faked or the inability to be easily verifiable. Aadhaar on the other hand, with its biometric de-duplication and two-factor authentication, is both identifiable and verifiable. This character forms the backbone for the proposed **Aadhaar Enabled Lending System (AELS)**.

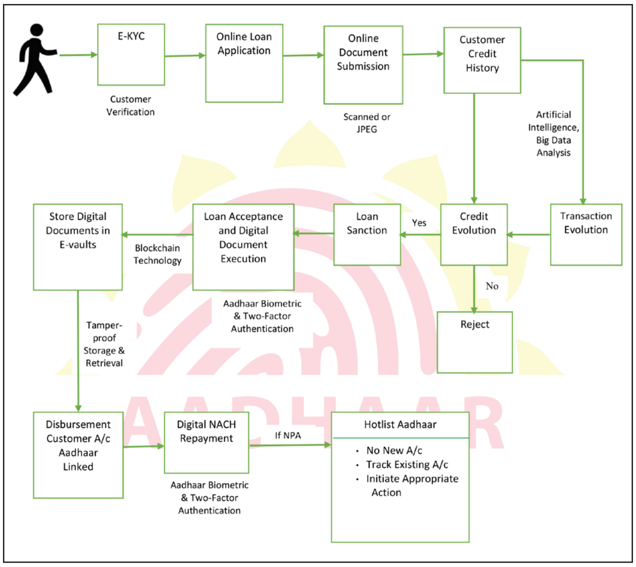
AELS model can be initially used for small ticket loans ranging between ₹ 5,000 and ₹ 1,00,000. Usually, all the micro finance and consumer durable loans will come in this bracket. Banks can leverage the socio-economic conditions like growing middle income families, and shortening of the product replacement cycle to their advantage and can make big in roads in micro finance and consumer durable loans.

The Process and Mechanism:

Usually, huge volumes of paperwork are executed to establish an authenticated lending contract. This uses up a lot of the Bank's resources and time. However, with the presence of Biometric Authentication Device supported by reliable internet connectivity, the digital authentication of loan documents can be completed in significantly reduced time. Bulky loan documents like mortgage paper, loan agreement papers, etc. can be securely stored in E-vaults using Blockchain ledger so that the documents cannot be tampered with, altered or deleted.

The lending system will still follow the same set format just that making the process Aadhaar Enabled will shorten the duration and resources used, thus, making it a cost-effective proposition.

Schematic Representation of AELS Process



Working of the Aadhaar Enabled Lending System following the current lending process

1) Customer Verification and application

Under **AELS**, the customer identification will take place by the simple and quick process of two-factor Aadhaar verification. It also makes it easier for the customers to apply for loans by just submitting their documents online in a click.

2) Credit Appraisal and Sanction

Customers' credit history is a vital information that is required while processing the loans. This information is provided by various Customer Credit Rating Agencies that are designated by the Banks. With Aadhaar coming into the picture, the risk rating scores that the credit rating agencies will offer are bound to have dot precision and will reflect the true picture of the customer's credibility. These credit reports will be devoid of any omissions and exclusions that are likely to happen in case of PAN card or any other identity card being used. Artificial Intelligence, Big Data Analysis and Machine Learning will be used to understand consumer behavior and spending pattern following which the lending can be tailor made for the customer. Pre-approved loans can be made ready in advance for customers' acceptance and disbursement.

3) Document execution

Loan documents can be easily executed online by the customer using the two-factor Aadhaar authentication process. These digitally executed documents can then be stored in E-vaults using Blockchain technology, thereby doing away with the need to personally visit the branch for document execution. This methodology will also support the 'anytime, anywhere lending'.

4) Disbursement

Under **AELS**, the consumer durable loans can be directly disbursed to the customer's account. Alternatively, Banks can also choose to have tie-ups with retailers or e-commerce websites to facilitate direct transfer of loan amount into their account on behalf of the customer.

5) Repayment

Upon the execution of the National Automated Clearing House (NACH) forms signed by the customer, the **AELS** allows the Banks to set up the Aadhaar authenticated digital debit mandate. This will ensure timely repayment of loans.

6) Recovery

At present, the large volumes of non-performing assets or NPAs is a matter of grave concern for the Banks. The colossal damage that they cause to the banking industry and the financial infrastructure of the country is unimaginable. Fighting this embroils lengthy legal procedures that blur the light at the end of the tunnel and further add to the woes if ultimately the defaulters are rendered free. With **AELS** though, the customer's Aadhaar number will be Hot-Listed in the central database making the defaulting customer easily and quickly identifiable. The Banks can then take appropriate action by tracking the defaulter's alternate accounts and requesting the respective banks to put a temporary bar on any banking services or transactions, and disallowing the opening of a new bank account until all the dues are cleared. All the Banks can, perhaps, agree upon a healthy co-operation, thereby coordinating to keep a track of the defaulters' movements.

Infrastructure

The infrastructure needed for **AELS** can be divided into three categories: Public, Government and Banks.

1) Public

It was in 2009 when the first Aadhaar Card came into being. And since then, in less than a decade, over 1.19 billion Aadhaar cards have been issued and over 14.68 billion authentication transactions have been done[5]. Government is now aiming to have 1 billion UIDs, 1 billion accounts and 1 billion mobile phones. As of now, there are 307.3 million Jan-Dhan accounts and nearly 650 million mobile phone users, of which approximately 350 million are smart phone users. This number is likely to go up to 650 million by 2018. Currently, the internet penetration is going at nearly 30 to 40% of the population. Indians are getting familiarized and acquainted with the two-factor authentication process of Aadhaar and are using them in their day-to-day life. Aadhaar based fund transfers and withdrawals has become a regular part of the daily routine for millions of Indians.

2) Government

With the Demonetization and GST implementation under its belt, the Government is now raising the bar for advanced digitization of India. NCPI has been on the forefront in developing various payments apps like UPI, BHIM, and now the merchant payment app BHIM-Aadhaar. These apps are touted to drastically change the way that transactions and money exchange have been taking place.

With the Government's intentions to make Aadhaar card as the Multi-Purpose National Identity Card – a single thread connecting various database – it will be mandatory for all Indian citizens to own an Aadhaar card for various official purposes like opening a bank account, filing the Income Tax, and applying for PAN card and Driving License among others. As of now, the deadline for linking Bank accounts and mobile numbers with Aadhaar card is 31st March, 2018. Following the suit are RBI and TransUnion CIBIL, RBI is urging Banks to use Aadhaar based E-KYC for customer identification, whereas the Credit Bureau of India Limited, now TransUnion CIBIL, which was established in 2000, with a purpose to obtain credit history of individuals has now begun to use Aadhaar in order to get clear and authentic information of a person's credit history and scores. Earlier, any other identity like the PAN card, voter's id, passport, etc. were used.

3) Banks

Banks are aware that digitization is the way ahead to a prosperous and profitable financial future, and are already incorporating technology in various banking operations to reap benefits of cost-efficiency, time-efficiency and enhanced consumer experience.

Today, with the help of E-KYC, opening a savings bank account takes a record time of flat 6 minutes only with minimum involvement of personnel. Knowledge of individual's credit capacity and history has enabled many banks to grant pre-approved loan facility. Technology has also facilitated the Banks to automate various banking operations. For example:

- HDFC Bank and SBI have launched chatbouts to handle customer queries.
- SBI led BankChain community was formed in February 2017, which now has 30 banks as its members. This community looks at exploring the use of Blockchain Technology in various banking functions ranging from KYC, loan syndications, trade finance, secure documents, cross border finance, peer to peer finance, etc.
- ICICI Bank and Yes Bank are also tying up with fin-tech firms to gain access to technologies like Artificial Intelligence.

SWOT analysis of AELS

Though technology has in the past, continues to bring us great ease and security of conducting business, thereby enabling us to achieve path-breaking systems and solutions, like every good thing, this too can have certain nuances that may mar the benefits.

Let's have a look at the probable drawbacks or threats/ weaknesses along with the commendable benefits or strengths/opportunities that **AELS** will encompass:

Threats and Weaknesses

- **Possible invasion of customer privacy**

AELS will have undeniable and complete access to the customer financial history in order to check the credit worthiness of individuals. Though this is similar to the TransUnion CIBIL score, the catch 22 situation here is because Aadhaar is also linked to various personal and social information of a customer which may not necessarily be required for making a lending decision. This privy information has to be safeguarded.

- **Data Security**

AELS will have an information pool comprising of customers' financial, biometric and demographic information. This data if leaked or hacked can have disastrous consequences – both financial and social. This is the ongoing concern that the Government and the relevant authorities are facing. It is imperative to have tight security checks and anti-hack technologies in place to combat such foreseeable breaches in customer data management.

- **Identity Theft**

Unfortunately, Aadhaar card with all its advanced biometric technology, is not immune to theft of information. Fraudsters can make use of this information to trick the Banks into lending them, thereby incurring incomprehensible financial losses to both – the Bank and the customer.

- **Excessive Borrowing**

Though the **AELS** can reduce the time taken in completing the sanctioning of a loan, there will still be a determinate amount of time taken to update the credit information of that customer into the system. The time lag between the fast processing of loan and time-taking process of data updation can allow a customer to avail loans from multiple sources (banks), which will lead to him borrowing more than his credit or repayment capacity.

- **Financial Illiteracy**

Even though the Banks have been around for many years now providing unsurmountable services and facilities to the public, it is only in the recent past that a majority of the public has started to enter into the formal banking environment. It can be safely said that people – consumers and end users – have just begun to understand the nitty-gritties of fundamental banking operations, the terms and conditions of availing loans, and the dire consequences of defaulting the repayments. Considering this level of financial illiteracy, the very idea that **AELS** promotes ease of lending and borrowing can be misconstrued by the borrower as "easily available money". Customers may borrow loans without properly understanding the terms and conditions resulting in wasteful spending thus indebting themselves.

- **Mis-selling fuelled by Power**

There could be cases of malpractice where the Banks can either lure the customers into taking unnecessary loans or forcefully getting them to accept the Bank's terms and conditions on repayments. Being unaware of their rights due to the prevailing financial illiteracy as discussed in the paragraph above, the customers can be taken for a ride by the banks. And considering the time taken to resolve such matters in various forums, it will be a strenuous one.

Strengths and Opportunities

- **Faster execution**

Considering that the entire loan process will be digitized and automated, **AELS** will ensure that the processing time is significantly reduced. **AELS** will set the ball rolling for friction-less digital lending.

- **Profitable**

As mentioned earlier, **AELS** will make the entire lending process both, time and cost effective. But, the biggest impact this will have is that the Banks will now be able to explore the niche market of consumer lending and micro financing. The ample amount of time on their hands and the easy-resource handling techniques owing to digitization and the two-way authentication by Aadhaar will enable them to process and grant larger volumes of loans per day.

This is bound to boost their balance sheet and profit statements.

Digitization will also allow Banks to have tie-ups with retailers – both e-stores and brick-and-mortar ones – for faster credit delivery and ensuring proper end use of funds.

- **High Security Processing**

AELS will guarantee secured data execution, safeguarded financial transactions, and authentic information recovery by employing digitization and technological advancements like:

i) Using two-factor Aadhaar authentication process for digital execution of loan documents.

ii) Employing Blockchain technology for securely executing, storing and retrieving data without the fear of the digital documents being manipulated or duplicated.

iii) Commissioning Aadhaar Card Hot-listing to check if any loan defaulters are routing their financial transactions via another bank. This will help reduce the loan defaulters significantly.

- **Customer-centric products**

As **AELS** will render the entire process of sanctioning loan will be made online, the customers will be able to avail loans at their convenience, thus sparing them the tedious paper work and numerous visits to the Bank.

AELS will facilitate financial product pricing on the basis of the credit history of customers, thus making banks more sensitive to our customers.

Also, upcoming technologies like Artificial Intelligence, Big Data Analysis and Machine Learning will help in understanding customer behavior thus, building tailor-made financial products to suit the customer requirements.

Customers using their credit cards to make payments will be recommended to use **AELS** instead in order to avail credit at competitive interest rates from their banks, thus saving on heavy interest charges and penalties.

- **In-line with Government Goals**
    - Digital India initiative will get a considerable boost by commissioning technological advancements in the banking industry and simultaneously upgrading our skills as bankers to keep pace with the developing economy.
    - Purchasing power of customers will increase owing to the "any time anywhere borrowing or lending" made possible by **AELS**. Consumer goods and associated industries will be uplifted which will help further fuel the Indian economy, thereby increasing the nation's GDP.
    - Along with helping curb the floating black money as a majority of financial transactions will be routed through Banks, **AELS** will also help improve customer creditability and increase their chances of availing loans.

Conclusion

Technology is the game changer in any industry or business. Today, with revolutionizing technologies like Artificial Intelligence, Big Data Analysis, Machine Learning and Blockchain emerging as path-breaking solutions to information quick-fixers, we have handfuls of ways to revolutionize our Banking industry. While the complete potential of the upcoming technologies is yet to be fully understood, making use of our current understanding of them leaves us with complex experience which is both dwarfing and overwhelming at the same time.

As reported by Forbes, banks in India have witnessed a radical change from conventional banking to convenient banking. With the Government promoting digital banking aggressively, and the launch of payments interfaces apps, banks are aiming at providing "fast, accurate and quality banking experience to their customers."

Aadhaar Enabled Lending System (AELS) is a derivation of such masterpieces of Information Technology. It is a concept which blends Aadhaar with the emerging breakthrough technology and creates an ecosystem which is touted to revolutionize lending and borrowing in the Banking domain. With the Government spear-heading its way up in the development arena, it is critical that the Banks realize the domineering effects of digitization and automation. The future will not just be run but, governed by technologically-empowered tools. To be able to master that high-intensity environment in the future, why not embrace **AELS** today to promote digitization of the Bank's lending methodology.

A journey of thousand mile beings with a single step. Let's start ours today.

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Micro Research - 2017-18
III PRIZE

Challenges and opportunities in peer to peer lending

Vijosh Kumar S.V.*

Peer-to-peer-lending or in its neo progressive term known as social or crowd lending is a form of lending having its origin from the early human civilization era and is still in existence without losing its importance and glory, having turned over many times, and at the latest moulded to get managed at the tip of our fingers and still bouncing ahead with today's modern world economic needs. But, there exists a thinner line of separation that differentiates between peer-to-peer lending and crowd funding. In crowd funding investments are made into equity capital but, in peer-to-peer lending the investors are mere creditors. Peer-to-peer funding is regulated by central banks and crowd lending is regulated by capital market regulators.

Peer-to-peer lending is the mother of today's well stabilized banking system having a parallel wing of its own primitive structural existence. Meanwhile intermediaries were evolved at the time of churning of time to regularise and reduce the risk in peer-to-peer lending which later transformed into banks. As the name suggest, in peer-to-peer lending there is no intermediate agencies for selection of loanee, but all the rights and risks are reserved and restricted to the loaner alone. The growth of peer-to-peer lending is boosted because of its easiness to avail loan without much hurdles and the high returns from it. The scope of peer-to-peer lending is spread from the very small hand loans given between individuals to commercial papers issued between corporates. This restricts the balancing and controlling of peer-to-peer lending under a single statutory and regulatory authority.

In a micro economic level the major parties involved are lender and a lendee as per the choice of the lender, but in a macro economic prospect the other parties involved are peer-to-peer lending online platforms, regulatory, statutory and legal authorities. Many countries like Japan and Israel have posed restrictions over peer-to-peer lending and investments in those areas. Even in countries where peer-to-peer lending is regulated, there is no monetary protection provided to investors in case of default. Still, we see a great growth in peer-to-peer lending business because of high development of online digital platforms and the easiness of doing business. Also the speedy upward growth of the economy adds to the growth of this economy. The peer-to-peer lending keeps an upward pace until an economic recession and shows more than hundred percentage year on year growth. The returns in peer-to-peer lending is comparatively two to three times than the investments made on share market or fixed deposit.

In India, peer-to-peer lending is regulated by Reserve Bank of India. As per the RBI master circular numbered RBI/DNBR/2017-18/257 Master direction DNBR (PD) 090/03.10124/2017-18 dated 4th October 2017 clearly explains that a company holding a certificate of registration as NBFC-P2P and a minimum capital of Rupees Twenty Lakh only will be allowed to enter into peer-to-peer lending platforms in India which operates on commission basis for matching up of lenders and lendee. The platforms charge an origination fee to the borrower and operation fee to the lender. The platforms should also be technically viable as per

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the standard norms laid down by RBI. Peer-to-peer lending virtual platforms are still in its infant state in developing and under developed countries. But, the physical structure are widely spread and deep rooted in the society which makes it mandatory to analyse the opportunities and challenges of peer-to-peer lending.

Opportunities of lender/investor in peer-to-peer lending

- **Higher rate of return**

Peer-to-peer investor or lender is the most benefited party among all the parties involved in peer-to-peer lending system. Lender will have higher rate of return compared to savings deposit, investment in equity and other capital market investments. The interest rate may shoot up to 30% and more depending upon the category of the borrower.

