The PMC Bank Crisis: Shifting Paradigms and Roadmap Ahead

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Abstract—This paper situates the collapse of the PMC Bank (PMCB) in a proper historical and comparative perspective. The change management strategy stems from the modus operandi, differences between commercial and cooperative banks and the endeavor of various Committees to set things right. Issues, such as, depositors' interest, examination of multi-layered issues, fraud control strategies, critical success factors (CSFs) and the roadmap ahead emerge clearly. This paper, which stresses the need to devise more effective response by all stake-holders, has important policy prescriptive implications in strengthening fraud control strategies.

Keywords— financial irregularities, internal control, under-reporting, depositors interest, fraud control.

I. INTRODUCTION

"Man enters into the ethical world through fear and not through love".

Paul Ricoeur, Symbolism of Evil

Frauds by Vijay Mallya, Nirav Modi, Mehul Choksi, *et al* raised NPAs in India (Bhasin, 2017). Shadow banking also evoked considerable debates (Acharya, et al., 2013). In this disconcerting macro-economic landscape, the collapse of the PMCB shook all players, viz., 1.6 million depositors, bankers, regulators, planners and policy makers and shocked the national collective conscience.

II. POSITION OF PMC BANK

Despite its small size, PMCB was spread over seven states with 51,000 members. With 137 branches, deposits of \Box 11, 617 crore, advances of \Box 8, 383 crore, NPAs of 4 %, capital adequacy of 12.6 % as at end-March 2019 (above RBI's 9 % regulatory norms) and a net profit of \Box 99.69 crore as against \Box 100.90 crore a year ago, the PMCB was the 5th largest cooperative bank. RBI reports, statistical returns and PMCB's annual reports did not reveal any serious concern till March 2018/ 2019. But the cookie crumbled because of major financial irregularities, failures of internal control and systems, and distorted reporting and how! *Prima-facie* evidence strongly suggested an unholy nexus between unscrupulous property developers, complicit top bank management, and, recalcitrant politicians.

Despite the ballooning of the Gross Non-Performing Assets (GNPA) on PMCB balance-sheet to 3.79 % in March 31, 2019, it was still manageable. Over 40 % of PMCB's loans went to

priority sectors, viz., agriculture, MSME, education and housing till 2015. But this proportion fell to 15 % in 2019 revealing completely skewed incremental loan sanction and disbursement during 2015-2019, thereby bringing things to the edge of a precipice.

III. UNFOLDING SORDID CORPORATE SAGA

The whistle blower's September 17, 2019 letter was quickly followed by the Managing Director (MD) & Chief Executive Officer (CEO) Joy Thomas's confession to the RBI on September 21, 2019 detailing multiple clandestine activities reeks of evil and cynicism, a world without integrity: "...we should have declared the non-payment immediately, but we feared for the reputation of the bank and so we lied. We lied about it. We said there was nothing wrong when there was a lot that was suspect about this whole charade. We lied to the shareholders, the board, the RBI and pretty much everyone else except the select few people that were perpetrating this fraud".

PMCB's exposure to the bankrupt Housing Development Infrastructure Ltd (HDIL) at \Box 6,226 crore was over four times the regulatory cap (73 % of its \Box 8,383 crore loans) with the single exposure limit for banks being 15 % of their capital fund. This exceeded PMCB's capital, revealed top-level complicity and transcended oversight failure as also an utter disregard for morality, proportionality and regulatory norms.

Surging frauds both in terms of number of cases and the amount involved is worrisome. Banking fraud is a double whammy: while provisioning for loan losses impact net income and prudential supervision, banks incur high operating costs by footing customers' monetary losses (Gates et al, 2009). Further, frauds reduce customer loyalty and induce customers to switch banks (Rauyruen et al, 2007).

