Integrated Reporting
GOING BEYOND FINANCIAL RESULTS
ENROLL AND REGISTER AS AN INSOLVENCY PROFESSIONAL

ENROLLMENT IS OPEN: For Professionals & Advocates and Graduates having Management Experience
IPA of ICAI enrolls the professionals as ‘Insolvency Professionals’ under Regulation 7 read with Regulations
4 & 5 of Insolvency and Bankruptcy Board of India (Insolvency Professionals) Regulations, 2016, if

1. He/she has passed the ‘Limited Insolvency Examination’, conducted by the Insolvency & Bankruptcy
   Board of India (IBBI) and
2. Has/she has ten years of experience as -
   (a) a cost accountant enrolled as a member of the Institute of Cost Accountants of India,
   (b) a chartered accountant enrolled as a member of the Institute of Chartered Accountants of India,
   (c) a company secretary enrolled as a member of the Institute of Company Secretaries of India, or
   (d) an advocate enrolled with a Bar Council.

OR

3. He/she has fifteen years of experience in management, after receiving a Bachelor’s degree from a
   University established or recognized by law.

Insolvency Professional may function as:

- Interim Insolvency Professional in Corporate, Individual and Partnership Insolvency Process; Fast Track
  Corporate Insolvency Process; and Fresh Start Process;
- Resolution Professionals for Corporate, Individual and Partnership Insolvency Process; Fast Track Corporate
  Insolvency Process; and Fresh Start Process;
- Liquidator in Liquidation Process for Corporate Persons;
- Liquidator in Voluntary Liquidation for Corporate Persons;
- Bankruptcy Professional for Bankruptcy of Individual and Partnership Firm.

Why to enrol as Insolvency Professional ......

- It’s a niche area of practice with opportunities galore
- With the first mover’s advantage, there is an opportunity to create a brand name
- Adequate handholding from IBBI and the IPA of ICAI

CMA J. K. Budhiraja
CEO, Insolvency Professional Agency of Institute of Cost Accountants of India

Registered Address:  
CMA Bhawan, 4th Floor, 3, Institutional Area
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THE INSTITUTE OF COST ACCOUNTANTS OF INDIA (erstwhile The Institute of Cost and Works Accountants of India) was first established in 1944 as a registered company under the Companies Act with the objects of promoting, regulating and developing the profession of Cost Accountancy.

On 28 May 1959, the Institute was established by a special Act of Parliament, namely, the Cost and Works Accountants Act 1959 as a statutory professional body for the regulation of the profession of cost and management accountancy.

It has since been continuously contributing to the growth of the industrial and economic climate of the country.

The Institute of Cost Accountants of India is the only recognised statutory professional organisation and licensing body in India specialising exclusively in Cost and Management Accountancy.

MISSION STATEMENT

The CMA Professionals would ethically drive enterprises globally by creating value to stakeholders in the socio-economic context through competencies drawn from the integration of strategy, management and accounting.

VISION STATEMENT

The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprises globally.

IDEALS THE INSTITUTE STANDS FOR

• to develop the Cost and Management Accountancy profession
• to develop the body of members and properly equip them for functions
  • to ensure sound professional ethics
  • to keep abreast of new developments

Behind every successful business decision, there is always a CMA
GREEN ECONOMY
Towards a Green Economy
Challenges to the Corporate Sector

Greening Business: Who Cares About The Basics?

GST
Impact of GST on Consumers
Can GST make the wheels rolling for India

BANKING
Control Mechanism in Banks for Suspicious Activity Reporting
Basel Capital Accord for Banking Norms and Supervision

CORPORATE GOVERNANCE
A Survey of Corporate Governance for Infosys and Tata Group

FINANCE
A Note on Non-Conventional Sources of Financing

CAPITAL MARKET
Determinants of Profitability in Indian Scenario:
Evidence From BSE Sensex Companies

CLUSTER ANALYSIS
Application of Cluster Analysis in Cost Statements

AUDIT
Internal Audit and Animal Instincts
Removal of Statutory Auditor

COSTING
Costing of Cocoa: An almost neglected product with high potential

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The Management Accountant Journal is Indexed and Listed at: Index Copernicus and J-gate
- Global Impact and Quality factor (2015): 0.563
- UGC enlisted journal
Greetings!!!

Financial reporting has long been the bedrock of company reporting, widely used by stockholders and others to understand company performance and outlook. But in a world where corporate actions and relationships within communities are far more visible, integrated reporting is gathering steam.

Over the last decade, many businesses and investors realized that conventional reporting is too complex, lacks relevance and weren’t enabling them to communicate with each other sufficiently. Stakeholders are very keen to get access of financial and nonfinancial information on companies’ business activities and sustainable value creation. Despite availability of information, yet many stakeholders cannot use pertinently the disclosed information due to separation of reports. Thus, “Integrated Report” brings together financial and nonfinancial measure in one-piece of the report. Integrated Reporting (IR) is expected to encourage companies to consider sustainability risks and adopt sustainable business practices, and in time, create a more sustainable society. IR may even improve quality of information accessible to stakeholders through combining the different constituents of reporting (financial, management commentary, governance and remuneration and sustainability reporting) in a comprehensible way that explain an organization’s ability to create and sustain value.

The International Integrated Reporting Council (IIRC) is a coalition of major global businesses, investors, accountancy and other likeminded organizations that came together with the clear objective of making integrated reporting the global norm. The IIRC Framework defines integrated thinking as the active consideration by an organization of the relationships between its various operating and functional units and the capital that the organization uses and effects. Integrated thinking leads to integrated decision-making and actions that consider the creation of value over the short, medium and long-term. It promotes a more holistic assessment to grow better businesses and better societies. The Council has also prescribed guiding principles which underpin the preparation of an integrated report, specifying the content of the report and how information is to be presented. The report should include all material matters, both positive and negative, in a balanced approach and without material error.

To improve disclosure standards and help shareholders make informed decision, SEBI has asked top 500 listed companies to voluntarily commit to publish Integrated Reports rather than only Sustainability Reports from 2017-2018 financial year onwards. Integrated reports include producing both financial and sustainability reports as one report. SEBI has also mandated the requirement of submission of Business Responsibility Report for top 500 listed entities under Regulation 34(2)(f) of SEBI (Listing Obligations and Disclosure Requirements) Regulations 2015 (“SEBI LODR”). The key principles which are required to be reported by the entities pertain to areas such as environment, governance, stakeholder’s relationships, etc.

SEBI is of the opinion that the integrated report by a company should include insight into the organization’s strategy and how it relates to the organization’s ability to create value. Such information should also explain the possible impact on the company’s capital due to its strategies. Also an integrated report should provide insight into the nature and quality of the organization’s relationships with its key stakeholders, including how and to what extent the organization understands, takes into account and responds to their legitimate needs and interests. The purpose of integrated reporting is to provide shareholders and interested stakeholders with relevant information that is useful for making investment decisions.

Companies that have embarked on the integrated reporting journey, view it as a change process and has enabled them to think differently about their business techniques. Internal collaboration has been enhanced and also internal and external communications have increased to a considerable extent. Some have also used the process to develop key performance indicators to provide clarity regarding their business models.

This issue presents a good number of articles on the cover story theme ‘Integrated Reporting: Going beyond the financial results’ by distinguished experts and authors. We look forward to constructive feedback from our readers on the articles and overall development of the journal. Please send your mails at editor@icmai.in. We thank all the contributors to this important issue and hope our readers enjoy the articles.
The above subtopics are only suggestive and hence the articles may not be limited to them only. Articles on the above topics are invited from readers and authors along with scanned copies of their recent passport-size photograph and scanned copy of declaration stating that the articles are their own original and have not been considered for publication anywhere else. Please send your articles by e-mail to editor@icmai.in latest by the 1st of the previous month.
PRESIDENT’S COMMUNIQUÉ

CMA SANJAY GUPTA
President
The Institute of Cost Accountants of India

My Dear Professional Colleague,

Moving forward with my new responsibilities this is my second communication to you all. I acknowledge the sustained enthusiasm and support given to me to work more effectively to achieve our goals. I am elated to share some of the important events of the last month with you.

Celebration of 71st Independence Day

This gives me immense pleasure to inform you all that our Institute observed 71st Independence Day all over India through its headquarters, regional offices and chapters with great solidarity. An eventful programme on the theme ‘Netaji Subhas Chandra Bose and India’s Struggle for Independence’ was held at J.N Bose Auditorium, Kolkata. Swami Kripakarananda from Ramakrishna Mission Seva Pratishthhan was Hon’ble chief guest of the event and keynote speaker was Shri Chandra Kumar Bose, social activist and grandnephew of Netaji Subhas Chandra Bose. Shri Chandra Kumar Bose in his deliberations highlighted how Netaji stands aloft amongst other freedom fighters that India has produced and his leadership which rejuvenated the freedom struggle movement and startled the British Administration. Council Members and Employees along with me hoisted the National Flag and chanted the National Anthem with due respect. CMA Manas Kumar Thakur, immediate past president of the Institute, CMA Avijit Goswami and CMA Biswarup Basu, council members of the Institute and myself spoke during the session and a small cultural programme was also organized where the officials of the Institute performed with high enthusiasm and patriotic zeal.

Technical Directorate

Suggestion/Comments on Draft Companies (Cost Records and Audit) Amendment Rules 2017

As members are aware that the Institute on 31st March 2017 published revised Cost Accounting Standards compliant to Ind-AS and these are available on the Institute website. In view of the amendments in Cost Accounting Standards, the Institute took up with Cost Audit Branch, Ministry of Corporate Affairs to carry out amendments in Forms CRA-1 and CRA-3. Accordingly, the Ministry of Corporate Affairs proposed amendments in the said forms and invited suggestions/comments on Draft Companies (Cost Records and Audit) Amendment Rules 2017 from public latest by 26th August 2017. The Institute also invited comments/suggestions on the said draft amendment rules from all the stakeholders latest by 23rd August 2017. I hereby acknowledge the comments/suggestions sent by stakeholders and thank them for sending the valuable comments/suggestions. The Institute in turn has submitted the comments/suggestions to Ministry of Corporate Affairs on 26th August 2017.

Professional Development Directorate

Certification from Cost Accountants under Public Procurement (Preference to Make in India), Order 2017

I am glad to inform you that the Government of India, Ministry of Commerce and Industry, Department of

“One individual may die for an idea; but that idea will, after his death, incarnate itself in a thousand lives” --- Netaji Subhas Chandra Bose
Industrial Policy vide its Order No. P-45021/2/2017-B.E.-II: Public Procurement (Preference to Make in India), Order 2017 dated 15th June, 2017 has directed all Central Ministries/ Departments/ CPUs/ inter alia, that in case of procurement for a value in excess of Rs. 10 crores, the local supplier shall be required to provide a certificate from the cost auditor (if supplier is a company) or from a practicing Cost Accountant (in respect of suppliers other than companies) giving the percentage of local content.

Representation with Government, PSUs, Banks and Other Organizations:

On the basis of representations made by the PD Directorate, Madhya Pradesh Rajya Van Vikas Nigam Limited and National Institute for Micro, Small and Medium Enterprises have included firms of Cost Accountants for appointment as Internal Auditor for the financial year 2017-18. Also, the eminent organizations like National Projects Construction Corporation Limited, Hindustan Insecticides Limited, Bharat Sanchar Nigam Limited (BSNL), Ircion International Limited (IRCON), Artificial Limbs Manufacturing Corporation of India, Assam Power Distribution Company Limited, Uttarakhand Jal Vidyut Nigam Limited, Bureau of Indian Standards, Department of Posts etc recognized CMA profession in their Tenders/EOIs in the month of August 2017. The list of organizations that were represented and those who recognized cost accountants can be seen at the PD Portal.

MCA’s directives on filing of LLP Forms

The Institute received a letter from Ministry of Corporate Affairs (MCA), whereby it informed that LLP forms, which are filed with various ROC-offices, are not getting approved/ cleared in due time because of inherent deficiencies in LLP forms. MCA wants that the professionals should take utmost care in filing the LLP forms. I urge you to please abide by the MCAs directives.

Train the Trainer Workshop on “Competition Law” with Competition Commission of India

I am extremely happy to note that a one day Train the Trainer Workshop on “Competition Law” for CMAs had been organized by the Institute in collaboration with the Competition Commission of India on 31st August, 2017 at EIRC Auditorium to undertake competition advocacy, create public awareness and impart training on competition issues. Ms. Sibani Swain, Adviser (Eco), CCI rendered her inaugural address followed by two technical sessions. Ms. Sayanti Chakrabarti, Joint Director (Eco) conducted the first technical session along with Ms. Sibani Swain and Mr. Shekhar, Joint Director (EA), CCI, Ms. Neha Raj, Joint Director (Law), CCI conducted the second one. The Institute takes this opportunity to enrich its professionals through capacity building exercise.

Training & Placement Directorate

Pre-Placement Orientation Program

As we are welcoming the newly final qualified June-2017 students to our fraternity, I am happy to share that these students will be undergoing a Pre-Placement Orientation Program for 12 days from 8th September, 2017, in different locations across the country. These students will be meeting their dream employers during the Placement Programme being organized in the month of October 2017. I am joining the CMA fraternity in wishing them all success in their endeavor and for their great professional future.

I feel further happy to share that your Institute has taken steps to place our Intermediate qualified students with different companies for their Practical Training.

Insolvency Professional Agency of Institute

Insolvency Professional Agency of the Institute took another important initiative of sending “Daily Updates on Insolvency and Bankruptcy” through email to keep the members of the Insolvency Professional Agency abreast on the latest developments taking place in the area of Insolvency & Bankruptcy and updates on important cases decided by NCLT/NCLAT/High Courts and Supreme Court. Daily Newsletter is in addition to Fortnightly Newsletter being sent by IPA to members. These newsletters are also available on IPA website: www.ipaicmai.in.

The Institute was associated with ASSOCHAM in organizing Global Summit “Corporate Restructuring, Insolvency Resolution & Sustainability – Emerging Opportunities and Strategies”. Chief Guest of the program was Shri Mukul Kumar Shrivat, Member (Judicial), National Company Law Tribunal apart from other guests. I had the privilege to address the delegates in its inaugural session. Further, there was another National Conference on Insolvency and Bankruptcy: Changing Paradigm organised by Ministry of Corporate Affairs (MCA), National Foundation for Corporate Governance (NFCG) and Insolvency and Bankruptcy Board of India (IBBI). Chief Guest of Conference was Shri Arun Jaitley, Hon’ble Minister of Finance, Corporate Affairs & Defence apart from other eminent personalities such as RBI Governor, Shri Urjit Patel, SEBI Chairman, Shri Ajay Tyagi, IBBI Chairman, Dr. M S Sahoo. I along
with CEO, Insolvency Professional Agency of Institute attended the deliberations. The Conference witnessed a large number of gathering of industry, professionals, regulators and other stakeholders and shared their experiences on the implementation and compliance of the Code.

Further, the IPA of the Institute has been associated with ASSOCHAM in a National Conference on "New Corporate Insolvency Regime & Real Estate Regulation Act" on 30thAugust, 2017, Kolkata. The program deliberated on many relevant points relating to Insolvency regime such as its operational issues, functioning of Insolvency Professionals, financing transactions under RERA Regime & Critical Analysis.

I am happy to note that the EIRC and Trivandrum, Baroda, Bangalore, and Asansol Chapters have also organized seminars on Insolvency and Bankruptcy Code 2016 in August 2017 and discussed all the relevant matters thereon.

Research & Journal Directorate

I am glad to inform that the Institute organized a Half-day Workshop on ‘An Overview of GST & its impact on Higher Education’ in association with University of Calcutta on 30thAugust, 2017 at the Centenary Auditorium, Calcutta University. The workshop was inaugurated by Hon’ble Chief Guest, Prof Swagata Sen, Pro-Vice Chancellor (Academics), University of Calcutta, Mr. Khalid Aizaz Anwar, Senior Joint Commissioner, Directorate of Commercial Tax, Government of West Bengal and CMA Biswarup Basu, Council Member of the Institute. There were two technical sessions on GST where Mr. Khalid Aizaz Anwar, Senior Joint Commissioner, Directorate of Commercial Tax, Government of West Bengal and CMA Mrityunjay Acharjee, Associate Vice President, Balmer Lawrie & Co. Ltd. deliberated very nicely and excellent presentation on GST had been given by Mr. Sandeepan Mukherjee, Regional Head-East, NSDL e-Governance Infrastructure Limited. The entire programme was highly enthusiastic and received good response amongst the Principals, faculty members and staff members from around seventy Colleges and various departments of Calcutta University.

Membership Department

With the objective of serving the esteemed members more efficiently, we have introduced a dedicated email membershipsupport@icmai.in and a toll free number 18003450092 for responding to queries related to membership. I call upon all esteemed members and bring to their notice that their membership fee for the year 2017-2018 has already become due on 1st April, 2017. Members are kindly aware that as per Regulations 7(6) & 7(7) of the Cost and Works Accountants Regulations, 1959 (as amended) that such dues are to be paid latest by 30thSeptember, 2017. However, some of our esteemed members are yet to clear their dues towards membership and I would like to request them to the clear all such dues well before 30th September, 2017 and continue to enjoy all the benefits of membership of the Institute. For all kinds of membership related payment, members are requested to avail online payment facility by logging into their account at http://www.cmaicmai.in/MMS/Login.aspx?mode=EU.

As a partner to building a new India as visualized by the Hon’ble Prime Minister of India it will be our effort to take part in all important activities of the Government and extensively contribute in the efforts of the Government as a Premier Institute of nation’s think tank. I invite every member to support in this endeavor by giving their valuable suggestions. I am trying my level best to effectively represent in all such events/activities. You will be kept informed of all such activities.

I am always open for discussion and appreciate your valuable suggestions to strengthen our effort.

I end my communication with a quote from Mahatma Gandhi “WHATEVER WE DO WILL SEEM INSIGNIFICANT, BUT IT IS VERY IMPORTANT THAT WE DO IT “

I wish prosperity and happiness to members, students and their family on the occasion of Durga Puja, Dussehra and Onam festival.

With warm regards,

CMA Sanjay Gupta

1st September, 2017
Greetings!!!

I express my heartfelt thanks to the President, Vice President and the Council for giving me this great opportunity to serve the Institute as Chairman of the Journal & Publications Committee (2017-2018). The Journal and Publications department is committed to work relentlessly to meet the expectations of the members, students and other stakeholders. Our mission is to publish international standard professional journal and quality publications to raise public awareness about policy issues in business, trade, society and economy and to facilitate solutions that will contribute to national development with special emphasis on cost management.

The following items are being published regularly by the Journal and Publications Department:

⇒ The pioneering monthly journal ‘The Management Accountant’
⇒ Knowledge Reports
⇒ Working Paper Series

The monthly journal and the official organ of the Institute - The Management Accountant, with its modern layout and rich and informative contents is highly commendable amongst the readers; the quality of articles has also been improved immensely over the past few years. The basic focus is to elevate the Journal to a global standard and create a brand on its own. We are proud to announce that now the Journal is enlisted under UGC – approved list of journals and indexed under important international journal databases.

Journal and Publications department also undertakes publication of knowledge reports and working paper series with valuable research inputs that seeks to establish linkages with socio-economic research areas, macro economic analysis and overall economic development with special emphasis on cost management.

In our continuous endeavour to improve the quality of the journal and publications, structured and modern layout with innovative features and relevant cover stories of national and global importance are incorporated at regular intervals. Distinguished experts and authors contribute relevant and path-breaking articles and case studies for the journal that not only enhance the quality of the publications, but also give new dimensions and directions towards socio-economic research and policy making.

I request continuous support from every corner in the quest for value creation through the activities of this department. I am also very much confident that the office bearers of the department will provide their assistance and best efforts undoubtedly and commit for its betterment.

I solicit your feedback, suggestions and concerns for the overall development of the Journal and Publications department. Please send us mails at editor@icmai.in/journal@icmai.in for issues relating to journal and publications.

I wish prosperity and happiness to everyone on this festive season and pray for the success in all of your endeavours.

With Warm Regards

CMA Biswarup Basu

CMA BISWARUP BASU
Chairman
Journal & Publications Committee
The Institute of Cost Accountants of India
E-library or Digital Library provides collaborative search of all type of e-resources/on-line resources such as e-journals, e-books, e-database available with collaboration, personalization and social features to experience higher research productivity and gain valuable insights. E-library is a special library with a focused collection of digital objects that can include text, visual material, audio material, video material, stored as electronic media formats along with means for organizing, storing, and retrieving the files and media contained in the collection. These libraries can vary immensely in size and scope, and can be maintained by individuals, organizations, or affiliated with established physical library buildings or institutions, or with academic institutions. It’s an electronic or online library where one can have access to books, journals, novels, articles, or any other information over net. Well-designed digital library software has the potential to enable non-specialist people to conceive, assemble, build, and disseminate new information collections. This has great social impact because it democratizes the dissemination of information. In particular, it will revolutionize the way in which education is conducted and educational materials are prepared.

CORPORATE DATABASE

Capitaline database provides fundamental and market data on more than 35,000 Indian listed and unlisted companies, classified under more than 300 industries, along with powerful analytic tools. Extensive data and analysis on every company profile, directors, 6-year financials (P&L, balance sheet, cash flow, segment data, ratios, etc), quarterly results, share price data, directors’ report, Company Background, Company Snapshot, Peer Comparison, etc.

The specialized expertise in data collection, standardization and presentation built up since 1985 has earned Capitaline Plus the highest level of respect and confidence in the financial information industry.

JOURNAL DATABASE (Only for Members)

J-Gate is the most comprehensive database and access gateway for the discovery of global e-journal literature. Today, it qualifies to be the world's largest database of journal articles – indexing metadata of over 51 million journal articles from 47,000+ journals and 13,100+ publishers in multi disciplinary domains, updated daily.

J-Gate acts as an electronic gateway to global e-journal literature with a customization functionality to search your own subscribed journals through one single search box. The J-Gate platform is fronted by a simple, intuitive and easy-to-use interface and also gives users complete control over search filters.

Members of the Institute are requested to kindly reach us at elibrary@icmai.in with their full Name, Membership Number and Date of Birth to get J-Gate user ID and password.
His excellence Hon’ble Governor of Odisha Dr. S.C. Jamir being welcomed by CMA Sanjay Gupta President of the Institute at the ‘Young CMA Award Function & Mega Blood Donation Camp’ organized by Bhubaneswar Chapter.

From the left: CMA Niranjan Mishra, Council Member, CMA Sanjay Gupta, President of the Institute, Dr. S.C. Jamir, Hon’ble Governor of Odisha, CMA Siba Prasad Kar, Chairman and CMA Damodar Mishra Secretary of the chapter at the ‘Young CMA Award Function & Mega Blood Donation Camp’ organized by Bhubaneswar Chapter.

CMA Sanjay Gupta, President of the Institute along with other dignitaries during the inaugural session of Assocham Global Summit on Corporate Restructuring, Insolvency Resolution and Sustainability held on August 19, 2017 in Mumbai.
ICAI-CMA SNAPSHOTs

CMA Sanjay Gupta, President of the Institute, addressing the gathering at the Global Summit on Corporate Restructuring, Insolvency Resolution and Sustainability organized in association with Assocham, held on August 19, 2017 in Mumbai

CMA H Padmanabhan, Vice President of the Institute participating at the program "Redefining Commerce Education, Skills for Tomorrow" organised by ISDC - International Skill Development Corporation, ACCA - UK and Loyola College, Chennai on August 7, 2017

Shri Nalin Satyakam Kohli, Advocate, Supreme Court and Govt. Nominee of ICSI visited Institute to meet CMA Sanjay Gupta, President of Institute.
Prof. Lakshman R. Watawala, President of CMA Sri Lanka visited Institute to meet CMA Sanjay Gupta, President of the Institute

CMA Sanjay Gupta, President and CMA H Padmanabhan, Vice president, CMA P Raju Iyer, Council Member of the Institute visiting Shri Tapan Ray, IAS, Secretary, Ministry of Corporate Affairs, Government of India

CMA Sanjay Gupta, President and CMA H Padmanabhan, Vice president, CMA P Raju Iyer, Council Member of the Institute visiting Shri Arjun Ram Meghawal, Hon’ble Union Minister of State.
ICAI-CMA SNAPSHOTs

CMA Sanjay Gupta, President of the Institute greeting Shri Ashish Kumar Chauhan, MD & CEO of Bombay Stock Exchange

CMA Mritunjay Acharjee addressing the gathering at the half day workshop on ‘An overview of GST & its impact on Higher Education’ organized in association with the University of Calcutta on August 30, 2017

CMA Biswarup Basu, Council Member, addressing the gathering of one-day workshop on ‘Competition Law’ to Train the Trainers. It was organized in association with Competition Commission of India on August 31, 2017 at EIRC auditorium.
Glimpses of 71st Independence Day Celebration at Kolkata
In the global economy, the organizations; profit, non profit rely on scarce resources. Some of these resources are owned by the organizations and others are owned by the society. The value created by an organization through utilizing the resources of the society should be shared between the owners, society and other stakeholders. Companies/Organizations inform their stakeholders about their performance through reporting. In the past, corporate reporting focused mainly on financial performance which was mostly intended towards investors. Of late corporate reporting became very inclusive with reporting corporate social responsibility, governance, business sustainability report along with financial information. The process of such integration is now being spearheaded by International Integrated Reporting Council (IIRC). It has developed a framework for integrated reporting which promotes an integrated thinking. Integrated thinking and reporting are the issues mainly related to the top management. It is a new concept which articulate the broader range of factors that contribute to long term value of organization to play a role in the society. The value creation concept is the backbone of integrated reporting which is the direction of the future of corporate reporting. The important objective of an integrated reporting is to define company’s sustainability, its future in the context of external environment. IIRC in its framework identified the guiding principles and content elements in communicating the value creation by the companies to their stakeholders. According to the IIRC, the integrated report is a single report, which combines the different aspects of reporting like finance, management analysis, governance and sustainability reporting of an organization. An effective integrated report reflects an appreciation that the organization’s ability to create and sustain value is based on financial, social, economic and environmental systems and by the quality of its relationships with its stakeholders.