- **Selection of the borrower**

Lender alone is reserved with the rights of selection of a loanee. Lender can have a detailed viability study before lending which reduces the risk factor. Lender can reject any loanee applicant. The loanee does not hold any legal rights to avail loan from peer-to-peer lender. But, in banking system the borrower will have rights to avail loans.

- **High valued security**

In most of the cases the value of the security is the major driving factor than the viability of the project. The lenders will focus only on the realizable value of the security which will be always higher than the loan amount. The lender will be attaching the securities towards the issued loan.

- **Evasion of statutory obligations**

The money lenders evade statutory obligations like tax on interest income by managing the investment portfolio without accounting into the banking system. More than ninety percent of the peer-to-peer transactions are unrecorded which creates a wider scope of evasion of tax and accumulation of higher income.

- **Right to cease the contract and changes in sanction terms**

On practical terms the lender can modify the sanction terms at any point of the tenure of the loan. For securing the assets the loanee also will be forced to accept the changes in the sanction terms and pay according to the lenders choice. Here, the lender is having an advantage over the borrower.

- **Short term investment**

Eighty percent of the loans are having less than one year maturity period. This indicates that the funds are deployed for short term duration with higher rate of return. This creates a scope for redeploying the funds.

- **Smaller chunks of investment**

Investors are having an option to make the investment in smaller multiples of accepted minimum deposit. This allows the investor to make multiple investment of the money in different borrowers. The risk is minimized by diversifying the investment portfolio and by making the investments in smaller sum of money. Investors having a diversified investment portfolio are having lesser change of getting loss on averaging the benefits received.

Challenges of lender in peer-to-peer investments

- **Higher risk compared to other investments**

As the saying goes it is better to be a borrower than to be a lender is true when viewed under risk angle. Even though the returns are high in peer-to-peer lending, recovery of the due amount can’t be guaranteed. Recovery of amount in peer-to-peer banking is four times tiresome than the normal recovery risk taken by banks.

- **Lack of statutory/regulatory and legal protections**

Though RBI has taken some initiatives to bring all the peer-to-peer platforms under a regulatory system, mechanism to protect the lenders is still under in its infant stage. Legal protection for recovery of dues is time and energy consuming. Countries in which peer-to-peer lending is restricted do not have any recovery mechanism to assist the lenders.

- **Technical assessment of loans**

Only one percent of the investors are technically trained to appraise a loan. All other investors access their investment portfolio just by checking the value of the securities available with them. Wrong appraisals may lead to mortality of the assets and turning them to NPA.

- **Locking up of funds**

If the repayment of the due amount is not on the due date, the investor will be under liquidity problem. Banks diversify its funds to reduce the liquidity problem. But, small peer-to-peer investors can't make a diversified choice of lenders. Also, banks have a regulatory authority as a last lender of resort at times to resolve the liquidity problem.

- **Returns depends upon economy**

More than eighty five percent of the investments are unproductive loans. These loans were majorly for consumer durables and other expenditures. Income is not generated in all these investments and will be turning to NPA at very early stages of economic recession. When the economy is upward income will be churning around, but it can't bear even a small jerk and get spilled out everywhere.

- **Verification of lendee in online platforms**

The lender is restricted to have a physical verification of the lendee as he will be in some other places of the country. This restricts the lender to have a clear picture of the borrower, but need to believe what the borrower presents. Additional expenses will be occurred for the lender for detailed verification.

- **Investments are in smaller chunks**

The investors investing in smaller chunk of money in different borrowers for reducing the risk find it difficult to recover the amount from individual borrowers as the sum of money will be considerably lesser. The investors better write off than expending recovery expenses.

Opportunities of the borrower in peer-to-peer lending

- **Easy access to credit facility**

The borrower is getting funds within a short turnaround time. If applied through banks, either a proposal will get stuck up in hefty paper works or in sanction of deviations. But in peer-to-peer lending, the decision and amount will be disbursed in a speedy manner at a lesser cost of expenditure than the banks. The reduction in turn around time promotes productivity of the borrower which always happens in peer-to-peer lending.

- **Interest free/low rate of interest**

In developed countries the interest rates on peer-to-peer lending is lesser compared to banks. This is because there are no operational expenditures. But, the case is different in India. In India peer-to-peer borrowings are charged more because of unavailability of lendable funds outside the banking system. In closed groups where the numbers of participants are restricted the rate of interest is lesser than bank interest. In India societies and trusts with non-profit motive also promote peer-to-peer lending and provides funds for free of cost.

- **Investment portfolio not judged**

Banks check the end use of funds and all the borrowings should be for a productive purpose. But, in peer-to-peer lending the borrower is financed even for paying back of old debts and to make investments in consumer goods and non-income generating assets. Borrower is responsible for the end use of funds.

- **Importance for security than project viability**

A party intending to invest an amount of Rupees Five Lakh only without having proper license from metrology department to extract water, but having a collateral security of an amount of Rupees Ten Lakh only will find it easier to get loans from peer-to-peer lenders than from a recognized bank. The bankers look into the viability of the project than the value of security but lenders look vice-versa.

- **Detailed assessment waived**

The need for the detailed assessment of the viability of the project is waived under peer-to-peer borrowing arrangements. This helps the party to surpass the major overhauls of the project and make arrangement for the borrowing. In a banking system most of the times the de-merits are put for special sanction from the competent authority and charged more interest rate.

- **Total borrowings are bifurcated to smaller chunks**

The total amount of borrowings are bifurcated in smaller chunks and distributed to numerous lenders with different sanction terms, interest rate, moratorium and tenure. It is difficult to recover smaller sum of money from the borrower than to recover a huge amount. This cushion is utilized by the borrower at the times of reverse spin of the economy.

Challenges of borrower in peer-to-peer lending

- **Liquidity mismanagement**

Majority of the P2P investments are of short term tenure. This creates a liquidity problem when the borrowers invest in long term assets with this short term borrowings. For matching this liquidity problem, the borrower is forced to mobilize more and more funds from the market which pushes into more debts.

- **Higher rate of interest**

In developing and under developing markets the rate of interest of peer-to-peer investments will always be higher than bank loan interests. Higher rate of interest will reduce the output of the borrower. The rate of interest may even be calculated in overnight basis varying from 15 percentage pa to 24% per annum which in most case is higher than the average accepted net profit margin of any business in India.

- **Management of large number of investors**

As investors majorly tend to invest in small chunks of money for diversifying the risk factor, the borrower finds it difficult to get the required amount of funds on time and manage the larger group of investors. The borrower is forced to collect the amount in partial basis and park the amount ideal until the required amount is collected fully, but pay interest for the ideal amount.

- **Huge repayment default penalty**

On default the borrower is charged a huge amount of penalty which again creates fund mismanagement and liquidity problems to the borrower and eventually winding up of the project with heavy debts.

- **Need of high value security**

Borrower is to arrange for higher value security for peer-to-peer lending which is a difficult task for startup companies and new business players. This again creates obligations by sharing equity and profit only for the purpose of security. Because of this, only big players are allowed to enter into the game.

- **Excessive pressure for output**

Excessive credit facility from peer-to-peer lenders and liquidity problems make the borrower to move to risk edges without having a hedging option. This high risk high profit will always have more chance of going bankrupt. Banks always finance the units with realistic figures and even analysis with worst situations for giving a secondary support to the borrower.

- **High expenditure**

Borrower pays a token for the arranger /online platform as matching fees. Fund management parties are also paid to deal with the liquidity problems. Ideal funds are also costly. The entire expenditure may sometimes give a push back to the economy.

Opportunities of peer-to-peer lending platforms/ arrangers

- **Arrangers earn commission based income**

The income for arrangers/ platforms is from both the lenders and borrowers. Additional income for rating and credit appraisal is also charged for knowing the borrowers profile in detail. The arrangers also collect due amounts for the lenders on payment of a small fees.

- **Do not lend directly**

Arrangers do not lend or borrow, but only arrange for matching of lenders and borrowers. The selection of borrower depends upon the lender. This do not create any obligation to the arranger.

- **Business ends after match making**

Match making of the borrower and lenders are done and after that the obligation of the arrangers cease. Thereafter, the arrangers do not have any obligations and rights.

- **KYC verification through banks**

The platforms do not require special KYC (Know Your Customers) verification platforms for verifying the details as all the platforms are linked with the bank accounts. AML and KYC risks are hedged with the mainstream bank accounts.

- **Mobilization of Foreign currency**

The platforms will be having access towards the foreign currency at lower interest rates. This helps them to make further investments in subsidiaries and ancillary companies. The liquidity problem is solved to the companies and always has surplus funds which again the companies may park for overnight market.

Challenges faced by peer-to-peer platforms

- **Heavy capital investments**

Reserve Bank of India has restricted the licenses to the companies having net owned funds above Rupees Twenty millions only. This has restricted many smaller players to enter into the game.

- **Development of digital platforms**

The arrangers need to develop the digital platforms with higher security options. This is expenditure for the digital players. All the apps and digital platforms should be secure enough like banks platforms.

- **Competition is higher**

The platforms have competition from banks, share market, equity market and mutual funds. This competition forces the players to make significantly higher rate of interest for the lenders which are par with the risk afforded by the lenders.

- **Scrutiny of borrower**

The platforms should analyse the borrowers like bankers to give more security for the lenders so that lenders will be investing a higher amount. This requires rating and appraisal of the borrower with available data. But for appraisal the platforms will run short of time and resources.

- **Merging of peer-to-peer lending and crowd funding**

The peer-to-peer lending and crowd funding are basically different as the peer-to-peer lending is always a loan and crowd funding is an equity contribution. But because of the combined growth of this there exists only a thinner line of separation between crowd funding and peer-to-peer lending.

Micro economic analysis of peer-to-peer lending is limited to lender and borrower. Statutory, legal and macroeconomic prospects should also be analysed to get a clear picture of the peer-to-peer lending system to modulate a macro economy.

Opportunities of peer-to-peer lending in a Macro economy

- **Higher Gross domestic production**

The GDP of the country moves upward as the flow of lending is liberalized. This bridges the need of the bank to work for the progression of the economy and also to achieve the economic goals of the country.

- **Reduced rate of interest**

On movement of time the rate of interest will be coming drastically down to less than banking rates. As more lenders are allowed to enter into the market the rate of interest will be notably stabilized in a low profile.

- **Promotion of high investments by bank**

Once, the peer-to-peer lending investors are on real numbers the banks can be promoted to make bigger investments that are required for national development. Banks will be having heavy funds with them which can be invested in bulk.

- **High momentum on economy**

Higher momentum of economy is expected to churn out as there will be heavy inflows and outflows of amount which creates heavy momentum to the economy making the country for tremendous changes within short period of time.

- **Creation of employment and income generation**

As the economy keeps on pacing upward there will be a heavy employment and income generation opportunities in peer-to-peer lending which again adds to the economic development.

- **Liberalization of stringent credit assessment methods**

Because of vigorous lending and borrowing between members of peer-to-peer lending, the banks are compelled to modify and liberalize the existing credit assessment patterns. On liberalization again the economy will be moving upward. Current pattern of assessment shall be made to have tremendous changes to accommodate the completion from peer-to-peer lenders.

- **Cheaper funds from abroad**

The country will be seeing fund flows from developed countries in peer-to-peer lending as the returns are high in nature. This creates a foreign exchange surplus of the country reducing the fiscal deficit of the country.

Challenges of peer-to-peer lending in a macro economy

- **Unstable economy**

The dynamicity of the economy will be fired high keeping the economy unstable and uncontrollable. Instability will flip flop the economy. As a result, net output will be changing and falling down.

- **Emergence of parallel banking**

In cash rich economy, if the investors are promoted to lend freely there will be a rise of parallel banking which will get merged within the system making it difficult to balance the economy and support the infrastructural and developmental activities in the nation.

- **Unbalanced economy**

As the lenders charge higher interest rate accordingly the distribution of income will be creating disparities in the economy cutting short the living standards of the country. Higher population will be pushed towards poverty.

- **Unethical lending**

Many people lending to many other people without an intermediary will be creating many unethical lending deals and then create variable per capita income generation. This unethical practice also destroys the stability of the country.

- **Accumulation of black money**

Lending without intermediary creates a dangerous scope for accumulation of black money. This black money accumulation will be a greatest hurdle for the economic growth. This also fuels price rise and hoarding which again are antisocial elements.

- **High inflation**

Country will be facing high inflation as the value of the money gets reduced because of higher interest rates which are boosted by the peer-to-peer lenders. Controlling of inflation also can't be done as the inflation depends on the stability of the economy.

- **Funding of terrorism and antisocial activities**

When there is no big eye to protect our system of borrowing and lending, there can be change of terrorism funding and shell company promotions. This antisocial elements may threat the social harmony of the country making it miserable clubbed with inflationary pressures.

- **Reduction in per capita income**

More amount of per capita income will be utilized for debt payments which reduce the actual per capita income and thereby creating discrimination among the people. The per capita income utilization portion will be divided for debt repayment and write off of debts.

- **Failure of banks**

If peer-to-peer lending is taking full-fledged actions in economy the existing banking system will be failing to perform well. And then they should be modified to peer-to-peer lending platforms which matches lender with the borrowers.

Opportunities for regulatory/statutory and legal authorities

- **Great opportunities for growth**

The authorities are having more and more opportunity to grow as all these are in infantry state along with peer-to-peer platforms. Because of this the regulatory and statutory need to expand with the platforms.

- **Supportive legal formations for recovery**

The laws are getting amended such that the recoveries of the funds are made easier than the existing forms. New recovery and bankruptcy laws motivate people to make bulk investments in peer-to-peer lending.

- **Regulatory aspects become stronger**

RBI, SEBI and all other legal departments come together to frame an integrated law suit for the purpose of recovery of the funds and preventing Anti Money Laundering. As the regulatory boards are having sufficient experience and have an existing strong supportive system, it will be easier for them to form new laws and regulations.

Challenges for regulatory, statutory and legal authorities in peer to peer lending

- **Anti-Money Laundering**

The regulatory aspect finds it very much difficult to operate the system without Anti Money Laundering and preventing funding for terrorism. This aspect shall be thoroughly checked to prevent funding of anti-social events and programmes.

- **Controlling of inflation**

One of the major duties of Reserve Bank of India is to regulate inflation. If the peer-to-peer lending comes into active, the economy will be more dynamic and creates more inflation in the system.

- **Prevention of black money**

The Reserve Bank of India will find it difficult to manage the black money menace. Also peer-to-peer lending will promote the growth of black money. For this all the amount transacted should be accounted.

- **Fixing of Interest cap**

RBI will be forced to fix an interest cap to the borrowings to prevent unethical growth of lending business. For fixing of the cap, the central bank should be verifying different aspects of the economy. This cap can even restrict the growth potential of the lending business.

- **Protection of the lender**

It will be a hidden duty of the central bank to create some easy recover procedure for recovery of the loan amount. This requires a strong legal support. Protection of interest income and principal should be done framing a well-defined system.

- **Lack of experience in peer-to-peer lending**

It will be difficult to the bank as the new lending system is in its infantry state and requires more practical issues to be resolved. This creates more pressure of framing a well settled constitution for the peer-to-peer lending business.

- **Regulation of foreign funds**

Funds will be flowing in if allowed to invest in peer-to-peer business by the government. This interrupted flow of money will create problems with the foreign reserves creating instability and loss of balance of the current position of the economy.

- **Controlling economic instability**

The liberalized lender lendee relationship will create a heavy momentum in the economy which should be clearly assessed and managed else, it will turn into a disaster. This is a role where government intervened integrated frame skeleton should be developed. This process majorly works on assumptions where the results are not practically visualized but guessed into a point and arrived into a structure.

Other Opportunities in peer-to-peer lending

- **Growth of credit appraisal factories**

As a subsidiary of the peer-to-peer lending many subsidiary companies will be coming up for appraisal, rating and recovery of the loans issued by peer-to-peer lending. This creates momentum of the economy.

- **FII's and FDI's invest in India**

The Foreign Institutional Investors start investing in India. This helps the nation to have a higher ranking and position in world ranks.

- **Rating of the country improves**

On liberalization of peer-to-peer lending systems, the world rating of the country improves as there is tremendous churning of economy. This gives a statistical position for the country among the world class countries.

Other challenges in peer-to-peer lending

- **Restricting the expansion of banking system**

Banking system in India in its stabilized condition will be ignored once the liberalized peer to peer lending spins out. This will be creating an economic jump which sometimes can't be afforded by a developing economy.

- **Price rise and hoarding**

The commodities will be costlier than they are. This is because all the income is earned to pay EMI's. This creates an inflationary situation in the country.

