

Vol II Issue X

ISSN No : 2230-7850

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Monthly Multidisciplinary  
Research Journal

*Indian Streams  
Research Journal*

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**RNI MAHMUL/2011/38595**

**ISSN No.2230-7850**

Indian Streams Research Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial Board readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

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## ISSUES OF CORPORATE GOVERNANCE: BANKING SECTOR

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### Abstract:

*Corporate ethics has been much in the news in recent years, and the margin for an executive slip-up these days is narrow. Anything from a private company breach like Satyam; International Sports Event like Common Wealth Games or allocation of 2G licenses to private players have raised an alarm for Indians to be the watch-dog. The Cadbury Report generated a lot of interest in India. The issue of corporate governance was studied in depth and dealt with by the Confederation of Indian Industries (CII), Associated Chamber of Commerce and Industry (ASSOCHAM) and Securities and Exchange Board of India (SEBI). Co-operative banks as corporate entities possess certain unique characteristics. Ethical issues in the financial services industry affect everyone, because even if you don't work in the field, you're a consumer of the services.*

*Prudential norms in terms of income recognition, asset classification, and capital adequacy have been well assimilated by the Indian banking system. Beginning 2005, banks will be required to set aside capital charge for market risk on their trading portfolio of government investments, which was earlier virtually exempt from market risk requirement.*

*ALM and Risk Management Practices – At the initiative of the regulators, banks were quickly required to address the need for Asset Liability Management followed by risk management practices. The real success of our financial sector reforms will however depend primarily on the organisational effectiveness of the banks, including cooperative banks, for which initiatives will have to come from the banks themselves. With elements of good corporate governance, sound investment policy, appropriate internal control systems, better credit risk management, focus on newly-emerging business areas like micro finance, commitment to better customer service, adequate automation and proactive policies on house-keeping issues, co-operative banks will definitely be able to grapple with these challenges and convert them into opportunities.*

### KEYWORDS:

Banking, Corporate Governance, Ethics, Governance Practices.

### INTRODUCTION:

Corporate ethics has been much in the news in recent years, and the margin for an executive slip-up these days is narrow. Backdate an option to attract a new employee, or fail to supervise a leak probe, and you can face 20 years in the slammer. This doesn't seem to deter the breach of ethics in the workplace whether it is in the government, banking, private industry or education. Anything from a private company breach like Satyam; International Sports Event like Common Wealth Games or allocation of 2G licenses to private players have raised an alarm for Indians to be the watch-dog.

The concept of governance, which emerged as a response to corporate failures and widespread dissatisfaction with the way many corporate function, has become one of the wide and deep discussions

across the globe recently. It primarily hinges on complete transparency, integrity and accountability of the management. There is also an increasingly greater focus on investor protection and public interest. Corporate governance is concerned with the values, vision and visibility.

### **CORPORATE GOVERNANCE**

India has had a rich tradition of governance standard from ancient times. The consistent practice of “Dharma” or righteousness in conduct has been a key commandment in the scriptures. Accountability to society at large and to its subjects has been a prescribe norm though it may not always have received the level of compliance that it deserved. It is about the value orientation of the organisation, ethical norms for its performance, the direction of development and social accomplishment of the organisation and the visibility of its performance and practices.

Governance as a concept has received increasing attention in recent years and there appears to be some lack of clarity at least in popular perception as to what exactly is covered under this expression. The draft report of the Kumar Mangalam Birla Committee on Corporate Governance defines; the fundamental objective of Corporate Governance is the “enhancement of long-term shareholder value while, at the same time, protecting the interests of other stakeholders.”

### **GENESIS OF CORPORATE GOVERNANCE**

It will certainly not be out of place to recount how issues relating to corporate governance and corporate control have come to the fore the world over in the recent past. The seeds of modern corporate governance were probably sown by the Watergate scandal in the USA. Subsequent investigations by US regulatory and legislative bodies highlighted control failures that had allowed several major corporations to make illegal political contributions and bribe government officials. While these developments in the US stimulated debate in the UK, a spate of scandals and collapses in that country in the late 1980s and early 1990s led shareholders and banks to worry about their investments. Several companies in UK which saw explosive growth in earnings in the '80s ended the decade in a memorably disastrous manner. Importantly, such spectacular corporate failures arose primarily out of poorly managed business practices.