The assault on conscience, rules and laws hits reputation of bank and accretion of new customers (Buchanan, 2010). The litany of crime and fraud transcend the loss quantified in monetary terms and its overall insidious nature adversely impacts reputation risk, regulatory and media attention, profits and profitability, company value/share price, employee efficiency, morale, trust and workplace culture; and business continuity (KPMG, 2008; 2012). At the macro level, frauds cause losses to the public exchequer, thus adversely affecting service delivery and growing unease. Frederick Robertson stressed two centuries ago "*There are three things in the world that deserve no mercy - hypocrisy, fraud, and tyranny*". Hence, in case of a spike in NPAs, the inspecting officials (IOs) must grill bank officials, get written submissions, raise

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accountability issues and fix responsibility because of inadequate and misleading disclosure, summon the board of directors, lodge FIR on grounds of cheating, forgery, etc. The inspection team must also comprise an IT expert to examine CBS issues, IS audit, cyber security, etc.

IV. MODUS OPERANDI

Six senior bank officials of the PMCB created 21,049 dummy accounts (mostly of dead account holders, while some were closed/inoperative accounts) and over 10 years of deliberate misreporting. There were also ostensibly advancing several project loans and deliberately delaying computerization.

There are well-defined policies and procedures; internal checks; controls; audit-concurrent, external, internal, forensic, statutory, financial, information technology (IT Audit), compliance audit; and inspection in banks. But the management's creative and devious banking spun a web of betrayal and found innovative ways. The Bank's statutory auditor Lakdawala & Company validated only incremental loans and not all accounts. A complex maze of firms linked to HDIL and their promoters Rakesh Wadhawan and Sarang Wadhawan, with little or no revenue, borrowed money from PMCB and, in turn, invested in each other and related companies. An oil and gas firm promoted by Rakesh Wadhawan and Sarang Wadhawan invested □ 174 crore in two Mauritius firms that had not "conducted any business operations" since their inception in June 2010.

This crisis stemmed from "inadequacies in: (i) internal systemic controls, reporting systems, and corrective actions that follow inspection of transactions,(ii) subverting the nexus between top management and the rogue borrower, (iii) implementing the whistleblower policy, (iv) the form of (marginalized) role of line management in credit administration, (v) loan policies that allowed concentration of credit risk in single borrower, (vi) supervision, follow-up, and regulatory surveillance of corporate governance (CG) practices, (vii) enforcing of dual regulatory framework by RBI and Registrar of Cooperative Societies that dissipated the regularity and quality of oversight, and (viii) keeping an arm's length distance from statutory auditors and audit committee" (Rao, 2019). How long can we continue to be oblivious to opportunistic and amoral criminality and officials acting with impunity leading to repeated failure of cooperative banks? This question is not rhetorical but is fundamental to the narrative of development and reveals a governance deficit.

V. SUPERVISORY AND REGULATORY ISSUES

There were ineffective off-site surveillance and oversight and gaps in audit and inspection conducted under Section 35 of the Banking Regulation Act (B.R. Act), 1949 (As Applicable to Cooperative Societies) (AACS. In flagrant violation of all canons of banking and the proven principles of prudent risk management, 73 % of the total loans went to HDIL.

The rural credit system is characterized by somnolence and fragmentation (Sharma, 2001). Stark fragmentation is reflected in 1,551 urban co-op banks and around 96,600 rural

co-operative banks - primary agriculture credit societies (PACS) and large size Adivasi multi-purpose societies (LAMPS). Historically, the dual control of the State government (i.e., "*back-seat driving*") and the RBI necessitate greater transparency about possible conflicts of interest, check egregious violations of sound banking principles and practices, meet evolving regulations and reporting requirements.

Dual control stems from the application of the B.R. Act, 1949 (As Applicable to Cooperative Societies) (AACS) to cooperative banks in 1966. Regulatory aspects, viz., issue of licence, maintaining cash reserve ratio (CRR), statutory liquidity ratio (SLR) and capital adequacy ratios, and inspection were taken over by the RBI. But the Registrar of Cooperative Societies (RCS) retained control of management elections, administration and auditing. The State Department of Co-operation is also involved in cooperatives - a classic case of too many cooks spoiling the broth!