- **Sudden break to the economy**

Jumping from one economic system to another economic system brings a sudden break to the economy and sometimes it may take a longer time than expected to recover from the jerk.

Conclusion

Peer-to-peer lending in India is still in its very basic form. Because of this reason we are unable to judge the system with just inferences made. Practical hurdles and opportunities of this lending system may even be vaster and wider than the inferences made. As a trial and error method, this is the reason why RBI has kept a minimum networth cap of Rupees Twenty million only for investment in peer-to-peer lending platforms. Once this trial and error is rolled out, we will be provided with sufficient backup data to frame a detailed preamble for the lending business. Only after the first trial roll out that we could conclude whether to promote the peer-to-peer lending or push the economy to stick on to the traditional earmarked banking system. Every investor should be protected and every borrower should be benefited out of this new system. Sometimes there may be insurance companies coming up with insurance schemes to protect the investors or else sometimes these investments may be restricted like crypto currencies to safe guard the interest of the economy. Any of this happening will sprout a motion in the economy. The nation should also be ready with a backup plan for controlling either the forward churning or back ward spinning of the economy.

References

The major references for this thesis were taken from RBI website, Wikipedia, investopedia and IIBF sites.

Trust as the Foundation of Finance[1]

Dr. Tarun Khanna*

The idea of trust as central to commerce is as old as the hills. Over the years, many academics have reflected on this idea - Adam Smith's, "Theory of Moral Sentiments," published way back in 1759, maintained that markets cannot exist without fairness, altruism and trust. Antonio Genovesi, Italy's first professor of political economy (1713-1769) argued that public trust was the link holding civil society and civil economy together.[2] The idea of trust is even older than is indicated by these sources. In the first millennium CE, long-distance commercial networks existed atop a substrate of trust, catalyzed also by the spread of Buddhism from India to China.[3]

In fact, trust is the bedrock of any form of economic exchange and banking of course is the quintessential economic exchange. Regardless of the extent of contractual sophistication, legal infrastructure, blockchain or even machine learning, economic exchange is not possible without an underlying fabric of trust.

Despite this historical recognition of the importance of trust, if you look at economics textbooks today, there is nary a reference to trust. It's all about demand and supply curves, and price and quantity. But these analytic models are only abstractions to understand processes of exchange that are premised on trust.

Trust is the reason behind the success of many modern-day enterprises. It is trust that helped Alibaba succeed in China, a market that had traditionally been very distrustful of online commerce. Jack Ma, Alibaba's founder, repeatedly emphasizes that unless he had devised concrete interventions to gain the trust of would-be buyers on the internet in China, he would have not been able to build his giant enterprise. It is trust that helped BRAC emerge from the embers of a strife- torn and crisis-ridden Bangladesh in 1971.[4] Today, BRAC is the world's largest and possibly best run NGO. Its founder, Sir Fazle Hasan Abed, who is an iconic figure amongst the philanthropists of the world, emphasizes the importance of trust in initiating and running all of BRAC's various activities, including the BRAC bank and BRAC's extensive self-sustaining, profitable microfinance activities. Similarly, the success or failure of large-scale social programs fostered by governments, such as India's Aadhaar (a unique biometric identity scheme for all residents) or Brazil's Bolsa Familia program (a conditional cash transfer program), or, can be linked

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[1] Edited transcript of invited speech given for the 35th annual Sir Purshotamdas Thakurdas Memorial Lecture, Indian Institute of Banking & Finance, Mumbai, on September 25, 2018.

[2] I've been educated about this history by the work of the business historian, Sophus Reinert, a colleague at Harvard.

[3] Tansen Sen, Buddhism, Diplomacy, and Trade: The Realignment of Sino-Indian Relations, 600-1400 (Honolulu: University of Hawaii Press, 2003).

[4] The acronym has stood variously for Bangladesh Rehabilitation Assistance Committee, Bangladesh Rural Advancement Committee, and lately Building Resources Across Communities.

[5] Tarun Khanna, Trust: Creating the Foundation for Entrepreneurship in Developing Countries (Penguin Random House, India; Berrett Koehler publishers, Oakland California, 2018).

to the prevalence or absence of trust. Part of the lesson that shows up repeatedly in my book, Trust: Creating the Foundation for Entrepreneurship in Developing Countries[5], is that to build a world- class organization in the developing world, you have to engage with multiple actors in your ecosystem.

As a corollary, the unraveling of trust can have catastrophic consequences. One sobering example is provided by the tragic Andhra Pradesh microfinance crisis in October 2010. Andhra Pradesh had seen a high proportion of loan defaults, with attendant disastrous social and health consequences for the borrower's standing in the rural community. Growing non-repayment of loans affected the microfinance sector adversely, since microfinance firms were dependent on repayments to replenish capital needed for further lending. Microfinance firms, it was alleged, used their status as one of the scarce alternatives to moneylenders for otherwise downtrodden women, to collect loan repayments in an unethical way, further driving the borrowers into despair and penury. The allegations further elaborated that these firms were able to do so since the regulatory and self-policing infrastructure for these firms was not fully developed.

In response to these developments, the Andhra Pradesh government issued an executive order that restricted lending by all microfinance companies in the state, requiring them to go through local government channels to collect repayments, and to take prior approval for each new loan. Local officials were also given the power to unilaterally and arbitrarily revoke loan registrations. This hampered the ability of microfinance firms to operate in the state and created a capital crunch.

In addition, the firms also faced political pressure to write-off pending loans. While the ostensible goal of these measures was to protect poor women; the causal factor, correctly identified by The Economist magazine, was this: "The growth of microfinance has reduced local politicians' ability to use rural credit as a tool of patronage. That puts microfinance institutions (MFIs) in the firing line."[6] Consequently, the microfinance industry collapsed. SKS Microfinance, (SKS) on whose board I have served since 2009, wrote off all its loans in Andhra Pradesh, which at that time accounted for 29% of its book.[7] For other firms that were wiped out, bad loans accounted for as much as three-quarters of their books. About a half-dozen or so major microfinance firms were forced into bankruptcy, and only one of those managed to emerge from bankruptcy proceedings. The impact of this crisis was financial, emotional, and psychological. Firms lost out on capital, and borrowers were left to the mercy of unscrupulous moneylenders. Human lives were lost, on the borrower side as well as the lending side. There were some deaths in the families of the loan officers - one's pregnant wife lost their child while he was in custody. The overall increase in distress was palpable.

The Indian press, in particular, the vernacular press, also played a role in this crisis. Operating out of the glare of folks outside Andhra Pradesh, it reported on the crisis in a superficial manner. Thus, it did not serve its watch-guard role; if anything, it fanned the flames of distress. The global press printed a few articles that didn't have much impact, as it didn't have a wide enough following either in Andhra Pradesh or in India at large.

The crisis brought SKS to the brink of bankruptcy. The board and management decided not to file for bankruptcy, but to weather the storm. They resolved to rebuild trust with the regulator, lenders, customers and employees. SKS, being an NBFC (non-banking financial company), is not permitted by regulators to raise money through deposits and is instead dependent on loans from mainstream banks (who, in turn, rely on it to re-lend to harder-to-reach populations). To remain in business, it needed to regain the trust of its bankers. It endeavored to

[6] "Microfinance in India: Discredited," The Economist, November 4, 2010, https://www.economist.com/finance- and-economics/2010/11/04 discredited, accessed October 2018.

[7] I refer to BFIL, Bharat Financial Inclusion Limited, with its former name SKS Microfinance, since the latter name was in effect during the crisis.

do so by repaying all its outstanding loans. It wrote off its entire loan book in Andhra Pradesh, while ensuring that it met the needs of its customers in other states. Simultaneously, it worked on improving its operational cost efficiency. By 2012, the firm had stabilized, but its membership had almost halved from its peak of 6.8 million members in 2010, its loan disbursements had shrunk by 70% and its stock price had crashed from the peak of ₹1,355 (soon after its IPO in 2010) to ₹56.

Once the market had settled down, SKS offered qualified institutional placements (QIPs) at a very low price to facilitate growth. This QIP was successful and SKS had two follow-on offerings in 2014 and 2016. By 2018, its stock price had come close to its previous peak. Its operational cost as a percentage of revenue had fallen to 6.6% from a peak of 15.4% in 2012. Its membership had grown to 7.3 million.

While SKS managed to pull itself out of the crisis, things did not work out well for the sector in Andhra Pradesh. Andhra Pradesh microfinance was decimated. After all these years, SKS Microfinance still doesn't lend in Andhra Pradesh because the firm doesn't trust the state's system. If such shenanigans were to repeat themselves, I don't think the firm would have a mechanism to protect itself. The fact that SKS was not allowed by the Indian regulator to convert to a bank is itself likely a residue of distrust from the Andhra Pradesh crisis. When you live in a troubled neighborhood, you can only dissociate yourself so far from that stigma.

Eventually, the institutional infrastructure of India worked to resolve the microfinance crisis, though this took a fair amount of time. The RBI set up a committee under the leadership of Y.H. Malegam to study the issues and concerns in the microfinance sector. While the committee was conducting its research, a number of court cases related to the crisis were also filed. The committee patiently heard the perspectives of all stakeholders and reached reasonable conclusions. The Board members and I spoke to eminent people in the government including senior advisors to the Ministry of Finance and other concerned regulators.

SKS's recovery and the decisions it took during the crisis to aid this recovery has important lessons. During the crisis, SKS's mission was to save the company, rebuild trust and rebuild the reputation of the industry. All decisions sought to answer the following questions: What could the firm do to regain the trust of its customers? And how would they reassure apprehensive employees whose livelihood depended on the firm?

To cultivate this trust, SKS took a series of short-term actions (within six months after the crisis), and then some long-term actions.

The short-term actions included shrinking the company to meet the firm's commitments, conserving its resources and paying the banks. It managed to repay the banks without taking a so- called (financial) "haircut." In a situation where everybody was declaring bankruptcy, the banks saw the firm as an outlier that repaid all its loans. SKS thus built trust with the banks. Other short- term actions related to employees moving out of the company. Many employees chose to leave because the firm was shrinking, others, because they were legitimately terrified by the campaign against the industry. Many others opted to stay with the firm despite the tough circumstances.

Another symbolic action had to do with the commitment of the Board. The Board members retained their composure. We met multiple times despite concerns that some of the firm's senior leaders could be arrested and despite receiving intimidating notices regarding potential court proceedings. A number of the firm's personnel were taken into custody. Further, nobody on the Board quit, even though it was unpleasant to be on the receiving end of some of the uninformed content in the media.

SKS also diversified its lending and moved out of Andhra Pradesh. It put in place more stringent norms for exposure to states, districts, branches. It revisited its safeguards, based on its better understanding of warning signals and the frequency with which these needed to be monitored. Most investors stood by the firm, some even invested further through the subsequent QIPs, confident that the firm would survive and ultimately thrive.

Finally, all through the crisis, SKS attempted to take the high road, refusing to denigrate any party in the ecosystem, and trying wherever possible to put forth its understanding of the situation.

Trust cannot be trivially cultivated through so-called 'cheap talk,' sloganeering that anyone can indulge in, at no cost to oneself. Credible commitments to trust-building actions are costly to the organization. It is not dissimilar from credible commitments made by individuals, where one might think that such actions have meaning if they are psychologically or financially costly to the individual, signaling that she's trustworthy.

Let me describe actions taken over the longer-term to rebuild trust. This relates to changing the institutional structure of the industry so that promises by the firms in the industry were seen as credible. Much less so than in the developed world, it is implausible to say that a well-running firm can operate in pristine isolation from the surrounding institutional infrastructure, including but not limited to the regulatory structures in place. The very definition of an 'emerging market' – and all developing countries have markets that are 'emerging' rather than 'emerged' – is that transacting parties have difficulty coming together confidently because the mechanisms to facilitate this are underdeveloped. This reasoning is spelled out in some detail in my co-authored book in 2010, Winning in Emerging Markets.[8] Indeed, it is inadequate to say that the regulator is just going to do its job and the firm is going to do its own, because it's very likely that the regulatory structures are underdeveloped. Companies and individuals therefore have a moral and civic duty as bankers and financial professionals, as well as in their own economic self-interest, to participate in the creation of a robust ecosystem.

Prior to the crisis, the microfinance industry had not worked explicitly towards creating a robust ecosystem. What happens when, for example, a firm obeys the letter and spirit of the law, but is cognizant that other less scrupulous actors are loath to do so? Specifically, in the Indian microfinance context, what happens when there is no adequately-functioning industry-wide credit registry? Not only was the regulatory infrastructure in the country inadequately developed, there was no well-developed, centralized credit registry with individual borrower level credit information that lenders could check against before lending. Firms were supposed to voluntarily submit data on their transactions and check against the registry to avoid excessive lending and to verify that their customers were not over-indebted, as often, people borrowed from one entity to pay another. This, in turn, may lead the borrower – the poor women in the Indian microfinance case – to either consciously over borrow because she feels she has no recourse in a situation of distress and can get away with it, or because she does not fully understand the implications of the extent of indebtedness into which she might fall. This was happening to an extent in the Andhra Pradesh situation. Although SKS scrupulously referred to the credit registry to check indebtedness, and reported its own transactions forthwith, several other firms did not fully comply. Therefore, the information received was incomplete, and did not adequately characterize the borrowing profile of each borrower. This likely compounded the distress into which some borrowers had fallen.

The microfinance industry, including SKS needs to collectively take responsibility for its part in this situation. SKS held itself to extremely high ethical standards, but when its management and Board noticed other firms engaging in unethical behavior,

[8] Tarun Khanna and Krishna Palepu, Winning in Emerging Markets: A Road Map for Strategy and Execution. (Boston: Harvard Business School Press, 2010).

they should have found a way to speak out. We all seem to have convinced ourselves that if we alone maintained the highest standards, that would be sufficient. That might meet the legal standard of appropriate conduct, but professionals should aspire to more in life than moral minimalism.

For entrepreneurs, it is insufficient to just create. You must first 'create the conditions to create' as I describe in my recent book on Trust, (referenced earlier). If the institutional infrastructure in a developing country is deficient, it means that it is the collective task of people in the society to build it up. Without that, it's very hard to get excellent productive enterprise of any sort - non- profit or for profit. This applies as much to finance and banking as it does to anything else. The industry as a whole would be remiss if we did not accept that we should be doing better on maintaining this institutional infrastructure.

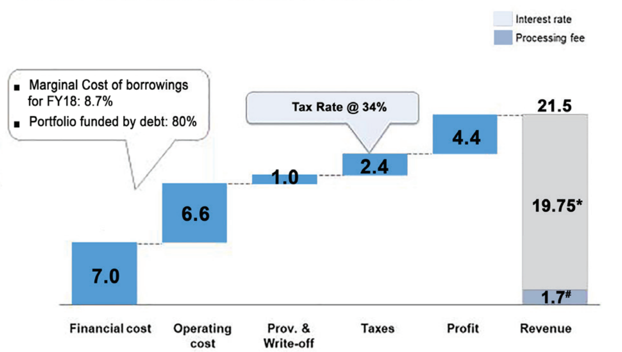
Since the crisis, the entire industry has been working actively to build the credit registry that is functioning well, especially as specialized expertise about registries for microfinance firms develops and is codified in the industry. In addition, other longer-term measures such as RBI norms around caps on margin and caps on the number of microfinance firms that can lend to an individual, have helped the industry's firms to avoid extreme actions and thus cultivate stability and trust.

For SKS, the short-term actions were individually, organizationally and financially costly. They were taken to rebuild the trust and to commit to doing things in a particularly ethical way. They were done without wasting time, finger-pointing and blaming others, thus helping to foster trust.

Wiser folks than I have always advised to focus on things you can control. So rather than worry about the regulator's actions, SKS has continued to focus on its management team, field operations, and customer relations.

This relentless focus on excellence in operations, which in turn requires an intense commitment to fostering trust and an inclusive environment within the company, has enabled SKS to progressively become more efficient by each passing quarter. I believe that the operational costs of SKS are among the lowest, controlling for loan sizes, in Indian industry, perhaps in the world. Other than the hiccup the company faced after the Government of India's experiment with demonetization, the company's metrics have been improving in most quarters. The net result of this increasing efficiency is that SKS is able to share a significant part of the additional resulting surplus with the customer by lowering the interest rate it charges. This is the right thing to do. The so-called 'waterfall' diagram below provides a precise and recent illustration of the components of the final interest rate charged to the end-borrower. Despite the RBI margin caps, and despite the prohibition on low-cost deposits, the firm is able to make a healthy return.