This debate was driven partly by the subsequent enquiries into corporate governance (most notably the Cadbury Report) and partly by extensive changes in corporate structure. In May 1991, the London Stock Exchange set up a Committee under the chairmanship of Sir Arian Cadbury to help raise the standards of corporate governance and the level of confidence in financial reporting and auditing by setting out clearly what it sees as the respective responsibilities of those involved and what it believes is expected of them. The Committee investigated accountability of the Board of Directors to shareholders and to the society. It submitted its report and the associated 'code of best practices' in December 1992 wherein it spelt out the methods of governance needed to achieve a balance between the essential powers of the Board of Directors and their proper accountability. Being a pioneering report on corporate governance, it would perhaps be in order to make a brief reference to its recommendations which are in the nature of guidelines relating to, among other things, the Board of Directors and Reporting & Control.

The Cadbury Report generated a lot of interest in India. The issue of corporate governance was studied in depth and dealt with by the Confederation of Indian Industries (CII), Associated Chamber of Commerce and Industry (ASSOCHAM) and Securities and Exchange Board of India (SEBI). These studies reinforced the Cadbury Report's focus on the crucial role of the Board and the need for it to observe a Code of Best Practices. Co-operative banks as corporate entities possess certain unique characteristics. Paradoxical as it may sound, evolution of co-operatives in India as peoples' organisations rather than business enterprises adopting professional managerial systems has hindered growth of professionalism in co-operatives and proved to be a neglected area in their evolution.

Ethical issues in the financial services industry affect everyone, because even if you don't work in the field, you're a consumer of the services. That was the message of Ronald F. Duska and James A. Mitchell in their presentation at a recent meeting of the Business and Organizational Ethics Partnership.

The public seems to have the perception that the financial services sector is more unethical than other areas of business, Mitchell began. For the past five years, he has been Executive Fellow-Leadership at the Center for Ethical Business Cultures, which is affiliated with the University of St. Thomas College of Business. He assists business leaders in developing ethical and profitable cultures.

Governance – international best practices for credit unions As best practices guide, the World Council of Credit Unions has enunciated ideal governance principles for credit unions, which are financial cooperatives similar to our urban cooperative banks. These principles address the challenges of organizational power within credit unions at three separate levels viz. External Governance, Internal

#### Governance and Individual Governance

Governance goes beyond external shareholder. As responsible citizen, organizations need to widen their linkages with issues of social development, especially in the areas of education, health, environment and community development. Let us discuss the new governance charter finalized by 15-member committee on corporate governance appointed by the Securities & Exchange Board of India (SEBI) headed by Kumar Mangalam Birla, the Chairman of the Aditya Birla Group and the report submitted in other countries.

But ethical lapses do occur, and Duska discussed five reasons why these misdeeds may happen. He holds the Charles Lamont Post Chair of Ethics and the Professions at The American College. The Post Chair supports research and studies of the social responsibilities and ethical challenges facing the financial services industry. Some of the issues are as follows:

1) Self-interest sometimes morphs into greed and selfishness, which is unchecked self-interest at the expense of someone else. This greed becomes a kind of accumulation fever. If you accumulate for the sake of accumulation, accumulation becomes the end, and if accumulation is the end, there's no place to stop. The focus shifts from the long-term to the short-term, with a big emphasis on profit maximization.

For example, swaps (where two communication companies agree to exchange the right to use excess bandwidth on their networks) fall into this category. Each company recognizes the income generated in the quarter earned and defers the expenses through capitalizing them as an asset and logging the cost as a recognized expense over time, resulting in an inflated bottom line. This is what happened at Qwest during the first three quarters of 2001, when the company was selling \$870 million of capacity, while at the same time buying \$868 million of capacity. These swaps appeared to be round-trip transactions, which served no purpose other than to inflate Qwest's revenues. Companies were making money out of their finance department—not from selling products, not from doing what the company did, not from fulfilling the company's mission, but from playing around with its asset mix; very similar what was done by R. Raju of Satyam Computers. With all the art of playing with the numbers, he was very successful to give result to his self-interest.