In India too, companies are gradually changing their reporting practices to bring more inputs to the stakeholders. They are combining quantitative information with qualitative information to justify their sustainability and value creation to society. A few companies in India have adopted the framework of IIRC and started reporting in an integrated way. Some companies still continue to report only financial data with a passing reference of other initiatives such as CSR, environmental issues and so on. A few other companies...
The IIRC has developed a framework for the integrated report, which combines the different aspects of reporting like finance, management analysis, governance and sustainability reporting of an organization. An effective integrated report reflects an appreciation that the organization’s ability to create and sustain value based on financial, social, economic and environmental systems and by the quality of its relationships with its stakeholders. In India too, companies are gradually changing their reporting practices to bring more inputs to the stakeholders. They are combining quantitative information with qualitative information to justify their sustainability and value creation to society.

It is observed that many companies adopted a system of reporting on sustainability, governance and social and environmental concerns in separated sections along with financial reporting. They also mandatorily give information about auditors’ comments, chairman’s report and directors’ report and thereby giving a scope to combine quantitative and qualitative information. The scope of information is as per IIRC intended framework, but the way of reporting does not exactly fit into the framework of IIRC. With a change in the orientation of reporting these companies can fit themselves into integrated reporting.

adopted a system of reporting on sustainability, governance and social and environmental concerns in separated sections along with financial reporting. Such category of companies are combining quantitative and qualitative information which is presented not exactly as per the framework of IIRC but fit into integration. This paper makes an attempt to examine the extent of integration of financial data with non financial data in the top 30 companies of the Bombay Stock Exchange (BSE). The BSE is an Indian stock exchange which is the oldest exchange in Asia. BSE listing means admission of securities to dealings on a recognised stock exchange. The securities may be of any public limited company, central or state government, quasi government and other financial institutions/corporations, municipalities etc. Listed on the BSE, these companies created a value for themselves. It is interesting to observe their reporting patterns vis-à-vis integrated reporting framework.

Review of the Literature:
Jonathan Labrey (2015) describes integrated reporting can be treated as a powerful tool to help the company in managing the processes and activities in an effective manner and build the awareness of the heterogeneous capitals, resources and relationships which are used and affected in their internal business. V. Usha Kiran and Maschender Goud (2015) emphasized that the Indian Banks should adopt and establish a sound reporting process for identifying material issues and target audience, shareholders before embarking on the integrated reporting agenda. Cecile Churet, Robeco SAM, and Robert G. Eccles (2014) reviewed the integrated reports of companies considering the ESG issues which are disclosed as part of the company’s strategy and which are explicitly linked with cost savings. They concluded that there is non-conclusive evidence on the relationship between ESG risk management, integrated reporting and financial performance measured by return on invested capital.

Ioana - Maria Dragu and Adriana Tiron- Tudor (2013) argued that there is a strong need for an internationally coordinated action as the financial and non-financial information disclosed by a company influences its strategic decisions. The topic of the current paper outlines the issue of integrated reporting as the interconnection between financial, social and environmental information.

Antonio Argandona (2011) discussed about creating economic value of the company not based on external criteria, but on the core relationship between the
According to Sarah Adams and Roger Simnett(2011) traditional financial reporting models fail to take this into account, providing a one dimensional view of the performance and operations of NFP organisations. The authors, therefore, suggest that an integrated approach to reporting offers NFP organisations an opportunity to provide more comprehensive information on the nature of their business including key performance areas.

Neva R. Goodwin(2003) explained the different meanings of capital and differentiated between five kinds of capital: financial, natural, produced, human and outputs. The maintenance of all five kinds of capital is essential for the sustainability of economic development.

**Objectives of the Study**

The main objectives of the research paper are:

1. To examine the extent of integration of financial and non-financial information in top 30 BSE companies
2. To examine whether reported elements of the top 30 companies fit as equivalent to the content elements of integrated reporting
3. To analyse the extent of value communication as per integrated reporting by BSE 30 companies

**Research Methodology:**

The paper is descriptive in nature and brings out the integrated reporting practices in BSE listed top thirty companies. The required information is collected from secondary sources; i.e. Annual reports and websites of chosen companies. Content analysis is used to know the extent of integrated reporting practices by the companies. Content analysis refers to reading the annual reports carefully for the chosen information (parameters) and identifying whether the information is reported fully / partially / not at all.

**Period of the Study:**

The period of the study is based on one financial year,
i.e. 2015-16. Annual reports of BSE top 30 companies for the financial year 2015-16 are analysed. The reports for the FY 2016–17 are not yet uploaded by some companies and hence the study period is taken as 2015–16.

**Scope of the Study:**
The scope of the study is confined to BSE listed top thirty companies and also examine the extent of integration of financial and non-financial information. It studies whether the present reporting practices fit as equivalent to the integrated reporting in BSE top 30 companies.

**Quantitative Techniques**
The study makes use of percentages in analysing the data. A disclosure Index is used to understand the extent of integrated reporting in annual reports. For the calculation of the disclosure index, the annual reports are analysed for the chosen parameters i.e. the various elements of integrated framework. If the element is fully reported a score of 1 is assigned, for partial disclosures the score is 0.5 and not reported the score is 0. The formula of disclosure index is used:

\[
\text{Disclosure Index of each parameter} = \frac{\sum yd}{n}
\]

Where \(d_i\) = If Fully reported = 1, Partially reported = 0.5 and not reported = 0, \(y = \text{Number of companies reporting in each category}\) and \(n = 30\) companies; The score \((d_i)\) is multiplied by the number of companies \((y)\) and the total is divided by the sample companies \((n)\) to get each parameter’s disclosure index.

\[
\text{Overall Disclosure Index} = \frac{\sum yd}{(n)(x)}
\]

Where \(d_i\) = If Fully reported = 1, Partially reported = 0.5 and not reported = 0, \(y = \text{Number of companies reporting in each category}, n = 30\) companies and \(x = \text{number of parameters in each element of IR framework}\). Overall Disclosure Index is found out by Total score divided by the no of parameters multiplied by the number of companies. The disclosure index score up to 0.3 is considered as very low fit, 0.3 to 0.5 a low fit, 0.5 to 0.8 is a moderate fit and above 0.8 is a high fit for IR framework.

**Discussion and Analysis**
The following companies have been chosen for analysis and are listed on the Bombay Stock Exchange (BSE Top-30).

<table>
<thead>
<tr>
<th>S.No</th>
<th>Company</th>
<th>S.No</th>
<th>Company</th>
<th>S.No</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Adani Group</td>
<td>11</td>
<td>HDFC Bank Ltd</td>
<td>21</td>
<td>Maruti Suzuki</td>
</tr>
<tr>
<td>2</td>
<td>Axis Bank Ltd</td>
<td>12</td>
<td>Hero Motocorp</td>
<td>22</td>
<td>NTPC</td>
</tr>
<tr>
<td>3</td>
<td>Bajaj Auto Ltd</td>
<td>13</td>
<td>Hindalco Industries Ltd</td>
<td>23</td>
<td>ONGC Ltd</td>
</tr>
<tr>
<td>4</td>
<td>Bharti Airtel Ltd</td>
<td>14</td>
<td>Hindustan Unilever Ltd</td>
<td>24</td>
<td>Reliance Industries Ltd</td>
</tr>
<tr>
<td>5</td>
<td>BHEL</td>
<td>15</td>
<td>ICICI</td>
<td>25</td>
<td>SBI</td>
</tr>
<tr>
<td>6</td>
<td>Cipla Ltd</td>
<td>16</td>
<td>Infosys Ltd</td>
<td>26</td>
<td>Sun Pharma</td>
</tr>
<tr>
<td>7</td>
<td>Coal India Ltd</td>
<td>17</td>
<td>ITC Ltd</td>
<td>27</td>
<td>Tata Consultancy Services</td>
</tr>
<tr>
<td>8</td>
<td>Dr. Reddy’s</td>
<td>18</td>
<td>L &amp; T</td>
<td>28</td>
<td>Tata Motors Ltd</td>
</tr>
<tr>
<td>9</td>
<td>GAIL</td>
<td>19</td>
<td>Lupin</td>
<td>29</td>
<td>Tata Steel Ltd</td>
</tr>
<tr>
<td>10</td>
<td>HDFC</td>
<td>20</td>
<td>Mahindra &amp; Mahindra</td>
<td>30</td>
<td>Wipro</td>
</tr>
</tbody>
</table>

(Source: www.bseindia.com) (As per alphabetical order)

According to the International Integrating Reporting Council (IIRC) suggested framework, the elements...
considered in the integrated reporting of business / organizations provides a holistic picture.

The important research question is that out of the thirty top companies how many are following IR and how many are reporting the elements of IR though they have not adopted the IR framework. All the annual reports are analysed for the elements of reporting on the basis of IR framework and conclusions are drawn.

1) Organizational Overview and External Environment

An organisational overview should consider the following aspects such as: The organisation’s name, size and the location of its operations and activities. The principal activities of the organisation, including its products and services. The organisational structure, including the principal divisions, subsidiaries, associates and JVs. A concise statement of the business model describing the manner in which the organisation currently creates value. High-level information about the existing resources of the organisation and any claims against it.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Extent of Integrated Reporting</th>
<th>Disclosure Score = ( d )</th>
<th>Disclosure Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fully Reported</td>
<td>Partially Reported</td>
<td>Not Reported</td>
</tr>
<tr>
<td>Mission-Vision- Values</td>
<td>2 (7%)</td>
<td>28(93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Types of products</td>
<td>2 (7%)</td>
<td>28(93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Ownership and operating structure</td>
<td>2 (7%)</td>
<td>28(93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Subsidiary companies</td>
<td>2 (7%)</td>
<td>28(93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Joint ventures</td>
<td>2 (7%)</td>
<td>28(93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Reporting boundary</td>
<td>2 (7%)</td>
<td>Nil</td>
<td>28(93%)</td>
</tr>
<tr>
<td>Total Score</td>
<td>12</td>
<td>70</td>
<td>12+70+0/180</td>
</tr>
</tbody>
</table>

Source: Annual reports

Note: Disclosure score = Fully Reported = 1, Partially Reported = 0.5 and not reported = 0; The score is multiplied by the no. of companies and the total is divided by the sample companies to get each parameters disclosure index. Overall Disclosure Index is found out by Total score divided by the no of parameters multiplied by the no. of companies. The procedure of calculation remains the same for remaining elements of IR.

On the analysis of 30 companies on the component Organizational Overview, it is found that the two companies as per the IR framework could reveal all the aspects of organisational overview along with
the emphasis on the value creation. Remaining 28 companies are spread in reporting trends in these parameters partially. It is observed further that except in case of reporting boundary, all other parameters have been effectively represented. As the reporting is not integrated in case of 28 companies, they are silent about the reporting boundary. The companies which are not fitting themselves in IR also more or less giving the necessary information about the parameters which are considered under IR. The disclosure Index (0.53) for the first five parameters also indicates that reporting of this element is moderate. The overall disclosure index is effected by the last parameter. Though value creation is not being covered effectively and reporting boundary is not informed, still the companies can fit themselves if they change the orientation of the reporting.

2) Governance

Organization’s governance, leadership, engagement and communication with stakeholders, corporate social responsibility, description of the material aspects of the governance structure, organisational hierarchy, committees, their composition and remuneration committees approved by the organisation’s governing structure are some of the aspects in effective IR. An integrated report should provide information on how employees in general and senior executives in particular are remunerated. The disclosure should indicate the extent to which the remuneration is fixed and variable and the factors that influence the variable element. Employees should be grouped while providing this disclosure. Separate disclosure should be given for the executive directors of a company. Disclosure should be provided of the major components of employment costs, for instance salaries and wages, housing benefits, post-employment benefits, etc. Consideration should also be given to disclosing comparatives for the total cost to the organisation per employee at the different levels.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Extent of Integrated Reporting</th>
<th>Disclosure Score</th>
<th>Disclosure Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fully Reported</td>
<td>Partially Reported</td>
<td>Not Reported</td>
</tr>
<tr>
<td>Structure of committees</td>
<td>2(7%)</td>
<td>28(93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Audit Committee</td>
<td>2(7%)</td>
<td>28(93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Remuneration committee</td>
<td>2(7%)</td>
<td>28(93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Investors Grievance committee</td>
<td>2(7%)</td>
<td>28(93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Executive committee</td>
<td>2(7%)</td>
<td>28(93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Total Score</td>
<td>10</td>
<td>70</td>
<td>0</td>
</tr>
</tbody>
</table>

**Source: Annual Reports**

It is noticed from the Table – 3, that the companies which are not following the IR also fit themselves in reporting the identified parameters. However, there is a mere mention of the structure, committees, remuneration policies etc., They are failing in bringing out the competencies, diversities, skills of the committees. Most of the companies are bringing out a separate report on governance which identifies number of shareholders meetings, attendance of the committee members and so on. The value created or sustained is not communicated clearly. If value addition in the context of external environment and organisation’s culture, ethics and values and their effect on capitals and stakeholders are incorporated under this heading, all the companies fit themselves into IR framework. The disclosure index for each parameter (0.53) and overall disclosure index (0.53) reveal the same.

3) Business Model

Business Model defines the core of the organization
and explains the processes by which value is created for the organization. The business model and strategy communicates how capitals translate into value creation. The use of key performance indicators (KPI) in measuring the value is indicated in the IR. As per the IR framework, business performance can be described in terms of inputs, business activities, product differentiation, warranty arrangements, process improvements, employee training, outcomes, key products, services, byproducts and waste treatment.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Extent of Integrated Reporting</th>
<th>Disclosure Score</th>
<th>Disclosure Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fully Reported</td>
<td>Partially Reported</td>
<td>Not Reported</td>
</tr>
<tr>
<td>Inputs</td>
<td>2 (7%)</td>
<td>28 (93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Business Activities</td>
<td>2 (7%)</td>
<td>28 (93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Product Differentiation</td>
<td>2 (7%)</td>
<td>Nil</td>
<td>28 (93%)</td>
</tr>
<tr>
<td>Warranty arrangements</td>
<td>2 (7%)</td>
<td>Nil</td>
<td>28 (93%)</td>
</tr>
<tr>
<td>Process improvements</td>
<td>2 (7%)</td>
<td>Nil</td>
<td>28 (93%)</td>
</tr>
<tr>
<td>Employee Training</td>
<td>2 (7%)</td>
<td>28 (93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Outcomes</td>
<td>2 (7%)</td>
<td>Nil</td>
<td>28 (93%)</td>
</tr>
<tr>
<td>Key Products/Services</td>
<td>2 (7%)</td>
<td>28 (93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>By Products/ waste</td>
<td>2 (7%)</td>
<td>22 (73%)</td>
<td>6 (20%)</td>
</tr>
<tr>
<td>Total Score</td>
<td>18</td>
<td>67</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Annual Reports

Majority of the companies communicated about their business activities, key products, byproducts and waste management in their reports. Majority of the companies gave information about product lines, geographical location, joint ventures etc. Majority of the companies did not report the value creation in the form of product differentiation, warranty arrangements, process improvements. Internal outcomes such as employee welfare, social and environmental effects, revenue and cash flows etc are reported by majority of the companies. Carbon emissions, labour practices, tax payments, etc are also reported by majority of the companies. As per disclosure index of each parameter it is found that product differentiation, warranty arrangements, process improvements and outcomes are not at all fit into the IR practices. On the basis of overall disclosure index (0.32) of Business model compared to overview (0.46) and governance (0.53) this element needs more inputs to be fit to IR framework.

If companies include information and explain to stakeholders regarding business model and its value, they can easily fit themselves into IR framework.

4) Operating Risk and Opportunities

Risk management is crucial to any organisation. All the businesses operate in an uncertain environment. It is now the order of the day that each company has a team of employees who scan the environment for various risks and associated opportunities. Each challenge brings a greater prospect with it. The efficiency of organisation lies in the conversion of risks into opportunities. This requires incorporating risk management into the organization’s decision-making process as well as strategy, then aligning it with prevailing industry circumstances. The goal is to reduce uncertainty with respect to the organization’s performance and future flexibility.
Table - 5
Operating Risks and Opportunities

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Extent of Integrated Reporting</th>
<th>Disclosure Score</th>
<th>Disclosure Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fully Reported</td>
<td>Partially Reported</td>
<td>Not Reported</td>
</tr>
<tr>
<td>Materiality</td>
<td>2 (7%)</td>
<td>4 (13%)</td>
<td>24 (80%)</td>
</tr>
<tr>
<td>Risk Management</td>
<td>2 (7%)</td>
<td>28 (93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Identification of Internal/ External risks</td>
<td>2 (7%)</td>
<td>23 (76%)</td>
<td>5 (17%)</td>
</tr>
<tr>
<td>Steps to mitigate</td>
<td>2 (7%)</td>
<td>3 (10%)</td>
<td>25 (83%)</td>
</tr>
<tr>
<td>Cost competitiveness</td>
<td>2 (7%)</td>
<td>19 (63%)</td>
<td>9 (30%)</td>
</tr>
<tr>
<td>Shareholders Engagement</td>
<td>2 (7%)</td>
<td>21 (70%)</td>
<td>7 (23%)</td>
</tr>
<tr>
<td>Total Score</td>
<td>12</td>
<td>49</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Annual Reports

Though majority of the companies are identifying risks which are internal or external fully or partially, they are not describing the steps to mitigate the risks. Material issues which are crucial in risk management are not stated by majority of the companies (80%). Stakeholders engagement and cost competitiveness are the two issues which are reported effectively by the companies. The value creation, linking the risks to strategies are not noticed in the reporting by these companies. Disclosure index for materiality and steps to mitigate the risks indicates very low fit to IR framework. The overall disclosure Index (0.34, low fit) also reveals that if the companies disclose identified information, they can fit themselves into IR framework.

5) Strategy and Resource Allocation

The aim of integrated reporting is to identify the organization’s short, medium and long term strategic objectives. In a nutshell, company answers where it wants to grow and how does it intend to get there. It should disclose resource allocation plans. Strategies for value creation for shareholders and other key stakeholders such as customers, suppliers, employees and society as a whole also be part of the strategies for short, medium and long term periods.

Table - 6
Strategic Objectives and Strategies

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Extent of Integrated Reporting</th>
<th>Disclosure Score</th>
<th>Disclosure Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fully Reported</td>
<td>Partially Reported</td>
<td>Not Reported</td>
</tr>
<tr>
<td>Strategic Objectives</td>
<td>2 (7%)</td>
<td>21 (70%)</td>
<td>7 (23%)</td>
</tr>
<tr>
<td>Resources allocation</td>
<td>2 (7%)</td>
<td>21 (70%)</td>
<td>7 (23%)</td>
</tr>
<tr>
<td>Measurement of targets</td>
<td>2 (7%)</td>
<td>Nil</td>
<td>28 (93%)</td>
</tr>
<tr>
<td>Competitive Advantage</td>
<td>2 (7%)</td>
<td>27 (90%)</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>Innovation</td>
<td>2 (7%)</td>
<td>13 (43%)</td>
<td>15 (50%)</td>
</tr>
<tr>
<td>Stakeholder engagement strategies</td>
<td>2 (7%)</td>
<td>28 (93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Total Score</td>
<td>12</td>
<td>55</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Annual Reports

Integrated reports should disclose the KPIs used by management to track performance. It helps investors
compare organizations and understand their performance. The linkages between strategy, resource allocation and content elements should be informed. The organizations also should reflect about the role of innovation. Strategies regarding environmental and social considerations to be included in the company’s policies have to be spelt out in IR.

As per the analysis it is observed that majority of the companies are stating objectives, resource allocation, measurement of targets, competitive advantage, stakeholders engagement strategies in their reports fully or partially. As per the disclosure index, measurement of targets (0.07) and innovations (0.28) are the two parameters which needs improvement in reporting. However, the companies are not clearly stating the strategies and other parameters as per the short, medium and long term periods. Value creation by / through these parameters are not at all reflected in the report of these companies. The overall score of 0.37 is low and companies cannot fit into IR framework unless they improve the reporting style.

6) Performance

An important part of the integrated report is to answer to what extent has the organization achieved its strategic objectives for the period what are the outcomes in terms of effects on capital. The answer is disclosed in the form of current financial performance and other appropriate measures of performance segment wise or business model wise. An indication may be given as to how financial value is added by the business to its stakeholders.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Extent of Integrated Reporting</th>
<th>Disclosure Score</th>
<th>Disclosure Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fully Reported</td>
<td>Partially Reported</td>
<td>Not Reported</td>
</tr>
<tr>
<td>Targets Risk and opportunities</td>
<td>2 (7%)</td>
<td>28 (93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Effects on capitals</td>
<td>2 (7%)</td>
<td>3 (10%)</td>
<td>25 (83%)</td>
</tr>
<tr>
<td>Engagement towards Stakeholders</td>
<td>2 (7%)</td>
<td>28 (93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>KPIs</td>
<td>2 (7%)</td>
<td>28 (93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Total Score</td>
<td>8</td>
<td>43.5</td>
<td>0</td>
</tr>
</tbody>
</table>

*Source: Annual Reports*

Identifying the issues and capitals that have a material impact on performance is essential in IR. A mention may be made about the six types of capitals which a company uses in its operations, and value created by them is to be measured. Value created to these capitals also should be measured. As per IR framework, the important parameters are targets, risks, opportunities, effects on capitals, engagement towards Stakeholders and KPIs in terms of sales, profits, ROCE, and so on. It is evident that majority of the companies reported through KPIs, and their engagement towards stakeholders. The capitals, their identification, effects are not at all form part of their reporting (Disclosure index = 0.12, very low). A point of observation is that all most all the companies are communicating about financial capital, intellectual capital and human resource capital at one place or the other. But there is no direct reference of these parameters. The overall disclosure index (0.43) reveals that if the companies include these observations in their reporting they become fit to be in the IR.

7) Outlook

An integrated report should reflect as to how an organization faces challenges and uncertainties while pursuing its strategy. It should also define its business model in the context of future environmental risks and opportunities. What kind of implications an organization faces during the process also should be indicated in IR. The outlook states the expectations on external environment and organization’s readiness to accept the changes.
Table-7
Outlook

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Extent of Integrated Reporting</th>
<th>Disclosure Score</th>
<th>Disclosure Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fully Reported</td>
<td>Partially Reported</td>
<td>Not Reported</td>
</tr>
<tr>
<td>Expectation about external environment</td>
<td>2 (7%)</td>
<td>28 (93%)</td>
<td>Nil</td>
</tr>
<tr>
<td>Impact of external environment</td>
<td>2 (7%)</td>
<td>1 (3%)</td>
<td>27 (90%)</td>
</tr>
<tr>
<td>Organizations Responsiveness</td>
<td>2 (7%)</td>
<td>Nil</td>
<td>28 (93%)</td>
</tr>
<tr>
<td>Total Score</td>
<td>6</td>
<td>14.5</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Annual Reports

It is observed that the companies selected except two, are not reporting on impact of external environment (0.08) and organizational responsiveness (0.07). However they are referring to expectations about external environment to some extent. Mostly this kind of information is provided in the reports of Banks and IT companies. There should be always a strategy with the company to face any kind of situations of future. Clear cut objectives in respect of capitals, organization’s competitiveness and company’s market positioning are indicated through this element. However, the overall disclosure index (0.23) is very low in this key element. All the companies can reflect these parameters to indicate the value creation in future times.

Conclusion

Integrated reporting no doubt is a good trend in corporate reporting framework. It communicates value to all its stakeholders and explains organization’s sustainability and impact of capitals it uses. The present reporting trend in the select companies though not as per the IR framework, fits to most extent into IR framework. The reporting is no doubt exhaustive but fails to communicate the value creation to the stakeholders. It is observed that with a minimal corrections/ additions/ deletions, all the companies can easily fit into the IR framework. Aspects such as materiality, capitals, outlook need to be focused on so that they can fulfill the high expectations of IR framework. It is further observed that instead of reporting the issues qualitative and quantitative in separate sections, companies can well organize their value under the different elements as suggested by the IIRC.

References

6. Ioana - Maria Dragu and Adriana Tiron- Tudor, Gri Compliance and Prerequisites of Integrated Reporting for Asian-Pacific Companies accessed on integratedreportingsa.org on 19-09-2015
7. Sarah Adams and Roger Simnett, Integrated Reporting: An Opportunity For
8. Australia’s Not-For-Profit Sector, accessed on integratedreportingsa.org on 19-09-2015
9. IIRC website Error! Hyperlink reference not valid.
10. Annual reports of companies accessed on the respective company websites

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Very often, we come across the news in the business world, such as the share price of a company fluctuates on the joining or leaving of chief operating officer (CEO), even after declaration of financial results, analysts wait for management commentary before their calls on investment proposals, a company faces social hurdles in its project expansion programme due to its bad social image or contrary overwhelming social acceptance due to good social image, a company is maintaining highly trained manpower and therefore registering numbers of valuable patents, copyrights etc., and in process of creating intellectual pool and research work. Corporations operating in sectors such as pharmaceutical, information technology and digital content providers (facebook, you tube etc.), their tangible assets amounted to hardly 25-30% in term of value of total asset. There may be number of such examples. But, the basic question arises, whether the above information is captured by traditional financial framework comprising of financial elements in balance sheet, statement of profit and loss account and cash flow statement. Certain class of companies are required to prepare business responsibility report, corporate governance report, director responsibility report etc. which leads to plethora of reports and substantial duplicity of information. Still stakeholders continue to believe inadequacy of disclosures in current reporting format that enable them to take various informed decisions. What is the gap between the information that corporates communicating to stakeholders and what they are required to read to make the informed investment decisions? Probably, this may be one of the major reason of difference between company’s book value based on the accounting principles and the market value of the company. The true value of company is something more than financial numbers.

With the above notes, it is quite reasonable to conclude that something is missing in the current form of corporate communication. Corporations and investors are realizing the shortcomings of conventional reporting framework. Financial statements prepared in line with Accounting Principles or generally accepted accounting principles (GAAP) / IAS / Ind AS, do not tell the complete story of performance of a corporation and failed to satisfy the information needs of stakeholders. To take a call on well informed decision investors, analysts and other users of financial statements needs
both financial and non-financial information such as information on environment consciousness, corporate social responsibility, etc. for conducting financial analysis and comparison among different entities for arriving at investment decisions. <IR> is the answer to address the issues.