Depositors are lured by higher rate of interest but are fleeced later. The ease with which India's cooperative banks are brought to the precipice is symptomatic of a larger malaise: the devastating crisis of confidence reflected in the failure of internal and statutory audits and the RBI inspection to unearth over 24,000 accounts with the same address and ownership. There is a rising sense of dread with the atrophied condition of cooperative banks requiring an accent on the principles of robust banking.

The RBI may circulate some model inspection reports among their IOs, *modus operandi* of frauds, their detection and remedial measures to prevent the recurrence of such frauds. The RBI may also direct their IOs to closely examine outlier events, e.g., if loan growth in the region, the Bank and at the national level is 10 %, but if a branch or a cluster of branches records 50 % loan growth, such transactions and deviant conduct be examined.

Technology and risk-based inspection need to be increasingly leveraged by technology-driven mode and simple programming languages, e.g., Python to examine large databases to identify risks, particularly concentric risks to trigger structural changes for a transformative effect. Big data analytics also significant impact security and fraud management (Srivastava, et al, 2015).

Despite checks and balances, credit risks are camouflaged in credit approval and disbursement by ever greening of loans ("transactions suggestive of book adjustments"), round tripping of money through group companies, repaying interest charges on or slightly before due dates, and even fraud. The loan size keeps getting bigger and when the balloon bursts, as eventually it would, the hit would be far greater than if the loan would have been rightly classified as a dud loan straightaway. This corollary requires changing the rules of the game by automated analysis tools, sector-oriented benchmarking solutions, data visualization tools, behavioral analytics, deep learning and the internal audit function. Decisive action requires a streamlining of both process reform and behavior change in the credit system, a paradigm shift in the asymmetric relationship between the bank manager and the borrower by deft use of technology, data and artificial intelligence for approval and disbursement mechanisms and a modified credit rating system.

Directors and auditors must reassure accurate financial statements.

In some cases, banks were guilty of fraud while in other cases, the customers tricked the banks. Gross underreporting stems at least partly from flawed due diligence. Banks are reluctant in coming clean because of reputational risks, interference of probe agencies, and the instinct of self-preservation. But such ill-conceived measures are counter-productive because inadequate and misleading disclosure falsifies liquidity, inflates revenues and delinquency, cheating both the stakeholders and investors. It is, therefore, a disclosure breach, a data fraud and a capital market fraud. Complete disclosure is also hampered by other accentuating factors, viz., failure of the third-party ecosystem-credit rating agencies or auditors to focus on risks. Hence, the RBI's DG stressed adherence to compliance and exhorted all bankers to develop a 'compliance culture' in banks (Jain, 2019). Eventually the problem of frauds cannot be looked at as an isolated problem of banks and is a systemic failure (Rajan, 2018). There were also inadequate and misleading disclosures. A holy grail of banking and finance is eternal vigilance with robust regulatory framework, market infrastructure and diligent rule enforcement.

VI. DIFFERENCES BETWEEN COMMERCIAL AND COOPERATIVE BANKS

Commercial banks vis-à-vis cooperative banks have a much higher capital base (capital base of 25 lakh for urban cooperative banks, \Box 100 crore for small finance banks and \Box 200 crore for a new commercial bank, to be raised to \Box 300 crore within 3 years of business); subject to greater regulatory rigors; and unlike commercial banks, which are structured as joint stock companies, Urban Cooperative Banks (UCBs) are structured as co-operatives, with unlimited liability of their members. Further, a clear distinction exists between a commercial bank's shareholders and its borrowers. But UCB borrowers are shareholders; generally, manpower and operational efficiency levels are discernibly higher in commercial banks and commercial banks are also subject to market discipline because of their listing on the Stock Exchanges. A committee of officials from Departments and Ministries may examine vulnerabilities for a robust and scalable strategy for cooperatives.