2) Some people suffer from stunted moral development: This happens in three areas: the failure to be taught, the failure to look beyond one's own perspective, and the lack of proper mentoring.

Business schools too often reduce everything to an economic entity. They do this by saying the fundamental purpose of a business is to make money, maximize profit, or the really jazzy words 'maximize shareholder value,' or something like that. And it never gets questioned. Now if the fundamental purpose never gets questioned, the ethics never get questioned, because the fundamental purpose of something gives you the reason for its existence. It tells you whether you're doing it well or not. It's the ultimate ethical question: What's your purpose?



3) Some people equate moral behavior with legal behavior, disregarding the fact that even though an action may not be illegal, it still may not be moral. We ought to remember that the reason for all laws is that the moral agreement begins to break down, and the way to get other people in line is to legislate so that we can stipulate punishments. Yet some people contend that the only requirement is to obey the law. They tend to ignore the spirit of the law in only following the letter of the law. For example, IRS regulations repeatedly single out actions with “no legitimate business purpose” (like swaps.)

4) Professional duty can conflict with company demands. For example, a faulty reward system can induce unethical behavior. A purely self-interested agent would choose that course of action which contains the highest returns to him or herself.

For example, consider the misguided practice of selling indexed annuities to the elderly. If a company is paying a high commission for that product, say 15 percent, versus a lower commission for a more appropriate product, say 3 percent, a salesperson may disregard the needs of the client and/or assume that the company supports this product and its applicability by its willingness to pay fivefold the compensation. Sooner or later, people are going to give in to that temptation. The purely self-interested agent is just responding to the reward system that is in place. You need to take a look at what you are rewarding. In general, organizations get exactly what they reward. They just don't realize that their rewards structures are encouraging dysfunctional or counter-productive behavior or turn a blind eye to the outcome.

5) Individual responsibility can wither under the demands of the client. Sometimes the push to act unethically comes from the client. How many people expect their accountants to pad their expenses where possible? How many clients expect their insurance agents to falsify their applications or claims? That's the temptation—you like your client, you've gotten to know your client, you really want to help your client out—that's just another conflicting loyalty.

The financial services industry is such where people who do business are, for the most part, highly ethical people trying to do the right thing most of the time. Most of them are trying to help their clients achieve their financial objectives. But how could this be better, because clearly, there are still a lot of issues and problems in the business.

#### ISSUES FACED BY BANKING SEGMENT IN INDIA

Governance Issues – Dual Control and Borrower driven structure  
 Management and HR Issues  
 Issues relating to Finance

##### Governance Issues - Dual Control

“Cooperation” is a State subject under the Indian Constitution; hence all cooperative societies are governed by the Cooperative Societies Act of the State. Registration, incorporation, management, amalgamation etc are governed by the RCS of the particular State.

At the same time, certain provisions of the Banking Regulation (BR) Act, 1949, are applicable to the cooperative banks that accept public deposit. The Co-operative Banks and Private Banks are covered by these provisions of the Banking Regulations Act.

This “duality” of control and regulation in co-operative banks has given rise to serious problems in the governance structure such as interference by the State Govt. due to its combined role as dominant shareholder, manager, regulator, supervisor and auditor; further the precise demarcation of the powers between the two regulators is ambiguous.

