

IT and Governance in Banks- Some thoughts*

- **Anand Sinha**

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2. Independent directors are looked upon by both the stakeholders and regulators as important contributors to the value additive and ethically positive oversight of executive management activities. The organization of this programme, by IDRBT and its Director, Mr. Sambamurthy, which focuses on IT governance, Information Security and the role of Board therein, is very timely as these factors have assumed critical importance in the sphere of corporate governance in general and bank governance in particular.

3. While talking about this programme organized by IDRBT, it would be appropriate to recall, in brief, that this institution, conceptualized in 1994 and established in 1996 by the RBI to function as a centre for research and development in banking technology, has been commendably striving to meet its objectives. It has to its credit several achievements like launch of Structured Financial Messaging System (SFMS) and National Financial Switch (NFS) management; besides publication of guidance on best practices and a number of research papers on topics of contemporary relevance to the Indian banking

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industry. Now, with the reviewed and redefined goals, the Institute is all set to support the banking Industry, by working at the intersection of banking and technology, mainly in the areas of financial networks and applications, electronic payments and settlement systems, security technologies for the financial sector, financial information systems and business intelligence. I am sure the institute will continue to enrich the banking Industry in the times to come through its good work.

Corporate Governance

4. Coming to the theme of this programme, I would dwell, first of all, on the concept of governance. At the core of corporate governance is the principle of fiduciary duty, centered on oversight of management functioning in order to optimize stakeholder interests, within the limits of legal and regulatory compliance. This had its origin and basis in the need to balance the powers of executive management and the interests of diffused owners, i.e. shareholders, through an oversight process. This dominant view of governance comes from Agency theory, which emphasizes monitoring and control functions. In this perspective, directors' responsibilities take two forms: ensuring accountability to minimize downside risks and enabling managerial entrepreneurship to reap upside potential.

5. Over a period of time, the optimization of shareholders' interest objective has broadened to include strategic efficiency and social responsibility. Connotation of oversight has changed and expanded, to mean effective

leadership in guiding the management in strategic decisions, creation of suitable structures and processes for effective implementation and monitoring of managerial performance; and ensuring compliance with laws and regulations. The scope of oversight has undergone further change with implied inclusion of an ethic that transcends strict response to regulations. This interpretation of the meaning of governance and role of the Board has gained greater currency in the wake of some big ticket events like collapse of Enron, WorldCom, HIH insurance, and, in the aftermath of the recent crisis, where a large part of the blame was attributed, inter alia, to unethical conduct by banks and market participants. Over all, the concept of governance has come to signify strategic leadership support and objective oversight by the Board to ensure optimized resource utilization, effective compliance and robust management.

6. It is in this overall context of governance that IT governance has evolved as an area of great contemporary interest. Information technology has grown from a mere enabler to an essential component of business processes in the banking industry where information and data are considered most valued resources. IT is a critical asset, not simply in enabling organizational success but also in providing opportunities for competitive advantage.

IT and Indian Banking

7. Banking in India, as all of us know, has traversed a long way from the days of manual work processes to mechanization, followed by word processing

on standalone PCs and onto IT based applications and so on. As things stand today, it would be difficult to imagine a bank of any significance which does not have some or most of the key processes being run on IT based applications. Most of the customer related functions in banks, be it account opening, transaction processing or account and data maintenance, are all run on IT enabled systems. It is the reach and capacity of information technology that has facilitated banks to transcend the limitations of, geographical spread, burgeoning transaction volumes and, to an extent, human resources. Banks are expanding their size and services to cater to fast increasing customer needs through technology enabled payment systems, internet based access and innovative service delivery modes.

8. Other important business activities of banks such as participation in securities, currency and money markets, besides compliance functions like reserve maintenance, regulatory reporting etc. are all having processes heavily dependent on information technology. Even in case of internal work processes having large component of manual processing, dependence on computers and IT based communication mechanism is increasingly felt.