VII. COOPERATIVES DOWN THROUGH THE AGES

Cooperative Banks in India started in 1906. But cooperatives were not unique to India. For, the Fenwick Society was established way back on March 14, 1761 in Scotland. The co-operative movement in India has its genesis in the Co-operative Societies Act of 1904. The announcement of a National Co-operative Policy in 2002 together with some legislative reforms by enacting the new Multistate Co-operative Societies Act, 2002 strengthened co-operatives. Generic issues of governance and transparency affect PSBs, private banks, and non-banking financial companies (NBFCs). But the cooperatives are greatly hit. While no economy is immune to banking crises, cooperative banks in India failed with unfailing regularity in India, e.g., Ahmedabad's Madhavpura Mercantile Cooperative Bank failure of 2001 because of Ketan Parikh (an uncanny similarity to the HDIL in the PMCB).

Cooperatives have failed (despite stray examples like Amul, Indian Farmers Fertilizer Cooperatives-IFFCO) but cooperatives must succeed! Cooperative banking in India has historically played an important role in spreading rural banking reflected in three broad indicators of branch expansion, deposit mobilization and credit deployment. The system, however, continues to be riddled with corruption and flawed managerial and operational systems. Hence, despite their relative decline, they continue to be important, particularly at the bottom of the income pyramid, viz., greater outreach to rural households, rural employment and cost of purveying rural credit. This scam was a function of several forces and factors and their inter-linkage with the broader macro system. In conformity with the inexorable reform logic, the number of cooperative banks in India steadily declined from 1926 in 2004 to 1551 in 2018.

VIII. COMMITTEES ON REFORMING COOPERATIVE BANKS

The cooperative movement in India is riddled with persisting weaknesses and structural deficiencies. Several Committees attempted to streamline cooperative banks, e.g., Satish Marathe Committee (1991), Madhav Rao Committee (1999), N.H. Vishwanathan Working Group on augmenting capital of UCBs (2005), R Gandhi Working Group on information technology systems in urban cooperative banks (2007-08), VS Das Group on an umbrella organisation for the UCBs (2009), YH Malegam Committee on licensing of new UCBs (2011) and R. Gandhi Committee (2015). The R. Gandhi Committee recommended, inter-alia, creation of an umbrella organization for cooperative banks and instituting a board of management, an accelerated winding up/merger process without involving other regulators under the cooperative societies' laws, effective regulation of such banks and allowing conversion of UCBs into small finance banks subject to their fulfilling RBI norms.

IX. CONCEPTUAL FRAMEWORK

While fraud is as commonplace as deception and as dexterous as human resourcefulness, fraud in India has been differently defined because of the semantic difficulty in conveying various meanings and different connotations. The RBI's definition of fraud in the Report of RBI Working Group on Information Security, Electronic Banking, Technology Risk Management and Cyber Frauds maintains: "A deliberate act of omission or commission by any person, carried out in the course of a banking transaction or in the books of accounts maintained manually or under computer system in banks, resulting into wrongful gain to any person for a temporary period or otherwise, with or without any monetary loss to the bank". Frauds include misappropriation and criminal breach of trust; fraudulent encashment through forged instruments, manipulation of books of account or through fictitious accounts and conversion of property; unauthorized credit facilities extended for reward or for illegal gratification; cash shortages;

cheating and forgery; fraudulent transactions involving foreign exchange; any other type of fraud not coming under the specific heads as above. Misappropriation is a type of fraud, wherein people who are entrusted to manage the assets of an organization steal from it or misuse the asset for personal use. Asset misappropriation and criminal breach of trust involves third parties or employees in an organization, who abuse their position to steal from it through fraudulent activity.

X. FRAUDS IN INDIAN BANKING

Bank frauds relate to deposits, advances and services. Historically, the advances are the most important in bank frauds and considerable delay in declaration of frauds occurs in consortium/ multiple financing. Most credit related frauds occur because of deficient appraisal system, poor post disbursement supervision and inadequate follow up (Mohan, 2002; Chakrabarty, 2013). The culture of collusion, uncertainty and insecurity made the PMCB case an outlier. All banks have policy and operating frameworks for detection, reporting and monitoring of frauds as also the surveillance/ oversight process to prevent frauds. The RBI's Circular of 31st May 2011 had identified certain areas, wherein frauds occurred or increased in banks. Frauds raise multiple issues of detection and reporting of frauds; corrective action; preventive and punitive action; and provisioning for frauds.