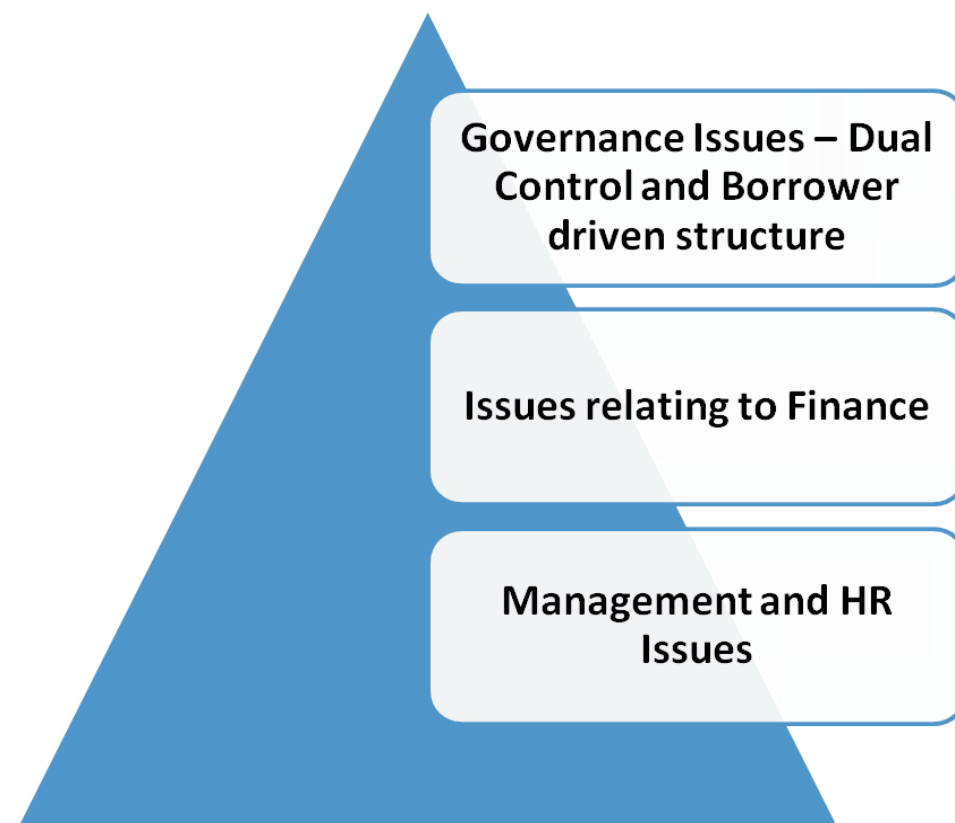
##### Governance Issues - Borrower Driven Structure

The rural cooperative structure in India is focused mainly on credit. The upper tiers refinance the lower tiers hence the structure is driven by borrowers at all levels.

Depositors are either non-members or “nominal” members without voting rights while the borrowers have full voting rights.

This is inconsistent to the concept of mutuality thrift and credit going hand in hand.

This also prevents any incentive for good governance since the depositors, whose money is being intermediated, have no say in the management of their own money.



#### **MANAGEMENT AND HR ISSUES**

Management problem arises due to the impairment of Governance. But following are also important:

Poor human capital leading and Ageing staff profile characterised by inadequate qualification and training.

#### **ISSUES RELATING TO FINANCE**

The poor recovery of outstanding credit by the cooperative banks & private sector banks makes the whole system unsustainable.

Lack of standardised business model and risk management systems. High risk taken by young relationship managers in private banks leads to case failures and pins the credit bubble.  
Over exposure to the high beta sectors and lack of diversification of the loan portfolios.

#### **Corporate governance and ethical laws followed by some banks in India:**

##### **BANK OF BARODA**

###### **Bank's Philosophy on Code of Governance**

The bank continues its endeavor to enhance its shareholders' value by protecting their interest by ensuring performance at all levels, and maximizing returns with optimal use of resources in its pursuit of excellence. These comply with not only the statutory requirements, but also voluntarily formulate and adhere to a set of strong Corporate Governance practices. The bank believes in setting high standards of ethical values, transparency and a disciplined approach to achieve excellence in all its sphere of activities. The bank is also committed to follow the best international practices. The bank strives hard to best serve the interests of its stakeholders comprising shareholders, customers, Government and society at large.

The bank is not a company but body corporate under The Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970 and is regulated by Reserve Bank of India. Therefore the bank shall comply with the provisions of Clause 49 of the Listing Agreement entered into with Stock Exchanges to the extent it does not violate the provisions of The Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970 and the Guidelines issued by Reserve Bank of India in this regard.

## **ICICI BANK**

### **Company's philosophy on code of governance**

Corporate governance policies recognise the accountability of the Board and the importance of its decisions to all our constituents, including customers, investors, employees and the regulatory authorities, and to demonstrate that the shareholders are the cause of and ultimate beneficiaries of our economic activities. The functions of the Board and the executive management are well-defined and are distinct from one another. We have taken a series of steps including the setting up of sub-committees of the Board to oversee the functions of executive management. These sub-committees of the Board which mainly consists of non-executive directors meet regularly to discharge their objectives.