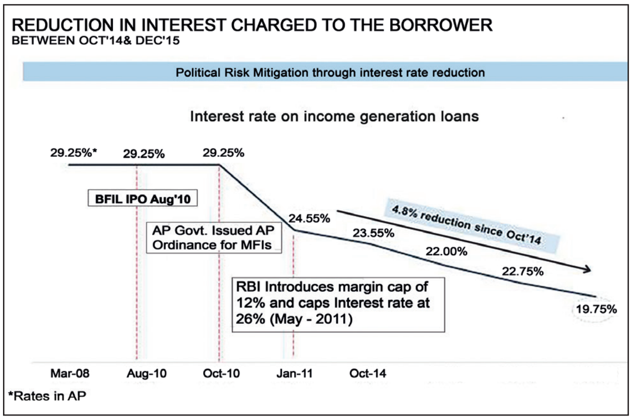
STEADY-STATE ROA OF 4% CAN BE TARGETED



* Interest rate charged is 19.75% for new loans effective from 7th Dec'15
# Processing fee is calculated based on weighted average portfolio mix of 50% IGL (1 Yr. loan), 21% LTL (2Yr. loan) and 29% MTL (1.5 Yr. loan)

SKS does retain some surplus, so that it has capital for scaling further and can provide healthy returns to those who have invested in it, including during the time when its proverbial back was to the wall.

The short-term actions managed the immediate aftermath of distress, and the longer-term actions, including reinforcing the norms of using the credit registry, resulted in SKS's interest rates on loans decreasing from 30% in 2008 to 19.75% in 2015. As far as I know, this is the lowest interest rate charged by any microfinance firm in the world. Here is a graphic showing the steady reduction in interest rate charged by SKS over the years, a direct measure of sharing the fruits of the company's efficiency with the poor borrowers whom the company seeks to serve.



You can decide for yourselves whether the extent of sharing is appropriate, and some benchmarks to other situations around world might help. In Bangladesh, where the microfinance interest rate is capped at 27%, Grameen Bank's interest rate is 20% though the country's prime lending rate is lower than India's. In Indonesia, where there is no regulatory cap on microfinance rates, Bank Rakyat Indonesia charges 24%. However, in Mexico, which also does not have a cap on interest rate, Banco Compartamos charges between 60%- 70%. While this is criticized by many, that publicly traded company has found that its customers are consistently comfortable with this rate.[9]

Let me turn to the use of technology. In modern times, it is impossible to speak of any financial institution without engaging frontally with the issue of how the entity is embracing technological possibilities. Part of the reason for SKS's resurgence is that, over the 2010 to 2018 time period, it has invested steadily in technology to improve operational efficiency. One such investment is the introduction of 'kirana' points, a digitally enabled neighborhood retail store. Borrowers can visit these stores, which are owned by SKS borrowers themselves, to make basic financial transactions such as loan repayment, cash deposit and withdrawal and bill payment. They can also buy other goods from the store, and if required, borrow from SKS for these purchases. SKS disburses loans or cash by transferring money to the bank account of the kirana store, and the store, in turn, withdraws the money from its bank and disburses to the borrowers. For loan repayment or cash deposits, a reverse system is followed. This system is efficient, cheap and JAM (Jan Dhan Aadhaar Mobile)[10] compliant. A biometric device linked to a smartphone captures the borrower's biometrics, the Aadhaar based system instantly verifies the individual and then funds are instantly transferred to or from the borrower's Aadhaar linked Jan Dhan[11] account.

These investments in technology have been fruitful because the company has simultaneously invested in human capital. The company now needs to enhance training for its loan personnel because these are the people who are out in the field, working with retail customers, dealing with small amount of money and collecting cash. There has been a steady rise in percentage of disbursements that are cashless over this time.

[9] It is important to note that we are not quite comparing apples-to-apples here. The Mexican firm, for example, might make loans over different physical topographies than the Indian one; this in turn affects its operating cost structure (cash disbursements and collections). Further, Mexico still lacks a national identity system so that one key foundational aspect of trust – the lenders knows for sure the identity of the person with whom its transacting – is missing, and the firms and the industry writ large must incur the investments to compensate for what I've called elsewhere an 'institutional void.'

[10] JAN refers to the common man, DHAN is the word for wealth, the Aadhaar number is a biometric identity that one can think of as roughly equivalent in ubiquity to a social security number.

[11] To ensure financial inclusion, the government allowed citizens to open zero balance 'Jan Dhan' savings accounts. Each Jan Dhan account provided benefits such as accident and life insurance cover.

But these technology investments are insufficient. I believe that the company needs to invest more aggressively and be smarter still. One need only look to see how AliPay and WeChat have radically reshaped the payment landscape in China setting a trend for the future; ditto for the exuberance in our own 'fintech' sector in Mumbai, Bangalore and Delhi. While the fundamentals of banking will not change, the contours of how they are implemented in practice are poised to change dramatically.

SKS has started leveraging machine learning and artificial intelligence in certain aspects of its operations. One such application is predicting the saving patterns of its members. Another application is in identifying prudential norms governing transition of customers from group loans to individual loans. Typically, in a microfinance setting, the company lends to a person who is part of the group that takes out a loan. As the person builds up a credit history, the financier becomes more comfortable with giving credit to that individual and allows her to transition to take an individual loan. Loans in this setting are normally collateral free and there is no recourse available to the financier. There is a science behind deciding whether a certain customer in a village is ready to transition to an individual loan, and SKS uses machine-learning techniques for such predictions. Yet another application is in fraud prevention. Monitoring and minimizing the cash carried by loan officers can be done by using real time information on loan payouts, loan recollections, and traffic signals to track the geographic location of loan officers. It is possible to predict frauds occurring in the system by using these data to spot patterns in time. At SKS, these features are at various stages of development, however the future looks promising indeed.

Just as SKS successfully managed to address the trust deficit in microfinance, the banking system needs to fix the colossal mistrust in the system. The creation of trust in any developing country setting in any industry is a collective endeavor. It is not something that is mandated by the regulator, but collectively co-created by everybody in the industry.

Two iconic entrepreneurs, Jack Ma of Alibaba and Sir Fazle Hasan Abed of BRAC Bangladesh, represent two very different approaches to thinking about the creation of trust in financial services. Abed has created trust by working with the country's social fabric. In some ways, this is similar to how SKS and other microfinance firms were built in India. They built on the trust of the group. Every member in the lending group would trust each other and the microfinance firm would trust them in turn. Trust was the core relationship and there was limited technology involved in this.

Abed's approach is different from that of Jack Ma. Ma, a school teacher working in Hangzhou, built Alibaba's Taobao (the online B2C, business-to-consumer, platform) by leveraging technology to create trust. An example of this is the escrow system he established. When buyers pay for something, the money goes into an escrow account until the order has been delivered. Another example is provided by the algorithms that have been built to predict which party is likely to fulfil the commitments entered into in an online transaction. This lowers the risk of transactions not being completed.

SKS followed a combination of these two approaches. It started out purely by leveraging the social relations of the groups in the villages, and increasingly, over time, added layers of technology to buttress things. But the technology is useless without the underlying trust.

These contrasting approaches are a matter of individual choice for the would-be entrepreneur and a function of the contextual environment. Different strokes for different folks! They play out in sector-after-sector. As another quick example, consider the dairy industry and our everyday consumption of milk. We have Amul in India, one of the iconic brands in our country. It is founded on a system of trust, reinforced over decades, since Verghese Kurien, imagined it as a well- governed system of cooperatives. While Amul's plants use the latest technologies, I maintain that, compared to new-fangled approaches I've studied and worked with in China (for example, Huaxia Dairy that developed the WonderMilk brand in eastern China), Amul's model is more a judicious mix of layering technology atop an understanding of social relations at the village level, rather than a pure technology play.[12]

To recap, trust is the foundation for any form of economic activity. There are many aspects to the creation of trust.

1. The first is that arbitrary actions are almost always inimical to the creation of trust. Trust is created through continuity of contact, reliability of contact, so that constructive societal norms are continually reinforced. India's financial markets sometimes face abrupt regulatory changes, de jure or de facto, that vitiate the atmosphere of trust. Contemporary instances of loan waivers for political expediency fall in this category for example.

2. The second aspect is that vigilance in building up the business ecosystem is vital to creating and fostering trust. The ecosystem in any developing country is underdeveloped. Regulators and firms need to consult with each other to jointly create the mechanisms that society needs, they must jointly create the conditions to create. The microfinance industry did not do this adequately and as a result faced a precipitous collapse of trust when confronted with unethical behavior from some parties.

3. The third aspect is that a firm or entrepreneur must work to improve its internal operating processes so as to create an atmosphere of reliability with all, from the customers to the suppliers to the talent in the company. In the microfinance industry, the customers' trust in the firms was enhanced by progressive declines in the interest rate they paid for their loans; it reassured them that the firms could work in the customers' best interest.

Trust is the foundation of any form of commerce, most of all financial transactions. Whether we go back to Buddhist merchants in the first millennium or to Renaissance Italy or to Adam Smith, or indeed to today's technology-mediated transactions, trust remains the essential foundation.

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[12] Tarun Khanna, Nancy Hua Dai and Juan Ma, "Huaxia: Building a U.S.-Style Dairy in China," HBS No. 716-414 (Boston: Harvard Business School Publishing, 2015)

The Reform Agenda

Dr. Bibek Debroy*

Mr. Rajnish Kumar, Dr. Misra, Members of the Talwar Family, ladies and gentlemen, let me first thank the Institute and SBI for having shown the honour of inviting me to deliver the 9th R K Talwar Memorial Lecture. Thank you, and I accept it with all humility because, even before I came here, I knew about the illustrious list of my predecessors.

I have a feeling that the Institute actually expected me or wanted me to talk on banking and finance, but, I chose the topic "The Reform Agenda". I wish I had thought of a better title and I did think of a better title while I was watching the corporate film on IIBF, because what I am going to talk about would have been better titled "The legacy of the past and the vision for the future". That's the sum and the substance of my talk. It is an unstructured talk but, hopefully what I will be able to do is to persuade you to look at the big picture and there is a big picture away from the important, but somewhat narrow domain of Banking & Finance.

Reforms – what do Reforms mean? It entirely depends on who you ask because whenever we look, whenever we confront the word reform, our take on reforms has a certain perception, has a certain subjective bias depending on the prism with which we are looking at it and part of the prism, understandably so, is what has happened since 1991, which is what Mr. Rajnish Kumar had also mentioned. But if you stand back and think, to my mind, reforms are about markets, reforms are about competition, and reforms are about what the role of the Government should be.

Whichever way you look at it, whichever aspects of reforms you have in mind, these are fundamentally the questions. Have you made markets function? How do you have a regulatory structure for those markets? How do you ensure competition and what should Government be doing? To that, I will add another one and I will elaborate on this later and that is - what should we be doing as citizens?

Recently, you may have noticed in the newspapers that India has now become the 6th largest economy in the world, according to official exchange rates. On PPP exchange rates (Purchasing Power Parity exchange rates), it had already happened, this is by using official exchange rates. It feels good - 6th largest economy in the world.

What is India's per capita income? Well, the income, the per capita income or the income of any country in the world is expressed in domestic currency. But, to make cross country comparisons realistic, you need a common numeral and traditionally that's been the US Dollar, so in USD terms, what is India's per capita income using official exchange rates, not PPP? India's per capita income is just about 2000 USD. Is 2000 USD high, is 2000 USD low? I do not really know.

There is a famous Economist Lord Keynes, whose first book was on Indian monetary policy. Anything that is cleverly said in the area of economics, money, finance; you don't know who said it, it is ascribed to Lord Keynes. Just as in the area of literature, something clever, you don't know who said it, ascribe it to 'Oscar Wilde', so like that in the area of

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economics, money and finance anything that sounds clever, you do not know who said it, ascribe it to Lord Keynes.

2000 USD, is that high, low? Many things in life are relative. Apparently, Lord Keynes was once asked "How is your wife?" and he said compared to whose wife? So exactly in that way,

2000 USD high, low? Well it so transpires that, as of today, the richest country in the world has a per capita income of 175,000 USD.

175,000 USD to 2000 USD – So all said and done, India is still a relatively poor country. Quite often, some of you will travel to the United States, will travel to Western Europe and you will legitimately come back and complain and say why can't India be like the US? Why can't India be like Western Europe and again I will come back to this. But just so that you make an apple to apple comparison and do not make an apple to orange comparison, the per capita income of the United State in the 1870's (and not in 1970's) was 3000 USD, India today is 2000 USD.

What is per capita income? Per capita income is nothing but the average productivity of citizens of India So, if you are going to increase the per capita income, the average productivity of Indian citizens needs to improve. There can be no debate about this. How does productivity improve? Everyone who has studied economics, first year, will say output depends on 4 things, Capital, Labour, Entrepreneurship and Productivity. So, therefore, if productivity is going to increase we must have greater efficiency in Capital Markets, we must have greater efficiency in Land Markets, we must have greater efficiency in Labour Markets, we must enable entrepreneurship and we must have technological changes that lead to what economists refer to as total factor productivity. It's as simple as that. What is complicated is how do we ensure this? I mentioned markets, I mentioned competition, but markets are not the neighbourhood fish market where you walk in and transact – purchase and sell. That is not what a market is.

A market is a conceptual structure and every market functions in an institutional set up. The early economists appreciated the importance of institutions. After that, economists became too specialised and forgot about institutions. Economists are rediscovering institutions again. So, every market that we can think of, functions in a certain institutional context. So, even though, the templates for reforms may be the same across countries, within the templates, there will have to be variations that take into account the specific institutional context, the specific socio- cultural context, the historical context. And what is our institutional structure? Our institutional structure, today, is one that is governed by the Constitution.

It is a different matter that the Constitution that we have today is not exactly the Constitution that we enacted in the year 1950's and may be it is worth asking whether every amendment since 1950 was an amendment in the desirable direction or not. So, the constitution determines the institutional context of all reforms. What does the preamble to the constitution say? The preamble to the constitution says; "We the people", it does not say, "We the Government."

The World Bank has several measures of governance and it tries to correlate governance with the level of economic development and we find that there is a strong correlation between governance (however measured) and economic development (however measured). But, correlation does not imply causation. So, it is not quite obvious whether better governance (however defined) leads to economic development or whether higher levels of economic development stimulate better governance. Why am I harping on this? I am harping on this because of "We the people". We constantly complain that the Government should do this, the Government should do that. Sure, the complaints are sometimes legitimate. The Government should indeed do this, the Government should indeed do that. But I said, "We the people".

Countries do not change because of only what Governments do. Countries change when you and I change.

Mr. Rajnish Kumar mentioned the reforms of 1991. Soon after that, in the year 1992, I did an experiment, a very minor almost juvenile kind of experiment. The year was 1992, just after the 1991 reforms. What kind of experiment did I do?

I went to FICCI and CII, got hold of the membership lists and drew up a hall of fame of Indian Industry 1000 and I wrote them letters. 92 members, those were not the days of e-mails, it was a time of faxes. I wrote to them complaining about trivial matters. What are trivial matters? Let me give you an example to illustrate. I wrote to Britannia saying I buy Bourbon cream biscuits and half the time, I find that the cream is on the wrong side. That kind of trivial complaint. I wrote to 1000 hall of fame. Exactly 4 replied. Out of 1000, 4 replied. Out of the 4 who replied, 3 said, we are very sorry to get your complaint, our authorised representative will call on you soon. I am still waiting, they have not turned up. Only one, Modi-Xerox came and attended to my complaint.

More recently, well it's just been told or you were told that I work for the Government. What you have not been told , although it's obvious, is that I now live, we live (my wife and I), in Government accommodation. I presume it must be same with PSBs. Certainly, if you live in Government accommodation, the electricity bill is taken care of, in this particular case, by NITI Aayog. You do not own the house, you do not have an electricity bill in your name. You do not have a tenancy agreement. My wife and I, between us, we had accounts with 3 banks. All three are private banks. We shifted our residence, so like dutiful citizens, we wrote to the banks saying please note a change in address. I have since discovered that it is easier to open a new account than to get your address changed, and it went on and on -- where is the ownership deed to the house? where is the tenancy agreement? where is the electricity bill? where is the telephone bill? I rang up the Reserve Bank of India. Reserve Bank of India said all we require is that bank should visit you at your house and verify your antecedents, which they won't do. After this had gone on for about 4 months, my wife said on a Sunday evening, you are supposed to work for an important position in the Government and you cannot even get your address changed. In exasperation, I sent SMSs to the Heads of the 3 banks, whom I happened to personally know, and on Monday morning, the addresses were changed.

I will give you one more anecdote. In 2015, after this Government came into power, I was appointed the Chairman of a Committee that went into restructuring of Indian Railways. In the course of that, I travelled, sometimes with my wife, throughout India on trains, not the Rajdhani and the Shatabdi, but slightly less luxurious trains, ordinary trains. On one of these trips, we were, on a not very high end train, at a station in Uttar Pradesh. And the train had stopped at 2 in the morning for a Rajdhani to pass. So, there was the train parked on the platform at 2 in the morning and my wife and I got down, to have a walk, stretch our legs along the completely deserted platform. Except that, there was a food stall that was open. A hefty burly man comes along, goes to the food stall, buys a packet of chips, eats the chips and throws the wrapper on the platform. And I can see my wife at my side, I know what is going to happen. So, I pretend I do not exist, I maintain a discrete distance. She goes up to this fellow, as said tall and hefty, taps him on the shoulder and said pick up the wrapper and throw it in the dustbin. I thought here we go. Man looks at her, picks it up, puts it in the garbage. We go up to the food stall owner who said this is remarkable. He said that before the Swachh Bharat Mission, this would not have happened.