9. Overall, banks are dependent on IT based systems for almost all of their activities, although the level of sophistication and refinement in such systems may vary from bank to bank or across activities or banking Industry segments (commercial banks, cooperative banks etc.). Reasons for this are not far to seek. Technology has become essential component for customer related and market related activities and participant banks cannot meet the

requirements imposed by timelines or volumes without leveraging on technology. Even for backend and internal work processes, cost and time constraints are pushing banks to lean upon technology. It may not be possible to store and retrieve huge amounts of customer data, transaction data and business information, but for the power of technology based systems. More so, the globalization, competition and compliance requirements make it imperative for banks to increasingly use IT based platforms and applications for most of their activities. It has become necessary for banks to use modern marketing as well as customer service tools to survive in a competitive environment; which involve large scale data collection, analysis and efficient communication which are not possible without the help of IT.

IT and Financial Inclusion

10. IT has a great role to play in furthering the financial inclusion drive, involving expansion of banking access to remote locations in a cost effective way. Reaching banking to the excluded segments has been the focus of regulatory agenda and many initiatives have been taken in this regard. Of the 74,414 villages with a population of more than 2000 identified as unbanked, 74,199 (99.7 per cent) villages have already been provided with banking services, on the back of concerted efforts of the banking fraternity encouraged by the Government and Reserve Bank of India. In the next stage, it has been proposed to cover unbanked villages with population less than 2000. Considering the vast geographical expanse of the country, such a gigantic task

would not be possible at all without the help of technology. Technology has the potential to cut down the costs, bring down the barriers and make the financial inclusion a viable business proposition.

11. Financial inclusion, apart from its social welfare enhancing role, should make a lot of business sense for banks in as much as they can get a large stable pool of retail deposits which will contribute very significantly to the robustness of the individual banks and to financial stability at the systemic level. Additionally, there would be small value but large volume of lending and other business. What is constraining the full realization of this business potential is the comparatively large transaction costs. Several technological efforts and innovations have been made for increasing the reach which has reduced the transaction costs. However, much more needs to be done to make the financial inclusion an attractive and profitable business for banks.

IT in banking - Concerns

12. While the increased deployment of IT certainly has its own benefits in terms of enabling banks to meet the business requirements and enhance their service delivery capacity, such IT usage and dependence, however, bring in some new challenges and concerns. These challenges keep on getting more complex and qualitatively different, as technology keeps on evolving rapidly. For instance, technologies like cloud computing bring in advantages and efficiencies along with new risks which have to be managed. Any delay in

adoption of new technologies would only let the competition pass by the laggard institutions.

13. Cloud computing is an innovative concept which enables participants to leverage on collaborative sharing of resources, which not only brings down costs but also facilitates the participants to concentrate more on their core activities, leaving the management of IT resources to the service providers. This facility, by making the sophisticated applications affordable, has the potential to enable even the marginal players to make use of the technology and develop their businesses. However, this being a new technology data integrity and confidentiality seem to be a major concern at this stage. Further, if too many participants rely on a single service provider, it may lead to a risk of over-concentration inasmuch as the failure of the service provider will be catastrophic. Banks will have to assess the pros and cons of new technologies and put in place adequate safe guards while adopting them.

14. As regulator and supervisor of the banking system in India, inter alia, its many other roles, RBI is concerned about the soundness of the financial system in general and banking system in particular. While IT usage contributes to efficiency, it brings, along with it, certain issues such as, issues of technology selection with strategic, financial and compliance considerations; process management to ensure cost effective and timely service delivery; security of customer and business data at access, storage and retrieval level, as also the accuracy of data and information for internal and external reporting. Important issues and concerns in this context have been flagged by RBI in the IT vision

document 2011-17 and the recent Monetary Policy statement (April 2012). These concerns mainly revolve around the areas of governance, information security and MIS/ reporting and banks have to address these issues, on priority.

Technology and Information Security

15. Information security is an area that needs constant and continuing attention, considering, particularly, the operational risks associated with the use of technology. Security and integrity of data, communication and storage has acquired challenging dimensions as all of these activities are carried out over technology enabled systems. Internet and remote access are necessities today, while threats through these modes come in newer forms each day. Privacy and confidentiality of customer as well as business data are at stake. Denial of service, disruption, permanent data loss and even data manipulation are risks that cannot be ignored. The IT management systems and processes in banks, therefore, have to be robust enough to meet these challenges effectively, on continuing basis. Any lapse in this regard can lead to several kinds of risks to the bank, its customers as well as other market participants, depending on the size and significance of the institution as well as magnitude of risk event.