### **Board of Directors**

Board consists of eight members, and is responsible for the management of business. The Board's role, functions, responsibility and accountability are clearly defined. In addition to its primary role of monitoring corporate performance, the functions of the Board include:

- approving corporate philosophy and mission;
- participating in the formulation of strategic and business plans;
- reviewing and approving financial plans and budgets;
- monitoring corporate performance against strategic and business plans, including overseeing operations;
- ensuring ethical behaviour and compliance with laws and regulations;
- reviewing and approving borrowing limits;
- formulating exposure limits; and
- keeping shareholders informed regarding plans, strategies and performance

### **ROLE OF THE GOVERNMENT AND THE REGULATOR**

Regulators are external pressure points for good corporate governance. Mere compliance with regulatory requirements is not however an ideal situation in itself. In fact, mere compliance with regulatory pressures is a minimum requirement of good corporate governance and what are required are internal pressures, peer pressures and market pressures to reach higher than minimum standards prescribed by regulatory agencies. RBI's approach to regulation in recent times has some features that would enhance the need for and usefulness of good corporate governance in the co-operative sector. The transparency aspect has been emphasised by expanding the coverage of information and timeliness of such information and analytical content. Importantly, deregulation and operational freedom must go hand in hand with operational transparency. In fact, the RBI has made it clear that with the abolition of minimum lending rates for co-operative banks, it will be incumbent on these banks to make the interest rates charged by them transparent and known to all customers. Banks have therefore been asked to publish the minimum and maximum interest rates charged by them and display this information in every branch. Disclosure and transparency are thus key pillars of a corporate governance framework because they provide all the stakeholders with the information necessary to judge whether their interests are being taken care of. We in RBI see transparency and disclosure as an important adjunct to the supervisory process as they facilitate market discipline of banks.

Another area which requires focused attention is greater transparency in the balance sheets of co-operative banks. The commercial banks in India are now required to disclose accounting ratios relating to operating profit, return on assets, business per employee, NPAs, etc. as also maturity profile of loans, advances, investments, borrowings and deposits. The issue before us now is how to adapt similar disclosures suitably to be captured in the audit reports of co-operative banks. RBI had advised Registrars of Co-operative Societies of the State Governments in 1996 that the balance sheet and profit & loss account should be prepared based on prudential norms introduced as a sequel to Financial Sector Reforms and that the statutory/departmental auditors of co-operative banks should look into the compliance with these

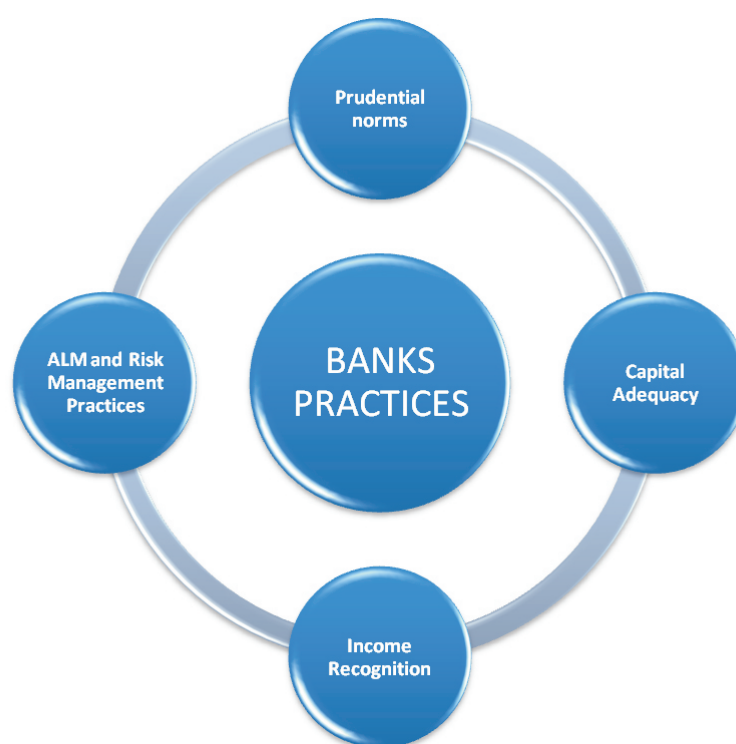


norms. Auditors are therefore expected to be well-versed with all aspects of the new guidelines issued by RBI and ensure that the profit & loss account and balance sheet of cooperative banks are prepared in a transparent manner and reflect the true state of affairs. Auditors should also ensure that other necessary statutory provisions and appropriations out of profits are made as required in terms of Co-operative Societies Act / Rules of the state concerned and the bye-laws of the respective institutions.