XI. INTEREST OF THE DEPOSITORS

In banks, the interest of the depositors must be paramount. In terms of Section 5 (b) of the B.R. Act, 1949, "banking" means accepting, for the purpose of lending or investment, of deposits of money from the public, repayable on demand or otherwise, and withdrawable by cheque, draft, order or otherwise. Hence bankers are trustees of public money and the deposits are kept with them in a fiduciary capacity. But with deposit insurance limited to \Box 5 lakh per bank account (raised on Feb. 04, 2020 after being static at \Box 1 lakh for over 25 years), India provides low protection to depositors in bank failure.

XII. THE CHALLENGE AND THE RESPONSE

There is a need to go beyond a silo approach and examine multi-layered issues for proper assessment to avoid mismatches in asset pricing, develop proper risk management and capital management, build quality assets, focus strongly on customers, manage costs effectively and administer credit efficiently and develop suitable policies. Some basic elements of the risk assessment process should, inter-alia, include identifying inherent business risks in various activities; evaluating the effectiveness of the control systems ('control risk'); and formulating a risk-matrix comprising inherent business and control risks. Effective management information system (MIS) and data integrity are increasingly important in the roadmap ahead. There are also larger issues of growth, equity and stability in the context of financial regulation. The elusive search for alpha and higher productivity and curbing frauds, misappropriations and malfeasance necessitate synchronized measures, viz., sharper focus on supervision of top

management; and rotation of staff as recommended by the Ghosh Committee. Streamlined incentives for employees; check on collusion between the staff, corporate borrowers and third-party agencies; higher staff accountability; risk based internal audit and enhanced financial literacy are needed.

XIII. LEVERAGING TECHNOLOGY TO CHECK FRAUDS

Deloitte India Banking Fraud Survey (2015) attributed rising frauds to lack of oversight by line managers/senior management on deviations from existing processes; business pressures to meet unreasonable targets; lack of tools to identify potential red flags; and collusion between employees and external parties. By leveraging data analysis software, the lead time in fraud detection can be slashed and huge losses markedly reduced (Bhasin, 2016a, 2016b). Bhasin highlighted calculation of statistical parameters, using classification to find patterns, stratifying numbers to identify unusual entries, joining different diverse sources to identify matching values, duplicate testing to identify duplicate transactions, such as, payments, claims or expense report items, gap testing to identify missing values in sequential data, where there should be none, summing of numeric values to identify control totals, and validating entry dates to identify suspicious items for postings or data entry.

An explanatory model with thrust on perceived un-shareable financial need; perceived opportunity; and rationalization continues to be significant (Cressey, 1973). Plausible fraud control strategies require meaningful solutions, viz., customer screening against negative list; strengthened regulatory system; effective use of appropriate tools and technologies to discourage and identify fraud and detect early warning signals; awareness of bank employees and customers; clear understanding and communication between departments and coordination among different agencies, viz., the Central Board of Direct Taxes (CBDT), the Enforcement Directorate (ED), the Central Vigilance Commission (CVC) and the RBI.

Identified vulnerabilities in the Bank's procedures, operations, monitoring and control to mitigate fraud risks, dissect the causes of fraud and misappropriation, disseminate real life fraud investigations case histories and strengthening an anti-fraud culture, including the promotion of ethical conduct and greater domain knowledge to prevent recurrence would be helpful. Non-adherence to systems & procedures and any spike in business, contrary to the growth trend observed elsewhere in the area and other similarly placed branches needs to be closely examined. Effective results require proactive efforts to prevent, detect and mitigate frauds, robust strategies of internal control and risk management, invariably checking the mandatory reports, maintaining password secrecy, and promoting the 'Whistle Blower Policy'.