Regulatory reporting and MIS

16. Another area of significant importance to the top managements, regulators and shareholders is the quality and efficiency of data reporting. Indian banking, even today, has housekeeping, MIS and reporting processes

which are largely interspersed with manual intervention. This has implications for the quality, consistency and timeliness of data, with the risk of subjective interpretation, manipulation and delays, leading to potential adverse consequences in many forms. Even where the information collection and submission process is largely IT based, process design itself has to be in sync with information and reporting requirements. The top management, Board, regulators, the shareholders and customers may not get correct or timely information and disclosures due to inadvertent or deliberate action on the part of those compiling or submitting information. There have been instances of process design facilitating manipulation of data, with serious implications. So, it is imperative that information systems are designed and managed in a way that data and information are efficiently and accurately compiled and reported. Automated data flow (ADF) initiative by RBI is a step in this direction. Banks are being exhorted to ensure ADF implementation at the earliest, not only as a matter of regulatory comfort but also in their own interest. Benefits for banks in such implementation are many. One, reduction in the number of procedures and sub-processes in procuring information, leading to enhanced efficiency on cost and time parameters. Two, more efficient internal monitoring, review and managerial decision making, reducing the scope for misreporting. Three, accurate and timely regulatory reporting leading to reduced risk of adverse regulatory action and timely support for course correction, where required. I would urge the Independent Directors to provide an oversight in their banks to

this project so that the complete switchover to ADF is achieved in a timely and efficient manner.

Regulatory Compliance and Single view of Information

17. As we all know, banking regulation across the globe is being tightened in the wake of recent financial crisis. Both Basel II, which, for large banks, focusses on internal processes for measuring and managing risks and, Basel III, have enhanced the need for continuous monitoring of data on several parameters to ensure continuing, rather than 'point in time' compliance. There are new regulatory provisioning requirements as well, which can be complied with, only by proper data collection, compilation, and analysis and reporting. It is mandated that business decision making and regulatory reporting processes use the same data and information. Any lapse in this regard is increasingly being viewed adversely by the markets, customers, shareholders and regulators. It may, in fact, become highly time and cost intensive proposition for banks to collect, compile and report on the basis of voluminous data on diverse parameters through processes having manual interventions. The time criticality, even for internal reporting, is further amplified, by the fact that in a severely competitive market environment, quick information dissemination and decision making is an absolute requirement for growth and, may be for survival itself. Risks and opportunities have to be recognized quickly, followed by swift action to avoid being swamped by events. So, it is in the interest of all stakeholders to

ensure that there is a single view of information and data in the banks with automated/ straight through processing for internal and external reporting.

18. As recent events have shown, ability to identify the risks in time and manage them effectively differentiates successful institutions from the unsuccessful ones. To survive in the fast changing environment, institutions are required to have complete handle on the risks they face which helps them in taking corrective action. For this they need to have robust IT systems which can collect risk information from across different business segments and different geographical locations in a timely and comprehensive manner. The systems should be able to process data and provide necessary reports to the management to enable quick action where necessary. Building of such systems involves significant investments and, therefore, requires, a dedicated focus from the Board and the top managements.

19. Weak and ineffective governance has been a very important contributory factor to the current crisis and clearly this is an area which needs considerable improvement. In this context, maintaining robust risk information technology (IT) systems that can generate timely, comprehensive, cross-geography, and cross-product information on exposure is of vital importance and, therefore, needs closer attention of the Board. Let me quote from a recent G-30 document "*Toward Effective Governance of Financial Institutions*" which succinctly emphasises the role of risk information technology in financial Institutions and the critical role Boards can play in implementing them.

Ultimately, the quality of risk information that FI boards and management teams receive depends largely on the quality of the organization's IT systems. Ideally, FIs need risk IT systems that can gather risk information quickly and comprehensively,

producing global, cross-product, cross-legal entity estimates of their exposures promptly. Unfortunately, few global FIs are capable of this. They are hampered by legacy systems that are inefficient, costly, and burdensome. Boards are well advised to press management to maintain—and where necessary increase—investment in risk IT systems, both as a short-term priority and as part of a long-term strategic initiative.