Brief about <IR>: The International Integrated Reporting Council defines integrated reporting as “a process founded on integrated thinking that results in a periodic integrated report by an organization about value creation over time and related communications regarding aspects of value creation.” An integrated report is “a concise communication about how an organization’s strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value in the short, medium and long term.”

The integrating reporting ‘IR’ framework takes into account ‘SIX CAPITALS’: natural, human, manufactured, social and relationship, intellectual as well as financial and establish relationship in six capitals to tell the entire story of VALUE CREATION PROCESS of a corporation. IR is a concise communication, which tells about how an organization’s strategy, governance, performance and prospects lead to the creation of value over the short, medium and long term. IR provides flexibility to businesses and they are not asked to report against all six capitals, but to choose based on materiality. The integrated report helps businesses think holistically about their strategy and plans, make informed decisions and offer ability to manage risks and opportunities to build investor and stakeholder confidence and improve future performance. Therefore, IR puts equal emphasis not just on the reporting, but on the ‘integrated thinking’ to changing the thought process in businesses and in society at large about what actually meaning of successful business.

Global and Indian perspective

Thousands of businesses are using ‘IR’ to communicating their value creation story with stakeholders. Organizations globally are in process of aligning their practices to <IR>. <IR> framework is principles based approach that provides flexibility to accommodate local laws, regulations and other reporting requirement. There are increasing levels of <IR> adoption in many economies, including South Africa, Japan, Malaysia, Germany, the United Kingdom and Brazil, with breakthrough having been achieved in South Africa and Japan, where <IR> adoption has become mainstream. United Nations Sustainable Development Goals, launched during 2015 also attempt to address a range of global issues, which includes
human rights, good governance, peace, and stability amongst other. This shall certainly require concerted effort from all businesses and markets to achieve. The framework may guide individual organizations to play their part in reaching these goals through integrated thinking and enhancing their reporting process, by prompting consideration of the International <IR> Framework’s six capitals in decision-making and resource allocation, and thinking beyond the just financial.

There has been an impressive early adoption of Integrated Reporting by leading companies in India. Indian public sector companies BHEL, SAIL, ONGC etc. were used to report more than financial since early 80’s. Indian corporate house such as Yes Bank, Wipro and Tata Steel have shown deep interest and contributed a gross in approach as part of an “<IR> Lab” set up under Confederation of Indian Industry (CII).

Sebi initiatives

The Securities Exchange Board of India (SEBI), since its inception has undertaken several initiatives to align reporting and disclosure requirements for Indian listed companies in line with global standards, which includes alignment of the principles prescribed by the International Organization of Securities Commissions. On 2 September 2015, SEBI notified the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 (Listing Regulations). Clause 34(2)(f) of the Listing Regulations requires mandatory submission of Business Responsibility Report (BRR) for top 500 listed entities based on market capitalisation reported on 31 March of every year. The BRR should describe the initiatives taken by the companies from an environmental, social and governance perspective. On February 6, 2017, SEBI issued a circular on Integrated Reporting by Listed Entities (SEBI Circular) to strengthen disclosure standards.

- The top 500 listed companies those are currently required to prepare a Business Responsibility Report (BRR) under the Securities and Exchange Board of India (LODR) Regulations, 2015 (Listing Regulations) have been advised to adopt integrated reporting on a voluntary basis with effect from the financial year 2017-18. Historically, in several instances, SEBI has followed up a voluntary approach with requirements for mandatory compliance.

- The Integrated Reporting Framework (Framework) prescribed by the International Integrated Reporting Council (IIRC) may be followed by listed entities if an Integrated Report (Integrated Report) is prepared.

- The information included in the Integrated Report may be provided in the annual report separately or by incorporating it into the “Management Discussion & Analysis” section, or by way of a separate report (which shall be an annual report prepared as per the Framework).

- If a listed company has already provided the relevant information in any other report prepared in accordance with national/international requirements, it may include appropriate reference to such report in its Integrated Report to avoid duplication of information.

- The Integrated Report prepared by a listed company may be hosted on its website and a reference to the Integrated Report included in its annual report.

<IR> Framework

The International Integrated Reporting Council (IIRC) was formed in August 2010 and aims to reduce the gap between current reporting and information needs of today’s investors and other stakeholders through the introduction of the concept of Integrated Reporting. The IIRC has prescribed the following guiding principles for the preparation of an integrated report, specifying the content of the report and how information is to be presented:

<table>
<thead>
<tr>
<th>Principles</th>
<th>Overview</th>
</tr>
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<tbody>
<tr>
<td>Strategic focus and future orientation</td>
<td>An insight into the organization’s strategy and how it relates to an organization’s ability to create value in the short, medium and long term, and its use of and effects on capital should be provided</td>
</tr>
<tr>
<td>Connectivity of information</td>
<td>A holistic picture of the combination, interrelatedness and dependencies between the factors that affect the organisation’s ability to create value over time should be shown</td>
</tr>
</tbody>
</table>
### Stakeholder Relationships
An insight into the nature and quality of the organisation's relationships with its key stakeholders, including how and to what extent the organisation understands, takes into account and responds to their legitimate needs and interests should be provided.

### Materiality
Information about matters that substantively affect an organisation's ability to create value over the short, medium and long term should be disclosed.

### Conciseness
An integrated report should be concise.

### Reliability and completeness
All material matters, both positive and negative, in a balanced way and without material errors should be included.

### Consistency and comparability
The information in an integrated report should be presented:
- On a basis that is consistent over time, and
- In a way that enables comparison with other organisations to the extent it is material to the organisation's own ability to create value over time.

### Disclosure of capital
IIRC has categorised the forms of capital as follows:
- Financial capital
- Manufactured capital
- Intellectual capital
- Human capital
- Social and relationship capital
- Natural capital

### Integrated reporting
Integrated reporting is built around the following key components:
1. Organisational overview and the external environment.
2. Governance structure.
3. Risks and opportunities and dealing with them and effect on value creation ability.
4. Strategy and resource allocation
5. Performance and achievement of strategic objectives for the period and outcomes.
6. Outlook and challenges facing the company and their implications
7. The basis of presentation needs to be determined, including what matters are to be included in the integrated report and how the elements are quantified or evaluated.

### Cost Information:
The value creation lies at the heart of <IR>. Cost information i.e. cost records which are otherwise to be mandatory maintained by class of companies u/s 148 of companies Act 2013 and under Companies (Cost Records and Audit Rules) contains substantial information in line with IIRC reporting framework. Cost information pertaining to material cost, employee cost, cost of utilities, overheads, research and development cost, cost to quality, pollution control cost, interest and finance cost etc. may be align and used in tracing the elements of value creation. These elements of cost provide comprehensive picture and connectivity with value creation story. Annexures to the cost audit report part A, para -4 is easily expandable to <IR> framework principle ‘Strategic focus and future orientation, Part B of annexure (applicable to manufacturing sector).
Cost information and cost audit encourage adoption of technology and scientific tools like quantitative techniques, technical or benchmarked standards, information systems in identifying wasteful expenditure, underutilized resources, other inefficiencies and bottleneck. Cost information are equally important for internal use for governance and detection and correction of factors that may lead to frauds in assessment of productivity of resources, opportunities and risks and essential inputs for value creation. In case of cost audit, auditor is duty bound to comment and suggest the way for improvement in operational dynamics.

Cost information and cost audit tell the complete story about capacity utilization, element wise consumption of materials, and the other elements of cost in detail and in fact connect the information to express a holistic picture of the combination, interrelatedness and dependencies between the factors that affect the organization’s ability to create value over time. Same is true with part C of annexure to the cost report applicable to service sector. Part D of annexure states product and service profitability, value creation and its distribution among stakeholders, financial position and ratio analysis and matter related to corporate governance e.g. related party transactions and taxation information in detail. This fulfill the aspiration of framework elements such as ‘connectivity of information’ and ‘stakeholder’s relationships’. Cost information and cost audit encourage adoption of technology and scientific tools like quantitative techniques, technical or benchmarked standards, information systems in identifying wasteful expenditure, underutilized resources, other inefficiencies and bottleneck. Cost information are equally important for internal use for governance and detection and correction of factors that may lead to frauds in assessment of productivity of resources, opportunities and risks and essential inputs for value creation. In case of cost audit, auditor is duty bound to comment and suggest the way for improvement in operational dynamics.

**The journey ahead**

Corporate reporting is still seen as a compliance by many corporates. A large section feels that reporting is just as statutory burden and cost center. So responsibility of the professionals to establish benefits of reporting in value creation to change the mindset. In existing cost rules, MSME’s have been kept out of preview of maintenance of cost records. SEZ and export oriented undertaking are not required to go under cost audit. But Cost information is equally useful to complete their value creation story. One another issue is, volume of corporate reports, which is increasing on without adding corresponding meaning to users. Now with the introduction of <IR>, institutions and professionals are responsible to evolve robust corporate reporting framework to suit the economic, social, political and cultural factors prevalent in the country.

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In the article “Towards a Green Economy”, published in the Management Accountant, we gave in brief its concept. We also quoted The World Bank reports/surveys giving some background for seriously examining the issues relating to green economy. The reports emphasized that “a low-emission, resource-efficient greening of the economy should be possible at a very low cost in terms of GDP growth. Lastly, for an environmental sustainable future, India needs to value its natural resources and eco-system services to better inform policy and decision making.”

In 2012, the UN General Assembly held a summit in Rio de Janeiro on the theme “Green Economy in the Context of Sustainable Development and Poverty Eradication”. The UNEP defined a green economy as one that represents “improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities”. After deliberations, it was held that, except one indicator of government expenditure on health, all remaining indicators of green economy suggest that India has been making honest attempts for a green economy (Kamble & Ovhal, 2016).

Accordingly, the focus of this paper is on challenges of the corporate sector towards achieving a green economy for sustainable development. In that context, we address the following issues.

- What are the elements of green economy? Is there any interrelation among them?
- Why is it necessary to reduce environmental risks by the corporate organizations? What are the possible actions against the environmental threats?
- How to reduce environmental risks by adopting possible methods of management that may be undertaken by companies against regulatory interventions?
- How best to avoid environmental risks by adopting...
Strategic Environmental Management (SEM)? Does SEM increase “competitive advantage” of the firm?

→ What will be the role of the Management Accountants to contribute to the effective management of green costs?

The present paper is of conceptual nature and is based on scanning of available literature. However, the two important issues, namely, better environmental management leads to competitive advantage of the firm and the role of the Management Accountants in more effective management of environmental or green costs may be empirically tested by the researchers. Of course, there are many other issues concerning green economy so far as the corporate sector is concerned. For example, disclosure of environmental information in the annual financial statements has gained ground both internationally and nationally. They include (i) qualitative disclosure (those relating to policies and principles of environmental management and compliance thereof), quantitative non-financial disclosure (viz. environmental performance measures) and quantitative financial disclosure (viz. financial impact of environmental policies), etc. (Banerjee, 2009). But for the sake of volume, we have to desist from discussion of this emerging issue. However, a case study on the disclosure practices in the corporate sector in India may be another interesting future research area.

Elements of Green Economy

There are three elements or components of green economy (Kamble & Ovhal, 2016): Economic transformation, Resource efficiency and Human well-being as shown in Fig. 1.

Figure 1
Elements of Green Economy

They are all inter-related. For example, both resource efficiency and human well-being contribute positively to the economic transformation and state of the economy has an impact on the former two. So, companies have to put maximum efforts for efficient resource management and take care of the well-being of its employees and those of the social sector for improvement in their quality of life. The Companies Act, 2013 has rightly mandated certain class of companies to spend at least 2% of annual average profits (based on profits of immediate past three years) for upliftment of the weaker section of the people. Increase in productivity of resources, renewable and non-renewable, results in efficiency in resource management. This has an impact on profitability of the firm and hence on the GDP growth. Again, in respect of efficient management of resources, there is responsibility on the Board of Directors to publish a statement in its report regarding conservation of energy. This is aimed at sustainable development of the economy.

Sustainable development is defined as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs (World Commission on Environmental Development, 1987). It refers to preserving the ecosystem as well as maintaining long-term profitability of the firm (Stead and Stead, 1996). At the macro level, a sustainable development has to take care of three aspects – economic growth, environment-friendliness and social justice (Welford & Gouldson, 1993). This social justice can be viewed more popularly from the standpoint of ‘inter-generational equity’, that is, achieving equity not only for the present generation but also for future generations as well. So, sustainable economic development should always be environment friendly.

Regulatory Interventions

Corporate form of organization enjoys some advantages compared to other forms of business. At the same time, they have also additional responsibilities to discharge for a healthy economy and its sustainability. Environment is one of them. Companies pollute environment through their activities, viz. emission of polluted air, waste water transmission and also through the production process and/or nature of products.

In view of the above, regulating bodies, including governmental organizations, have to ensure that a healthy environment exists and polluters are fined and/or punished or are provided incentive to go for new technology which would be environment-friendly. To support the administration, special judicial courts function at all levels – from district level to the high courts and from high courts to Supreme Court of India. To give special attention to environmental matters “green benches” have been set up for speedy disposal of
cases in the interest of pollution control. So, companies have to maintain clean images so far as management of environment is concerned. There are a number of options to the regulators as mentioned in environmental economics.

Environmental economics includes various models— from free market to governmental intervention to take care of environmental threats (Daly & Cobb, 1994). Market oriented intervention tries to use existing market conditions to bring about change in environmental policy of the firm. According to environmental economists, market-based environmental policy is most useful in understanding how environmental problems that affect a firm may be conceptualized in the management process. There are three other ways in which environmental threats by the operation of corporate organizations can be reduced. They are: (a) command and control, (b) pollution taxes, and (c) tradable permits (Robbins, 2001, pp. 35-37). The latter two are known as market-oriented interventions whereas command and control is imposed by regulatory bodies. Tradable rights are more popularly known as “Carbon Trading” in the current literature.

Most environmental policy is presently based on command and control. Regulating bodies set pollution targets for polluters. Control is exercised through inspection and monitoring and fines are imposed for violation. According to taxation policy, taxes are imposed on polluters for emissions. It is better than the first option because this policy brings in revenue to the regulators. It can also work as an incentive to develop new and environmentally-friendly technologies by polluters (Pearce, 1992). In the tradable rights category, the regulating body (mostly the government) defines an acceptable level of pollution for a given environmental crisis (e.g. lead in petrol, chemical production, etc.). A unit of pollution is defined which would vary depending on the substance and acceptable limits of emission into the environment. On receipt of the pollution permits, polluters are free to trade them. A company that finds it relatively ‘inexpensive’ to reduce its pollution level of a given substance will profit from selling the permit to another company which finds it more ‘expensive’ to reduce pollution. While the two trading firms benefit arising out of the tradable deal, environmental quality is maintained because both the amount of permits and the acceptable level of pollution remain the same. The mechanism of operation of tradable right or carbon trading although little complex, companies can benefit out of it tremendously. “Thus, tradable rights to pollute are seen as the most flexible system of pollution control and are effective when supported by the other two methods” (Robbins, 2001, p. 37). Carbon markets have the effect of putting a price on what was until very recently free and this change is likely to have financial consequences of firms in the long run (Jan & Carlos, 2008).

**Greening the Business by Adopting Suitable Methods of Management**

There is lot of literature on greening the business. This refers to understanding of corporate responses to environmental threats (Srivastava, 1996). According to Smith (quoted from Robbins, 2001, p. 38):

> “corporate bodies need to anticipate and prevent future societal concerns about their operations; in other words, they will need to adopt a more strategic view of the problem.”

There are ethical issues also. The main concern is with the ethical obligations that companies must have for protecting the environment. Corporate environmental policies indicate an organisation’s overall commitment to the improvement of environmental performance. This can include conservation and protection of natural resources, minimization of wastes and waste disposition, pollution control and continuous improvement. The corporate policy for environment has to be formally approved by the Board and displayed separately in view of its importance. For any lapse on the part of the concerned corporate organization, it should be answerable to the affected stakeholders.

From the UN Survey way back in 1993 (pp.11-12), we can quote a few corporate policies as follows:

- Compliance with existing regulations and laws
- Reduce adverse effects to a practicable minimum
- Minimize environmental consequences
- Ecologically motivated, technically possible and economically reasonable
- Be a good citizen within the local community in which it operates
- Best environmental practice

The UN Survey (1993, p.155) classified corporate management methods/styles into four categories as shown in table 1. These four methods/styles of management are again characterized by four different colours – brown to light green, to green and finally to dark green. They represent different environmental management strategies. The model is known as “green spectrum rating” and is suggestive in nature. The first method is the least progressive of the four and
speaks for the ways a firm traditionally responds to the environmental challenges. The second method goes beyond compliance in that companies react to raw material and insurance costs and growing waste disposal costs. They have to develop programmes to reduce liabilities and costs through prevention of pollution. The objective is to protect and maintain markets. The green category goes a step further in that it treats the green challenge with a preventive strategy. Its objective is to pursue green markets to enhance profitability. The sustainability option (dark green) is the best of all the four. Companies contributes to sustainable development by adopting Strategic Environmental Management (SEM) with a view to creating a sustainable zone of their own markets. Here the additional revenues far exceed the additional costs of accepting environmental challenges. In the process, these companies are better off in the market place because they enjoy “competitive advantage.”

Accordingly, we make a brief discussion on the Strategic Environmental Management in the next section followed by the role of the Management Accountants vis-à-vis management of environmental costs.

Table 1

<table>
<thead>
<tr>
<th>Management method/style</th>
<th>Corporate activities</th>
<th>Reasons for response to environmental challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance-oriented</td>
<td>End of pipe, abatement, compliance, response</td>
<td>Comply with legislative provisions and court cases</td>
</tr>
<tr>
<td>Preventive-orientation</td>
<td>Conservation, minimization, prevention, accounting and audit</td>
<td>Maintain and protect markets</td>
</tr>
<tr>
<td>Strategic</td>
<td>Dialogue, Planning, cradle to grave, R &amp; D, targets, audits</td>
<td>Anticipate or pursue green markets</td>
</tr>
<tr>
<td>Sustainable</td>
<td>Developing country, climate change, afforestation, ethical sales, global policies and auditing</td>
<td>Create sustainability</td>
</tr>
</tbody>
</table>


5. Strategic Environmental Management System: Challenges to the Corporate Sector

In order to be a good corporate citizen, a firm has to adopt policies and take actions that become environment friendly. It cannot gain competitive advantage without proper environmental management. The key issue is: how do internal performance drivers can contribute to the development of environmental strategies? It may be through innovation of new products, control of pollution, conservation of energy, minimization of wastes and effluents, recycling of products, to mention a few. One of the popular examples of environment-friendliness and profitability of the firm is recycling of products or waste materials. In many industries, including printing media, recycling of products/wastes, not only becomes environmental friendly, it reduces cost, increases profitability and hence, the competitive advantage of the firm. So, in order to be environment-friendly, companies must adopt definite policies and formulate action plans accordingly. This may be called strategic environmental management.

Strategic environmental management issues embrace formulation of suitable business strategies for decision-making. In order to realize competitive advantage based on environmental management, companies must seek to develop strategies which translate actions into benefits, improving their environmental performance and addressing the environmental demands placed upon them by Government and other stakeholders. By incorporating the increasingly important environmental dimension into the decision-making processes and strategies of the firm, managers can seek to reduce costs and exploit the opportunities offered by increased public environmental concern within a dynamic market place. The process can be shown in Fig. 2 (Welford and Gouldson, 1993). The strategic management system seeks monitoring, review and evaluation on a continuous basis. It has to be recognized that for a highly visionary company, there is no ultimate finish line; there is no point at which they feel they ‘have made it’. The journey for attaining excellence goes on – it is never-ending.
The value-chain approach (Porter, 1985) may considerably help management of environmental issues better as shown in Fig. 3.

Klassen and McLaughlin (1996) noted: “The long-term goal of environmental management is to move toward .... considering environmental aspects in an integrated fashion in supply-chain management, product design, the entire manufacturing process, marketing, product delivery and use, consumer service,
and post-consumer product disposition.” A firm must seek to provide the products or services demanded by consumers with the minimum environmental impact at all stages. This is a far-reaching challenge as it involves reformulation not only of production processes but also of the products themselves. In other words, no product or method of production will be allowed without its ‘green justification’.


Environmental accounting and reporting issues cover management of green or environmental costs effectively and disclosing environmental information in a suitable form. Strategic cost management cannot ignore environmental factors. Such costs may be hidden, contingent and image building or such costs may be a part of allocated costs of the asset used for prevention of environmental degradation. The various types of green/environmental costs are shown below:

<table>
<thead>
<tr>
<th>Direct costs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital expenditure</td>
</tr>
<tr>
<td>Depreciation</td>
</tr>
<tr>
<td>Operating and maintenance expenses</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hidden costs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste treatment</td>
</tr>
<tr>
<td>Compliance management</td>
</tr>
<tr>
<td>Training and legal support</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potential future costs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remediation (contingent liability costs)</td>
</tr>
<tr>
<td>Public relation and goodwill</td>
</tr>
<tr>
<td>Effects of higher insurance and lending costs due to liabilities associated with their operations</td>
</tr>
</tbody>
</table>

The hidden costs are included in overhead expenses borne by all operations, rather than charged back to departments actually using the service. These items need proper analysis and allocation for decision-making and control. Activity-based costing may be used for more accurate cost allocation. Since hidden costs occupy a significant portion of the total costs of the firm, impact of allocation of indirect costs to products or services more accurately would be significant.

In strategic environmental cost management, the thrust is on prevention of misallocation of indirect costs to products and processes and ensuring more scientific allocation of the same to products and services. Thus, better cost information is used as a ‘superior strategy’. The firm then becomes better off in terms of decision-making compared to its competitors.

Viewed from a broader perspective, many areas of financial accounting, auditing and management accounting may be brought under the purview of accounting for green management.

References


Foot notes


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GREENING BUSINESS:
WHO CARES ABOUT THE BASICS?

The Concept

“Greening business” ordinarily refers to making business people more aware of environmental issues. The intrinsic message is: Business activities should be more environment friendly, in terms of both products and processes. This is indeed a long-term movement. It is difficult to perceive that business people can respond to this initiative in no time. Thus, whether the recent “green business” initiatives of some commercial organisations are out of a concern for environmental degradation or as a new business opportunity is subject to close scrutiny. Many of us have not yet forgotten the propagation of “The Green Revolution”, the increase in agricultural production with the help of high-yielding variety of seeds and chemical fertilizers. It is only a latter stage dissemination that the food products under organic system are pollution free, delicious and nutritious; they have a longer storage life; regular application of organic manure improves soil fertility; and the environment does not get polluted under this system. Understandably, issues involved are many.

In ‘greening business’, broadly two functions are involved: Becoming aware of environmental issues and taking actions to prevent environmental degradation or as a new business opportunity is subject to close scrutiny. We know that many good things but do not practise. Of course, many bad things also we know but do not practise. It is ‘doing’ that produces results, ‘knowing’ is only a helper.

We know that business activities interfering with Nature have their functional side as well as dysfunctional side. That is, they are helpful as well as harmful. How far they are helpful and how far harmful is a matter of critical assessment for which we tend to depend largely on modern science. And we know that even the environmental scientists are divided on many environmental issues. This is neither desirable nor deplorable, this is inevitable. To clarify our stand, let us say a few words about ‘science’ and ‘scientific knowledge’.

Dr. Tanmoy Datta
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Scientific Knowledge

Science is related not to the subject matter but to its methodology. Thus, scientific knowledge means any knowledge acquired through a scientific process. That is, if the methodology is accepted as scientific, the knowledge is scientific.

This acceptance however depends on many factors, best known to the scientist community. Thus, for example, ‘astronomy’ belongs to science but ‘astrology’ not. This does not however debar a physical scientist from taking a ‘stone’ from an astrologer. Either he accepts the methodology followed by the astrologer as scientific or he accepts that scientific mode is not the only mode to acquire knowledge. Whatever be the case, the fact remains that thousands of people learn and practise astrology, obviously following some methodologies. Above all, “Certainty is the real test of knowledge”. That is, the quality of any knowledge depends on how long it remains valid. We know that many scientific theories developed in physical sciences have been discarded afterwards. Thus, scientific knowledge may be methodologically superior but may or may not be qualitatively superior to knowledge acquired by any other mode. Separate seminars may be arranged on the superstitions of modern science, the role of politics in modern science, the role of commerce in modern science etc. All these have been said not to undermine the importance of modern science but only to hint at its limitations. Our purpose is to highlight the problems involved in the awareness of environmental issues.

Knowledge of Commerce

Now come to our own field of knowledge, Commerce. Modern job-oriented, discipline-specific business education, loaded with specialisation and super-specialisation, tends to side track the business fundamentals and, therefore, is too weak to deal with social and environmental issues. For example, when we talk of business, we perceive an exchange relationship which is ordinarily expected to be mutualistic. Thus, it is often overlooked that transactions are between human beings. And human beings are filled with both values and disvalues. (Gratitude, compassion, honesty, sincerity and the like positive qualities are ‘values’ and greed, anger, jealousy, pride and the like negative qualities are ‘disvalues’). Therefore, an exchange relationship, when driven by values, may go up to a transcendental height, going beyond the typical limited scope of mutualism, where both the parties try to contribute their best. Similarly, an exchange relationship, when driven by disvalues may, go down to a parasitic nadir where one party tries to gain the maximum at the cost of the other. (Interested readers may go through a Buddhist parable, Sherivanij Jataka, which has nicely juxtaposed these two extremes). The learning point is: For a deep understanding of subjective realities of life, Commerce has to depend on wisdom literature. Ordinarily ‘Commerce’ means exchange but not all exchanges are within the ambit of typical ‘Commerce’.

In this connection, it should be reminded that specialisation and super-specialisation means becoming expert in smaller and smaller areas. Since human cognitive power is limited we cannot deal with many things at a time. Understandably, the more and more we delve deep into smaller and smaller areas, the more and more we have to leave the larger and larger areas. Thus, with the growing modern trend of specialisation and super-specialisation, we are becoming more and more blind about the whole and functionally more and more dependent on others. All these have been said not to undermine the importance of specialisation but to hint at its dysfunctional side, particularly in the context of environmental issues.