Now, I have given you these examples to illustrate that Government does not exist in isolation, in a vacuum. You cannot realistically expect that suddenly the Government will begin to exhibit all the trails of excellence when the ecosystem that we are functioning is an ecosystem that is inefficient and uncompetitive.

If you go back, look and read any of our historical texts like, let us say, Kautilya, you will find that several things were not done by government. Government did a set of very limited things. Dispute resolution, protection of property rights, internal security, external security and a lot was done by the Srenis, which in English would translate into Guilds. Who checked unfair trade practices and restricted business practices? There was no competition commission. The Srenis did it. Who set MRP? The Srenis did it. Who did skill formation? The Srenis did it.

We don't have to go back thousands of years. The British road gazetteers, initially for India and then for the states and those initial British Gazetteers for the Districts of India in the 1880s, were a revelation. 1883, in the District of Rohtak, a canal had to be built costing ₹45,000. The Government paid ₹20,000. Who paid the remaining ₹25,000 in 1883? The community. You expect that today and hell will break lose.

So, in some sense, we as a community, we as a society, we as citizens, have abdicated our responsibilities. But let me come back to Government. What does Government mean? What is Government's responsibility? Government's responsibility is to deliver public goods and services. What are public goods and services? We can debate on this. Each one of us will have our own list of priorities. But at the end of it, hopefully in your list of priorities, right at the top, will be law and order and security because that is the reason why citizens throughout the globe elect Governments - to ensure internal and external security.

Item Number 2 will be certain elements of physical infrastructure that the Private Sector will not deliver - rural roads, electricity, water. These are the kinds of things that the private sector is not going to deliver. Primary health centres, some elements of social infrastructure for schools, etc. There is a quote from Mahatma Gandhi "India lives in her villages". Everyone indiscriminately quotes this without necessarily reading the rest of the paragraph. In the rest of the paragraph, you have a precise listing of the number of villages that used to exist then. And how many villages used to exist when Mahatma Gandhi wrote that? – 700,000. How many villages we have in India now? – 600,000. Because for various reasons, over a period of time, villages become less in number. They are reclassified, some become un-inhabited, some become part of larger agglomeration of cities/ villages. Out of these 600,000 villages, until recently, 100,000 of them still lacked metal roads, electricity, transport connectivity, gas connection, primary health centres, schools - all these things that we take for granted. Any Government, and I will qualify the word Government later on, has limited capacity. It has limited fiscal and limited administrative capacity. The priority on fiscal grounds and the priority on administration grounds must be for these 100,000 odd villages, which seven decades after independence, are still deprived of various things that we take for granted.

I do not know how many of you are from the North East. If you are not from North East, you are probably familiar with the North East. You have no idea how important it is psychologically, even if not economically, for a citizen of a state in the North East, when he/she feels that, seven decades after independence, I have a railway connection in my state for the first time, I have an airport in my state for the first time, which brings me to another point and do not misunderstand what I am saying. I talked about efficient labour markets. Mr. Kumar mentioned GST. This is one country, one country does not mean only GST, one country also means that I have a unified land market throughout the country, that I have a unified labour market throughout the country, I have a unified capital market throughout the country. And do not misunderstand, I am not talking only about Article 370, I am also talking about other articles - Article 371, which for those of you know, segments the country. If you segment parts of the country, those parts will never be main streamed. Just for argument's sake, imagine what would have happened if in 1961, we would have said that Goa is going to remain a separate entity. I do not think Goa would have been what Goa is today.

Let me now come back to something that I just said. The priority, as I said and you seem to agree, for any Government, is internal and external security. I am sure, as citizens, you sometimes lobby for exemptions. How many times do you lobby for police reforms? How many times do you raise your voice to argue that the judicial system should become more efficient? We agreed those are priorities.

Let me go for an anecdote again. Several years ago, mid 1990s, I headed a project on Law Reforms, in the course of which I met many interesting people. One of them was a gentleman named Lalbihari. What was interesting about him was that Lalbihari was alive, but he was also dead. Because, Lalbihari possessed an ancestral plot of land and his maternal uncle, who coveted that plot of land, bribed the Tehsildar to declare Lalbihari dead. So, Lalbihari was fighting a battle to prove that he was alive. When he did some research and discovered there were around another 25,000 such dead people floating around in U.P. and he thought he would synergize their attempts, he formed something known as Mritak Sangh, the Dead Man's Association. And Lalbihari became the founder President of that Mritak Sangh and he changed his name to Lalbihari Mritak. He used to be a Government school teacher. So, he tried various things to prove that he was alive. He stood in the elections against the then P.M., he made his wife claim a widow's pension, he went and threw stones at the police so that the police would catch him. This is roughly the time I met Lalbihari. To cut the Lalbihari story short, I found Lalbihari's story so bizarre that I started writing about it. It was picked up by International Magazines. There is a genuine prize awarded every year out of Harvard known as the Ig Nobel Prize. The Ig Noble Prize is given to people who do strange things, so Lalbihari was awarded the Ig Nobel prize for peace. He could not receive the prize because he was not alive. But he became famous, in the process of which, Lalbihari was declared alive. What happened to the remaining 24,999? I do not know.

But, the point I am making is particularly police and judiciary. Governments do not reform just because Governments suddenly decide to reform today. Governments reform when the countervailing pressure starts from citizens. The Environment Protection Act of 1996 happened because of citizen movements. RTI happened because of that. The Consumer Protection Act happened because of that. How many times, as citizens do we push for either of the two – the police and the judiciary?

Now, let me come to the rest - the other public goods and services. Who delivers these public goods and services? I have been loosely using the word Government. What is Government? In terms of the Constitution, there are 3 organs of state and we have talked briefly about them. One is the executive, the second is the Judiciary and the third is the legislature. Well, I have not talked about the legislature but let me mention, there is another way to look at Government and that is in the Constitution. We have a 3 layered structure of Government - there is the Union Government, there is the State Government and there are the Local Governments. Who delivers these goods and services? Typically, unless I am talking about defence and security and things like that, typically these public goods and services are delivered by local Governments -- The Panchayats and the Municipalities. Economists and Development Experts have argued for years that as a country, India is excessively centralised, even in comparison to a country like China. It became centralised during the colonial British period because of various reasons. It continued to be centralised post 1947, because of Industrial Policy, Planning Commission and a whole lot of things.

Now, one of the really big institutional changes required is decentralisation of the country. And decentralisation of the country is not only fiscal devolution which the State Governments always talk about, nor is the fiscal devolution only Union to State. The fiscal devolution is also within the State, which State Chief Ministers will typically not talk about. That decentralisation and fiscal devolution is something the State Chief Ministers will normally not talk about, but from the point of view of the citizen getting access to those better public goods and services, that decentralisation and devolution are needed.

I am sure, many of you have used the expression Centre-State relations. Why? Centre-State seems to suggest that there is a Centre sitting there and everything else is a peripheral. Why do you use the expression Centre-State? The expression Centre is not there in the Constitution. The Constitution uses the word 'Union.' India is a Union of states. So, the simple point so far as this bit is concerned, – to ensure that reforms get traction, we need that decentralisation. But, then, we come back to Government – overall Government's resources and overall Government's expenditure.

How much do India's citizens pay as taxes? Union and State Government taken together- 17% of GDP. It fluctuates a little bit from here to there, but roughly 17% of GDP. Look at the demands, in the public mind, 6% must be spent on education, 4% must be spent on health, we are at 10%, 10% must be spent on infrastructure, we are at 20%, 3% must be spent on defence, we are at 23%. NIPF has some estimates that subsidies account for about 10%. We are at 33% of GDP. So, we will expect all of those things because we are exposed to such things in terms of visiting Western Europe and the US, but we will not be prepared to pay.

Mr. Kumar again mentioned GST. On tax reforms, there is a direct tax agenda and there is an indirect tax agenda. If we look at the big picture, in the case of both, is elimination of exemptions. Until exemptions go on balance, I do not think compliance cost can come down as long as exemptions are there. Exemptions can potentially be subjected to abuse. Yet, every time there is a queue in front of North Block or in any other Ministry, the typical argument is please remove the exemptions for everyone else, but retain them for me. The problem in that argument is if you grant an exemption to A, it is very difficult to prevent the exemption to B. Taken together, apart from what I have said about compliance cost, the exemptions come to about 5% of GDP. So, had those exemptions not been there, we would have been at 17%+5% = 22% of GDP. So far as the tax reform agenda is concerned, GST is work in progress. We are nowhere near a perfect GST. There is no country in the world who has overnight accomplished a perfect GST. The terminal goal is something that is known. The question to ask is, should we have waited for consensus and debated that perfect GST before proceeding or shall we start with it knowing full, well that it is not perfect and gradually tweak it and improve as we go along? This particular Government has decided on the latter course of action. So far as the direct tax file is concerned, as we are aware, a task force has been set up, which will bring a draft, which hopefully will incorporate elimination of exemptions.

I am coming to the end of whatever I want to say and now, I want to particularly address those who are younger. The reforms started in 1991. Soon after that, in 1993, the IMF brought out a report. In that report, the IMF asked a very simple question. How many years will it take for a country like India to halve, not eliminate, the gap in per capita incomes between India and the developed countries, assuming that the developed countries do not grow at all? Answer was 153 years. 153 years is too long, despite increases in life expectancy. In any event, we are not prepared to wait for 153 years. In the course of my work, I have to travel throughout India and whenever I travel throughout India, I sense a young India that is vibrant, that is pulsating with entrepreneurship, that is impatient. It no longer has a chip on its shoulder. When we were students and later on, when I was a teacher, the world was divided into 3 groups of countries. Developed Countries, and expressions that are no longer fashionable now but they used to be used then, Developing Countries and the worst amongst the developing countries were known as LDC – Least Developed Countries.

When I began to teach, I realised that there was a fourth one which had only one country as a member, that was RDCs (Refusing to Develop Country) and that country of course was India. No one is disputing what India did in the 50's but the cost of intervention had to be less than the benefits. And increasingly, it became clear that the costs of these heavy handed intervention were far more than the benefits.

If you look at East Asia, in the early 60's, East Asia was comparable to India or rather India was comparable to East Asia. Believe it or not, per capita income and human development indicators in India were better than those in East Asia. The lost development decades were the second half of the 60's, 70's and 80s. But, coming back to the young India, when we were growing up, talk about India in the outside world, was generally about Yoga, a little bit about Indian cuisines and we were perpetually defensive as students. What is unique about young India is that young India does not have that chip on the shoulder. There is plenty of entrepreneurship in India and as bankers, you know the entrepreneurship is not in the corporate sector. If entrepreneurship is defined as risk taking, that is rarely a trait of the corporate sector. It is, indeed, the first time that the corporate sector has been threatened with the prospect of exit. Competition requires both entry and exit. It is for the first time they have actually been threatened with exit, which is why, there is a lot of screaming and shouting. The actual entrepreneurship is exhibited by the poor vendor on the streets, because he has to exhibit plenty of entrepreneurship to evade the cops and the Municipal Authorities. So, they display far more of entrepreneurship, except that, the formal Banking Sector will not normally lend to them. But that apart, it has often been said about India that the past was glorious, the future is glorious, the present alone is bleak. It is for the first time that I can see, because of what I said, the present blurring into the future. This India was given to us "in trust" by our ancestors. That India is now being handed over "in trust" to the younger ones and it is for you to demand the kinds of reforms because, if you do not demand those reforms, the reforms will not happen and you have a vested interest in those reforms because you are the ones who will live in that posterity.

Thank you once again for having invited me.

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BANK QUEST THEMES FOR NEXT ISSUES

The themes for next issues of "Bank Quest" are identified as:

- Mutual Funds: January - March, 2019
- Ethics & Corporate Governance in Banks: April - June, 2019
- Emerging technological changes in Banking: July - September, 2019

IIBF's International Conference 2018: Banking - Stepping into the next decade*

An International Conference 2018, on the theme 'Banking: Stepping into the next decade' was organized by the Indian Institute of Banking and Finance (IIBF) on 25th september 2018 in Mumbai to commemorate its 90 years of dedicated service to the banking industry with eminent guests and panellists. The Conference aimed to bring together regulators, policy makers, industry experts, eminent speakers and intellectuals of the banking industry; across countries and continents, on a single platform, so as to learn from their perspectives and vast experiences in a thought provoking and enriching environment.

At the outset, Dr. Misra, CEO, IIBF apprised the gathering that Shri Suresh Prabhu, Minister of Commerce and Industry could not make it possible in person due to some official exigencies. His message that the banking plays a pivotal role in the economy and it is good that such types of Conference are being conducted to discuss the emerging issues, was shown through a video. He wished his best wishes to the delegates and participants present in the Conference.

Dr. J. N. Misra, CEO, IIBF while welcoming the delegates and participants of the Conference talked about the history of IIBF and the way forward. Dr. Misra said that IIBF, ISO 9001-2015 certified, formerly known as the Indian Institute of Bankers, established in 1928, is the largest Institute of its kind in the world with its Membership of 779 Banks & Financial Institutions, as Institutional members and about 8,40,000 of their employees as individual members.

Developing professionally qualified and competent bankers and finance professionals primarily through a process of education, training, examination and professional development programs is the Mission of the Institute.

Since inception, the Institute has educated numerous members and awarded several banking and finance qualifications on contemporary subjects in the banking and finance domain which have helped the bankers to sustain their professionalism.

Release of book on Ethics in Banking on this occasion is contemporary and need-based effort. Institute also announced that a new Certificate Course on Ethics in Banking will be available from January, 2019 onwards.

As a part of the Conference, the Institute also released its special issue of the 'Bank Quest', on the theme of the Conference, covering articles on new paradigms in banking, penned by Indian and International authors, which gave national and global perspectives on banking issues.

The Inaugural Address was delivered by eminent personality Mrs. Arundhati Bhattacharya, former Chairman, State Bank of India. Complimenting IIBF for its 90 years of service, she spoke about how the Institute helped her transition into banking from a background of English literature through structured learnings of acts such as Negotiable Instruments Act, etc. Thanking the IIBF and its CAIIB course, she shared anecdotes of colleagues and how important it was to take the CAIIB exam in order to gain respect, promotion and seniority in banking career.

Speaking about the Future of Banking, Mrs. Bhattacharya said that the retail banking numbers in India are humongous – in 2013, USD 386 billion, in 2017 – USD 600 billion, and expected to cross USD1.1 trillion in the near future. This coupled with

*Conference Proceedings of International Conference on "Banking stepping into the next decade" organised by IIBF on 25.09.2018.

information flood will also help growth of the banking sector at a faster pace.

A very important point that Mrs. Bhattacharya made was that, in India, financial literacy has increased multi-fold. The current government and also the previous ones have taken initiatives to promote a bank account in every household. The Pradhan Mantri Jan Dhan Yojana has been successful in financial inclusion, because it was done in a well-orchestrated manner.

Compliance, risk management and regulation in banking are much better now, she said. By March 2019, India will be fully compliant with the Basel III norms, the former SBI Chairman informed.

Mrs. Bhattacharya said that the next 10 years in banking will have challenges of the two Cs – Capital and Capacity. Capital was the biggest hurdle right now in banking, bigger than customer service, NPAs and human resource issues, she said. IIBF has a role to play in the second 'C' that is Capacity, which consists of Human Resources and IT Resources. Since the recruitments in the public sector banks, more young people got pushed into higher positions as a result of more retiring people. The younger ones are not experienced or trained in basics, which is where IIBF comes into the picture, she said.

The dependence on machines has its advantages but also is a big threat, she said. But at the same time, banks need to invest in upgrading human skills and refine them, which is where IIBF is relevant.

Mr. Dinesh Kumar Khara, MD, GB&S, SBI in his key note talked about innovation/disruption in the field of technology that would, going forward, warrant lot from Banks not only in India but across the globe. The developments in banking include four 'R's – Resolution, Recapitalisation, Regulation and Reform. He also touched upon the introduction of IBC Code and how it is going to help the Banks to deal with the NPAs in a systematic and timely manner. He talked about the need for developing an ethical culture, even as banks are improving skills and adopting technology. He also opined that changes in organisation structure have to be customer-centric.