#### MEASURES TAKEN BY BANKS TOWARDS IMPLEMENTATION OF BEST PRACTICES

Prudential norms in terms of income recognition, asset classification, and capital adequacy have been well assimilated by the Indian banking system. In keeping with the international best practice, starting 31st March 2004, banks have adopted 90 days norm for classification of NPAs. Also, norms governing provisioning requirements in respect of doubtful assets have been made more stringent in a phased manner. Beginning 2005, banks will be required to set aside capital charge for market risk on their trading portfolio of government investments, which was earlier virtually exempt from market risk requirement.

**Capital Adequacy:** All the Indian banks barring one today are well above the stipulated benchmark of 9 per cent and remain in a state of preparedness to achieve the best standards of CRAR as soon as the new Basel 2 norms are made operational. In fact, as of 31st March 2004, banking system as a whole had a CRAR close to 13 per cent.



On the Income Recognition Front, there is complete uniformity now in the banking industry and the system therefore ensures responsibility and accountability on the part of the management in proper accounting of income as well as loan impairment.

**ALM and Risk Management Practices** – At the initiative of the regulators, banks were quickly required to address the need for Asset Liability Management followed by risk management practices. Both these are critical areas for an effective oversight by the Board and the senior management which are implemented by the Indian banking system on a tight time frame and the implementation review by RBI. These steps have enabled banks to understand measure and anticipate the impact of the interest rate risk and liquidity risk, which in deregulated environment is gaining importance.

**CONCLUSION**

In the years to come, the Indian financial system will grow not only in size but also in complexity as the forces of competition gain further momentum and financial markets acquire greater depth. Authors can assure that the policy environment will remain supportive of healthy growth and development with accent on more operational flexibility as well as greater prudential regulation and supervision. The real success of our financial sector reforms will however depend primarily on the organisational effectiveness of the banks, including cooperative banks, for which initiatives will have to come from the banks themselves. It is for the co-operative banks themselves to build on the synergy inherent in the cooperative structure and stand up for their unique qualities. With elements of good corporate governance, sound investment policy, appropriate internal control systems, better credit risk management, focus on newly-emerging business areas like micro finance, commitment to better customer service, adequate automation and proactive policies on house-keeping issues, co-operative banks will definitely be able to grapple with these challenges and convert them into opportunities.

**REFERENCES**

- Jayanth Rama Varma; Corporate Governance in India: *Disciplining the Dominant Shareholder*; presented at IIM-A December 1997.  
Nell Minow; Shareholder Initiatives in 1995: *An Activists Perspective*; *Lens papers* October 1996.  
Robert A. G. Monks; Corporate Governance In The Twenty-First Century: *A Preliminary Outline*; *Stanford International Conference*, 1994.  
Fernando A.C., *Corporate Governance*, Pearson Education, Second Edition, New-Delhi, 2011  
Murthy C. S. V., *Business Ethics & Corporate Governance*, Himalaya Publishing House, Mumbai, 2012

**WEBSITES**

- [www.oecd.org/.../0,3699,en\\_2649\\_37439\\_1\\_1\\_1\\_1\\_37439,00.html](http://www.oecd.org/.../0,3699,en_2649_37439_1_1_1_1_37439,00.html)  
[www.bankofbaroda.com/corpgovernance.asp](http://www.bankofbaroda.com/corpgovernance.asp)  
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[www.wcfcg.net/](http://www.wcfcg.net/)  
[www.change-leaders.com/Corporate-Governance-Conferences.html](http://www.change-leaders.com/Corporate-Governance-Conferences.html)

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