While “greening business” needs a holistic approach, our discipline-specific business education has induced us to see everything through the holes and not from the whole. Let us give a concrete example from our own student life experience. ‘Commercial Arithmetic’ was a paper in our B.Com. course wherein ‘Mixture and Adulteration’ was a chapter. We had to solve a problem like this: How much water to be added to a certain quantity of milk to produce a target percentage of profit. Our examination-oriented mind did not enquire about whose profit it was? What happened to the babies by taking that adulterated milk? How much money their parents had to spend on medical grounds? How many sleepless nights their mothers had to spend with great anxieties? We did not calculate all these losses. Those things did not strike us at all. We simply calculated the milkman’s profit. And with this mindset we are grown up. In the process, we have developed a popular misconception that profit is the objective of a business. And that profit has been taken in a very narrow sense. We are getting its corroboration from some present day business practices too. For example, still now hormone injections are being given to cows to extract more milk, at the cost of health hazards of both the cows and the consumers of the milk.
Let us take another concrete example from our own city Kolkata. Calcutta Tramway Company, a state-run enterprise, is gradually withdrawing its tram services and more interestingly providing bus services. So far our knowledge goes, tram service is not commercially viable, however environment-friendly it may be. Possibly the ‘milkman’ profit’ mindset has somehow crept into the decision-making process. Or, maybe due to acute shortage of funds, the decision-makers have been compelled to give priority to commercial obligation over social and environmental obligations.

**Practicalities of Business World**

Now let us turn to the practicalities of the business world. Modern business world is controlled by the corporate bodies which are artificial juridical persons with faceless ownership and limited liability. In General, business people are ordinary business people. They follow the existing business paradigms. Genuine business leaders are rare who dare to challenge the existing paradigms and establish some new ones. This is natural in every field of activity, not only in business. As business entities have to survive through exchange, they are primarily concerned with satisfying the parties from whom they procure resources commercially. Thus, commercial obligation comes first. Social and environmental obligations are only secondary, contingent on external pressures. Even how far the business world is meeting its commercial obligations is now highly questionable. Commercial organisations have to satisfy the resources providers by paying them fair returns. And, in a market economy, fair returns are determined by market forces. Therefore, in many cases, what appears to be fair may not be fair at all, as we find in case of returns to employees. Employment on short-term contextual basis, long working hours and excessive work demands, lack of employment security, threat of redundancy, stress at workplace and the like features are the harsh realities of modern business. Similar is the case with the consumers. Price discrimination, pricing deception, quality deception, quantity deception, bribery in marketing, deceptive advertising, huge spending on advertising, falsifying the genuine consumer needs and the like practices are very common to modern business. On the whole, in a market economy, commercial organisations are easily susceptible to ethical deterioration. When the very fulfilment of commercial obligation is highly questionable, what to speak of social and environmental obligations? All these indicate that we need more and more genuine business leaders capable of fulfilling commercial as well as social and environmental obligations.

**External Pressures**

Now let us come to the domain of external pressures for meeting environmental obligations: Administrative measures, judicial interventions, media highlights, movements of the environmentalists, public protests and the like initiatives at both national and international levels. No doubt, business behaviour towards environmental degradation may be restricted to a considerable extent by the enactment and enforcement of necessary laws. Nevertheless, this approach has its severe inherent limitations. For example, law is reactive, not proactive. That is, laws always lag behind current realities. Some unethical practices take place first, society considers it harmful, then arises the question of enactment and enforcement of necessary laws. Law cannot always effectively deal with the issues where highly specialised knowledge is required. Vested interest groups learn law both to fallow and to flout. The judiciary, being overburdened, may take an unusual long time to give a verdict. Ordinarily, laws which touch up deep prejudices and emotions are not obeyed. Laws which prohibit long practices are not favoured. Above all, law can hold one accountable, not responsible, when ‘responsibility’ means ‘felt obligation’. If I feel I am responsible, I am accountable, not responsible, when ‘responsibility’ means ‘felt obligation’. If I feel I am responsible, I am accountable, not responsible, when ‘responsibility’ means ‘felt obligation’. If I feel I am responsible, I am accountable, not responsible, when ‘responsibility’ means ‘felt obligation’. If I feel I am responsible, I am accountable, not responsible, when ‘responsibility’ means ‘felt obligation’. If I feel I am responsible, I am accountable, not responsible, when ‘responsibility’ means ‘felt obligation’. If I feel I am responsible, I am accountable, not responsible, when ‘responsibility’ means ‘felt obligation’. If I feel I am responsible, I am accountable, not responsible, when ‘responsibility’ means ‘felt obligation’.

Yet it’s effectiveness is questionable, as questionable is the effectiveness of corporate financial disclosure. Financial and Accounting people are now well conversant with the terms ‘cooking the books’, ‘creative accounting’, ‘earnings management’, and the like manipulative and deceptive tactics. And thanks to business dailies, ‘insiders trading’ is now well known to the public.
interested in corporate affairs.

**Deeper Realities**

As for ‘greening business’, let us now focus on some deeper realities of life. How far Nature will be exploited for present generation enjoyments and how far be preserved for future generations depends largely on human attitudes towards life, which may be broadly categorised into two: (i) With what maximum can we live a hectic and exciting life; and (ii) with what minimum can we live a steady and peaceful life. Both the attitudes are supposed to go side by side everywhere on this earth, as attitudes depend primarily on values and disvalues. The modern trend of commercial activities under the garb of globalisation is certainly promoting the former. And possibly it is beyond any controversy that the influence of commercial organisations in society is now greater than ever before. We are fortunate enough that the Indian attitude is still in favour of the latter, clearly evident in the behaviour of rural India. In this connection, one inquisitive question may be raised: Which countries are causing more damage to the environment? Developed countries or underdeveloped countries? Undoubtedly, it is the developed countries (‘Development’ in terms of material progress). No doubt, the developed countries are working more in terms of holding conference, convention, etc. for environmental awareness, setting up of regulatory bodies, enactment and enforcement of environmental laws and the like. They have identified their own industrial growth as a major factor responsible for environmental degradation. And now, instead of economic growth, they are talking of ‘sustainable development’, i.e., development for the present but not at the cost of future generations. At the same time, developed countries are nurturing the concept of consumerism: ‘The belief that it is good for a society or an individual person to buy and use a large quantity of goods and services’. Rapid advancement of science and technology also is a contribution of the developed countries.

While ‘science’ is more germane to acquiring of knowledge, ‘technology’ is to the use of that knowledge. The present day huge business investments in scientific researches are necessarily for their widespread applications for commercial purposes. All these work for the exploitation of Nature and thus towards environmental degradation.

**Societal Ethos**

Every society has its own ethos based on its own religious and philosophical tradition. We are fortunate enough that Indian ethos has a deep regard for all the agents of Nature. For example, our ancient Seers have taught us a great lesson that every human being is born with fivefold debts: (i) Debt to Divine Powers (Sun, Air, Water etc); (ii) Debt to Seers; (iii) Debt to Parents and other Ancestors; (iv) Debt to the humanity at large; and (v) Debt to the sub-human living species (animals, plants etc.). Our survival depends on their contributions. They give, so we live. Therefore, it is our duty to repay these debts as much as we can, in whatever possible ways and with gratitude. This holistic approach to life automatically takes care of all the three issues-commercial, social as well as environmental. Our investment in ‘greening business’ will be enormous if we can internalise and propagate this message and become more and more duty-conscious than right conscious. In fact, only duties can protect rights. Possibly the ethos of every society speaks of indebtedness to Nature. For example, there is a dictum in the Bible: ‘Freely freely get. So, freely freely give.’

By now many of us have realised that ‘quality of life’ is more important than ‘quantities of life’; ‘happiness index’ is more significant than ‘standard of living index’; and ‘life of purpose’ is more meaningful than ‘life of pleasure’. Let us therefore conclude with a heartening note that environmental consciousness is growing worldwide, creating its own virtuous circle, which will be able to deal with ‘greening business’ more and more efficiently, effectively as well as ethically.
Implementation of the Value Added Tax (VAT) at the Central and State level is considered to be a major breakthrough in the sphere of indirect tax reforms in India. If the system of VAT is a major improvement over the pre-existing Central excise duty at the national level and the Sales tax system at the state level, then Goods and Service Tax (GST) will indeed be a significant paradigm shift and a logical follow through towards a comprehensive indirect tax reform in the country.

In the quest for relieving the taxpayer of the burden of the cascading effect of taxing the taxes, the Central Government in 1996 introduced Manufacture – VAT (MAN-VAT), later named as Modified VAT (MODVAT) for a select number of manufactured products, whereby the Central Excise duty paid on inputs could be taken as credit for subsequent payment of duty on the output manufactured products. Subsequently, MODVAT was extended to all manufactured products in 2002 and was renamed as CENVAT (CENTRAL VAT).

Furthermore, Service tax which is a tax on provision of services was introduced in 1994 by the Central Government and the credit for Service tax paid on input services was allowed for payment of Service tax on output Service. However, in 2004, tax paid on input services, which was taken as credit, was allowed to be utilised for payment of Central excise duty on manufacture of goods and vice versa. This single action
of integration of goods and services was a prelude towards the introduction of GST in future.

Survey of Literature

![Figure 1: Survey of Literature Structure](image)

Objectives of the study
The study was done to test the following objectives,
1. To Study the Consumption Pattern of the various Income Groups
2. To find out if any relationship exists between Consumption Habit and Income Levels.
3. To assess the tax incidence of GST on Low, Middle and High Income Groups and suitable comparison with their legacy indirect tax outlay.

Research Hypothesis
There are 11 hypotheses related to above three objectives which are subsequently tested. The linkage of each of these hypotheses with the objectives are also being catered to,
1. **H_0**: Proposed GST will LOWER the tax burden on lower income group.
   **H_1**: Proposed GST will INCREASE the tax burden on lower income group.

2. **H_0**: Proposed GST will LOWER the tax burden on higher income group.
   **H_1**: Proposed GST will INCREASE the tax burden on higher income group.

3. **H_0**: Proposed GST will LOWER the tax burden on middle income group.
   **H_1**: Proposed GST will INCREASE the tax burden on middle income group.

4. **H_0**: There is NO ASSOCIATION between income and consumption habit.
   **H_1**: There is ASSOCIATION between income and consumption habit.

5. **H_0**: There is NO SIGNIFICANT DIFFERENCE between the consumption habits.
   **H_1**: There is SIGNIFICANT DIFFERENCE between the consumption habits.

6. **H_0**: There exists AT MOST THREE clusters.
   **H_1**: There exists MORE THAN THREE clusters.

7. **H_0**: Consumption Habit is INVERSELY RELATED to Annual Income.
   **H_1**: Consumption Habit is DIRECTLY RELATED to Annual Income.

8. **H_0**: Consumption Habit of low income group is OTHER THAN GOODS ORIENTED.
   **H_1**: Consumption Habit of low income group is GOODS ORIENTED.

9. **H_0**: Consumption Habit of low income group is OTHER THAN SERVICE ORIENTED.
   **H_1**: Consumption Habit of low income group is SERVICE ORIENTED.

10. **H_0**: Consumption Habit of high income group is OTHER THAN GOODS ORIENTED.
    **H_1**: Consumption Habit of high income group is GOODS ORIENTED.

11. **H_0**: Consumption Habit of high income group is OTHER THAN SERVICE ORIENTED.
    **H_1**: Consumption Habit of high income group is SERVICE ORIENTED.
Objective and Research Hypotheses relationship:

Research Methodology:
A structured questionnaire was developed for this study to capture the relevant information regarding the consumption habit of the consumers belonging to Low, Middle and High income groups. Data Collection is carried out using Random Sampling technique. The sample size for the study was 263 respondents who are primarily from West Bengal. Moreover, Reliability Analysis was performed on the responses of 263 respondents and the value of CHRONBACH’s ALPHA obtained was .642 (i.e. within acceptable range) which shows that the responses are reliable and consistent. (Annexure 4)

The primary data collected had been collated, analysed and tabulated using appropriate statistical techniques and with the help of statistical software viz. SPSS (version 20) and R Programming.
Where F : Feedback & FF : Feed Forward

Data Analysis

a) Synopsis of Tests performed.

A. Analysis of Variance (ANOVA)
   To Study the association between Income and Consumption habit of the different Income groups.

B. Chi Square Test
   To Test the independence of attributes of consumption pattern and income level.

C. Cluster Analysis
   To Study the formation of homogeneous groups on the basis of income and consumption habit of the respondents.

D. Regression Analysis
   To study and determine the relationship between the dependent (or criterion) variable i.e. Consumption habit and the independent (or predictor) variable i.e. Income level.

E. Analysis of Tax Burden
   To study the proposed Tax burden of the various Income groups viz. Low Income Group, Middle Income Group and High Income Group and Tax differential with respect to their current (Legacy) Indirect tax outlay.

b) Empirical Analysis – Detailed Discussion of the Tests Performed

A) Analysis of Variance (ANOVA): Using SPSS (version 20)

Under Analysis of Variance we will be testing the following two Hypotheses i.e. Hypothesis 4 and Hypothesis 5.

4. H0 : There is NO ASSOCIATION between income and consumption habit.
   H1 : There is ASSOCIATION between income and consumption habit.

5. H0 : There is NO SIGNIFICANT DIFFERENCE between the consumption habits.
   H1 : There is SIGNIFICANT DIFFERENCE between the consumption habits.

Test Results (using SPSS):

Table 1: ANOVA Test Result

<table>
<thead>
<tr>
<th>CONSUMPTION HABIT</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>17.423</td>
<td>2</td>
<td>8.711</td>
<td>93.225</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>24.296</td>
<td>260</td>
<td>.093</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>41.719</td>
<td>262</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Results obtained using SPSS (version 20) on Primary data.

Table 2: Test of Homogeneity of Variances

<table>
<thead>
<tr>
<th>CONSUMPTION HABIT</th>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>118.359</td>
<td>2</td>
<td>260</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Results obtained using SPSS (version 20) on Primary data.

Table 3: Post Hoc Tests

<table>
<thead>
<tr>
<th>Dependent Variable: CONSUMPTION HABIT</th>
<th>Least Significant Difference (LSD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(I) ANNUAL INCOME</td>
<td>(J) ANNUAL INCOME</td>
</tr>
<tr>
<td>LOW &lt; 5 LACS</td>
<td>MIDDLE &gt; 5 LACS - 10 LACS</td>
</tr>
<tr>
<td>HIGH &gt; 10 LACS</td>
<td></td>
</tr>
<tr>
<td>MIDDLE &gt; 5 LACS - 10 LACS</td>
<td>LOW &lt; 5 LACS</td>
</tr>
<tr>
<td>HIGH &gt; 10 LACS</td>
<td></td>
</tr>
<tr>
<td>MIDDLE &gt; 5 LACS - 10 LACS</td>
<td>HIGH &gt; 10 LACS</td>
</tr>
<tr>
<td>HIGH &gt; 10 LACS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW &lt; 5 LACS</td>
<td>MIDDLE &gt; 5 LACS - 10 LACS</td>
<td>-.093'</td>
<td>.044</td>
</tr>
<tr>
<td>HIGH &gt; 10 LACS</td>
<td>MIDDLE &gt; 5 LACS - 10 LACS</td>
<td>-.634'</td>
<td>.048</td>
</tr>
<tr>
<td>MIDDLE &gt; 5 LACS - 10 LACS</td>
<td>LOW &lt; 5 LACS</td>
<td>-.093'</td>
<td>.044</td>
</tr>
<tr>
<td>HIGH &gt; 10 LACS</td>
<td>MIDDLE &gt; 5 LACS - 10 LACS</td>
<td>-.634'</td>
<td>.048</td>
</tr>
<tr>
<td>MIDDLE &gt; 5 LACS - 10 LACS</td>
<td>HIGH &gt; 10 LACS</td>
<td>-.541'</td>
<td>.051</td>
</tr>
</tbody>
</table>

* The mean difference is significant at the 0.05 level.

Source: Results obtained using SPSS (version 20) on Primary data.
**Test Inferences (using SPSS):**

a) Table 1 – As p value < 0.05 i.e. 0.000, so significant relationship exists between Consumption Habit and Annual Income. Thus we accept the Alternate Hypothesis 4 i.e. “There is Association between Income and Consumption Habit”.

b) Table 2 – As p value < 0.05 i.e. 0.000, it indicates non homogeneity of Consumption Habit for each of the Income groups. Thus we accept the Alternate Hypothesis 5 i.e. “There is significant difference between Consumption Habits”.

c) Table 3 – Least Significant Difference (LSD) test indicates that the mean difference is significant at 0.05 level, so significant difference exists between the consumption habit of Low, Middle and High Income groups. Thus we accept the Alternate Hypothesis 5 i.e. “There is significant difference between Consumption Habits”.

B) Chi Square Test : Using SPSS (version 20)

Under Chi Square Test we will be testing the following four Hypotheses i.e. Hypothesis 4, Hypothesis 8, Hypothesis 9, Hypothesis 10 and Hypothesis 11.

1. \( H_0 \): There is NO ASSOCIATION between income and consumption habit.
2. \( H_1 \): There is ASSOCIATION between income and consumption habit.
3. \( H_0 \): Consumption habit of low income group is OTHER THAN GOODS ORIENTED.
4. \( H_1 \): Consumption habit of low income group is GOODS ORIENTED.
5. \( H_0 \): Consumption habit of low income group is OTHER THAN SERVICE ORIENTED.
6. \( H_1 \): Consumption habit of low income group is SERVICE ORIENTED.
7. \( H_0 \): Consumption habit of high income group is OTHER THAN GOODS ORIENTED.
8. \( H_1 \): Consumption habit of high income group is GOODS ORIENTED.
9. \( H_0 \): Consumption habit of high income group is OTHER THAN SERVICE ORIENTED.
10. \( H_1 \): Consumption habit of high income group is SERVICE ORIENTED.

**Test Results for Chi Square Test (under SPSS):**

<table>
<thead>
<tr>
<th>Source: Results obtained using SPSS (version 20) on Primary data.</th>
<th>CONSUMPTION HABIT</th>
<th>Total</th>
</tr>
</thead>
</table>
| | GOODS MAJOR | SERVICE MAJOR | |%
| **LOW < 5 LACS** | | | | |
| Count | 116 | 2 | 118 |
| Expected Count | 94.7 | 23.3 | 118.0 |
| \% within ANNUAL INCOME | 98.3% | 1.7% | 100% |
| \% within CONSUMPTION HABIT | 55.0% | 3.8% | 44.9% |
| \% of Total | 44.1% | 0.8% | 44.9% |
| **MIDDLE > 5 LACS - 10 LACS** | | | | |
| Count | 73 | 9 | 82 |
| Expected Count | 65.8 | 16.2 | 82.0 |
| \% within ANNUAL INCOME | 89.0% | 11.0% | 100.0% |
| \% within CONSUMPTION HABIT | 34.6% | 17.3% | 31.2% |
| \% of Total | 27.8% | 3.4% | 31.2% |
| **HIGH > 10 LACS** | | | | |
| Count | 22 | 41 | 63 |
| Expected Count | 50.5 | 12.5 | 63.0 |
| \% within ANNUAL INCOME | 34.9% | 65.1% | 100% |
| \% within CONSUMPTION HABIT | 10.4% | 78.8% | 24.0% |
| \% of Total | 8.4% | 15.6% | 24.0% |
Source: Results obtained using SPSS (version 20) on Primary data.

| Source: Results obtained using SPSS (version 20) on Primary data. |
|--------------------------|--------------------------|
| **CONSUMPTION HABIT**    | **GOODS MAJOR**          | **SERVICE MAJOR**          | **Total** |
|                          | Count                    | Count                    |
|                          | 116                      | 2                        | 118       |
|                          | Count                    | Count                    |
|                          | 211                      | 52                       | 263       |
| **TOTAL**                | Expected Count           | % within ANNUAL INCOME |
|                          | 211.0                    | 80.2%                    |
|                          | 52.0                     | 19.8%                    |
|                          | 263.0                    | 100%                     |
| % within CONSUMPTION HABIT | 100%                    | 100%                     |
| % of Total               | 80.2%                    | 19.8%                    |
|                          | 100.0%                   |                          |

**Test Results for Chi Square Test (under SPSS):**

**Table 5: Chi-Square Tests**

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td></td>
<td>109.836</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td></td>
<td>103.002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>92.165</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>263</td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.46.

Source: Results obtained using SPSS (version 20) on Primary data.

**Test Inferences (using SPSS):**

a) For Table 4
i. The Crosstabulation matrix (SPSS) shows that Low Income Group has the highest percentage of Goods Consumption i.e. 98.3% and High Income Group has the highest share of Service Consumption i.e. 65.1%.

ii. Thus the Consumption habit of Low and High Income Group are significantly different in nature. So for Low Income group we accept the Alternative hypothesis of Hypothesis 8 and Null Hypothesis of Hypothesis 9.

iii. However, for High Income group we accept Null Hypothesis of Hypothesis 10 and Alternative hypothesis of Hypothesis 11.

b) Table 5

For Pearson’s Chi Square test as the p value < 0.05 i.e. 0.000, we reject the hypothesis that the variables are independent and accept the hypothesis that they are in some way related. and accept the alternate hypothesis 4 i.e. “There is ASSOCIATION between income and consumption habit”.

C) Cluster Analysis: Using SPSS (version 20)

Under Cluster Analysis we will be testing the Hypothesis 6 i.e.

6. H0: There exists ATMOST THREE clusters.

H1: There exists MORE THAN THREE clusters.
Test Results for Hierarchical Cluster Analysis - (under SPSS):

Figure 4: Dendrogram (SPSS)

Source: Results obtained using SPSS (version 20) on Primary data.

Test Inferences (using SPSS):

Figure 4 above shows a Dendrogram using average linkage between group. It depicts 3 clusters. Thus, here we accept Null Hypothesis of Hypothesis 6 i.e. At most 3 clusters exist.

D) a) Regression Analysis: Using SPSS (version 20)

Under Regression Analysis we will be testing the Hypothesis 7 i.e.
7. H₀ : Consumption Habit is INVERSELY RELATED to Annual Income.
H₁ : Consumption Habit is DIRECTLY RELATED to Annual Income.

Table 7: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.593</td>
<td>0.352</td>
<td>0.349</td>
<td>0.322</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), ANNUAL INCOME

Source: Results obtained using SPSS (version 20) on Primary data

Table 8: ANOVAa

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1</td>
<td>14.675</td>
<td>14.675</td>
<td>141.637</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>261</td>
<td>0.104</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>262</td>
<td>0.41719</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: CONSUMPTION HABIT

b. Predictors: (Constant), ANNUAL INCOME

Source: Results obtained using SPSS (version 20) on Primary data
Table 9 : Coefficientsa

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant) .671</td>
<td>.049</td>
<td>13.823</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>ANNUAL INCOME .294</td>
<td>.025</td>
<td>.593</td>
<td>11.901</td>
</tr>
</tbody>
</table>

a. Dependent Variable: CONSUMPTION HABIT

Source: Results obtained using SPSS (version 20) on Primary data

Test Inferences (using SPSS):

a) Table 7 –
From the Model Summary, we find R has a value of .593. The value of R2 is .352 which indicates that ANNUAL INCOME can explain 35.2% of the variation in CONSUMPTION HABIT.

b) Table 8–
In Anova table as p value < 0.05 i.e. 0.000, this indicates that the regression model is able to predict Consumption Habit significantly well.

c) Table 9 –
Coefficient table provides details of the model parameters i.e. the beta values. From the table we find that b0 or the value of the constant is .671 and the value of b1 is .294. So the model equation is written as below,

\[
\text{Consumption Habit} = .671 + .294 \times \text{Annual Income}
\]

From the above equation we find that Consumption Habit is directly related to Annual Income. Thus we reject the Null Hypothesis of Hypothesis 7 and accept the Alternate Hypothesis i.e. “Consumption Habit is DIRECTLY RELATED to Annual Income”. This also means that as Annual Income increases Consumption output also increases.

D) b) Regression Analysis :Using R Programming

Test Results for Regression Analysis (Using R Programming):

Table 10: Coefficients (R Programming)

| Estimate | Std. Error | t value | Pr(>|t|)   |
|----------|------------|---------|-----------|
| Intercept| 0.63388    | 0.05810 | 10.91     | <2e-16 ***|
| INCOME   | 0.32972    | 0.02933 | 11.24     | <2e-16 ***|

---

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
Residual standard error: 0.3292 on 193 degrees of freedom
Multiple R-squared: 0.3957, Adjusted R-squared: 0.3925

F-statistic: 126.4 on 1 and 193 DF, p-value: < 2.2e-16

Source: Results obtained using R Programming on Primary data

Test Inferences (using R Programming):

a) Table 10 –
From the Coefficient table we find that the value of R2 is .3957 which indicates that ANNUAL INCOME can explain 39.5% of the variation in CONSUMPTION HABIT.

b) Table 10 –
The Coefficient table provides details of the model parameters. From the table we find that b0 is .63388 and b1 is .32972. So the model equation is written as below,

\[
\text{Consumption Habit} = .63388 + .32972 \times \text{Annual Income}
\]

From the above equation we find that Consumption Habit is directly related to Annual Income. Thus we reject the Null Hypothesis of Hypothesis 7 and accept the Alternate Hypothesis i.e. “Consumption Habit is DIRECTLY RELATED to Annual Income”. This also means that as Annual Income increases Consumption output also increases.

E) Analysis of Tax Burden:

Under this Analysis we will be testing the Hypothesis 1, Hypothesis 2 and Hypothesis 3 i.e.

1. \(H_0\): Proposed GST will LOWER the tax burden on Lower Income Group.
   \(H_1\): Proposed GST will INCREASE the tax burden on Lower Income Group.

2. \(H_0\): Proposed GST will LOWER the tax burden on Higher Income Group.
   \(H_1\): Proposed GST will INCREASE the tax burden on Higher Income Group.

3. \(H_0\): Proposed GST will LOWER the tax burden on Middle Income Group.
   \(H_1\): Proposed GST will INCREASE the tax burden on Middle Income Group.

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**Test Result: Share of Consumption of Low Income Group**

Figure 5: Consumption Pattern of Low Income Group.

**Test Result: Share of Consumption of Middle Income Group**

Figure 6: Consumption Pattern of Middle Income Group.

Source: Results obtained using SPSS (version 20) on Primary data.
Test Result: Share of Consumption of Higher Income Group
Figure 7: Consumption Pattern of High Income Group

![Diagram showing consumption pattern of High Income Group]

Source: Results obtained using SPSS (version 20) on Primary data.