XIV. CRITICAL SUCCESS FACTORS (CSFS)

CSFs relate to quick conviction of errant individuals, deterrent punishment, specialized persons with a technology background, inspection and audit, accounts, finance, accounts, including forensic accounting and an understanding of frauds in all its myriad dimensions and facets. Implementation of effective fraud detection, mitigation and investigation to minimize frauds bring to the fore the optimized use of IT systems and data analytics to combat computer frauds, bribery and corruption and cybercrimes.

XV. ROADMAP AHEAD

With too much greed and too little good sense, issues of contagion effect, short-termism versus sustained growth, corporate governance, conflict of interest and systemic risk need to be carefully considered for a comprehensive assessment and perspective. A close monitoring of regional outlier movement would also be helpful. RBI revamping its regulatory and supervisory structure by creating a specialised cadre of supervisory officers, strengthening its analytical vertical and enhancing onsite supervision, market intelligence and statutory auditor roles for supervision and creating an institutional mechanism for sharing of fraud-related information among UCBs like Credit Fraud Registry (CFR) for commercial banks are contextually significant. Essentially, supervision must work with a defined governance structure, enabling policies and procedures, multi-layered policy to cover products and services across locations, periodic reviews, transparent reporting, standard operating procedures (SOPs) and checks, leveraging technology and consistent data, unimpeded data across systems, data sanctity and competent staff members.

A thorough systemic overhaul requires changed regulatory landscape, close supervision and monitoring with clear accountability and implementation of red flagged account (RFA), early warning signals (EWS) framework and streamlined mechanisms to implement a "combination of checks from a layered approach to detect fraud well in time". Stricter procedural controls, viz., CBI's 2012 announcement related to a Bank Case Information System (BCIS), behavioral analytics to identify enemies disguised as customers in real-time and deep learning techniques to identify complex patterns in online fraud are helpful.

Enhancing the role of the Chief Compliance Officer and Chief Risk Officer, full-time external surveillance, regular offsite monitoring through management information system (MIS), onsite supervision, risk-based supervision, qualitative stress tests and proactive use of simulations are significant. Financial services need to strategically approach intrinsic fraud management by concerted measures, viz., transparency across levels in organizations, a holistic perspective with a clear understanding of the evolving financial sector scenario, regulatory viewpoints, anti-fraud resources, tools, knowledge and best practices to identify signals, understand drivers of change, anticipate disruptive trends and initiate broad spectrum measures accordingly. These aspects are not merely obscure metrics but are well-defined standards to be mandatorily followed so that things do not again come to such a sordid pass. There is no silver bullet to reduce risk or ensure a zero-fraud scenario. But the "fit and proper" character of the directors because of their infirm financial position and frail corporate governance must be examined. For, such cases lower the credibility of third parties, such as, auditing firms and credit rating agencies. Oversight by banks and inadequate diligence have been highlighted by banks themselves in their *post-facto* analyses, the regulator and the investigative agencies, viz., CBI, ED (Gandhi, 2014).

How come HDIL, which had an overwhelming share of the loan book, was represented in the management? While trust and faith are important, verification is a prerequisite to sound banking. In bracing for tomorrow, a strategic plan must include both a short-term program of survival and long-term structural changes. Consequently, a renewed thrust on the three KY Principles, i.e., Know Your Customer, Know Your Employee and Know Your Partner (Gandhi, 2015) would help in enhancing transparency and openness. Given the systemic gravity and enormity, leveraging information and communication technology (Sharma, 2010), heightened communication and accessibility of data to implement a system-wide fraud mitigation mission, streamlined fraud detection, mitigation and control mechanism is necessary.

Systemic and holistic approach necessitates *inter-alia* prompt identification, investigation and exchange of information. Such issues of transcending greed and fear are unquestionably important not only for the safety of banks but also for the larger issue of systemic and resilient macro-economic and financial stability because of interdependencies and interlinkages within and across the financial sector. In the ultimate analysis, given the interplay between cooperative banks and the socio-political system, such ominous events raise enduring questions about greater political will to address the deep and worrisome fault-lines in a synchronized manner.