Mr. Khara also spoke about formalisation of economy due to demonetisation and GST that will eventually lead to credit growth in an orderly manner. Merger is now a reality, he said, from the perspective of optimisation of capital and resources and making Banks stronger. Banking industry going forward will also see improved level of disclosures, higher level of technology, customer centric banking due to advent of collaborative technology, etc. At the end, he emphasized that ethics should not take a back seat and needs to be followed across the banking industry. Course on Ethics is a good initiative by IIBF in this direction. Going forward, immense opportunity will come before the Banks and we need to equip ourselves in terms of skill and knowledge, organisational structure, risk management practices, customer centric approach, state of perfection with self-driven approach rather intervention from regulator.

Dr. Segun Aina, Chairman, Global Council, as part of his special address, said that technology is the No.1 challenge in banking right now and in the future. He said there is a prediction that the next banking crisis may be triggered due to technology, and hence, the need for focus on Security.

Dr. Aina said that the next focus should be on Skills and Talent Management. The next important focus should be on Regulation.

Dr. Aina also talked of how Innovation and Capacity Building in banking is needed, as the next big competition for banking will come from social media like Facebook and e-commerce websites like Amazon.

Inaugural session was followed by panel discussion on 'CEO Speaks'. Dr. Misra made a brief theme presentation covering the status of deposits, advances, balance sheet size, profitability and NPAs, etc. of PSBs in India before the Panel Members Mr. V. G. Kannan, Chief Executive, IBA, Ms. Zarin Daruwala, CEO, Standard Chartered Bank, India, Mr. P. R. Seshadri, MD & CEO, The Karur Vysya Bank, Mr. Suresh Sethi, Managing Director & CEO, India Post Payments Bank, Mr. Sanjib Subba, CEO, National Banking Institute, Nepal and Mr. Saurabh Tripathi Senior Partner & Director, BCG, India. Dr. Misra also placed the issues such as Capital Adequacy, Structural Transformation, Corporate Governance, Human Capital, Changing Dynamics of Banking, Technology and Environmental issues like international trade and crypto currency, etc. before the panel for their deliberations.

Like Dr. Aina, Mr. Saurabh Tripathi was also of the opinion that social media, like Facebook and WhatsApp as also search engine giant Google is a big threat to banks, as they have already begun payments transactions. Mr. Kannan agreed with Mr. Tripathi, saying more options for remittances exist now. But, it is more common in urban areas; the rural area is still a challenge for payments.

Here, Mr. Suresh Sethi of the India Post Payments Bank revealed that there are over 1,30,000 post offices in India and over 3,00,000 human capital in the form of postmen and other staff who are being trained in payments and other banking transactions to penetrate the rural areas. He further revealed that in order to bring banking to the doorstep of the villager, the payments bank is building a QR Card wherein, a person will not have to remember his or her account number and personal identification number to transact.

Ms. Zarin Daruwala said that now, due to rise in technology, the number of bank branches and ATMs have reduced. She further revealed that as per the Standard Chartered experience, the millennials do not want to deal with a bank branch at all. At the same time, there is a growing number of affluent people who do want to meet the Relationship Manager in a bank branch. Then, there is a segment that only wants to use the traditional banking services.

Ms. Daruwala was of the opinion that, even as we go digital, there is a need to have a human face to banking and a personalised offering.

The panel moderator, Mr. Tripathi agreed that Customer Connect and Emotional Connect are not there anymore. While Europe wants only digital banking, in India, 80 percent people said that we want both traditional and digital banking, he said, with the situation in neighbouring China being similar.

Mr. Seshadri said that in future, the only reason the customer would come to a bank branch is to operate the safe deposit vault. As a result, the nature of bank branches will change. In fact, the change in rural India is much faster than in urban areas, he said, giving the example of Karur.

Panellists agreed with Mr. Tripathi that there is a disengagement of customers, as it doesn't matter anymore which bank you have an account with.

Mr. Sanjib Subba was of the view that let the customer decide what product they want to use, depending on his or her life cycle and lifestyle. While professional qualifications are all there, what a banker needs are personal qualifications – that is values, ethics and integrity, he said.

All panellists agreed that Employee Focus is the need of the hour. The next being Cyber Security. Technology integration has to be seamless. Tech has to be used for predictive analysis. Mr Tripathi thanked all the panellists for a healthy debate.

Dr. Misra explained in brief about The Global Banking Education Standards Board (GBEStB) before taking up the next session. It is a voluntary, industry-led initiative founded by many of the world's leading banking institutes to develop clear, internationally agreed standards for the education of Professional

Bankers in 2017. The aim of the GBEStB, simply, is to enhance ethics and professionalism in banking worldwide. Dr Misra, then invited Mr. Giles Cuthbert, MD, Chartered Banker Institute, UK and Dr. Segun Aina, OFR, FCIB, Chairman, Global Council, Global Banking Education Standards Board to address the gathering on "Global Banking Education Standards Board", Speakers covered challenges vs opportunities that are always going to be challenge and also help the industry in its shaping. Going forward, bankers/professionals to keep pace with changing demand like cyber security, digitization, etc.

The first Session post-lunch was about 'Economist Speaks' the theme of which was presented by Mr. Muralidaran, Director-Academics, IIBF. He presented the economic indicators like GDP growth, movement of currency, financial inclusion, etc. Issues placed before the panellist were macro-economic policies, vulnerabilities, inclusive banking, access to formal credit, bankruptcy code - infrastructure and its relevance, role of technology and banking – how the banks to place themselves, multiple regulators – function overlap and chances of arbitrage. Those taking part in it included Dr. Ajit Ranade, Group Executive President & Chief Economist, Aditya Birla Management Group, Dr. Soumya Kanti Ghosh, Group Chief Economic Advisory, SBI, Dr. Mridul Saggar, Advisor-in-Charge, International Department, RBI and Mr. Madan Sabnavis, Chief Economist, CARE Ratings.

The panel moderator Dr. Ranade, in his opening remarks said that Debt to GDP ratio is 350% for the world. Ratio of bank credit to GDP is 66% and India is considered as an underbanked country. Retail debt to GDP in India is hardly 10%.

Mr. Sabnavis said that macro-economic policies have to be monitored by banks to reduce their non-performing assets, rather than these policies being framed for banks.

Dr. Saggar was of the view that right now, we are reaping macro-economic stability. In 2013, inflation was above 6 percent, while fiscal deficit was above 6.9 percent, while in 2018, it is 3.5 percent. The combined deficit has come down to 6.6 percent from 76 percent. India is the fastest growing G20 country, he said.

The Panellists also spoke about Inclusive Banking and how MSMEs are at the receiving end of banks and not getting credit easily. Dr. Saggar said that inclusive banking is the global debate now.

Dr. Ghosh revealed that post GST, there are changes in SME credit and there is no issue with collaterals either. We have asset backed linked products now.

Speaking about the role of FinTech, Dr. Saggar said that the structure of banking is changing due to technology. Banks are internalising FinTech and outsourcing its implementation to firms, he revealed. Tech labour force is the future of banking.

Mr. Sabnavis was of the view that Tech should be an enabler and not the end in itself. Robots cannot take decisions on what loans to approve. The human judgement has to be present.

Dr. Saggar said that the RBI has issued guidelines on Cryptocurrency. Some panellists revealed that it is being used for money - laundering and funding terrorism.

The panellists ended the discussion with a talk on Regulation and the Basel III norms.

At the end of the conference, the prestigious Sir PTM lecture (35th Lecture) was delivered by Dr. Tarun Khanna, Jorge Paulo Lemann Professor, Harvard Business School & Director, Lakshmi Mittal and Family South Asia Institute, Harvard University on the Topic "**Trust as the foundation for Finance**". Prior to this, Dr Misra, briefly discussed about the background. Sir Purshotamda's Thakurdas or Sir PT, a distinguished and eminent businessman of

India, was associated with several committees and commissions appointed by GOI, besides being on the Board of RBI. He was a founding member and served on the council of the Institute till his death on 4th July, 1961.

Dr. Tarun Khanna first spoke about his book Trust– Creating the Foundation for Entrepreneurship in Developing Countries. He believes that developing countries can progress with individual entrepreneurial development. He quoted economist Adam Smith in saying that no markets can exist without fairness, altruism and trust.

He illustrated a live case study of microfinance sector in 2010, wherein trust was at stake. He elicited how the trust was re-built on account of the fact that both the stakeholders i.e. borrowers and lenders had trust in each other which enabled them to successfully come out of the turmoil due to short term and long term measures.

Concluding his enlightening speech, Dr. Khanna mentioned that arbitrary actions are inimical to trust creation, vigilance in building the eco-system is vital to maintain trust, commitment to trust is costly, just as in any credible commitment, but crucial, symbolism matters as of course does substance.

He aptly concluded by saying that the trust is an investment decision which will definitely pay dividends.

☯

Diamond Jubilee and CH Bhabha Banking Overseas Research Fellowship (DJCHBBORF) for the year 2018-19

The Institute invites applications for DJCHBBORF. The objective of the fellowship is to provide the successful candidate an opportunity to undertake a research study on the latest developments in the field of banking and finance in India or abroad. The last date for receipt of applications is 28.02.2019. For more details visit www.iibf.org.in

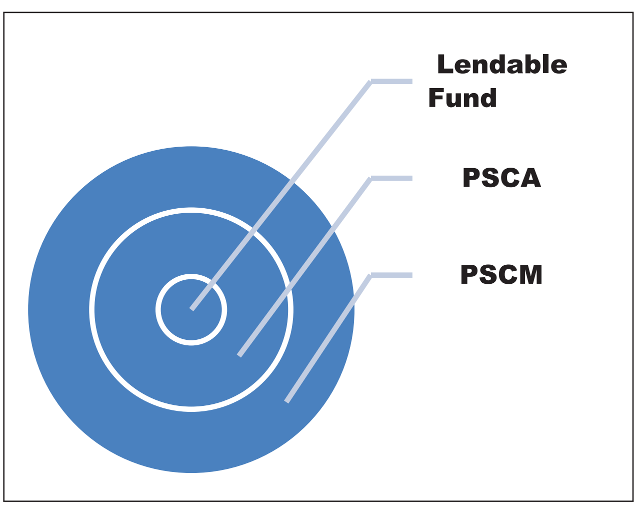
LOAN DEFAULT RISK: A DIAGNOSTIC STUDY

Dr. M. S. Ali*

Dr. V. S. Kaveri**

As per the Financial Stability Report - December 2017, there is a rising trend of Gross Non-Performing Advances (GNPAs)/gross advances ratio of Scheduled Commercial Banks (SCBs) from 9.6 percent to 10.2 percent and also of stressed assets (GNPAs, restructured standard advances and written off advances/total advances) ratio marginally moving up from 12.1 percent to 12.2 percent between March 2017 and September 2017. In particular, as on September end 2017, Public Sector Banks (PSBs) registered an unprecedented rise in GNPA ratio at 13.5 percent and stressed advances ratio at 16.2 percent[1]. Thus, the present scenario of the banking industry in India is witnessing a stress of piling of bad loans[(2-4)]. Performance of a bank is measured in terms of the percentage of stressed assets to total advances and, therefore, a higher level of stressed assets indicates a bad image of the bank. Due to high slippage in the loan asset quality during the recent past, banks are worried about the mounting stressed loans on account of willful default by borrowers on one hand and factors being beyond their control on the other hand. These factors influencing NPAs may be originated during the two stages of Loan Cycle viz., Pre-Sanction Credit Appraisal (PSCA) and Post-Sanction Credit Monitoring (PSCM), revolving around the bank's lendable fund as shown below:

Figure 1 - Life Cycle of Loan



It is also observed during the recent years that wilful defaults are on the rise. It would be an interesting exercise to know the modus operandi. Towards this end, the present article focusses on how borrowers are mainly responsible for converting a good account into non performing account by carrying out a diagnostic study and analyzing developments in the case during the PSCA and PSCM stages.

Case Study:

I Background:

M/s. Premier Infrastructure Private Limited (PIPL) was incorporated on 7th July, 2010 as a family unit. Initially, PIPL was established as a private limited company and put up a crushing plant at Vill-Kanchanpur under Tahsil of Champua in the District of Keonjhar of Odisha state under the leasehold land of the State Government. PIPL is a small company manufacturing Stone Chips Crushing and crushing of Iron ores with an annual installed capacity of 57,000 MT for a double shift and for 25 working days in a month. But during the year 2011, the

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State Government banned crushing of Iron ores. Therefore, the company diversified its activities by converting PIPL into a Limited Company as Premier Infrastructure Limited (PIL) on 19.08.2011 for Stone Chips Crushing and other activities like construction of road and infrastructure for Government and private parties. But registration of the charge with Registrar of Companies (ROC) was not made in the name of the new company viz., Premier Infrastructure Limited. The authorized capital of the company was ₹1 crore in the year 2010-11 as per Memorandum of Association. The share holding pattern shows that one of the shareholders is Hindu Undivided Family (HUF)and the other one is a group company i.e. M/s. Sun Infrastructure Private Limited (SIPL) having a shareholding of more than 5 percent in addition to other individual shareholders. The promoters' of PIL were well familiar regarding the banking matters with National Bank enjoying Cash Credit Limit of ₹112 lakh and Term Loan of ₹130 lakhs since 2004 and operations in the account were satisfactory. The Company had repaid the entire Term Loan amount with interest and continued the cash credit facility. PIL also opened a Current Account with National Bank in the month of August 2011.

Bank sanctioned WC limits and Term Loan to the Company for manufacturing of stone crushing. Within a very short span of three months, starting from November 2011, the company completed the project and started commercial operations by availing the first release of Working Capital limit in December 2011 and the last trench of disbursement of Term Loan in January 2012. In the year 2011-12 and onwards, performance of the company was very miserable which was evident from continuous decline in gross sales. The company's activity stopped for non-compliance of the bank's sanction terms which include: (i) failure to raise capital (ii) not depositing the promoter's contribution (iii) undertaking other activities not specified earlier (iv) failure to submit statutory approvals / audited financial statements because of which the bank was compelled to conduct short term review of the account several times to arrest the slippage into NPA, and (v) diversion of funds etc. This non-compliance of the terms of loan sanction led the account to become NPA on 31st March, 2016. Consequently, the bank had to bear more haircuts in settlement of dues. All these developments, therefore, call for a diagnostic study.

II Developments:

1. Banking Arrangement for Credit Facilities:

PIL had submitted a Detailed Project Report (DPR) in September 2011, in which the following assumptions were considered by the National Bank while scrutinizing the proposal:

i. The Stone Chips Crushing annual installed capacity is 288,000 MT for a single shift of 8 hours each and for 25 working days in a month. The annual capacity utilization based on a double shift working for 300 days with 8 hours per shift comes to 5,76,000 MT.

ii. The capacity utilization in the first year's and 2nd year's operation was assumed at 60% of annual installed capacity of plant & machinery.

iii. The purchase price of bolder was considered at ₹ 720 per MT and the selling price of Stone Chips for (a) 5mm Size was at ₹1000 per MT and (b) < 5mm size was at ₹100 per MT.

iv. The construction of project was to commence from October 2011, and complete in December 2011.

2. Project Outlay and Financial Statements:

As seen from Table 1, the total project outlay is ₹314 lakhs and fixed cost component consisting of plant and machinery etc. amounts to ₹149 lakhs. After deducting the margin money/ promoter's contribution of ₹49 lakhs, the term loan sanction comes to ₹ 100 lakhs. The entire margin on working capital requirement of ₹165 lakhs was expected to be financed out of owned funds.

Table -1: Project Outlay & Assessment of Term Loan

(₹ in Lakh)

Cost of Project	Cost	Margin	Eligible Term Loan	Means of Finance	
				Sources	Amt
Land, Land Development & Registration	0.87	0.87	-		
Shed & Building	47.80	19.10	28.70	Share capital	214.00
Plant & Machinery	72.60	18.17	54.43	Term Loan	100.00
Electrical Installation	11.50	2.88	8.62		
Other Fixed Assets	11.00	2.75	8.25		
Security Deposit for Electric connection	2.00	2.00	-		
Preliminary Expenses	2.23	2.23	-		
Pre-operative Expenses (IDC)	1.00	1.00	-		
Total Capital Investment	149.00	49.00	100.00		
Margin for working capital	165.00	165.00	-		
Total Project Cost	314.00	214.00	100.00	Total	314.00

IDC – Interest during Construction Period.

From the study of projected financial data and audited financial data (Table 2), it is observed that operational performance is critical. To elaborate, actual gross sales fell short of projected gross sales very widely. Consequently, the company reported almost nil profit during 2011-14 and loss in 2014-15. Similarly, financial position is found very weak with current ratio remaining less than 1.0 during 2011-15. Further, the company is highly debt burdened with the Total Outside Debt: Equity at 36.0 in 2011-12 and almost remains at more than 7.0 during 2012-15, which is contrary to the bank's benchmark of 4: 1. Long Term Debt: Equity ratio is at 8.83 in 2011-12 indicating non-compliance of bank's benchmark of 3:1. Thus, the overall financial soundness of the company was found to be unsatisfactory.