Table 11: Summary of Tax Burden Result:

<table>
<thead>
<tr>
<th>INCOME GROUP</th>
<th>GOODS CONSUMPTION (%)</th>
<th>SERVICE CONSUMPTION (%)</th>
<th>EFFECTIVE GST RATE(A) (%)</th>
<th>LEGACY INDIRECT TAX RATE (B) (%)</th>
<th>TAX RATE DIFFERENTIAL (B-A) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW INCOME GROUP</td>
<td>98</td>
<td>2</td>
<td>6.7</td>
<td>18.5</td>
<td>11.8 Favourable</td>
</tr>
<tr>
<td>MIDDLE INCOME GROUP</td>
<td>89</td>
<td>11</td>
<td>13</td>
<td>18.3</td>
<td>5.5 Favourable</td>
</tr>
<tr>
<td>HIGH INCOME GROUP</td>
<td>35</td>
<td>65</td>
<td>17.4</td>
<td>16.3</td>
<td>1.1 (Adverse)</td>
</tr>
</tbody>
</table>

Source: Results obtained using SPSS (version 20) on Primary data

Test Inferences for Tax Burden:

From Table 11 we get that as High Income Group has a tendency to consume more of Services than Goods, so their tax burden will likely to increase under Goods and Services Tax regime. Whereas for Low and Middle Income Groups, goods consumption are more than that of service so their tax burden will likely to decline after the roll out of Goods and Services Tax.

So for Low and Middle Income Group we accept the Null hypothesis of Hypothesis 1 and Hypothesis 3 i.e.

Null Hypothesis 1: Proposed GST will LOWER the tax burden on Lower Income Group.
Null Hypothesis 3: Proposed GST will LOWER the tax burden on Middle Income Group.
But for High Income Group we reject the Null Hypothesis and accept the Alternate Hypothesis of Hypothesis 2 i.e.
Alternate Hypothesis 2: Proposed GST will INCREASE the tax burden on Higher Income Group.

VIII. Findings of the Study

A) ANOVA Test Findings:
   i) There is Association between Annual Income and Consumption Habit. (Hypothesis 4)
   ii) There exists significant difference between Consumption Habits. (Hypothesis 5)

B) Chi Square Test Findings:
   i) Consumption habit of Low Income Group, Middle Income Group are GOODS ORIENTED and High Income Group are SERVICE ORIENTED. (Hypotheses 8, 9, 10, 11)
   ii) There is ASSOCIATION between Annual Income and Consumption Habit. (Hypothesis 4)
   iii) SIZE OF THE EFFECT of Association (Crammer’s Statistic = .65) between Annual Income and Consumption Habit is moderately high.

C) Cluster Analysis Test Findings:
   i) There exists AT MOST THREE clusters. (Hypothesis 6).

D) Regression Analysis Test Findings:
   i) Consumption Habit is DIRECTLY RELATED to Annual Income. (Hypothesis 7).
   ii) About 35 – 40 per cent of the variability of Consumption Habit can be explained by Annual Income.

E) Tax Burden Analysis Test Findings:
   i) GST is likely to REDUCE tax burden of Low and Middle Income Group (Hypotheses 1 & 3).
   ii) GST is likely to INCREASE the tax burden of High Income Group (Hypothesis 2).

IX. Conclusion

✔ GST is a comprehensive taxation system in which complexities like multiplicity of taxes and cesses, multiplicity of rates, multiple compliances procedures will be removed.
✔ In reality the GST Council had proposed a multipirate (i.e. 5%, 12%, 18% and 28%) for goods and a single general rate of 18% for all services.
✔ The proposed GST rate for services being higher compared to the legacy service tax rate i.e. 15%, it is likely to make the services dearer.
✔ In this study, it is found that High Income Group (HIG) consumers have higher share of services consumption i.e. 65% & goods 35%. So it is likely that HIG consumers will face additional tax burden under GST regime.

X. Recommendation:

✔ Some of the services like Banking, Insurance, Telecom, Hospitality and Health Care are considered as Essential Services impacting all categories of consumers. So GST rate for services may be segregated into ESSENTIAL SERVICES and OTHER SERVICES, with ESSENTIAL SERVICES rate may be fixed at a lower figure than the current general GST rate for services i.e. 18%.

XI. References:

Research Papers:
9. Poddar, Satya, and Ehtisham Ahmed, 2009, “GST Reforms and Intergovernmental Considerations in India,” Government of India,


XII. Annexures

1) Calculation of Tax Differential for Low Income Group:

Under GST
- Goods Share – 98%
- Service Share – 2%
- Tax Burden on Goods: (Say Goods – 80% Essential, 20% Others)
  = 0.98x0.80x5% + 0.98x0.20x12% = 6.3%
- Tax Burden on Services = 0.02x18% = 0.4%
- Total Proposed GST Burden of LIG = 6.3% + 0.4% = 6.7%
- Under Present Indirect Tax System
  - Excise Duty -12.5%
  - Service Tax – 15%
  - VAT (Weighted Average Rate) = 0.2x1 + .6x5 + .2x14.5 = 6.1%
- Effective Goods Rate = 12.5 +6.1 = 18.6%
- Tax burden on Goods = .98x18.6 = 18.2
- Tax Burden on Service = .02x15 = 0.3
- Total Indirect Tax Burden on LIG = 18.2 + 0.3 = 18.5%
- Proposed reduction in tax rate = 6.7 – 18.5 = (-) 11.8%

2) Calculation of Tax Differential for Middle Income Group:

For MIG: Under GST
- Goods Share – 89%
- Service Share – 11%
- Tax Burden on Goods: (Say Goods – 40% Essential goods, 20% Luxury Goods & 40% Other Goods)
  = 0.89x0.40x5% + 0.89x0.20x28% + 0.89x0.40x12% = 11%
- Tax Burden on Services = 0.11x18% = 2%
- Total Proposed GST Burden of MIG = 11% + 2% = 13%
- Under Current Indirect Tax System
  - Excise Duty -12.5%
  - Service Tax – 15%
  - VAT (Weighted Average Rate) = 0.2x1 + .6x5 + .2x14.5 = 6.1%
- Effective Goods Rate = 12.5 +6.1 = 18.6%
- Tax burden on Goods = .89x18.6 = 16.6
- Tax Burden on Service = .11x15 = 1.7
- Total Indirect Tax Burden on MIG = 16.6 + 1.7 = 18.3%
- Proposed reduction in tax rate = 13 – 18.3 = (-) 5.3%
3) Calculation of Tax Differential for High Income Group:

For HIG: Under GST
Goods Share – 35%
Service Share – 65%

Tax Burden on Goods: (Say Goods – 30% Essential, 40% Luxury & 30% Other)
= 0.35x0.30x5% + 0.35x0.40x28% + 0.35x0.30x12% = 5.7%

Tax Burden on Services = 0.65x18% = 11.7%
Total Proposed GST Burden of HIG = 5.7% + 11.7% = 17.4%

Under Current Indirect Tax System
Excise Duty - 12.5%, Service Tax – 15%
VAT (Weighted Avg Rate) = 0.2x1 + 0.6x5 + 0.2x14.5 = 6.1%

Effective Goods Rate = 12.5 + 6.1 = 18.6%
Tax burden on Goods = 0.35x18.6 = 6.5
Tax Burden on Service = 0.65x15 = 9.8
Total Indirect Tax Burden on HIG = 6.5 + 9.8 = 16.3%

Proposed increase in tax rate = 17.4 – 16.3 = 1.1%

4) Reliability Analysis: Value of “CHRONBACH’S ALPHA”

Case Processing Summary

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</tr>
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</tbody>
</table>

Reliability Statistics

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</tr>
</tbody>
</table>

LETTERS TO EDITOR

Dear Sir,

This is to state that the Management Accountant, the journal of the ICAI-CMA, has been continuously attracting the Professionals and Academicians for its wide coverage in the Discipline of Cost and Management Accountancy in particular and Finance Area in general. Improvement is a continuous process and your editorship is time honoured consequent to which the journal is having critical eye over the contemporary issues concerning fiscal, legal, CSR, Cost and Management Accounting, Corporate Finance, Taxation etc. The selected Case Studies published in the journal are of immense use for the students and teachers of Commerce and Management Discipline by and large. However, it can add more value to the readers of the Journal if your editorship considers publishing the interview of the stalwarts both nationally and internationally in the field of Cost & Management Accountancy Profession including Academia. Moreover, the Journal is more useful to students of Cost & Management Accountancy Profession and they should be made members by subscription which should be mandatory. It may be worth mentioning that student membership is mandatory in ACCA, CIMA etc and there is a prescribed fee for Students’ Membership and the payment of Annual Fee by the students is compulsory unless otherwise they shall not be allowed to take any exam. This would help the Institute to create alertness, awareness and interest of the students in the Profession for which they are the brand ambassador. Particularly Final Level students of the Institute should subscribe and read the Journal mandatorily. This would immensely help the students to prepare for examinations. Furthermore, the Journal should concentrate more on empirical and research based papers. It may also be suggested that the Journal should publish articles and research papers of the scholars of the academically advanced countries. Being the voracious reader of the Journal, I wait for the 7th day of every month on which it is uploaded in the Institute’s website. More and more articles should be published on the emergence and evolution of Cost & Management Accountancy Profession and the role of the ICAI-CMA in developing the same. Stakeholders should know the glorious history and present status of the Institute and the Profession to which belong.

CMA Dr D Mukhopadhyay
Historically Indian subcontinent has always been known for its cultural and economic wealth. India was also blessed with so many important trade routes. However India’s contribution to world trade minimised to merely 2.8% whereas population wise its 1/6th of the world. Though India is World’s 7th largest economy by nominal GDP (as per world economic forum) and third-largest by purchasing power parity (PPP) but per capita wise India is placed at 141st position in the world.

Wheels are supposed to be the biggest engineering invention that made the life of mankind easier and facilitated the trade. Wheels are the single biggest reasons for ‘Comparative Advantage’. Comparative advantage means efficiency of one producer to produce goods and services at a lower opportunity cost than other producer. It’s possible only because wheels can carry these advantage from one corner of the world to other. But probably taxation laws and infrastructure bottlenecks of the country acted as breaks for Indian Economy among other factors.

As per earlier law, in case of B-to-C transactions, sales tax (CST) was being collected by the state which exported the goods and to compensate the losses of tax, the importing states imposed entry tax. Whereas in case of B-to-B transactions, after keeping a portion of tax the exporter state transfers all the taxes to importing state with the help of Form C or Form F. Though to take the advantage of form-F the business organisation were forced to open branch offices/warehouses in every states resulting into increase in the cost. Moreover full credit of taxes paid in one state with taxes paid in other state was not possible in the C/F form regime. Ultimately all these cost were passed on to consumers.

Current position

Due to checking of road permit, C-Form, F-form etc at the state border check posts the trucks gets stranded most of the time resulting into increase in the transportation cost. As per Ministry of transport & highway’s document published,

- A typical truck spends 20% of its run time at border check posts.
- The average running speed of trucks in India is approximately 25 km/hr.
- Transport industry spends 50-60% of its resources on tax compliances and deposit of inter-state
sales tax.

Due to all these, average logistics cost is 14% of the price of goods whereas in developed economies it’s around 6 to 8% only.

Ideally rail should be cheaper mode of transport due to high carrying capacity [On an average a goods train can carry 4000 MT of goods whereas a truck can carry 12-18 MTs of goods only] but Indian railway’s share in transport sector is approximately 1/3rd(down from 60% in 1980).

India had 51300 km of rail lines in 1951 but today it has approximately 66000 km of rail lines only. Electrification started in 1951 when around 400 kms of rail line was electrified but today more than 2/3rd rail lines are still not electrified. Though India has done remarkable job in converting single lines into double lines. Road infrastructure is not rosy either. As on date India has approx. 50 lakh km of road length but state and central highways put together is 5% only. The current Govt has put special emphasis on strengthening of road and rail infrastructure, but the momentum need to be maintained.

**How GST is going to help**

India has introduced GST w.e.f from 01.07.2017 all across the country. As per GST law, which is in true sense destination based taxation:

- The state portion of tax will go the state where goods are going to be consumed.
- Road permits has been abolished in all states due to which average speed of the trucks in the country has increased to 35-40 km per/hr.
- Retention of a portion of state tax by the exporting state has been stopped. Seamless input credit of taxes are allowed resulting into reduction of the prices of the goods travelling from one state to another.
- Taxes across all the states are same now providing opportunities for big organisations to sell their product across the country on the basis of comparative advantage only.

It has been predicted that these reasons, among others, will increase the Indian GDP by 1.5%-2%. Increase in GDP, reduction in logistics cost, removal of route permit, removal of C form/F-form will ensure growth in the transportation and logistics sector.

**Area of concern post GST.**

In the new GST law, the point of taxation is Supply. A supply of goods or services made intra state is taxable if it is made between related persons or between principal to agent even if made without consideration. Further supply of goods or services inter-state is taxable in all cases whether with consideration or without consideration. That means any stock movement between related persons, principal to agent or inter-state stock transfer are going to be taxable. Though the credit of such taxes will be available later on but liquidity to the extent of 18-40% of the value of goods will be blocked.

Further Govt has finalised E way fill to be implemented w.e.f. 1.10.2017. As per e-way rule, transportation of goods of value more than Rs 50,000 to generate e-way bill before its movement. The e-way bills will be valid for maximum 20 days depending on the distance to be travelled

- one day for less than 100 km,
- 3 days for 100km to less than 300 km,
- 5 days for 300 km to less than 500 km
- 10 days for 500km to less than 1,000 km.
- 15 days for 1000 km or more (maximum day extended for 20 days).

Logistic industry fear that it will bring back old days of transportation. Industry say that 30 million parcels are transported every day and that would require 100 million e-way bill to be generated every day.

**Conclusion**

Now companies will refrain from unnecessary movement of the goods and also will not be forced to operate branches in every state for tax purposes. These two reasons will ensure that number of warehouses across the country will reduce. Bigger warehouse will be desirable at central places and transportation industry will require a different model than current hub and spoke model where cases of transhipment is more.

In the GST regime, reduction in number of warehouses and increasing the average speed of the trucks will reduce the demand of the trucks but reduction in the transportation cost and increase in the trade of goods across the country will counter balance.

GST will require redefining the supply chain management system. GST has provided us all the reasons to start the wheel rolling but we need good support of infrastructure and technology to keep the wheel rolling.

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Money laundering is a way of disguising the nature of gains derived from many types of criminal activities. A Money launderer, according to the Prevention of Money Laundering Act 2002, is defined as 'Whosoever directly or indirectly attempts to indulge or knowingly assists or knowingly is a party or is actually involved in any process or activity connected with the proceeds of crime and projecting it as untainted property is guilty of offence of money-laundering.' Money laundering negatively impacts the economy by imposing heavy burden of taxation on rest of population, fluctuation in exchange rates, reducing financial sector confidence, discouraging investments environment in the economy and reducing cost of capital in terms of availability of funds. It is thus essential to reduce the amount of money laundered in the system.

The regulatory requirements against money laundering are very similar across the world since they all have been adopted from the FATF (Financial Action Task Force on Money Laundering) United Nation which provides 40 recommendations to combat money laundering. The regulations put together by different countries of the world are more or less on similar lines as adopted by the FATF. The laws specified by various governments include Know Your Customer norms (KYC), Suspicious Activity Reporting norms and Cash Transaction Reporting norms. These norms are to be followed by all the banks functioning in a country. The KYC makes...
it mandatory of banks to ask for the identity proof of all customers who approach a bank for any kind of services like opening an account, taking loan or being an institutional stakeholder.

The suspicious activity reporting norms mandates banks to report any incidences where a person comes to deposit or withdraw large sums of money but refuses to declare the source of this money to the bank. If large amounts of money are being deposited to the bank, chances are that the money has been obtained from illicit means and is posed to be disguised as white money through banking channels. The Cash transaction reporting norms mandates banks to report anyone who undertakes transactions of large volumes through the banking channels. It may be noted that movement of large volumes of money takes place generally to fund terrorist, criminal, betting or drug transactions or any other illegal activity.

A framework is called the Risk control Self-Assessment framework or RCSA framework is being used by banks to comply with Anti-money laundering regulations and many other regulations for their bank. A framework is the broad outline or work flow within an organization which the employees of the bank work under in order to comply with company policies. An extensive literature is available which talk about the control framework used by banks to comply with Anti money laundering regulations set out by government. This is inspired from the management by controls concept in management studies.

This present article finds out the impact of the subjectivity of the definition of Suspicious Activity Reporting on the efficiency of banks to report relevant AML control violations to higher management and government. The article is divided into four sections. The first section explains the control mechanisms used by banks to report suspicious activity reporting. The second section explains the definitions of suspicious activity reporting according to the law of USA, Australia and India and examines it in the light of subjectivity of the definition. The third part applies the t test to compare the number of cases disseminated by the FIUs of these countries out of the total cases reported. The last section examines this test result in the light of the subjectivity of definition of SAR.

**Control mechanism adopted by banks for combating Money laundering**

The AML controls suggested by government are based on the concept of ‘Management by controls’ which states that actual performance is reviewed and monitored against a specific set of rules and standards. This concept explains that policies, issues, risks, controls and exceptions are tracked in banks to identify, monitor and report AML non compliance issues to senior management. These are defined in figure 1.1.

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**Diagram: Control mechanism framework diagram – 1**

![Diagram](source: Compiled by author from various sources)
Controls are further prepared by the management of the company to mitigate the risk involved in any cases of non-compliance with the policies laid down by the company. Controls have been adopted by businesses especially in the area of operational risk which includes regulatory risk to avoid risks, penalties and punishments arising due to regulatory negligence. Exceptions are those risks which have been decided to be accepted by business fully cognizant of the risk it imposes. The deviations from the standards and rules is reported to senior management and a corrective action plan is undertaken to mitigate the risk arising from the issue.

A corrective action plan is described for any risk that may arise due to non-compliance of a policy item. Corrective action plan means controls undertaken to solve the issue at hand.

In case the issue cannot be solved, due to multiple reasons like budget constraints, third party vendor refusal or technology not being available, then an Exception is raised. The exception is accepted as a known risk by the company.

Effectiveness of control mechanism in complying with suspicious activity reporting

The suspicious activity reporting is a government mandate given by the Financial Intelligence unit to report those cases where money in banks is suspected to be used for criminal or illegal purpose. Disseminated STRs are those suspicious reports which are considered relevant for investigation by law enforcement agencies based on nature of suspicion. Predicate offence involved and other relevant information.

The regulation of definition of reporting suspicious activity is different in different countries. It is more specifically defined in some countries and is vague in some other countries like India. It thus leaves a lot to the judgment of the employees of the bank to report which all cases of suspicious activity through their controls framework as reporting requirement of Anti Money Laundering regulation.

Risk based reporting means introducing discretion in reporting cases of money laundering to the government while rule based reporting means reporting based on facts for suspicious activity reporting and cash transaction reporting. It is viewed that rule based reporting against risk based reporting, can reduce the number of cases to be pursued as compared to risk based reporting as risk based internal controls method reporting is considered less subjective. It is further stated that Dutch laws are less subjective as compared to the USA laws which are more discretionary in nature. The Dutch laws prescribes the reporting of unusual transactions instead of suspicious transactions and it states the four sub criteria of reporting unusual transactions, which are: 1) transactions with specifically blacklisted countries (a blacklist which is currently empty though), 2) crimes related to money laundering which have to be reported to the police anyway, 3) concern with the type of the transaction and the amount which has to be exceeded, and differs by each economic sector with a reporting duty. 4) Fourthly, the list has a subjective criterion, namely ‘a transaction where there is reason to assume that it is related to money laundering or terrorist financing (Brigitte Unger Frans Van Waarden, 2009)

Anti money laundering regulations compliance has found its way in the internal controls system laid down by the Basel committee for operational risk management according to the study “Integrating Anti-Money Laundering into the Compliance Structure” by Kamala R. Raghavan (2006). The study explains how the role of chief risk officer along with the chief finance officer becomes important to report suspicious activity through their banks. The non-compliant items need to be raised as issues and remediation of the issue needs to be done based on the internal controls mechanism. The role of software and information technology in the entire process is explained in the paper. The following aspects of regulations are mentioned, like OCC used to mitigate the risk in software:

1. Install strong intrusion detection system. Define key risk drivers and key risk indicators.
2. Implement disaster recovery plan that are regulated
3. Plan network design and architecture in terms of connectivity, key components and firewall
4. Implement physical security program to control access to information systems
5. Conduct regular background checks of employees in sensitive position
6. Collect operational loss information in an internal database.
7. Commit enough financial resources to operations risk management processes, including the identification and measurement of operational risks, and develop a robust model to allocate
The effectiveness of the Swiss STR system is described in the article “How effective is suspicious transaction reporting systems?” by David Chaikin (2009). The author has investigated plausible explanations for the huge disparity between the number of STRs filed in Switzerland compared with countries such as the USA, UK and Australia. The Swiss STR system has different aims: it is more narrowly focused on money laundering and terrorist financing, rather than combating financial crime generally. However, the low number of STRs filed in Switzerland suggests that there is a problem of under reporting of suspicious transactions.

The Swiss MROS produces useful information on the quality of the Swiss STR system. From a law enforcement perspective, the Swiss STR system is efficient in terms of quality of input and the initial output of STRs. The percentage of STRs which are forwarded by MROS to the prosecuting authorities for further investigation is very high, averaging about 75 per cent, and reaching 82 per cent in 2006.

Comparing the Suspicious transaction reporting definitions in India, USA and Australia

This section of the article analyze how effective is the definition of suspicious activity reporting in India, USA and Australia.

The effectiveness is measured in terms of how many cases out of the total submitted as suspicious activity reports are pursued further for investigations by the Financial Intelligence units of India, USA and Australia.

India

In India: Under Prevention of Money Laundering Act, reporting entities are required to report suspicious transactions to FIU. Rule 2(1) (g) of the PMLA Rules defines a suspicious transaction as a transaction, whether or not made in cash, which to a person acting in good faith –

1. Gives rise to a reasonable ground of suspicion that it may involve the proceeds of crime of an offence specified in the schedule to the act.
2. Appears to be made in circumstances of unusual or unjustified complexity.
3. Appears to have no economic rationale or bonafide purpose.
4. Gives rise to reasonable ground of suspicion that it may involve financing of the activities related to terrorism.

Thus the Indian FIU mandate covers both suspicious transactions as well as unusual transactions. The ambit of reporting covers specific instructions like unusual transactions with no economic rationale and also in general suspicious transaction reporting related to terrorist financing and offence financing. Thus the overall scope of Indian suspicious transactions is very large and ambiguous. This explains why the average number of disseminated cases as a percentage of total cases is very low in India.

USA

Bank secrecy Act of USA describes Suspicious activity reporting as: Examiners should focus on evaluating a bank’s policies, procedures, and processes to identify, evaluate, and report suspicious activity.

Banks, bank holding companies, and their subsidiaries are required by federal regulations to file a SAR with respect to:

1. Criminal violations involving insider abuse in any amount.
2. Criminal violations aggregating $5,000 or more when a suspect can be identified.
3. Criminal violations aggregating $25,000 or more regardless of a potential suspect.
4. Transactions conducted or attempted by, at, or through the bank (or an affiliate) and aggregating $5,000 or more, if the bank or affiliate knows, suspects, or has reason to suspect that the transaction:
   - May involve potential money laundering or other illegal activity (e.g., terrorism financing).54
   - Is designed to evade the BSA or its implementing regulations 55
   - Has no business or apparent lawful purpose or is not the type of transaction that the particular customer would normally be expected to engage in, and the bank knows of no reasonable explanation for the transaction after examining the available facts, including the background and possible purpose of the transaction.

Thus the USA mandate for suspicious transactions is very specific and does not cover unusual transactions. This explains why their reporting system is more efficient in terms of percentage of total cases disseminated as compared to total.
cases filed.

**Australia**

Australian Suspicious activity reporting describes SMR as: A reporting entity must submit an SMR if, at any time while dealing with a customer, the reporting entity forms a reasonable suspicion that the matter may be related to an offence, tax evasion, or the proceeds of crime. Entities must submit SMRs within three days of forming the suspicion, or within 24 hours if related to suspect terrorism financing.

**Diagram: Objectivity and subjectivity of definitions of Suspicious transactions as per laws of India, Australia and USA – 1.2**

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<td>2011</td>
<td>20,041</td>
<td>13,744</td>
<td>68.58%</td>
<td>1663</td>
<td>1411</td>
<td>87.85%</td>
<td>44,775</td>
<td>44,321</td>
<td>98.99%</td>
</tr>
<tr>
<td>2012</td>
<td>31,279</td>
<td>23,689</td>
<td>75.73%</td>
<td>1596</td>
<td>1377</td>
<td>86.28%</td>
<td>44,775</td>
<td>48,010</td>
<td>99.70%</td>
</tr>
<tr>
<td>2013</td>
<td>18,666</td>
<td>13,854</td>
<td>74.22%</td>
<td>1596</td>
<td>1377</td>
<td>86.28%</td>
<td>44,775</td>
<td>44,044</td>
<td>99.96%</td>
</tr>
<tr>
<td>2014</td>
<td>35,696</td>
<td>15,288</td>
<td>42.83%</td>
<td>1312</td>
<td>1071</td>
<td>81.63%</td>
<td>44,775</td>
<td>64,110</td>
<td>100.05%</td>
</tr>
<tr>
<td>Average</td>
<td>65.34%</td>
<td></td>
<td></td>
<td>84.25%</td>
<td></td>
<td></td>
<td>99.34%</td>
<td></td>
<td></td>
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<tr>
<td>Standard deviation</td>
<td>15.32%</td>
<td></td>
<td></td>
<td>2.38%</td>
<td></td>
<td></td>
<td>0.48%</td>
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</table>

Source: USA FIU website: Statistical Data - Money Laundering and Bank Secrecy Act (BSA), Annual report FIU AUSTRAC 2014, Source: Annual report FIU India 2014

The FIUs are government bodies which are responsible for collecting reports on non-compliant items to the AML controls obtained from banks. The cases which are pursued further for investigation out of the total cases reported to them are known as cases disseminated. The above table consolidated the number of cases of SAR reported to the FIU in India, USA and Australia. The above table also shows the percentage of cases disseminated further in all these three countries as obtained from the annual report of FIUs of these countries. Thus if the definition of the SAR reporting was objective in all the three countries then the percentage of cases disseminated further should have been similar in all the three...
countries. The t test is applied to these samples to know if the cases of SAR reported are from the same population i.e the definition of SAR in all the three countries are equally objective or subjective.