Risk IT investments must not be sidelined by necessary upgrades to finance and customer data systems. Instead, they must be integrated and prioritized. Given that for many large firms, necessary investments will run to several billion dollars over the coming years, boards may need to rethink their approach to evaluating management's investment in core IT spending. While some firms still have the audit or risk committee review IT investments, others have established committees dedicated to IT oversight. That is an interesting trend, and worth further consideration.

IT Governance

20. Coming to IT governance, there are two ways to look at it. One is to view it as a sub-set of overall corporate governance and the other is to see it as a distinct concept/ discipline by itself. There are arguments on both sides, but the former looks more appropriate. Corporate governance, with its holistic definition covering fiduciary, strategic leadership/ guidance and ethics related roles, is inclusive of IT strategy and IT management oversight as IT systems and information are as valuable as any other resource for a bank, and may be more. Dependence on these resources and systems make it imperative that these are managed and governed through an appropriate IT governance framework (ITG). There are several alternative ITG frameworks (over 14 as per a 2009 research), with many more evolving, suitability of which depends on the overall ecosystem in which a bank operates.

21. In an early research on governance, IT governance mechanisms were categorized into three: decision making, alignment processes and communication approaches. Some ITG frameworks like Cobit (Control

Objectives for Information and Related Technologies), COSO (Committee of Sponsoring Organisations of the Treadway Commission) and ITIL (Information Technology Infrastructure Library) provide guidance from micro level onwards. AS 8015, the Australian standard for ICT governance, is targeted at strategic level. However, there is no single dominant approach for ITG. Some recent research has conceived ITG as having: (i) defensive or (ii) strategic approach where defensive approach refers to preventing or mitigating disasters while strategic approach aims to create sustainable shareholder value by either reducing costs or creating a sustainable competitive advantage. In practice, holistic understanding of legal, regulatory, business and internal ethic environment contexts should determine the suitability of the framework for a particular bank. What is important is that ITG achieves its applicable objectives, both defensive and strategic, and enhances the overall corporate governance in a bank, by facilitating maximization of benefits and minimization of risks emanating from IT deployment. It focuses specifically on information technology systems, their performance and risk management.

Role of Board and Independent Directors

22. While we have discussed about governance in general and, IT governance in particular, one aspect which remains to be mentioned is the importance of the role that independent directors on the Boards of banks are expected to play. Banks, basically, are organizations which mainly have roles of intermediaries as well as financial market participants. Their soundness and

stability has potential impact much beyond their own well being. So, the role of Board in banks is more focused on compliance, organizational ethic and strategic guidance. In the Indian banking context, Boards have a lot to contribute to strategic ITG as the IT implementation is still evolving and structures for robust oversight on acquisition, deployment and management of IT systems and information security mechanisms need closer attention and strengthening. Investments required in acquisition, maintenance and regular upgradation of technology systems in banks, along with the need to have appropriate human resource, are significant, and, therefore, require appropriate management controls and accountability framework under a watchful Board.

23. Regulations and laws do contribute, but do not constitute the whole story about governance, as recent global events have shown. Governance landscape, including IT governance, has much more to be covered by quality of Board oversight than mere compliance with the written word. Good governance should be, and is often, the result of endogenous factors those that emerge from within, not without. Governance is not about what decisions get made-that is management- but it is about who makes the decisions and how they are made. Independent directors, with an assumption of higher level of objectivity and professionalism, are expected to guide the banks in a manner that our banks as well as customers reap the fruits of IT deployment while the risks are contained through appropriate assessment and mitigation measures.

24. Aristotle said "*it is better for a city to be governed by a good man than good laws*". Board and its Directors can contribute towards governance,

including IT governance, more than the law under which it is constituted, and that is what is expected of them.

25. In conclusion, I would exhort the independent directors to perform their role at a level expected of them, so as to benefit the Industry, economy and society and once again convey my thanks to IDRBT for organizing the program.

I wish the program great success. Thank you.

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