(OCL = Other Current Liabilities RMC= Raw Material Consumption, NWC= Net Working Capital

DER= Debt to Equity Ratio, TOL = Total Outside Liabilities, TNW= Tangible Net Worth

(Note: The projection data for 2011-12 below table 2 is for three months and, thereafter, it is for 12 months. The share application money is a component of other current liabilities till the pending of allotment. Regarding Post Sanction data (Table 2), ratios are computed considering Share Application Money as OCL and not as Share Capital.))

3. Collateral Securities:

The Company offered collateral securities in the form of four properties with an aggregate market value of at ₹420.40 lakhs. Three properties of worth ₹ 223.90 lakhs are in the name of Directors and other family members. The Bank's panel valuer opined that two properties, with aggregate market value of ₹194.00 lakh, were agriculture land as per the respective sale deed. But, adjacent land was used as residential/ commercial / industrial properties. The fourth property with market value of ₹196.50 lakhs, including Plant & Machineries, valued at ₹87.60 lakhs in the name of group Company, SIP Limited,

Table 2 Financial Indicators at Pre-Sanction & Post-Sanction

(₹in Lakh)

	Pre-sanction Data - Accepted for PSCA [Projected]				Post sanction Data (Audited)			
	2011-12	2012-13	2013-14	2014-15	2011-12	2012-13	2013-14	2014-15
Share Capital	214	214	214	214	22.2	86.76	86.76	86.76
Reserve & Surplus	22	139	240	353	0.04	0.80	9.04	6.24
Share Application Money Pending for Allotment	-	-	-	-	64.56	-	-	-
Unsecured Loans	-	-	-	-	47.50	36	100	90.50
Term Loan from Bank	95	75	55	35	181.30	149	113	112
Working Capital	495	495	495	495	446	427.60	465.50	454.95
OCL	3	3	4	4	0.30	3.00	1.90	1.10
Net Block	132	110	93	78	283.80	298	298	278
Non- Current Assets	2	2	2	2	20	20	20	18
Raw Materials	415	415	449	483	63	271	415	430
Finished Goods	141	141	153	165	-	-	-	-
Bills Receivables	104	136	147	158	-	28	1.20	5
Other Current Assets	33	120.6	163.3	215	393.40	84.46	42	18.55
Preliminary Expenses	2	1.40	0.70	-	1.70	1.70	-	-
Gross Sales	628	3138	3386	3648	0.30	43	147	135
RMC	622	2488	2696	2903	63.25	125	112	34
Profit after Tax	22	117	135	150	0.04	0.80	8.20	-2.80
Ratios:								
NWC	195	314.6	413.3	522	-53.46	-47.14	-9.20	-2.50
Current Ratio	1.39	1.63	1.83	2.05	0.89	0.89	0.98	0.99
D E R (TL/TNW)	0.41	0.21	0.12	0.06	8.83	1.74	1.18	1.20
D E R (TOL/TNW)	2.53	1.63	1.22	0.94	36.00	7.17	7.10	7.08

was the lease land of the State Government for 99 years. All these properties were mortgaged to secure the Bank's exposure to the Group Account, M/s Sun Infrastructure.

4. Approval of Credit Limits:

On 03.11.2011, the Regional Office Credit Approval Committee sanctioned the following credit facilities to PIL:

i. Cash Credit (Hyp) Limit of ₹450 lakhs against stock of raw material and finished goods with margin of 25 % repayable on demand.

ii. Term loan of ₹100 lakhs was repayable within 20 equal quarterly installments of ₹5 lakhs after implementation period of 3 months and moratorium period of 3 months from commencement of operations in December 2011.The proposed commencement of 1st installment of Term Loan was due from the 4th quarter of 2012, with a condition that interest and installment were to be paid separately as and when charged.

iii. Group Company's cash credit limit was reduced to ₹ 50.00 lakhs owing to closure of crushing of Iron ores. Since the crushing of Iron Ores is totally stopped, the Company continued with crushing of stone chips and engaged itself in the same activity.

5. Conduct & Present Status of the Company:

The documentation, pending for creation of charge with the ROC, was executed on 11th November, 2011 by the company. Term Loan was first disbursed on 14th November, 2011. The last trench of disbursement of Term Loan was made on 31st January, 2012 for ₹74.70 lakhs out of the Sanctioned Limit of ₹100 lakhs. Cash Credit limit was first released on 13th December, 2011.The Company had availed the full cash credit limit of ₹450 lakhs and partial Term Loan. The operations in the account were found to be very poor. Sometimes, transactions were made from the group account too.

The account was due for review/renewal of the credit facilities on 11th November, 2012. Accordingly, the company was advised to submit the audited financial statements. In 2013, the account was short reviewed due to non-submission of the audited financial statements and, subsequently, the account was again short reviewed four times on 16.12.2014, 24.03.2015, 27.06.2015 and 23.09.2015 by the Regional Office Credit Approval Committee. During these periods, the account first slipped to SMA-1 and, thereafter, to SMA-2 But, the company managed to ensure that the account did not fall in the NPA category. In the month of December 2015, the company finally submitted the audited financial statements with a request to restructure the Term Loan and permission to avail the Cash Credit limit. But the proposal did not have the approval nod from the Regional Office Credit Approval Committee. On 31st March, 2016 finally the account became NPA. Therefore, it becomes necessary at this stage to carry out a diagnostic study based on the observations on developments that took place prior.

III Diagnostic Study:

(A) Observations during Pre-Sanction Credit Appraisal (PSCA):

1. Land & Development: As per the bank's requirements, it should be Owned Land / Lease Land and Non- Agriculture Land which can be taken as security by way of mortgage. In the case, the Group Company had purchased a Lease Land measuring 0.54 acres for 99 years in its name from the State Government. As per the project report, the cost of land was arrived at ₹ 0.87 lakh with market price of ₹1.22 lakhs per acre with registration charges of ₹ 0.21 lakh. But the Legal Scrutiny Report (LSR) by the bank's panel advocate was not taken at the time of sanctioning the proposal. And, this land could not to be taken as security because the Department of Mining had already allotted the same on lease for industrial purposes.

2. Civil Construction: In the instant case, the cost of civil construction of ₹ 47.80 lakhs was estimated in the Project Outlay. But how much area is required for construction of buildings is not mentioned. Further, without any cross checking of cost of construction with the Government rate and type of building, the civil construction of ₹47.80 lakhs was approved as part of credit appraisal. It seems that the estimated cost of civil construction for stone crushing appears to be inflated.

3. Plant & Machinery: The estimated cost of the plant & machinery being ₹72.60 lakhs is cross checked with the quotations received. But the genuineness of the suppliers of the plant & machinery is not assessed. From the records, it is also not possible to ascertain the date of placing order to the supplier for the supply of plant & machinery. Similarly, it is observed from the contract that terms of contract between the company (purchaser) and the supplier of plant & machinery to the destination are not seen. And, specification of installation processes of plant & machinery through either Turnkey Contractor or through engaging an agency having sufficient job credentials for the job is also absent.

4. Collateral Securities: It is observed that all the collateral securities were previously mortgaged to secure the bank's exposure of ₹ 112 lakhs and coextension of Equitable Mortgage of all the four properties was made to secure the bank's exposure of ₹550 lakhs. The lease land of 0.54 acres purchased from Mining Department of Government of Odisha being in the name of Group Account "SIP Limited" was mortgaged without Legal Scrutiny Report (LSR) from bank's panel advocate. All the properties had legitimate character being situated in the lease land area and, hence, there could be difficulties in terms of marketability, valuation and transferability.

5. Pre-Sanction Inspection: The bank is expected to conduct field visits through bank's officials before sanctioning the project to ascertain (i) Promoter's profile (ii) Properties offered as security and (iii) Operations of the business unit to ensure the genuineness of the borrower, security and line of activity so that bank's funds will be safe in the hands of the borrower. In the case, the area where the project to be established is industrial lease land of Department of Mining, Government of Odisha and, without NOC from the Government, mortgage was created. Further, lease of mining was valid up to 31.03.2012. From the records, it is difficult to find out whether the company applied for the renewal of lease or not.

6. Promoters' Contribution in the Project Outlay: For capital expenditure of ₹149 lakhs, Term Loan is of ₹100 lakhs with the promoter's contribution of ₹49 lakhs showing the Project Leverage Ratio (PLR) of 2.04:1 which was slightly greater than the benchmark of 2:1 as per Loan Policy of the bank at the time of sanctioning of credit facilities. This may be considered as financially sound. But the credit appraiser did not consider the sources of the promoter's contribution. Further, the bank released the full cash credit limit without consideration of Date of Commencement of Commercial Operations (DCCO). In the instant case, it seems that matters concerning the financial closure were not paid attention.

Regarding the margin for working capital, there is a prevailing conception among the bankers that margin for working capital and NWC are the same in the project outlay. But the proposition regarding Margin for Working Capital (MWC) in the project outlay being equal to Net Working Capital (NWC) does not hold good in view of the following facts:

(i) It is the investment by the company needed for purchase of minimum of raw materials to be utilized at the time of commercial operations.

(ii) Generally, MWC as percentage of Working Capital Gap (WCG) is taken into account at 25 or 30 to frame the projected Balance Sheet (BS) in the Green field project.

(iii) NWC should be net of Long Term Sources (LTS) less Long Term Uses (LTU) during the operating cycle of business whereas, MWC is expected to be financed out of owned funds to start the operating cycle of business. Thus, NWC relates to the post operating cycle whereas MWC is for the pre-Operating Cycle.

If we assess the working capital (WC) limit based on the Holding Period method the working capital requirement and MWC is derived as under:

Table 3: Assessment of WC Limit

Particulars	2nd Year's operation [Double Shift]
■ Stock of Raw Materials for 50day's RMC	415.00
■ Stock of Finished Goods for 17 day's RMC	141.00
■ Sundry Debtors for 10 day's Gross Sales (GS)	104.00
Total Current Assets	660.00
■ Less : Sundry Creditors	-
Working Capital Gap (WCG)	660.00
■ Less : Margin (25% of WCG)……(MWC)	165.00
Assessment of WC Limit	495.00

This margin (MWC) is one of the components of Project outlay

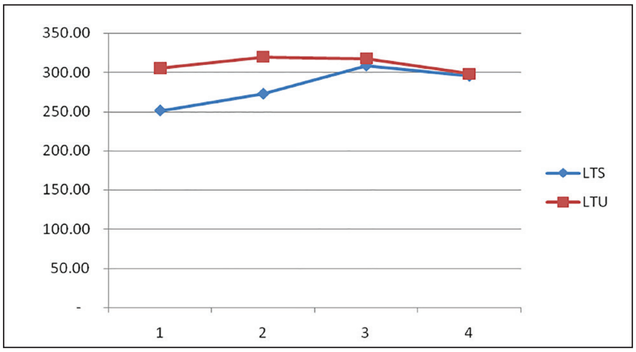
Whereas in case of the single shift operation, the assessment of WC limit comes to ₹247.50 lakhs with MWC of ₹ 82.50 Lakh. The justification of the WC Limit based on the single shift or the double shift operation must be within the compliance of Regulatory Norms. To elaborate, at the time of sanctioning the proposal, paid up share capital and authorized capital as per the Company's Memorandum of Association are ₹22.20 lakhs and ₹100 lakhs respectively. If the company raises the share capital of ₹100 lakhs (maximum threshold limit) either through Initial Public Offering (IPO) or through private placement in terms of Companies Act 2013, then the bank's Exposure will be ₹400 lakhs, irrespective of single shift or double shift operation. Further, the bank 's exposure of ₹600 lakhs, including the group exposure, is sanctioned considering the 1st year projected share capital of ₹214 Lakh as against Paid up Share capital of ₹22.20 Lakhs and the Authorized capital of ₹100 Lakhs. How the proposed Share capital of ₹214 Lakhs would be possible within the present Authorized Capital? Lastly, the share capital can be raised to the maximum threshold limit (Authorized Capital through either Initial Public Offering IPO) or private placement for which procedures is to be adhered in terms of Companies Act, 2013. But, in the case, there seems to be non- compliance of these regulatory norms leading to inadequacy of capital.

(B) Observations at Post-Sanction Credit Monitoring (PSCM):

1. Diversion of Funds within the Business Model:

(i) NWC: It is evident from Post - Sanction Data (Table 2) that Long Term Sources (LTS) are less than Long Term Uses (LTU) resulting into negative NWC for four consecutive years. A clear visibility is observed in a graph between LTS/LTU with respect to the year of operation. The minimum criteria for the business model is LTS > LTU. In the present case, it is completely a reverse order as evident from the Figure 2 showing the departure from the criteria of business model. This clearly indicates the diversion of funds within the business model.

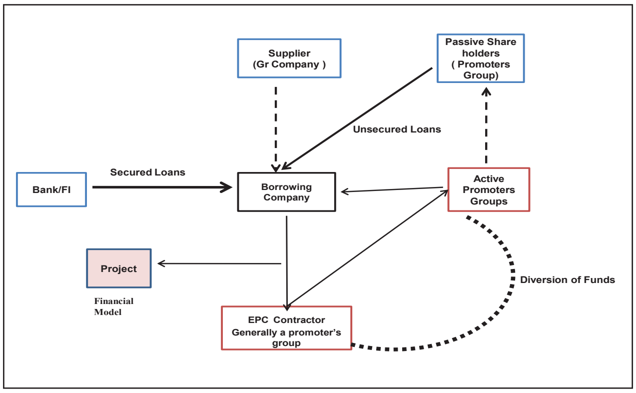
Figure 2: LTS/LTU Curve with Year Operation



(ii) Abnormal Cash & Bank Balance (ACB): The piling of ACB in the audited balance sheet is another way of diversion of funds which may arise from the disbursement of term loans and release of WC limit. In the case, the first release of Cash Credit limit was allowed on 13th December, 2011and the WC Limit was withdrawn to the extent of ₹446 lakhs as at 31st March, 2012, as against the sanctioned limit of ₹450 lakhs by making cash withdrawal, inter-transfer of funds between the group account and company account. The first disbursement was made before DCCO or during the construction period. With the result, the company built up ACB to the extent of Rs.347.00 lakhs as at 31st March, 2012, with a very negligible amount of turnover of ₹0.30 lakh.

(iii) Misleading Promoter's contribution: During the course of PSCA, one of the fundamental discussions, between the bank and the borrowing company, centres on how to bring in the margin money in the business so that the project may be commissioned as per the implementation schedule. The source of margin comes either from issuing IPO or private placement within the authorized capital of the company i.e. Maximum threshold limit. In the present case, the bank did not take care and accepted a Share Capital of ₹ 214 lakhs as the projected margin of Term loan and MWC as an Authorized Capital of ₹100 lakhs. This is one of the reasons for turning the account into NPA. The probable mechanism for creating a margin money in the business does not seem to be sound as shown in Figure 3.

Figure 3: Disbursement of Term Loans & WC Limit without Promoter's own Margin



2. Debt Equity Ratio [D E R]:

It is very important to examine whether the business is either heavily or less dependent on the external debts and, this can be judged from the relative proportion of the Total Outside Liabilities (TOL) to Tangible Net Worth (TNW) which is also called Gearing / Capitalization ratio:

$$\text{Gearing / Capitalization Ratio} = \frac{\text{TOL}}{\text{TNW}}$$

The ratio suggests how far TNW is capable of withstanding the shock of crystallization of external liabilities. The high ratio indicates high leverage in the borrowing due to external borrowings, throwing an Early Warning Signal (EWS) which are spread over various phases in PSCA. In the case, the projected ratio is well within the bench mark of 4:1. But after one year of operation, it becomes very unrealistic due to the company's inability to raise the projected margin either by issuing IPO or private placement. The same observation holds good in respect of D E R (TL) as shown in Table 2.

3. Multiple Banking Arrangement (MBA):

At PSCA stage, credit facilities were sanctioned by the Sole Banker, National Bank. But during PSCM, it is observed from the audited financial statements that the company availed Term Loan of ₹102.61 lakhs from HD Bank Limited in 2012 after availing credit facilities from National Bank. In terms of loan sanction, the borrower is expected to share information regarding credit facilities from other bank/s. If there is provision for penalty for non- sharing of information, then such act of MBA will be restricted.

IV Lessons from the Diagnostic Study:

The analytical study of the observations of the present case reveals the fundamental elements which need to be examined in any project finance. A good quality credit proposal must have the following characteristics which are the learning points from the case study.

1. Project Worth Realistic Projection (PWRP): Assumptions underlying the formulation of the project should have resemblances with the current industry scenario and the company's profile like Capital Structure, type of shareholders'/ promoters' background, business model etc. In the present case, we observed a few deficiencies in PWRP. WC limit is computed considering the operations of the business with the double shift (Table 3) but, the turnover in the year 2011-12 and onwards was not in line with the expected level even in the single shift operation. Further, the projected Share Capital in the 1st Year's operation was considered unrealistic. Also, most of the financial transactions were from the associate concern, defeating the very purposes of the borrowing company's arrangements with the bank.