The degree of clarity in the definition of the AML suspicious activity reporting SAR in these three countries makes the control based system more effective in some countries. Effectiveness is measured by the number of cases which are disseminated out of total by the FIU out of total reported. T-test can be used to determine if the two sets of data are significantly different from each other, and is most commonly applied when the test statistic would follow a normal distribution if the value of a scaling term in the test statistic were known.

The below table gives the probability associated with a Student’s paired t-Test, with a two-tailed distribution.

**Table: To depict the T test probability comparison of US, India and Australia**

<table>
<thead>
<tr>
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<th>T test probability for India and USA</th>
<th>T test probability for USA and Australia</th>
<th>T test probability for India and Australia</th>
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</thead>
<tbody>
<tr>
<td>T test probability</td>
<td>0.0882</td>
<td>0.0065</td>
<td>0.0207</td>
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<tr>
<td>for India and USA</td>
<td></td>
<td></td>
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<tr>
<td>for USA and Australia</td>
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</table>

The probability associated with a Student’s paired t-Test for the set India and USA is 8.82 % which is much higher than the significance level of 5%.

This indicates that the two data sets of India and USA are not from identical populations or there is a statistically significant difference between the two. This means that the quality of suspicious activity reporting done is better in the USA. Hence they are more efficient in their reporting.

The above table describes that it is statistically significant that the USA reporting mandate is more efficient than the Indian or Australian Suspicious transaction reporting requirement.

**Conclusion**

Many banks adopt the control based monitoring system for day to day operations to catch cases of money laundering through banks. The control based monitoring system is the risk control self-assessment framework used by banks to report issues which are noncompliant with the Anti-money laundering policies of the government. The anti money laundering policies are derived by the senior governance committee of the bank based on government regulations. The degree of preciseness in the definition of the AML suspicious activity reporting in different countries makes the control based system more effective in some countries. Effectiveness is defined by the number of cases which are pursued further by the FIU out of total reported. The study found USA law more efficient in terms of reporting suspicious activities compared to Australia and India as depicted by T-test. The study brings into light that on comparing the number of cases of SAR (in USA, Australia and India) with the number of cases actually pursued further for investigation, it is found that subjective definitions of Suspicious Reporting draws more irrelevant reporting to government which highlights the fact that having laws which are more objective in definition like in USA, for reporting of Suspicious Activity leads to more effective reporting. Further, on comparing the number of cases of suspicious activity reporting (in USA, Australia and India) with the number of cases actually pursued further for investigation (disseminated), it is found that subjective definitions of suspicious reporting draws more irrelevant reporting to government. Thus, having laws which are more objective in definition like in USA, for reporting of suspicious, activity leads to more effective reporting.

**References**

1. BRIGITTE UNGER, FRANS VAN WAARDEN, “How to Dodge Drowning in Data? Rule- and Risk-Based Anti Money Laundering Policies Compared”, 2009, Utrecht University School of Economics; University College, Utrecht University, The Netherlands
2. David Chaikin, “How effective are suspicious transaction reporting systems?” 2009

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Corporate Governance is all about ethical conduct of business by corporations. The Institute of Company Secretaries of India defines Corporate Governance as “Corporate Governance is the application of best management practices, compliance of law in true letter and spirit and adherence to ethical standards for effective management and distribution of wealth and discharge of social responsibility for sustainable development of all stakeholders”

The topic of Corporate Governance has had a lot of focus in the recent years. In the last few weeks this has caught even more attention due to the events at two iconic businesses in India – The Tata Group and Infosys. Infosys and Tata Group are considered as two very prestigious organizations in India. The standards of professionalism for these two is...
considered as second to none. It is therefore interesting that Corporate Governance came up as central topic as a result of the recent press coverage and events at Infosys and Tata Group.

**Background and Press Coverage**

Tata Group and Infosys got a lot of press for reasons related to discord between management and key shareholders. In case of Tata the sacking of Mr. Cyrus Mistry as Chairman started a lot of negative press coverage. Clearly there was a significant difference between what the view of Mr. Ratan Tata and Mr. Cyrus Mistry. The controlling shareholder – Tata Sons finally decided to remove Mr. Mistry from his position and Mr. N. Chandrasekaran was named as his successor. In case of Infosys the issue was more between promoter shareholders and the Board and the Management team led by Mr. Vishal Sikka. Mr. N. R. Narayana Murthy was the most vocal of the promoters.

It is very interesting to note that in both cases there were issues raised up the most vocal opponents – Mr. Tata and Mr. Narayana Murthy were the ones involved in picking up the key management person in charge – namely Mr. Mistry and Mr. Vishal Sikka. In case of Tata it lead to replacement of Chairman whereas in case of Infosys it lead to question on independent directors and the manner in which certain transactions were managed. It was also valid to point out that both Mr. Mistry and Mr. Sikka have some of the best credentials to hold the posts they are or were holding. When these appointments were made there was a lot of positive reactions from press and various stakeholders.

Is it really difficult for the key shareholders or promoters to stay away from the business once it is entrusted to professional managers? Or is it true that there is a dilution in governance norms that comes up as soon as the key stakeholders move out and hand over to the next management team? While the answers may be different it was evident that the impact of this was very clear to image of corporate governance in India. Tata group represents the largest family business in India and on the other hand Infosys is represents the most professionally managed new age Technology Company with highest work standards.

K.T. Jagannathan & Sanjay Vijayakumar (05 March 2017 – The Hindu) did an analysis titled “Corporate Governance: A tale of two titans” – they observed that it was important for the management team to maintain trust of the key shareholders.

There was a lot more press coverage and links for the links to some material on the web is given in the Bibliography section.

**Scope For Research Identified**

With this interesting recent press coverage of the two iconic organizations a study was planned to look at what people felt was the impact of the recent events and how in general they looked at governance standards in India. This study aims to explore into these aspects. For the purpose of this study a survey was conducted. The survey participants were mostly corporate professional who would have good insight and views on the topic of corporate governance. Outcome of this survey may give inputs on how people felt on this topic and also give ideas about more detailed research that can be taken up in future.

**Survey Questions**

The survey was intentionally kept short so as to get quick responses from participants. Below is the list of questions that were captured in the survey conducted:-

Q1. Have you seen and are aware of the press coverage around the two events related to Tata Group and Infosys associated with corporate governance?
   Ans1. ____ (Yes or No)

Q2. Do you consider corporate governance as important for any Public company? Please answer on scale of 1 to 5 where 1 is not important, 2 is somewhat important, 3 is important, 4 is highly important and 5 is Critically important
   Ans2. ___ (1/2/3/4/5)

Q3. Do you consider that Indian corporate governance Norms and practices are generally sufficient to protect the interest of stakeholders?
   Ans3. ___ (Yes or No)

Q4. Do you consider that the corporate governance norms for Indian companies are very stringent or acceptable or very lenient?
   Ans4. ______ (Stringent/Acceptable/Lenient)

Q5. Do you think that corporate governance can be misused by disgruntled parties to rake up issues with management of companies when in fact the underlying issues are something different?
   Ans5. ___ (Yes or No)

Q6. Do you invest yourself or advise others to invest in Indian companies directly or through mutual funds?
   Ans6. ____ (Yes or No)

Q7. Do you think after the recent events and press coverage you would change your investing advice about Infosys and Tata group?
Q7. ___ (Yes or No)

Q8. Do you think after the recent events and press coverage about Infosys and Tata group there will be impact on overall image of governance for Indian Companies?

Ans8. ___ (Yes or No)

Q9. Of some of the prestigious companies or groups in India please rate the below in order of good governance starting from lowest (1) rated to highest (5) rated, Tata Group, Infosys, Wipro, Reliance Group, M&M

Ans9.

1  2  3  4  5

Q10. What is likely to take higher precedence for you when you are investing or advising someone to invest in any company:- Profitability, Growth, Market Position and Technology, Management Capability, Corporate Governance and Disclosure Standards? Please rate from 1 to 5 where 1 is least important factor and 5 is most important factor.

Ans 10.

1  2  3  4  5

Data Collection

Data collection for the and was done by way of an online survey where the participants filled in the online survey form – the form is available at the link https://goo.gl/forms/RBDqjGCXYITVSwGm2. There were twenty one responses to the survey and all were from people who were corporate professionals.

Data Analysis

The responses from the survey participants was tabulated and grouped to get the following insights:-

100% of the survey participants were aware of the press coverage and events at Infosys and Tata Group. This was not surprising since the participants were corporate professionals.

57% of the participants considered Corporate Governance as being of Critical Importance to any public company. 19% considered it to be just important and 24% considered it to be between these two. No participant considered Corporate Governance to be not important. This is an expected outcome given the good level of governance as per Indian norms and regulations.

While 43% of the participants were of the opinion that the corporate governance norms in India are sufficient to protect interest of stakeholders the majority believe more needs to be done to protect interests.

48% of the participants opined that the current corporate governance norms for Indian companies are lenient and need to be made stricter while the remaining considered the norms to be satisfactory and sufficient.

An overwhelming majority (90%) of the participants felt that it was possible that disgruntled parties can misuse corporate governance norms when in fact underlying issues may be very different.

90% of the participants were either investors themselves or were advising others on investments.

48% of the participants felt that with the recent events they will change their investment views.

57% of the participants surveyed were of the view that the recent events and press coverage was going to impact overall image of governance for Indian companies at large.

When asked to rate level of corporate governance for five groups the highest consolidated rating of 22% was given to Infosys and Wipro. Tata group was next at 21% M&M at 20% and Reliance Group lowest at 15%

Interesting to observe that even after recent events Tata Is it really difficult for the key shareholders or promoters to stay away from the business once it is entrusted to professional managers? Or is it true that there is a dilution in governance norms that comes up as soon as the key stakeholders move out and hand over to the next management team?
Group and Infosys have high ratings. When asked about what takes top most precedence when deciding to invest in any company – 21% people considered Management capability as the top factor along with Profitability. Business Growth and Corporate Governance tied up at 20%, Market Position and Technology was the least important factor at 18%. This is quite interesting in the current context where digital technology process or product specialization is looked at as key asset.

**Conclusions**

It is clear that the survey participants were aware of the recent events and believe that these impact their view on Infosys and Tata Group. Corporate governance is considered to be of very high to critical importance for management of public companies.

The participants believed that the governance norms in India may be a somewhat lenient. They believe that current norms do protect stakeholders but can be further improved.

Participants of survey were either investing or advising others to invest. Their views have been impacted by the recent events. Also the participants believe that the recent events will impact overall image of the governance for Indian companies.

It was striking to note that participants believe that at time disgruntled parties can use the corporate governance norms to raise issues when they are actually dissatisfied due to some other reasons. This is an important finding and should be probed further to look at what controls can be placed in the governance norms. This becomes more important as the companies embrace more and more of global norms. This also means that shareholders may not always side with the dominant shareholders or even with the promoters if they feel that the management team is doing the right things. This is an interesting departure from the view that the promoters know better how to manage the company. In cases where the promoters take up issue on governance with management they may not get support from other shareholders.

The image or Infosys and Tata Group is still among the top in peer group. Clearly the recent events while having had and impact have not dislodged these companies from the level of faith that people have in their standards. Wipro is also regarded as a company with high standards on corporate governance.

About importance of various factors there is clearly top rating given to Management Capability and Profitability. This is closely followed by corporate governance and Growth. So first preference is capability of management team and profitability. The market position and technology comes last. So people will not prefer companies with niche technology or market dominance if their standards of governance or capability or management is lower.

**Scope For Further Studies**

The present study is restricted to only two Infosys and Tata Group and a limited set of participants were polled for the Survey. A more detailed future study can be done for the same firms with more in depth view of the impact of the recent press coverage on stock price. The survey also covered only a limited set of questions and there is potential to do a more detailed review on this topic.

**Bibliography**


Chairman, NR Naryana Murthy (2003), “Report of the SEBI Committee on Corporate Governance”

Chairman, K M Birla (2000), “Report of the Kumar Mangalam Birla Committee on Corporate Governance”


A NOTE ON NON-CONVENTIONAL SOURCES OF FINANCING

Case 1 – Off-balance Sheet Financing: A Case of Inter Tech Pvt Ltd

InterTech Pvt Ltd (ITPL) are a dealer in modems, clip phones, and other hardware’s required for connecting computers and mobile to the Internet. The company was formed as a subsidiary of a limited company manufacturing optical fibre cable, FRP Rods, Broadband CPEs, Optical Transmission Equipment, Microwave Equipment, LT/HT Power Cables and ACSR/AAAC Conductors and supplying them to telecom companies. ITPL was specially formed to import and assemble modems and clip phones to meet the requirement of telecom companies. Since parent company was already having a good presence in the telecom sector, ITPL in a short time succeeded to get a tender for supply of Rupees 100 crores worth of modems to a large telecom company.

This was first tender for ITPL after its incorporation. It furnished a performance guarantee of Rs 5 Crores

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in the stipulated time. Thereafter, supplies had to be completed in two years’ time from the date of performance guarantee. A supplier was identified in China. Prototype of modem as per specification was made and submitted to the company, which quickly approved it. An assembly plant was also set up at Thane, Mumbai as containers were to be land at Jawaharlal Nehru (Nhava Shiva) Port located at Thane, Mumbai. Modems were to be assembled at the plant and after inspection had to be sent to the Telecom Company. Entire schedule of import, assembly and delivery was prepared to meet the time line in line with the order. In case of any delay or default, there were heavy penal charges which could affect the profitability of this contract.

While everything was going as planned, the parent company faced some adverse financial crises and was reported to Board for Industrial and Financial Reconstruction. Earlier also, the company had gone for corporate debt restructuring. With this development, the facilities of bank limit and other financial assistance, which were assumed to be availed from the parent company, vanished. ITPL at that time had no office of its own, no assets, and a share capital of only few lakhs, and had no bank credit line. There were borrowings from the related company to serve performance guarantee and to incur initial expenses. To compound the problem, all deliveries were negotiated with the supplier from China against payment. Payment terms from the Telecom Company were 60 days from the date of QC certificate issued after 3 to 5 days of delivery at various branches located across India of the telecom company. Actual payment was expected to take ninety days.

It takes three weeks after payment for a container to reach JNP port at India. Custom clearance and transport to plant takes another one week. Assembly and inspection takes another two weeks, delivery across India and QC certificate takes another two weeks, and payment takes another 12 weeks. So, one operating cycle was estimated as 6 months. One year was over and supplies of 20 crores had only happened. 80 crores supplies had to be done in next 12 months. Earlier what was appearing as a small contract had now become an important one, which had to be managed in time and cost otherwise the contract will result in loss. This will also jeopardise follow-on contracts and seeking contracts with other companies which were under way. Banks and NBFCs were approached for financing on the merit of the contract (contract based financing). The Telecom Company was triple AAA rated by CARE and looking at company financials there was no possibility of default. Company had also not defaulted any time in past. Suppliers from China were one of the leading global manufacturers of modem parts. 20 crores worth of billing had already taken place and there was no problem reported by QC department of Telecom Company. However banks were not convinced with these arguments. For them, ITPL was a new company with no past performance and had no significant collateral to offer. Adding to the problem was the fact that the directors of ITPL were same as that of its parent, which was now a BIFR company. Also, the telecom sector was put in a negative list by the banking sector due to an alleged scam related to licensing and spectrum allocation, which covered the headlines of media for days. While the time was passing by deadlines for delivery were approaching fast and something had to be done immediately.

Private financers were approached for the funds to help ITPL complete the contract. Most private financers wanted to do it on a profit sharing basis. Some agreed to finance but the interest rates were around 18% per annum. This was very high and was adversely affecting the profitability of the ITPL. However to continue delivery and ease pressure some money was borrowed for six months and material was imported through telegraphic transfer. Still a lot has to be accomplished.

ITPL also approached a financial and management consultant to help them arrange the funds. After going through the entire case facts, it was suggested that imports be made through by availing the buyer’s credit, which was a cheap source of finance allowed by RBI scheme. Now the challenge for consultant was arranging collateral required for availing buyer’s credit. Fund based financing cost was almost double when compared with the imports charges under buyer’s credit. Buyers credit was available at LIBOR rate which at that time was around 1 percent. arranging fee around 2 to 3 percent, and hedging charges was around 5 to 6 percent, costing around 8 percent to 9 percent per annum .It was thought to create a natural hedge while arranging for collateral so that hedging cost is not incurred and can act and incentive for the firm providing collateral.

Consultant started approaching firms who have bank limits and are exporters of goods / services from India. The modalities were to sign an MOU between the financing company and ITPL, where the former one will arrange financing for the latter for a fee. The financing company will provide a stand-by letter of comfort (SBLC) or bank guarantee (BG)in the name of ITPL, which
will help ITPL to import goods from China. An escrow account would be opened between the three parties, i.e., the financing company, ITPL and the Telecom Company to ensure that payment is not diverted by ITPL for any other purpose. Also crossed blank cheques and personal guarantee of directors of ITPL were to be given. Cash margin, if required, was to be brought by ITPL. For ITPL, it was a completely non fund based deal. Even a nominee of the financing company may be appointed as director in ITPL if the company so desires.

The biggest issue was about what to offer as fee. Non fund based financing in the form of off-balance sheet financing is not a usual practice in Indian context. There are no benchmarks for financing charges (guarantee fees) available. A formula had to be devised which is simple as well as convincing and also motivates parties to get into transaction. The ROI of these transactions is infinite. The firm continues to earn its rent (actual or deemed) as well as appreciation in value and without any marginal cost, it can earn additional fee by giving asset as collateral provided it is willing to assume credit risk. This amount could be actually bigger than the amount of rent as it is based on % value of the collateral asset. The absolute amount has to be big enough, which really attracts the firm guaranteeing the deal by offering the collateral to get into this deal and still the total cost of financing has to be less than the fund based financing. Banks have a minimum rate of lending which takes into account cost of funds and other expenses. This rate is called as marginal cost of fund based lending rate (MCLR). Banks add a mark up to this rate based on credit rating of the company to account for risk. The maximum mark-up is 4 to 5 percent above the MCLR rate. Or in other words the spread in the interest rate which account for risk factor in case of bank financing is not more than 5%. This logic was made as a basis for determining fee for SBLC or BG offered. The fee was decided to range from 4 % to 5% p.a. This will keep total cost of financing around 14 percent per annum.

First company that was approached was a conglomerate with large exports, also having a presence in the telecom sector. The idea of providing off-balance sheet financing in form of SBLC or BG in favour of ITPL was new and needed persuasion to make it acceptable. Although off-balance sheet financing happens between parent/subsidiary and sister concerns but it is not a usual mode of financing for generating other income if the company has some financial capacity to take risk. The risk involved in terms of uncertainty of cash flows or chance of default has to be evaluated carefully.

Merits of the case were shown. There was a certainty of cash flows in this case as sales were definite under the contract. Contract tenure itself was small.i.e., only one year. Product had become a commodity. Suppliers and buyers were well known companies with negligible default risk. These arguments convinced the company officials to consider the proposal. Trust in the consultant and promoters/directors of beneficiary company were an important factor in convincing the company about the merits of the deal. Also, the conglomerate had actually hedged dollar at 58 while the current dollar rate was 64. Since they could create a natural hedge by fixing the dollar rate today of six months hence without
Changes in the economy have changed the way people do businesses. While fund based banking transactions have gone up, it is realized that non fund based services can also meet specific requirements and it is expected that such services/products will also see an increase in acceptance and supply. Businesses will be more dealing through instruments like BG, SLBC, LOC, LC, BC etc. To avail these services new structures are emerging. One such structure proposed is creating a limited liability partnership* (LLP) M/s Guarantee LLP for facilitating non fund based transactions. This LLP will have partners who will bring their commercial / residential properties as collateral assets for securing bank limit. These limits will be used to facilitate transactions for other partners, who need facilities such as BG, SLBC, LOC, LC, BC etc. for their trade. For example, assume MS. Sikha has a commercial / residential asset, which she is ready to use as collateral. She can become a partner in LLP and the LLP will secure a bank limit against this asset. Now this limit can be used to avail a SBLC/BG for ITPL, who is also a partner in this firm and wants to import goods. Firm will charge a fee to ITPL for this service and pay this fee (after deducting a small amount) to MS. Sikha for providing her asset as collateral for ITPL. M/s Guarantees LLP can be managed by a professional and the partners will be charged an annual fee for being a member in the LLP. This firm will only facilitate non fund based transactions through underwriting guarantees for its partners. Cost of non-fund based transactions is less than cost of fund based transactions in case of imports etc., as they are fee based and money is arranged on basis of LIBOR rate. Such off balance sheet financing arrangements are need of the hour, when businesses are looking to reduce their cost to be more competitive.

Although the example cited here relates to import transactions and a supply under a contract from PSU, it provides an opportunity for fee in the range of 4 to 5 percent as finance is available at LIBOR plus rates, which is much below the financing rate in India including forex hedging. However the concept can be extended to other business transactions also. New businesses do not get working capital financing arrangements from banks for initial three to five years. In such cases normally firms resort to private fund based financing at a substantially high rate. This kind of arrangements can help new businesses significantly. Although in these cases underwriting fee may not be as high as 5 percent but may hover around 2to 3 percent. But if the profile of the business is not risky, additional 2 to 3 percent is good enough return.

The reason for suggesting an LLP form of organization is that it is more regulated as compared to a partnership. LLP has to register and file annual returns with ministry of corporate affairs. It can have unlimited...
partners while in partnership number is restricted to 20. In case of LLP, liability of a person is limited to the amount of his/her capital contributed to the LLP and the partner of a LLP are not personally liable for the liability of the LLP. As both parties giving and seeking guarantee will be partners in the LLP, they will be held jointly responsible in case of failure where LLP will also provide a recourse to party seeking guarantee on behalf of party giving guarantee. This kind of structures will help in standardizing the contracts and fees in a manner most appropriate for the businesses to function.

Off balance sheet financing through proper evaluation and management of risk provides an opportunity to improve bottom line of both firms. As stated, ROI is infinite in such cases. Additional fee is earned without any additional investment. This improves the overall profitability of the entity earning fee. Quantum of fee will depend on the risk involved and overall cost of financing has to be at least 2 percent less than fund based financing, which itself has a wide spread. This concept is an extension of concept of channel financing in working capital management where the finance for the entire channel is arranged by highest rated firm which can borrow at the least cost. Trust of channel partner is an important element to start with. Here what is being proposed to bring a strong player in the channel that can help to reduce cost of working capital by few hundred basis points and at same time channel financier also get benefited by utilising his underutilised line of credit. We go a step further by proposing non fund based financier asentities in the market to help reduce the cost of financing. I am not aware of any such entities currently existing in the credit market, which provide guarantees professionally for a fee.

**Case 2 - Private Finance Acting as Helping Hand in Financial Distress**

Mr Lalwani was in the business of making plastic sheds and was doing extremely well. He met an accident and was bed ridden for four years due to which the business suffered heavily. There was nobody else in the family to take care of business. They had taken a term loan against hypothecation of factory land from a regional cooperative bank. Due to adverse circumstances, business had run in to losses. Loan could not be paid back and became a non performing asset (NPA) for the bank. Bank had initiated action to seize the land and put in on sale to recover principal, interest and penal charges of approximately Rs 12.00 crores. When Mr Lalwani negotiated with bank for one time settlement pleading his misfortune, bank agreed to waive of penal charges and gave him three months’ time to pay approximately Rs 10.5 crore failing which the property will be seized and put up for auction. The market value of the property was around Rs 15 crores but Mr Lalwani feared that if it goes for a distress sale through auction, then it may not fetch a fair price. In that case, he will lose heavily. Takeover by other banks and NBFCs was completely ruled out at this point. He started searching for options.

In another instance, a business man’s loan repayment cheque had bounced back and he was looking for some source of funds to meet his loan repayment schedule and also for funds to complete his housing project scheme under construction. To ease his liquidity crunch, he did not get any support from banks and NBFC as he was already a defaulter with low credit rating. The only option for him to continue his business was to avail private finance.

A similar situation is faced by a person with an irregular income stream from his job or business who is planning to buy a house. He will not be able to avail a loan from regular financing channels of Banks and NBFCs. If he goes to the money lenders (under state money lending act), he cannot get loan for 20 years based on equal monthly instalments (EMI) and the interest rates he has to pay will also be high. An option which allows him to hire purchase the facility (house) at a competitive rate is most suitable option for him. This provides him with a house and on payment of all instalments, the house will be owned by him.

In no case I am talking of people that are being brought in system through various schemes of financial inclusion. These schemes will help them avail small loans from institutions rather than availing loans at a high interest rate from money lenders. Although states have created money lenders act but still the rates at which they finance these small and uneducated borrowers is extremely high.

These people in financial distress and looking for some source of funds came across firms (on search engines like google, sulekha.com, justdial.com etc. or through their agents network) which state that they finance NPA assets and all types of loans requirements whether project finance, mortgage loan, personal loans, education loan, or home loan. Loans are sanctioned even for more than seven digit figures, have an option of moratorium period and repayment period over 20 years based on EMI. They arrange investments in form of private equity also. Some of them are registered
as private limited firms with websites stating an all India franchise network, toll free numbers, e-mail id, online application forms and also claiming to have global branches and claiming global investors. Details about these companies were available on databases like zabuacorp.com and toller.in. Interesting part is that they claim to arrange loans at a very competitive interest rate. These companies are not NBFCs. They act as financial intermediaries arranging funds from private sources.

Although there are negative reports available on the Internet about some of these companies, but the way they are organized in terms of structure and functioning makes it clear that they are here to do business. Once you speak to them they brief you about the process involved. They charge their clients a nominal fee for registration and ask for all the documents, which are used for a typical loan processing from a bank or NBFC. Within a fortnight, an approval letter after verification of papers is issued. The only difference is that once a loan is sanctioned by them, they ask for a commission (from 0.5% to 2.0%) for arranging loan or meeting with investors, a part of which has to be paid in advance as negotiated. Here some amount of caution is to be exercised before going further and verify the credentials of firm. That is utmost necessary in such cases. Internet states many stories where people have been cheated in such cases. These private firms ask for commission for arranging loan. They also seem to charge financiers a percentage of loan disbursed and also later some amount for interest collected from parties. From these revenues, firms meet their expenses of office, staff etc. and make profit. Once the part commission is paid, money is disbursed in a few weeks’ time. They accept payments through cheque/NEFT/RTGS and loans are also disbursed in similar manner.