REFERENCES

- Acharya, V. V., Hemal Khandwala and T. Sabri Öncü (2013), "The growth of a shadow banking system in emerging markets: Evidence from India", *Journal of International Money and Finance*, Vol. 39. https://doi.org/10.1016/j.jimonfin.2013.06.024
- [2] Bhasin, M.L. (2016a). "Role of Technology in Combating Bank Frauds: Perspectives and Prospects", *International Review of Social Sciences*, 4(1).
 - https://doi.org/10.14254/jems.2016.1-1.3
- [3] Bhasin, M.L. (2016b). "Combating Bank Frauds by Integration of Technology: Experience of a Developing Country". *British Journal of Research*. Vol 23, No. 2. https://doi.org/10.14254/jems.2017.1-1.3
- [4] Bhasin, M.L. (2017) "Galloping NPAs Bringing a Stress on India's Banking Sector: An Empirical Study of an Asian Country". *International Journal of Management Sciences and Business Research. April.*
- [5] Buchanan, R. (2010). "Banks on Guard". *Latin Trade*, 18(5), 58-60. https://doi.org/10.1080/08322473.2010.11432339
- [6] Chakrabarty, K.C (2013), "Frauds in the banking sector: Causes, Cures and Concerns", *National Conference on Financial Fraud*, ASSOCHAM, New Delhi, July 26.
- [7] Cressey, Donald R. (1973). *Other People's Money*. Montclair: Patterson Smith.
- [8] Deloitte (2008, 2015). Deloitte India Banking Fraud Survey.
- [9] Gandhi, R. (2014), "Growing NPAs in Banks: Efficacy of Ratings Accountability & Transparency of Credit Rating Agencies", ASSOCHAM Conference, May 31.
- [10] Gandhi, R. (2015), "Financial Frauds-Prevention: A Question of Knowing Somebody", 2nd National Conference on Financial Frauds Risks & Preventions, ASSOCHAM, June 26.
- [11] Gates, T. and Jacob, K. (2009). "Payments fraud: perception versus reality a conference Summary". *Economic Perspectives*, 33 (1), 7-15.
- [12] Jain, MK (2019). "Regulatory and Supervisory Expectations on Compliance Function in Banks", *Financial institution Benchmarking* and Calibration (FIBAC) 2019.

- [13] KPMG. (2008, 2012). India Survey Report.
- [14] Mohan, Pullela Murali (2002). An Analytical Study on Bank Frauds and Scams in India. Sardar Vallabhbhai Patel National Police Academy, Hyderabad.
- [15] Rajan, Raghuram G. (2018). Note to Parliamentary Estimates Committee on Bank NPAs.
- [16] Rao, K. Srinivasa (2019). "Lessons from the PMC Bank fiasco". Ideas for India. 06 November
- [17] Rauyruen, P. and Miller, K. (2007). "Relationship quality as a predictor of B2B customer loyalty". *Journal of Business Research*, 60 (1), 21-31.

https://doi.org/10.1016/j.jbusres.2005.11.006

- [18] RBI. (2015a), "Framework for dealing with loan frauds", *RBI Circulars*.
- [19] RBI. (2015b), "Monitoring of large value frauds by the Board of Directors", *RBI Circulars*.
- [20] RBI. www.rbi.org.in Guidance note on risk based internal audit.
- [21] Sharma, Manoranjan (2001). "Rural Financial Institutions in Early Third Millennium", *Emerging Institutions for Decentralised Rural Development* (ed.) S.P. Jain, NIRD.
- [22] Sharma, Manoranjan (2010). "Information and Communication Technologies: Crafting the Future of MSMEs". *The Indian Banker*. March.
- [23] Srivastava, Utkarsh and Santosh Gopalkrishnan (2015). "Impact of Big Data Analytics on Banking Sector" 2nd International Symposium (ISBCC'15). Procedia Computer Science. 5 https://doi.org/10.1016/j.procs.2015.04.098