2. Project Viability beyond Financial Feasibility (PVFF): Financial Feasibility includes Cost of Project, Means of Finance, Projected revenue and expenses, Analysis of financial statements and Decisions making approach based on analysis of financial ratios. Generally, Y- Gen bank officials rely more upon the financial viability of the project for sanctioning the credit proposal. But, the other aspects of project viability should be equally important such as (i) technical viability (ii) commercial viability (iii) managerial competence. Further, the bank should also carry out the study of causes for failure of the past business, sources of adoption of new Business Model, cash flow model to be evaluated in terms of market rates and phasing of project, political scenario, investors interest, environmental permits etc. In the extant case, the proposal was sanctioned mainly based on the projected financial indicators.

3. Financial Closure: This is a process wherein all the financial transactions involving in the project are expected to be finalized, so that the project implementation can actually start as scheduled. Some of the parameters considered in Financial Closures include; (i) compliance of statutory approvals from the competent authorities (ii) implementation schedule (iii) sources of margin for term loan and working capital as envisaged in the cost of project (iv) disbursement in compliance with Draw Down Schedule and, (v) date of completion and tentative DCCO of the project. In the instant case, it seems that matters concerning the financial closure were not paid attention. In the present case, without consideration of DCCO or principles of financial closure, the bank released first trench of cash credit limit on 13.12.2011, during the construction period without ensuring the required margin for working capital of ₹165 Lakh. The Company had availed the full cash credit limit of ₹ 450 lakhs on 31st March 2012. This is one of the factors for turning the account into NPA.

4. Deficiencies in Credit Appraisal: Credit proposal encompasses a series of processes by the credit officer and finally culminates into approval by the competent authority. The quality of credit appraisal depends upon the analytical skills of the credit officer and decision making skills of the approval authority. But in the present case, deficiencies are observed in credit appraisal with regard to assessment of working capital limit, repayment schedule and implementation schedule, promoters' contribution and general compliances. Such deficiencies should be avoided to ensure the good quality credit appraisal.

5. Before disbursing the loan amount, the bank should consider the essential legal compliances of the project for its successful and timely commissioning. Such compliances are stated in Table 4.

6. Conceiving Line of Activity (CLOA): At Pre-sanction credit appraisal (PSCA) stage, the company proposes crushing stones into chips. In the present case, the company purchased raw materials (boulders) only for trading and not for manufacturing of different sizes of the Stone Chips for which credit facilities were sanctioned by the bank. This is evident from non –appearance of closing balance of Finished Goods in the Balance Sheet for the years 2011-12 to 2014-15. If the physical inspection of stocks had been made properly during the disbursement phases, this

Table 4: Risk Assessment at Pre- Disbursement Phases

Pre-disbursement –Parameter		Assessment of Risk	Risk Mitigation
(A).	Compliance of all statutory approvals.	Construction Risk due to non- compliance of statutory approvals in partial /all respects and its impact as follows: (i)DCCO may shift from the original terms & conditions of sanction leading to time over run (ii)Cost over run in the project and non-allocations for contingencies, pose a severe threat to commissioning of the project. (iii)In the case, Lease of mining was valid up to 31.03.2012 but the renewal was not done though credit facilities were sanctioned on 03.11.2011 when the Factory License was kept pending.	Only with compliance of statutory approvals, the disbursement of term loan should be made.
(B)	Collateral security	Improper physical verification of security attracts Liquidity Risk. Sale of land having legitimate or other marketability issues requires a longer time if due care is not taken in identification of these securities at the time of PSCA.	Verification of Land & building by seeking information from CERSAI, Government's site for land allocation & Government's ready reckoner .and obtaining Legal Scrutiny Report (LSR) with the original Title Deed. To mitigate credit risk in the case, an equivalent amount of other non-residential property having clear marketable title and without any restrictions on transfer should have been taken as collateral security.
(C)	Financial Closure	Project Risk arises by not having implementation schedule, sources of promoter's contribution in the project outlay , draw down schedule, payment schedule etc.	Bank should not take up the proposal with partial/incomplete financial closure
(D)	Execution of Documents	Proper documents should be obtained. These include: Creation of Equitable Mortgage, Documents registered with CERSAI & ROC within the stipulated time. In the present case, documents are pending though the loan amount is disbursed.	Bank should not disburse the loans amount with partial/incomplete execution of documents.
(E)	Recovery of Service Charges etc.	Service charges were debited to loan account but the amount was not deposited by the company immediately which led to overdues in the account. .	These should be recovered from the borrower's funds and not from bank's funds.

matter would have come into light and the bank would have taken appropriate action. This provides a free hand to the borrower for diversion of funds.

7. Annual Review Appraisal (ARA) of Credit Facilities An effective credit monitoring tool: In terms of the Reserve Bank of India guidelines, Annual Review Appraisal is the process to analyze the past performance with the resemblances of projections based on which the existing credit facilities were approved. In the case, the ARA was not done annually defeating the very purpose of the annual review exercise (5-6). As stated earlier, just to keep the account in the standard category, the bank made an ad hoc or short term review five times just to release the sanctioned amount which is not a justified way to keep the bank's asset quality in the 'standard assets' category with inherent business as well as management risk.

Conclusion:

From the case study, several strategies shall be suggested for effective lending. To sum up, the credit officer should handle the credit proposal carefully keeping in mind the due diligence policy relating to credit appraisal, documentation, disbursement and post sanction follow up. For this purpose, every bank has to come out with the credit product-wise checklist of due diligence containing the major items which would ensure the need based lending. For this purpose, the credit officer has to have an analytical bent of mind, besides having a good understanding of basic principles and practices of bank lending. More importantly, he has to verify the authenticity of important credit information provided by the borrower by keeping in touch with the market rates of raw material and finished goods proposed to be manufactured. As part of credit appraisal, the credit officer should focus on the critical aspects of the project report by the borrower such as:

i. strength of the proposal, suitability of the bank credit to the borrower,

ii. future prospects of the business activity,

iii. projected income generation,

iv. genuine credit requirements of the borrower,

v. margin & securities offered,

vi. valuation of collaterals,

vii. credit history and credit rating of the unit based on financials,

viii. Accuracy of the information provided by the borrower.

ix. For proper assessment of demand and supply gap, the controlling office of the bank should guide branches by sharing industry-wise/ activity-wise data.

Further, the credit officer should strictly implement the terms and conditions of loan sanction and disbursement schedule without any deviation. If disbursements are in stages, at each stage of disbursement, it should be ensured that the earlier amount disbursed is fully utilized. Frequent visits are to be made by the credit officer to verify the present status of the primary security. If any deviations are noticed, further disbursement should be stopped and the controlling office should be informed suitably. The credit officer should also verify the documents such as bills/ invoices submitted by the borrower after the purchase of assets with bank finance. Rates, quantity and type of product need to be verified from the independent source and it should be matched with the project report submitted by the borrower. Lastly, during the post sanction, the credit officer should ensure the regular submission of stock statements by the borrower; conduct subsequent stock verification at the site regularly, keep track of actual business performance vis-a vis projected business performance, monitor regular payment of loan installments, conduct of cash credit account and the end use of funds and undertake preventive action timely to arrest the slippage in asset quality. Finally, annual financial health check up is a must by carrying out the annual review of each borrowal account. Thus, all these suggested strategies would ensure a 'Good Quality Lending' which would arrest the slippage in loan asset quality and bring down the level of NPAs in a bank.

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सात क्षेत्रीय कार्यालयों में सरकारी बैंकिंग प्रभागों का खोला जाना

रिज़र्व बैंक, भारतीय रिज़र्व बैंक अधिनियम, 1934 की धारा 21ए के प्रावधानों के अनुसार विभिन्न राज्य सरकारों के प्रधान बैंकर के रूप में कार्य कर रहा है। तदनुसार, रिज़र्व बैंक के 18 कार्यालयों में सरकारी बैंकिंग प्रभाग (जीबीडी) राज्य सरकारों के बैंकर के रूप में कार्य करते आए हैं। इस लक्ष्य को आगे बढ़ाने और स्थानीय स्तर पर राज्य सरकारों की जरूरतों के मुताबिक बेहतर सेवा प्रदान करने के लिए उन राज्यों की राजधानियों में स्थित रिज़र्व बैंक के कार्यालयों में भी सरकारी बैंकिंग प्रभाग की शुरुआत करने का निर्णय लिया गया, जहां पर ये प्रभाग नहीं थे। ये सरकारी बैंकिंग प्रभाग राज्यों की राजधानियों में होने के कारण नजदीकी के चलते राज्य सरकारों की विशिष्ट जरूरतों को पूरा करने की सुविधा भी प्रदान करते हैं। इसके अलावा, ये सरकारी बैंकिंग प्रभाग ई-प्राप्तियों और ई-भुगतान के संबंध में रिज़र्व बैंक के ई-कुबेर से राज्य सरकार की ट्रेजरी प्रणाली को एकीकृत करने में भी महत्वपूर्ण भूमिका निभाते हैं। इस प्रकार, वर्तमान में 25 सरकारी बैंकिंग प्रभाग कार्यरत हैं।

वर्ष 2017-18 के दौरान परिचालन प्रारंभ करने वाले नए सरकारी बैंकिंग प्रभागों का ब्यौरा निम्नानुसार है –

क्र. सं.	नए सरकारी बैंकिंग प्रभाग	परिचालन प्रारंभ करने की तिथि	सरकारी बैंकिंग प्रभाग के क्षेत्राधिकार
1	रांची	1 अगस्त, 2017	झारखंड
2	शिमला	15 सितंबर, 2017	हिमाचल प्रदेश
3	देहरादून	3 अक्तूबर, 2017	उत्तराखंड
4	रायपुर	13 नवंबर, 2017	छत्तीसगढ़
5	पणजी	5 दिसंबर, 2017	गोवा
6	शिलांग	2 फरवरी, 2018	मेघालय
7	अगरतला	5 मार्च, 2018	त्रिपुरा

स्रोत: भारतीय रिज़र्व बैंक

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Teams sponsored/identified by research organizations/institutes, as well as individuals affiliated to banks/corporates/research organizations/institutions having a proven track record, are eligible to apply. Research proposals from bankers are specially encouraged.

The winners of the macro research award during the last two years (2017-18 and 2016-17) are not eligible to apply for the research award. If the research is undertaken by individuals, the proposal should be routed through their organizations after taking requisite permission, wherever applicable.

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The Research Proposal/s submitted should, among others, focus on the research objective/s, hypothesis, research design, methodology and execution plan of the proposed project.

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The Research proposals will be evaluated in terms of its objective, relevance and methodology. Action points flowing from the research for policy making, should be clearly listed out in the final research report to be submitted. The track record of the research organizations/researchers submitting the proposal is also taken into account for awarding the research. All the research proposals will be prima facie considered for suitability and final selection will be made after the short listed researchers make a presentation to the members of the Research Advisory Committee (RAC) of the Institute.

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45	Advance Wealth Management Course	English	Investment Planning, Tax Planning & Estate Planing	2017	M/s Taxmann Publications Pvt. Ltd.	₹420/-
46	Certificate Examination in Anti-Money Laundering & Know Your Customer	English	Anti-Money Laundering & Know Your Customer	2017	M/s Macmillan India Ltd.	₹325/-
47	Certificate Examination in Prevention of Cyber Crimes & Fraud Management	English	Prevention of Cyber Crimes & Fraud Management	2017	M/s Macmillan India Ltd.	₹245/-
48	Diploma in Cooperative Banking	Englishi	Cooperative Banking-Principles, Laws & Practcies	2017	M/s Macmillan India Ltd.	₹315/-
49	Diploma in Cooperative Banking	English	Management and Operations of co-operative Banks	2017	M/s Macmillan India Ltd.	₹445/-
50	Diploma in International Banking & Finance	English	International Banking Operations	2017	M/s Macmillan India Ltd.	₹285/-
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59	Certificate Course for Non-banking Financial Companies	English	Non-banking Financial Companies	2017	M/s Taxmann Publications (P) Ltd.	₹615/-
60	Certified Credit Professional	English	Banker's Hand Book on Credit Management	2018	M/s Taxmann Publications Pvt. Ltd.	₹990/-

Sr. No.	Examination	Medium	Name of the Book	Edition	Published By	Price (₹)
61	Certified Accounting and Audit Professional	English	Bankers' Handbook on Accounting	2018	M/s Taxmann Publications Pvt. Ltd	₹660/-
62	Certified Accounting and Audit Professional	English	Bankers' Handbook on Auditing	2018	M/s Taxmann Publications Pvt. Ltd	₹750/-
63	Certificate Examination for Small Finance Banks	English	Small Finance Banks	2018	M/s Taxmann Publications Pvt. Ltd	₹865/-
64	Certificate Course in Ethics in Banking	English	Ethics in Banking	2018	M/s Taxmann Publications Pvt. Ltd.	₹475/-
65	Certificate Examination for Debt Recovery Agents	English	Hand Book on Debt Recovery	2017	M/s Taxmann Publications Pvt. Ltd.	₹325/-
66	Certificate Examination for Debt Recovery Agents	Hindi	Hand Book on Debt Recovery (Hindi)	2017	M/s Taxmann Publications Pvt. Ltd.	₹400/-
67	Certificate Examination for Debt Recovery Agents / DRA Tele-callers	Marathi	Hand Book on debt. Recovery in Marathi	2009	M/s Taxmann Publications Pvt. Ltd	₹195/-
68	Certificate Examination for Debt Recovery Agents / DRA Tele-callers	Tamil	Hand Book on debt. Recovery in Tamil	2009	M/s Taxmann Publications Pvt. Ltd	₹195/-
69	Certificate Examination for Debt Recovery Agents / DRA Tele-callers	Malayalam	Hand Book on debt. Recovery in Malayalam	2009	M/s Taxmann Publications Pvt. Ltd	₹195/-
70	Certificate Examination for Debt Recovery Agents / DRA Tele-callers	Bengali	Hand Book on debt. Recovery in Bengali	2009	M/s Taxmann Publications Pvt. Ltd	₹195/-
71	Certificate Examination for Debt Recovery Agents / DRA Tele-callers	Hindi	Hand Book on debt. Recovery in Hindi	2009	M/s Taxmann Publications Pvt. Ltd	₹195/-
72	Certificate Examination for Debt Recovery Agents / DRA Tele-callers	Kannada	Hand Book on debt. Recovery in Kannada	2009	M/s Taxmann Publications Pvt. Ltd	₹195/-
73	Certificate Examination for Debt Recovery Agents / DRA Tele-callers	Assamese	Hand Book on debt. Recovery in Assamese	2009	M/s Taxmann Publications Pvt. Ltd	₹195/-
74	Certificate Examination for Business Facilitators/Business Correspondents	English	Inclusive Bbanking: Thro' Business Correspondents	2018	M/s Taxmann Publications Pvt. Ltd	₹535/-
75	Certificate Examination for Business Facilitators/Business Correspondents	Hindi	Inclusive Bbanking: Thro' Business Correspondents	2018	M/s Taxmann Publications Pvt. Ltd	₹540/-
76	Certificate Examination for Business Facilitators/Business Correspondents	Kannada	Inclusive Bbanking: Thro' Business Correspondents	2018	M/s Taxmann Publications Pvt. Ltd	₹540/-
77	Certificate Examination for Business Facilitators/Business Correspondents	Oriya	Inclusive Bbanking: Thro' Business Correspondents	2018	M/s Taxmann Publications Pvt. Ltd	₹530/-
78	Certificate Examination for Business Facilitators/Business Correspondents	Gujarati	Inclusive Bbanking: Thro' Business Correspondents	2018	M/s Taxmann Publications Pvt. Ltd	₹500/-
79	Certificate Examination for Business Facilitators/Business Correspondents	Marathi	Inclusive Bbanking: Thro' Business Correspondents	2018	M/s Taxmann Publications Pvt. Ltd	₹475/-
80	Business Facilitator/ Correspondence	Bengali	Inclusive Growth Thro' Business Facilitator/ Business correspondence in Bengala	2018	M/s Taxmann Publications Pvt. Ltd	₹540/-
81	Business Facilitator/ Correspondence	Telugu	Inclusive Growth Thro' Business Facilitator/ Business correspondence in Telugu	2018	M/s Taxmann Publications Pvt. Ltd	₹570/-
82	Certificate Examination for Business Correspondents / Facilitators (PMJDY)	Tamil	Inclusive Banking thro' Business correspondent a tool for PMJDY in Tamil	2018	M/s Taxmann Publication Ltd.	₹730/-
83	Certificate Examination for Business Correspondents / Facilitators (PMJDY)	Assamese	Inclusive Banking thro' Business correspondent a tool for PMJDY in Assami	2018	M/s Taxmann Publication Ltd.	₹520/-

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