The point which I am trying to make here is about a parallel financing system, which is working to help that section of society which for various reasons is not able to avail services of regular financing system of Banks and NBFCs. This private finance is available at very competitive rates. The point is why will these private financiers finance them and what is the role of these intermediaries. The financing theory of trade credit provides an explanation for this. Firms get trade credit even when they are not eligible for institutional finance (Banks and NBFCs). The reason is information asymmetry. Supplier of goods has more information about buyer and can keep close watch on him than financing institutions. Also supplier can confiscate the goods easily and sell again while financing institutions will have to follow a lengthy process. They also manage to recover debt through pressure (social or otherwise) which to a large extent is not possible for the institutional financers. Same arguments apply in the cases of private finance discussed here. Apart from the advantage of reduced information asymmetry and informal enforcement, these private intermediaries facilitate their clients in increasing their trade and business by referring them to their other clients if need arises.

Generally, the textbooks are largely filled with sources of institutional finance and do not dwell much upon private finance. Even where they discuss private finance, they talk of private debt or equity under normal business circumstances available to large companies from HNI or small firms and people from small money lenders. Books are silent on financing options available in adverse situations of financial distress. Markets, however, create alternatives whenever there is a felt need provided it can be done in a financially viable manner. Essentially these loans come as unsecured loans on your balance sheet. As security, parties involved keep signed stamp paper as security and use them to claim assets sold in case of default. So trust among the parties is a major prerequisite for these deals.

This kind of private finance is not a substitute for banking and will never be. This is a channel for sectors where traditionally the banks had limited exposure like housing, telefilms, and movies and where banks will not entertain clients if they are not confident of the clients’ creditworthiness. Increasingly, the informal financing is becoming more organized and sophisticated in its functioning. With growing use of computers and Internet, this sector can play a larger role by reaching out to far more people and activities.

Conclusion

This note tries to relate theory with the practice. It seeks to explain the rationale behind two non-conventional sources of finance existing in practice. Both the sources discussed in the note help to alleviate the consequences of loans/businesses in distress therefore help system becoming more efficient. Private players in these cases are ready to bear risk for additional reward. These sources should be strengthened so that they work as pillars to support and complement the existing formal system of financing.

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The present research work has been undertaken so as to investigate into the determinants of profitability of the firms belonging to BSE Sensex. BSE Sensex is considered to be the barometer of economic health of Indian economy. BSE Sensex has been taken in the study rather than to concentrate on a particular sector because the index comprises of 30 actively traded companies from cross section of different industry having the highest market capitalization. Eight independent variables related to capital structure decisions have been taken into consideration for this study. These variables are been derived after thorough review of past literatures. Profitability is considered to be the yardstick to measure the success of an organization. It has been an endeavour in this paper to investigate into the independent variables significantly influencing the profitability of the firms belonging to BSE Sensex. Return on assets has been taken as a measure of profitability in this paper. The period of study in this paper is from 2009-10 to 2013-14.

Literature Review
The independent variables taken for the study has been derived after a thorough review of a number of past literatures. Some of the past literatures refereed by me while conducting this study have been given as under:

Sharma and Handoo (2014) in their paper have tried to identify the most important variables determining the capital structure of the firms in Indian Scenario during the time period of 2001-10. Regression analysis was done taking into consideration ten independent variables and three dependent variables. It was revealed from the study that tangibility, profitability, size of the firm, tax rate have a significant influence on the leverage of the sample companies taken into consideration for this study.

Yazdanfar (2013) in his paper have investigated into the determinants of profitability among the micro firms in Sweden scenario. It was revealed from the study that firm size, growth and productivity were the major variables determining the profitability of the firms in Swedish scenario.

Far creed et al (2017) in their paper have tried to examine the determinants of the profitability of the power and energy sector in Pakistan scenario from 2001 to 2012. It was found out from the study that firm’s size and growth have a positive impact on the profitability.
The focus of this research paper is to understand which independent variables related to capital structure decisions are significantly influencing the profitability of the firms belonging to BSE Sensex. The study has been conducted for the time period from 2009-10 to 2013-14. One dependent variable and eight independent variables is taken into consideration for this study. Multiple regression analysis has been utilized in the study. It was found out that interest coverage ratio and size of the firm (log assets) are significantly influencing the profitability of the firm belonging to BSE Sensex.

Baral (2004) in his paper have tried to investigate into the determinants of capital structure in Nepal stock exchange. It was revealed from the study that firm size, growth rate and earning rate have a significant influence on the capital structure of the firms belonging to the Nepal stock exchange.

San and Heng (2011) in their paper have tried to determine if any relationship exists between capital structure and corporate profitability. Return on assets has been taken as one of the variables for corporate financial performance. The paper reflected a significant relationship between capital structure and financial performance.

3. Research Methodology:
The present study is conducted on the secondary data of the companies belonging to BSE Sensex. The data is derived from CMIE prowess database software for the financial year from 2009-10 to 2013-14 (i.e. for 5 years). The variables for computing the ratios are derived for 30 companies of BSE Sensex. The list of 30 companies is mentioned in Annexure 1. SPSS 20.0 has been used for multiple regression analysis purpose.

4. Objective of the study:
The major objective of the study was:
- To investigate the significant independent variables related to capital structure decisions influencing the profitability of the firms belonging to BSE Sensex.
- To rank the significant variables as per their importance influencing the profitability of the firms belonging to BSE Sensex.

5. Variables used in the study:
In the present study 8 independent variables namely tangibility, non debt tax shield, size_1(log assets), size_2(log sales), current ratio, dividend payout ratio, interest coverage ratio, financial leverage and 1 dependent variable namely return on assets (profitability measure) is taken into consideration. The independent variables are taken for the study after thorough literature review. These independent variables are related to capital structure decisions and have an influence on the profitability of the firms.

The formulas of different variables which are taken for the study are given below:

5.1 Dependent Variable:
Return on Assets is taken as the dependent variable for the present study. It is used as a proxy for profitability.

\[ \text{Return on Assets} = \frac{\text{Average EBIT}}{\text{Average Total Assets}} \]

5.2 Independent Variables:
There are 8(eight) independent variables taken into consideration for the study. They are as follows:

1) Tangibility: It is taken as the ratio between average net fixed assets and average total assets. With
the increase of tangibility it is expected that the profitability will also increase.

2) Non Debt tax shield: It is taken as the ratio between average depreciation and average total assets. With the increase of non debt tax shield it is expected that the profitability will reduce.

3) Size of the Firm: Two proxy is taken for the size of the firm i.e. Size_1 = Log (average sales) and Size_2 = Log (average total assets). The size of the firm is expected to have a positive relationship with the profitability of the firms.

4) Current ratio is taken in this study as the ratio between current assets and current liability.

5) Dividend payout ratio is defined as the ration between dividends paid and profit after tax.

6) Financial Leverage is defined as the ratio between average total debt and average total assets. Total debt includes total borrowings and current liability & provisions.

7) Interest coverage ratio is taken in this study as the ratio between Average EBIT (Earnings before interest and tax) and average total interest paid.

Average in each case denote the average value of the variable from 2009-10 to 2013 -14 (i.e. for 5 years) for each company.

6. Results and Findings:

6.1 Multicollinearity Analysis:

Before proceeding with the regression analysis, multicollinearity problem has been checked through Variance inflation factor (VIF) technique. The correlation between the independent variables should be minimum for the regression results to optimum. If the correlation among the independent variables are very high then multicollinearity problem seem to exist. If the two variables are not correlated then the VIF would be 1. But it is quite impossible that there is no correlation among two variables in practical situation. Hence it is assumed that if VIF > 2, multi-collinearity seems to exist between the independent variables.

Collinearity diagnostic is run in SPSS 20.0 taking into consideration 8(eight) independent variables in the paper namely financial leverage, tangibility, non debt tax shield, Size_1 (log assets), Size_2 (log sales), Current ratio, Dividend payout ratio and interest coverage ratio. It is observed from Table 1 that multicollinearity problem is present with two independent variables namely tangibility and non debt tax shield as both the variables are having VIF>2 (tangibility having VIF =3.004 and non debt tax shield having VIF =2.948).

The result of Table 1 is produced below:

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>Financial Leverage</td>
<td>.556</td>
</tr>
<tr>
<td>Tangibility</td>
<td>.333</td>
</tr>
<tr>
<td>Non Debt Tax Shield</td>
<td>.339</td>
</tr>
<tr>
<td>1</td>
<td>Log assets</td>
</tr>
<tr>
<td>Log sales</td>
<td>.583</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>.515</td>
</tr>
<tr>
<td>Dividend Pay Out Ratio</td>
<td>.712</td>
</tr>
<tr>
<td>Interest Coverage ratio</td>
<td>.757</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Return on assets

It is observed from Table 1 that VIF of tangibility is the highest (VIF=3.004). Hence this variable is removed and collinearity diagnostic is again run using SPSS 20.0. It is observed from Table 2 that none of the variables are having multicollinearity problem after removing tangibility. It is observed from table 2 that all the variables are having VIF < 2. Thus we can safely assume from the results of collinearity diagnostic in Table 2 that none of the variables are having multi collinearity problem and we can proceed with the regression analysis. The result of Table 2 is produced below:

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>Financial Leverage</td>
<td>.556</td>
</tr>
<tr>
<td>Non Debt Tax Shield</td>
<td>.579</td>
</tr>
<tr>
<td>Log assets</td>
<td>.712</td>
</tr>
<tr>
<td>Log sales</td>
<td>.635</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>.545</td>
</tr>
<tr>
<td>Dividend Pay Out Ratio</td>
<td>.719</td>
</tr>
<tr>
<td>Interest Coverage ratio</td>
<td>.784</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Return on assets
6.2 Regression Analysis:
We proceed with the regression analysis using SPSS 20.0 taking one dependent variable namely Return on assets and 7 (seven) independent variables namely Financial leverage, non debt tax shield, size_1 (log assets), size_2 (log sales), current ratio, dividend payout ratio and interest coverage ratio.
It is observed from Table 3 that the coefficient of determination (r^2) is .465. This means that 46.5% of the dependent variable (return on assets) is explained by the 7 (seven) independent variables taken together. The result of Table 3 is produced below:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.682</td>
<td>.465</td>
<td>.294</td>
<td>.08429</td>
</tr>
</tbody>
</table>

As per the regression results, those variables having t value outside the range of ±2 and p value <.05 are said to be significantly influencing the dependent variables. It is further observed from Table 4 that Size_1 (log assets) having t value of -2.623 and p value of .016 and interest coverage ratio having t value of 2.444 and p value of .023 are significant variables influencing the profitability of the firms represented by the return on assets. Other independent variables are having t value within the range of ±2 and p value >.05, hence are considered to be insignificant. The result of Table 4 is produced below:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.468</td>
<td>.251</td>
<td>1.864</td>
<td>.076</td>
</tr>
<tr>
<td>Financial Leverage</td>
<td>.089</td>
<td>.124</td>
<td>.150</td>
<td>.719</td>
</tr>
<tr>
<td>Non Debt Tax Shield</td>
<td>-.252</td>
<td>1.033</td>
<td>-.050</td>
<td>-.244</td>
</tr>
<tr>
<td>Log assets</td>
<td>-.087</td>
<td>.033</td>
<td>-.485</td>
<td>2.623</td>
</tr>
<tr>
<td>Log sales</td>
<td>.013</td>
<td>.025</td>
<td>.102</td>
<td>.521</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>.060</td>
<td>.027</td>
<td>.317</td>
<td>1.498</td>
</tr>
<tr>
<td>Dividend Pay Out Ratio</td>
<td>.036</td>
<td>.062</td>
<td>.108</td>
<td>.586</td>
</tr>
<tr>
<td>Interest Coverage ratio</td>
<td>.000</td>
<td>.000</td>
<td>.431</td>
<td>2.444</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Return on assets

Hence it is observed from the above analysis that Size_1 (log assets) and interest coverage ratio are significantly influencing the profitability of the firms of BSE Sensex.

7. Conclusion:
It has been an endeavour in this section so as to rank the significant variables influencing the dependent variable (return on assets) of basis of beta values derived from Table 4 of the regression results. Absolute beta value is taken for ranking purpose. It is observed from Table 5 that Size_1 (log assets) (with beta value of .478) is the most important independent variable significantly influencing the profitability of the firms followed by interest coverage ratio having a beta value of .370. The result of Table 5 is produced below:

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>P values</th>
<th>t values</th>
<th>Beta</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size_1 (log assets)</td>
<td>.016</td>
<td>-2.623</td>
<td>.485</td>
<td>1</td>
</tr>
<tr>
<td>Interest Coverage Ratio</td>
<td>.023</td>
<td>2.444</td>
<td>.431</td>
<td>2</td>
</tr>
</tbody>
</table>
It is observed from the above results (t values) that interest coverage ratio is positively influencing the profitability of the firms while size_1(log assets) is negatively influencing the profitability. Interest coverage ratio has been defined as the ratio between Earnings before interest and tax (EBIT) and interest paid. Hence with increase of interest coverage ratio the EBIT will increase, hence the cushion available between the EBIT and Interest paid also increases thus the firms are able to easily pay off their interest due. Thus with the increase of interest coverage ratio, the profitability of the firms will also increase which is depicted by the positive relationship between the interest coverage ratio and profitability.

The negative relationship between the Size_1(log assets) and profitability means that with the increase of total assets the profitability is decreasing. It may be due to the fact that the firms are not able to utilize their assets efficiently which may be reflected by reduced profitability.

The firms belonging to BSE Sensex should monitor these significant variables in a proper and effective manner so as to maximize the profitability of the organizations.

References
1. www.bseindia.com

Annexure 1: Name of the BSE Sensex companies

<table>
<thead>
<tr>
<th>Axis Bank Ltd.</th>
<th>Coal India Ltd.</th>
<th>Hindalco Industries Ltd.</th>
<th>Infosys Ltd.</th>
<th>ONGC</th>
<th>Tata Consultancy Services Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bajaj Auto Ltd.</td>
<td>Dr. Reddy’s Laboratories Ltd</td>
<td>Hindustan Unilever Ltd</td>
<td>Larsen &amp; Toubro Ltd</td>
<td>Reliance Industries Ltd</td>
<td>Tata Motors Ltd</td>
</tr>
<tr>
<td>BHEL</td>
<td>GAIL (India) Ltd.</td>
<td>Housing Development Finance Corp. Ltd</td>
<td>Mahindra &amp; Mahindra Ltd</td>
<td>Sesa Sterlite Ltd.</td>
<td>Tata Power Co. Ltd.</td>
</tr>
<tr>
<td>Bharti Airtel Ltd.</td>
<td>HDFC Bank Ltd.</td>
<td>I C I C I Bank Ltd.</td>
<td>Maruti Suzuki India Ltd</td>
<td>State Bank Of India</td>
<td>Tata Steel Ltd</td>
</tr>
<tr>
<td>Cipla Ltd.</td>
<td>Hero Motocorp Ltd.</td>
<td>I T C Ltd.</td>
<td>NTPC Ltd.</td>
<td>Sun Pharmaceutical Inds. Ltd.</td>
<td>Wipro Ltd.</td>
</tr>
</tbody>
</table>

arind2001@yahoo.com
ne of the vital tasks of the Cost Auditor is identification of susceptible transactions, which hinder the efficiency of the organization for making in-depth cost analysis in order to suggest useful and implementable suggestions to the apex management by using his scarcely available audit resources within the time frame.

The various techniques, in specific Pareto Analysis (Commonly known as ABC analysis) aids him to identify the strange transactions for making an exhaustive analysis to derive constructive and implementable conclusions. The application of Pareto Analysis in cost statement assists the Cost Auditor to identify the transactions having higher monetary value or satisfying any other prescribed only one parameter such as delay etc. in order to estimate the cost impact of the particular transaction that may hinder the efficiency of the organization. However Pareto Analysis had certain inherent limitations.

The Pareto Analysis does not allow more than one parameter for identifying the abnormal transactions and hence cannot be applied to more than one attribute at a time. The ABC technique could be adopted after identifying the vulnerable transactions and re-apply it for another parameter sequentially, but cannot combine more than one parameter or attribute at a time for identifying the transactions, which hinders the efficiency of the organization.

As an example, the audit of stores necessitates the Cost Auditor to locate the purchase orders having higher monetary value as well delayed purchase orders. The existing Pareto Analysis though capable of identifying the high money value purchase orders separately and abnormally delayed transactions separately. The identification of the transactions which were delayed as well as having higher monetary value and ultimately hamper the efficiency of the organization is immensely useful to the Cost Auditor in order to assists the Apex management to have to have sufficient control over such transactions. The present Pareto Analysis technique is not helpful to identify the purchase orders, which satisfy the both criteria mentioned above simultaneously. Hence, it necessitates to explore new techniques to identify the transactions satisfying more than one parameter or attribute at a time.

Tang et al (2006) made a detail analysis in and concluded that anomaly detection is the task of
identifying observations with characteristics that significantly differ from the rest of the data. There are many applications of anomaly detection include fraud, credit card fraud etc in order to defraud the management. It primarily involves three steps i.e.

- Identifying normality by calculating some “signature” of the data
- Determining some metric to calculate an observation’s degree of deviation from the signature
- Setting thresholds which, if exceeded, mark an observation as anomalous (Davidson, 2002)

Sutapat Thiprungsri et al (2011) made a detailed study on the application of cluster analysis in the accounting domain, particularly discrepancy detection in audit.

Kailasam L (2017) explored a new technique of identifying the outliers, which will facilitate the cost auditor to identify the strange transactions for making in-depth analysis and to assist the Apex Management by providing guidance on a variety of issues ranging from financial precision to economy and efficiency of operations.

While mining of the various available cost auditing techniques, it is found that the Cluster analysis is one of the useful techniques, which could be effectively used for identifying the transactions which had satisfied more than one prescribed attributes, to perform anomaly detection. The mining of data in the cost statements by using cluster analysis is immensely useful to the Cost Auditor for focusing his efforts with the available scare resources and consequent assistance to the Apex Management to guard the efficiency of the organization.

The present study demonstrates the practical applications of cluster analysis in error detection by identifying the abnormally behaved transactions satisfying more than one parameter or attributes in the cost statements.

**Identification of clusters in cost statements**

The identification of inconsistencies or errors in the cost data is one of the intricate tasks, which requires specialized analytical skills and tools for performing the task proficiently. The inconsistency of the transactions within the cost accounts of the organization and outside agencies is necessarily to be located and
corrected for preparing non-objectionable and usable cost statements. The identification of such transactions could be effectively done by using outlier analysis. The ‘Outlier Technique’ treats the entire transactions as one and assists the Cost Auditor to identify the extreme transactions. However, the inconsistency transactions may fall anywhere not only with the extreme points.

Therefore, it necessitates dividing the entire transactions into various groups and performing the cost audit analysis within the group, which has non-uniform pattern compared with other groups in the entire cost data set.

The inconsistency or errors in the cost data could be classified broadly into three categories i.e.

- **Point Errors**
- **Contextual Errors**
- **Collective Errors**.

The Point Error is one type of the discrepancies with respect to other cost data. This type of inconsistency or error may occur in the cost statements within the cost year or previous years, which could be termed as horizontal and vertical inconsistency.

Contextual Error occurs when the cost data instance is anomalous in a specific context. The heavy payment of taxes during the normal period could be treated as inconsistent but on the other hand it is acceptable during the cost year end.

Collective Error occurs when a collection of related cost or other data instances from various sources is strange and anomalous. As an example, if, the Income on the rent mentioned in the Income Tax returns and Property tax records differs significantly, such transactions fall in this category.

Cluster analysis is one of the useful techniques in detecting these types of errors in the cost statements. The data used in cluster analysis can be interval, ordinal or categorical. However, cost data will normally fall in the category of interval. The common measure for interval based cluster analysis is the Euclidean Distance and hence the forgoing discussion is restricted to Euclidean Distance measures in the cost data set.

The cluster based cost data error detection techniques are of primarily two types. The first type of cluster based detection technique assumes the normal cost data belongs to large or dense clusters and the anomalies to a small or sparse cluster different from all clusters. This requires the identification of clusters, which has lesser number of transactions.

The second type of analysis assumes the normal data instances lie closer to the nearest cluster centre and the anomalies are far away from the nearest cluster centre. This second type of error detection technique requires the identification of the transactions which fall very far away from the centre of the clusters.

### 2.1 First method

**Identifying clusters which has lesser number of transactions**

This technique, known as K-mean clustering algorithm facilitates to identify the small clusters, which may indicate the possibility of inconsistency or non-error free transactions in those clusters. This identification of sparse cluster requires the following steps.

- Determination of number of clusters and their centers.
- Determination of a metric to evaluate the degree of deviation of a particular observation. (The Euclidian distance could be preferably used technique for analyzing the cost data-set)
- Determination of the number of transaction in each cluster
- Determinations of the centre of the each cluster as identified above and repeat the procedure till it converges.

**Step 1 Determination of number of clusters and their centers**

There is no compulsion to fix the exact number of clusters. However, the number of clusters to be prescribed need not be arbitrary. There are several methods available for the determination of the optimum number of clusters. In specific Elbow Method and Silhouette Method are frequently used in the determination of optimum number of clusters to be made. Elbow method was found to be more easy and adoptable for determination of optimum number of clusters of cost-data set.

The Elbow Method requires of drawing a graph of number of clusters and the sum of squared errors, which is known as a Dendrogram. Instead of drawing graph, analytical method may be adopted to determine the optimal number of clusters.

The basic idea behind is that as the sum of squared errors reduce if number of clusters increases and tends to zero, we could identify the point from where there is no useful purpose could be served if the number of clusters increased. The Dendrogram will normally looks like an arm and the number of clusters is on the elbow of the arm plotted. However, this method may not be much efficient if the cost data set is not much clustered.
In such circumstances the optimum number of clusters could be determined by Silhouette scores, which is outside the scope of the present review.

**Step2 Determination of appropriate metric**
The next step is to determine the appropriate metric to evaluate the degree of deviation of a particular observation from the centre of each cluster. Euclidean Distance method is the best suitable method for the Interval based analysis of clusters such as cost data set.

**Step 3 Evaluation the number of transaction in each cluster**
The next step is to fix arbitrarily the cluster centers for all clusters. The Euclidian distance between the transactions and arbitrary centre of the clusters are to be calculated. After calculating the distance between the transactions attributes and the centre of the clusters, transactions were re-grouped in such a way that the distance between the attributes of the each transaction and centre of the cluster is minimal.

After grouping the transactions, the next step is to re-calculate the centre of the cluster by fixing the average of the attributes of the transactions, which fall under each cluster. The cost data set has to be regrouped in accordance with the new centre of the clusters. The exercise has to be repeated till it converges.

**Step 4 Determination cluster frequency of each cluster**
The next step is to determine the cluster frequency of the each finally converged cluster. The clusters having lesser number of transactions are likely to attract audit observations. The cost transactions in such clusters could be identified and in-depth analyses have to be made. The threshold limit of clusters and thereby transactions could be fixed by the Cost Auditor for making as anomalous clusters, which could be normally based on the available audit resources and audit risks involved.

2.2 Second method

**Identification of the transaction which fall far away from the centre of the clusters**
The basic assumption in the second method is that non-objectionable transactions falls very near to centre of clusters and audit objectionable transactions falls far away from the Centre of the cluster. The identification of the transactions which fall far away from the centre of the cluster may attract audit observations. In order to identify such transactions, outlier method could be
effectively adopted.

Alternatively, the distance between the centre of the clusters and the transactions point could be found, which may lead to identify the far away transactions. Therefore, there two steps required in the method. The first step being the grouping of data in to various clusters as mentioned in the first method. After stratification, the distances from the centre of the cluster and each transaction are to be evaluated. After this, the transactions which are very far away from the cluster to be identified and in-depth audit could be taken. The threshold limit of fixing the distance metric depends upon the availability of audit resources and audit risks involved.

Apart from this the co-relation coefficients between the attributes of the transactions falling under each cluster could be calculated and the transactions falling under the cluster having least or negative correlation coefficient are to be analyzed further.

The following example facilitates to apply the technique in practical cost auditing.

3. Example

M/s XYZ Limited is manufacturing complicated mechanical and electrical machines, for which, it had to purchase one lakh components each year. The Cost Auditor of M/s XYZ Limited was directed by the Board of M/s XYZ Limited to confirm whether the purchases are economically made and submit a report within a period three days. The total value of purchase orders during the period of review is about Rs Seven Crores.

The Cost Auditor has limited audit resources and as the time is the major constraint and he could audit to derive his audit conclusion by auditing an in-depth of not more than five transactions within the short time prescribed. Therefore, he decided that to select one hundred purchase orders by adopting Random Simple Method. The Cost Auditor wanted to select not more than five purchase orders from the selected random sample of one hundred transactions.

It was already estimated by the Board that M/s XYZ Limited will lose one percent of the money value of the purchase order per day, if it is delayed. The Cost Auditor found that the delay in receipt of the purchase order hampers the efficiency of the production of machines and there is possibility of bogus purchase orders also.

The Cost Auditor was able to calculate the delay in receipt of each purchase and consequent monetary loss based on the decision already taken by Board. After evaluation of these, he could tabulate the monetary value of the purchase order, number of days delayed and consequent monetary loss to the M/s XYZ Limited.

He tried to adopt Pareto Analysis and he could found that it could be applied only to the monetary value of the transactions or consequent loss of the late receipt of purchase order separately or sequentially. He could not apply Pareto Analysis concurrently for selection of the purchase orders.

Hence he completely analyzed the audit literature to manage the situation and he was able to find that a new way by using the Cluster Analysis to solve the problem faced by him and applied the technique as illustrated below.

The first step he tabulated the monetary value of the purchase order and corresponding consequent loss incurred by M/s XYZ Limited. He was able to find out the sum of the squared errors. After this he had estimated the number of clusters to be formed by using the Elbow Analysis. The results derived by him are given in Table No 1- Estimation of Number of Clusters.

<table>
<thead>
<tr>
<th>Number of Clusters</th>
<th>Sum of squared Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>336217560</td>
</tr>
<tr>
<td>2</td>
<td>307953720</td>
</tr>
<tr>
<td>3</td>
<td>241693989</td>
</tr>
<tr>
<td>4</td>
<td>228650627</td>
</tr>
<tr>
<td>5</td>
<td>206652312</td>
</tr>
<tr>
<td>7</td>
<td>183619963</td>
</tr>
<tr>
<td>10</td>
<td>174759795</td>
</tr>
</tbody>
</table>

By using the above information he was able draw a Dendrogram given below.

![FIG No. 1 DENDROGRAM](image)
From the Dendrogram, he was able to conclude that the formation of three clusters would be the optimum for deriving his result.

The Cost Auditor fixed the arbitrary centers for the three clusters as (2700, 9000), (9116, 186) and (25, 41) Vide Table No 2 - Initial Center of The Clusters.

<table>
<thead>
<tr>
<th>Clusters</th>
<th>Initial Center of the Cluster</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(2700,9000)</td>
</tr>
<tr>
<td>2</td>
<td>(9116,186)</td>
</tr>
<tr>
<td>3</td>
<td>(25, 41)</td>
</tr>
</tbody>
</table>

After fixing the arbitrary Cluster centers, he found the Euclidean distance between the centers of the Clusters to the attributes of each transactions by using the formula.

\[
\text{Sqrt} \{(\bar{x} - x)^2 + (y - y)^2\} 
\]

(3.1)

The Cost Auditor calculated the minimum distance of each transaction from the centre of the clusters and he was able to find the frequency of all transaction which falls on each cluster Vide Table No 3 – Frequency of number of transactions.

<table>
<thead>
<tr>
<th>Clusters</th>
<th>Frequency (Number of transactions)</th>
<th>Center of the Cluster</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>(2700,9000)</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>(9116,186)</td>
</tr>
<tr>
<td>3</td>
<td>97</td>
<td>(25, 41)</td>
</tr>
</tbody>
</table>

After this he re-arranged his data in accordance with the frequency of the transactions according to each cluster. By taking the average value of the two attributes, he found the new centre of the clusters (2700, 9000), (8995, 661) and (470, 1144) Vide Table No 4 – New Centre of Cluster

<table>
<thead>
<tr>
<th>Clusters</th>
<th>Final Center of the Cluster</th>
<th>Frequency (Number of transactions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(2700,9000)</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>(8995,661)</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>(470,1144)</td>
<td>97</td>
</tr>
</tbody>
</table>

Cost Auditor has to continue the exercise till he received consistency between the current and earlier iteration. After third iteration Cost Auditor found that there is no change in the frequency and the results derived by him are given Table No 5 – Identification of the centre of clusters.

<table>
<thead>
<tr>
<th>Clusters</th>
<th>Final Center of the Cluster</th>
<th>Frequency (Number of transactions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(2700,9000)</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>(8995,661)</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>(470,1144)</td>
<td>97</td>
</tr>
</tbody>
</table>

The pictorial representation of all the three clusters is given.

While surveying the results given above, he was able to find that ten transactions falling under cluster No 1 & 2. He could select two transactions in the clusters left over
for including in the sample of detailed audit as detailed in Table No 6 - Selection of additional transactions.

### TABLE NO 6

#### SELECTION OF ADDITIONAL TRANSACTIONS

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Purchase Order No</th>
<th>Money Value</th>
<th>Loss incurred on late receipt</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>19</td>
<td>9116</td>
<td>186</td>
<td>Cluster 2</td>
</tr>
<tr>
<td>2</td>
<td>46</td>
<td>611</td>
<td>703</td>
<td>Randomly selected</td>
</tr>
<tr>
<td>3</td>
<td>63</td>
<td>8873</td>
<td>1135</td>
<td>Cluster 2</td>
</tr>
<tr>
<td>4</td>
<td>80</td>
<td>641</td>
<td>1827</td>
<td>Randomly selected</td>
</tr>
<tr>
<td>5</td>
<td>100</td>
<td>2700</td>
<td>9000</td>
<td>Cluster 1</td>
</tr>
</tbody>
</table>

The inclusion of the extra transactions is however subject to availability of audit resources. He made a thorough analysis of the five transactions selected including the following auditing checks:

- The confirmation of the approved vendor list by the competent authority is to be checked in respect of all items.
- The reason for the variation of the rate of items has to be analyzed. When the consumption is high, the reasons for non-entering the annual rate of contract if not made are to be analyzed.
- The comparative statement of the quotations is necessarily to be checked and confirmed it had to be approved by the competent authority.
- The justification for getting the purchase if not made from the lowest bidder to be analyzed.
- In case of single quotation the reasons for placing the order on a specific parties to be analyzed.

The second method described above could also be adopted. This requires the following steps.

The distance between the centre of each clusters and the attributes of the transactions are calculated. The Cost Auditor was able to identify the following transactions are far away from the centre of the clusters Vid Table No 7 – Transactions fall far away from centers.

### TABLE NO 7

#### TRANSACTIONS FALL FAR AWAY FROM CENTERS

<table>
<thead>
<tr>
<th>Cluster No</th>
<th>Purchase Order No</th>
<th>Money Value</th>
<th>Loss incurred on late receipt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>2</td>
<td>63</td>
<td>8873</td>
<td>1135</td>
</tr>
<tr>
<td>3</td>
<td>99</td>
<td>845</td>
<td>4098</td>
</tr>
</tbody>
</table>

The correlation coefficient of each cluster will also facilitate him to identify which cluster had least, so as to concentrate for identifying the transactions by adopting Outlier method or any other suitable method for its identification. In the example the co-relation coefficients of the cluster are given in Table No 8 – Correlation coefficient.

### TABLE NO 8

#### CORRELATION COEFFICIENT

<table>
<thead>
<tr>
<th>Cluster No</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not available</td>
</tr>
<tr>
<td>2</td>
<td>-1.00000</td>
</tr>
<tr>
<td>3</td>
<td>0.680059</td>
</tr>
</tbody>
</table>

As the correlation coefficient in the cluster No 2 is of negative value, it is necessarily to be investigated further. As cluster analysis is basically for the selection of transactions in this example, he could adopt either of the method or combination of both for deriving his conclusion.

The Cost Auditor is able to confirm that out of all five purchase orders, four are of bogus and there is no inventory was received and included in the list with ulterior motive of defraud M/s XYZ Limited. The monetary value of the Bogus Purchase order works out to Rs 12,825/- and the probable loss made to the organization to an extent of Rs 12,665/-

The Cost Auditor estimated that the company must have defrauded to an extent of Rs 1.28 Cores. He suggested that further through analysis on the same
pattern are necessarily to be made in respect left over transactions. The above exercise will facilitate the Cost Auditor to make derive the cost statements correctly in order to suggest useful recommendations to the Apex Management.

4. Conclusion

The cluster analysis is one of the useful techniques which could be effectively used in cost auditing as detailed above. It has innumerable benefits to confirm whether the transactions are genuine or not and also assist to estimate the approximate errors in the entire population and further action to be initiated with least efforts so as to get accurate cost data.

There is no constraint to adopt number of attributes for the selection of the data. In the said example, only two attributes viz. monetary value and loss incurred in delayed receipt were adopted. It could be extended to more attributes such as the actual utility of the purchases made in the production and consequent holding cost etc. In the example for the purpose of easy understanding only two attributes were taken. In real life situation it could be more and Cost Auditor select the attributes logically and cleverly.

However, there are certain inherent deficiencies in applying this technique. The first deficiency, the technique requires lot of numerical calculations, which could be solved by developing appropriate algorithm and subsequent user friendly computer program to solve the issue. This will facilitate the Cost Auditors in selection of the transactions easily.

A careful analysis is required for the determination of the number of attributes and its selection. The interlinking of these attributes with others may assist the Cost Auditor for the selection. The failure of the model, if any, faced by the Cost Auditor may be mainly due to the selection of the attributes. Though it is not possible to have one hundred percent probability of having objectionable transactions in the clusters having lesser number of transactions compare to other clusters or the transactions just far away from the cluster centers, it is always better to select such susceptible transactions instead of selecting the transactions at random.

After cleansing the transactions and its monetary value reflected in the cost statements, the Cost Auditor may do factor analysis to determine the reasons for delay in the receipt of the purchase order, which hamper the profitability of the organization and make useful suggestions to the Apex Management.
In the quest for innovative traits in internal audit, professionals universally left no stones unturned while adopting seemingly unthinkable and totally un-attempted strategies. Homo Sapience (Human) is technically an animal but distinctly different from other animal species on earth who eventually borrowed a handful of traits from other species during the course of their evolution. In this article we will endeavour to champion a few of them for accomplishing valued added audits.

‘Experience is what you do with whatever happens to you – Huxley’. This famous quote is the base for thinking our function in a different way. The purpose of the write-up is not to find similarity with an animal, but to acquire the specific characteristic of an animal (positives), which on given scenario could be the best way to act, react or interact.

In the corporate jungle, the internal auditor is a species that grazes in the fertile field of governance abundant with numerous commercial processes leading to the implementation of corporate strategies. From early 20th Century, we have been inundated with the innovative ideas of contrasting auditor with

CMA Malay Paul
Consultant
Kolkata

Chandi Bagchi
Partner
Doshi, Chatterjee, Bagri & Co.
Chartered Accountants
animal. The famous "Kingston Cotton Mills" legal case glorified the Auditor as "Watch Dog" and not as "Blood Hound". The contemporary juggernaut of branding auditor as "Lapdog" a dwarfed variant, demands a mention here for its steadfastly fast and continual deterioration, as a professional community of intrepid virtues, leading to compromises in reporting instances of deceits and irregularities.

The animal universe is swarmed with endless species of creatures with diverse instincts, where mass and fierceness matters for survival. Likewise, efficacy of Internal Audit squarely hovers around the auditor's attitude, behaviour, understanding and mentality. The corporate eco-system in which the auditor thrives is a proverbial determinant for accomplishment of goals of the entity. The art of matching the ecological instincts is predominantly distinctive of auditors as a strategy for triumph. Highly rewarding audit assignments are assimilation of superlative instincts mostly conspicuous of classical professionals in internal audit arena.

This innovative rendition is to unleash varieties of effective instincts commonly typical of animals around us in a way that fits appropriately in an assignment. The gradual transformation of these assignments from traditional fact finding nature to a measure for value addition is of immense importance.

Since time immemorial, adaptable animal instincts are routinely applied in our common endeavours to accomplish strategies in innumerable fields including highly successful commercial ventures. Multiple animal species can be named after each one of the English Alphabets whilst each one animal has a specific instinct. This rendition attempts re-dedicate those universally accepted instincts to assurance assignments commonly perfected by audit professionals.

A variety of animals species are selected hereunder to institute the analogy that each one of those species has some instinct that helps assurance professionals in accomplishment of their assignments.

### Animals Alphabet-wise

<table>
<thead>
<tr>
<th>Ant</th>
<th>Bee</th>
<th>Crocodile</th>
<th>Donkey</th>
<th>Eagle</th>
<th>Fish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goat</td>
<td>Horse</td>
<td>Iguana</td>
<td>Jackal</td>
<td>Kangaroo</td>
<td>Lion</td>
</tr>
<tr>
<td>Monkey</td>
<td>Norfolk Terrier</td>
<td>Owl</td>
<td>Peacock</td>
<td>Quokka</td>
<td>Snake</td>
</tr>
<tr>
<td>Tortoise</td>
<td>Unicorn</td>
<td>Wolf</td>
<td>Xerus</td>
<td>Yak</td>
<td>Zebra</td>
</tr>
</tbody>
</table>

Let’s go species-wise in seriatim and find one-self through the mirror of the characteristics.

**Ant**

The most formidable internal auditor can get a lesson of the most diligent teamwork and effective communication from one of smallest creature of the animal world that is ant. These traits are to be applied to assess the application of client specific audit techniques.

**Bee**

The art of ceaseless collection of pollen from multiplicity of flowers by bees is reminiscent of professionals tracking their reactions to events for getting an idea of what is happening around them in increasingly complex corporate battleground. Seemingly oblivious of employing their most intelligent strategies when things get extremely tough, the best of professionals unknowingly borrows the art of injecting the sting from bees.
Crocodile
In a professional hierarchy of auditors the seasoned ones are required to assume the responsibility of protecting new entrants. This idea is actually borrowed from mother crocodiles that swallow the little ones immediately after birth to eventually release them in turbulent waters for their long term survival and proper growth.

Once selected the Auditor role, the person should not confine himself/herself in mere ‘tick’ function for execution. Only ‘brain power over brawn power’ can align with ‘out of the box’ thinking and bigger role play than confined in a ‘fault finding world’. The level of maturity and facing different assignment in multiple atmospheres requires handholding and protection for a while, what mother crocodile does for the little ones.

Dolphin
The superlative intelligence levels of dolphins are comparable with extremely efficient internal auditors who sail through highly complex situations ceaselessly in their workplace.

Donkey
Highly rewarding professional assignments do come across phases of donkey’s work or prolonged stages of hard work to attain their accomplishment within the budgeted time-frame. But hard work without understanding of audit objective and avoidable non-value additive work may not be fruitful and cost effective from the audit organization perspective. In other words, intelligent hard work is an essential quality, which one should nurture for long run success in the profession.

Dinosaur
Mere volume and size is not enough for survival as was the case of Dinosaur, whose eventual extinction from natural calamity was everything to do with their gigantic size. Likewise, in an internal audit assignment delivering voluminous reports without a dose of value-addition would thrive the natural way of extinction of internal auditors from the profession.

Eagle
An iconic but metaphorical resemblance recurrently drawn between this creature and human in order to demonstrate the swiftness and accuracy with which it acts and reacts. The majestic rhythm of its manoeuvring over uncharted territories to collect information of concurrent happenings to swoop into made it a differentiator among its community. The community of Auditor adopts this instinct with ease while swooping on the audit arena consisting of innumerable processes in an entity. An intelligent and efficient auditor swiftly reaches its destination and absolutely plunges on the area where malfunction lies. Due to this very nature, such auditors remain unperturbed in the organizational day to day events, which are within his vigil and natural wisdom. This artistic application of wisdom is vividly comparable with the instinct of Eagle who escapes to high altitudes unlike others during inclement weathers.

Fish
The maxim says ‘fish out of water’; meaning fish can’t survive, if kept outside water for a long time. This basically indicates the environment in which the auditor has to perform and deliver. The auditor, need to assess the ‘control environment’ and organization culture e.g. ‘tone at the top’ before plunging in to areas of audit selected or assigned to. In a congenial atmosphere, the Fish can swim round the clock. In an organization, with easy flowing data and availability of key functional personnel for clarity, it is consequential that audit team gets importance and respect for the function they carry out.

It should be looked from both the sides; auditors should also try to capture essential pointers as organizational improvement not the sub-optimal way of fault finding.

Goat
They consume almost everything that they find edible in front of them in the forest. In a herd, they tend to listen to their leaders and show esteem to them. Because of the obedient character, goat is among the most popular animals beloved by mankind. They are good followers looking at their behaviour in pastures, where the leader goat marked with a particular colour and rest just follow while returning from grazing ground.

The lead auditor to demonstrate its exceptional characteristic to the team members, which to earn respect and quite naturally will try to toe in same line and follow the practice. This not only led to camaraderie, team effort; surely enhance the quality of audit also.

Horse
Through centuries, horse has transformed from being a hunted animal to a draught-horse, working horse, beast of burden, battle horse and riding animal. Horses prefers to move and even gallop at a much faster pace.
When things are not moving in proper pace and to pre-
empt possibility of delayed closure of assignment with
ensuring quality, the auditor needs to catch-up speed for
drawing closure like a galloping horse.

Taking clue from the speed of horse in race where
the animal’s eyes are covered in such a way that only
finishing line is visible, probably one has to work on
speed of thinking with focused attention for immediate
response on emerging situation, which may include
‘out of the box’ solution. One of the trait of auditor, ‘to
be a part of solution’ not ‘part of problem’, this focussed
aptitude can help to bridge the gap.

Iguana

Showcasing the instincts of this tiny reptile is of
immense relevance to modern auditors. Naturally gifted
with a very advance brain and it behaves like a trained
animal. Iguana possesses very special characteristics of
alertness even during sleep and uses its sharp memory
to get back to the initial place.

To avoid repetitiveness in this rendition, out of many
characteristics a few like ‘always alert’, ‘walk with a
reason’, ‘lack of arrogance’ are to be adopted even from
such a small living creature.

Jackal

One of the canniest among the beasts, Jackal is
considered to be very cleaver in reaching its aims and
goals. Audit professionals need to nurture the art of
churning of relevant information from the auditee
while interacting with them in course of audit in way
that never hurts auditee sentiment or ego.

Kangaroo

Kangaroos are native to Australia. They live in large
groups, called mobs. Infants, are born after one month
of gestation and then live in the mother’s pouch,
nursing and growing, for between 120 and 400 days.
Even after leaving the pouch, young ones continue to
nurse for about another one and half year.

The seniors in audit discipline to take such a
protectionist view towards young stars for shaping their
future as an enabler in accomplishing audit objective.

Lion

Lions are symbols of strength and courage and
have been celebrated throughout history for these
characteristics. They are also common symbols for
royalty and stateliness, hence the phrase ‘king of the
jungle’.

Being lion-like means brave and courageous, naturally
in an investigation assignment the team to choose
when and where to be brave vs. timid, courageous vs.
cowardly for the best outcome. The hunter attitude
of lion signifies bravery. The majestic behaviour of a
lion is an indicator for need of “pride” in profession to
“survive” with a positive spirit.

Monkey

Monkey is our immediate predecessor in the journey of
evolution and they are a creature that closely resembles
us. Some of the most interesting characteristics of
monkeys are those that are similar to humans such as
grasping hands, forward-facing eyes and the ability to
express a wide range of emotions. They are adaptive to
changing environments and geographies.

As an auditor, one must not try to imitate blindly, even
when they are assigned to apparently similar processes
having a different application due to difference in
organizational control environment (e.g ‘Procure to
Pay’ process of a manufacturing entity is different from
a shipping charterer). So, the instinct of continuous
adoption in to new territories of operation needs to be a
hallmark of seasoned auditors.

Norfolk terrier

Norfolks are described as fearless, but need not
be aggressive despite being capable of defending
themselves, if need be. Norfolk, as pets, loves people
and especially children. Their activity level is generally
reflective of the pace of their environment. This breed
should not be kept or live outside since they thrive
on human contact.

‘Internal’ Internal Auditor or ‘external’ (outsourced)
Internal Auditor must have the ability to mix with
people where they are deployed. This comfort level gives
more acceptances by auditee and changes their attitude
towards a lasting mutual bonding which is squarely
reflective of their interest in imbibing value based audit
(not a fault finder).

Owl

One of commonly known nocturnal creature is Owl.
They prowl on their victims with speed and accuracy
at night when they can see. They are typified by their
upright stance, a large and broad head, binocular
vision, binaural hearing.

The instinct of speed and accuracy can be borrowed
by auditors while indulging in audits assignments with
clear timeline for completion.
Penguin

One of the extremely adaptive creatures on earth is penguin. Among their long list of adaptive-ness, penguins can survive sub-freezing temperatures, dive over 1600 feet deep, hold their breath for more than 15 minutes, and survive with no food for weeks by living off stored fat.

In challenging situations, a professional auditor needs to adapt himself to seemingly unthinkable levels in order to ensure the successful completion of assignments.

Quokka

Journalist Kenneth Cook wrote in 1987 in his book ‘Wombat Revenge’ that Quokka “is a malicious-looking beast”. Each year, the Rottnest Island infirmary treats dozens of patients—mostly children—for Quokka bites. Arizona State University scientists found that ‘in water scarcity, quokkas chow down on water-storing succulents. When the good leaves are hard to reach, they climb trees. The quokka does not settle for useless food.’

This scientifically proven truth, need to be considered as a corner stone for auditor’s success in professional sphere – that’s uncompromising quality with a bit enhanced risk to walk an extra mile.

Snake

The fine art of camouflage distinctly typical of wide variety of snakes, while prowling on its hunts is absolutely comparable with a variety of traits used by auditors in the accomplishment of assignments by shrugging off preconceived notions about clients and audits in particular. Most of the snakes having poisonous venom, which can kill the object and in turn the same can be used for curing many diseases. The objective of auditor is to put controls in place to cure the lapses, which may deter management objective fulfilment or kill the objectives plagued by lapses.

Swan

The majestic art of separating water from milk which a swan is capable of is an exemplary instinct which if imbibed by auditors in its true sense by selecting only relevant information for a specific audit point out of a sea of information from multiplicity of sources. Quality of audit observation, acceptance by reviewer and/or auditee depends on how well the thoughts are knitted with relevant documentation to prove a pointer/root cause.

Tortoise

One can remember the mid school story of the ‘race between hare and tortoise’, where race was won by unpredictable tortoise despite slow mover tag in comparison to fast moving hare. The moral of the story, ‘slow and steady wins the race’ as well ‘do not take the competitor lightly’.

In the professional world, everyone is judged in the fulcrum of wisdom and service quality. Time is changing at a lightning speed, hence a posture of ‘customer first’ among competition with contemporary knowledge and technology driven solution, can only lead to a path of steady progress.

Unicorn

The unicorn is a legendary creature that has been described since antiquity as a beast with a large, pointed, spiralling horn projecting from its forehead. The unicorn was depicted in ancient seals of the Indus Valley Civilization and was mentioned by the ancient Greeks in accounts and also in Bible.

In European folklore, the unicorn is often depicted as a white horse-like or goat-like animal with a long horn and cloven hooves (sometimes a goat’s beard). In the middle Ages and Renaissance, it was commonly described as a symbol of purity and grace, which could only be captured by a virgin.

The virginity comes from the auditor’s cultural background and thoughts about life. Honesty, Integrity and Truthfulness (HIT) is to be reckoned as most powerful pillar for providing independent assurance.

Wolf

Wolves, out of all the power animals, have one of the strongest symbolisms. The personality traits of the Wolf are those of powerful instinct, intuition and high intelligence. These predators can run at great speeds, thanks to their powerful hind legs and muscular system, and cover great distances on foot. Wolves have large and simple stomachs that are suited for storing food rather than facilitating rapid digestion.

One may consider wolf variety for two reasons; one the powerful instinct and high level of intelligence, which helps in making ‘hindsight into foresight’ and the other one is the ability to store information with gradual release on opportune time after proper filtration.

Xerus

These animals are diurnal and live in burrows. To avoid sun heat, they move in and out of their burrows;
which is called ‘shuttling’. In the auditor’s life, handling multiple assignments at a time resembles such shuttling act. However, the same should not be at the cost of maintaining timelines and compromise on quality aspects.

Yak

Yaks are used for travel and as draft animals. They are also valued for their milk, meat, wool, and dung. Domestic yak are more varied in colours than wild Yak. They live at the highest altitude in comparison to any other mammal and graze on grasses, herbs, moss etc. In the winter yak can crunch ice or snow for water.

In corporate reporting structure the audit function as an independent evaluator need to report to Chief Operating Officer of the entity and in turn to Board of Directors. The mental strength of ‘crunching ice’ can resemble to a difficult situation where remoteness, language (both oral and written) faced by audit team to be tackled with yak-mentality.

Zebra

The unique but diverse stripes of this lovely creature, is a boon to it by the almighty. These stripes benefit them in numerous ways from confusing predators on the run to a method of identification among themselves.

To an auditor, it’s the uniformity and identical audit approach in client servicing, makes it possible to deliver the identical quality irrespective of changed number and regular change in representative audit executives.

Conclusion

Instantly pertinent instincts typical of variety of animals that is portrayed in the above commentary are to be construed as artistic and innovative audit tools routinely required in highly intricate audit assignments. If applied, intricately intertwined with modern data analytic tools these instincts can completely overhaul the way the audit assignments are dealt with.

Multiplicity of approach and strategy is the cornerstone of contemporary internal audit. In this age of ceaseless change of gigantic proportions, the adoptive skill of auditors is of immense value. To reengage and redevelop themselves, these corporate animals (auditors) are routinely and inevitably resort to innovation in their approach to audit. In this unending journey towards excellence, this small rendition, need to be construed as an effort which, if imbied in its right earnest can unleash sea change in the audit methodologies and its value propositions.

Obituary

The Institute and its members deeply mourn the demise of CMA Dr. K.L. Jaisingh, President of the Institute for 2003-2004 and Vice-President for 2002-03, who left for heavenly abode on September 3, 2017. He was chief executive of several companies as President, Executive Director of renowned organisation in different sectors and a Practicing Cost Accountant.

May his family have the courage and strength to overcome the loss.

CMA Dr. K.L. Jaisingh
The Basel Committee was formed in the year 1974 by the central bank governors of the group countries. It has around thirty technical working groups and task forces. India as we know is a member of the group of 20 (G-20) countries. This group advises the Financial Stability Forum (FSF). The core principles liaison group set up the Basel Committee on Banking Supervision (BCBS) for the purpose of promoting and monitoring principles of banking supervision and the working groups on capital.

Earlier, different central banks on their own countries controlled their commercial banks according to the rules and regulations set by them. With a view to providing a level playing field for the banks, a group of 15 most industrially developed countries agreed on certain common rules, which was known as the Basel Accord. Over a period of time more than hundred countries’ central banks have adopted these common norms set by the Basel Accord.
BASEL I

In 1988 the BCBS prepared through consultative process and finalised a framework in order to obtain international convergence of supervisory regulations governing the capital adequacy of international banks. This framework was known as Basel I. Three main components of the Basel I framework has been (a) Constituents of capital, (b) Risk weighting system, and (c) Target ratio.

Basel I prescribed two tiers of capital for the banks viz. Tier I capital and Tier II capital.

Tier I Capital or Core Capital
Tier I capital is the capital fund which can absorb losses without a bank being required to cease trading. In other words, it is the most permanent and readily available funds to support against unexpected losses. It includes (a) paid-up capital, (b) statutory reserves, (c) share premium, (d) capital reserve, and (e) other disclosed free reserves minus equity investments in subsidiaries, intangible assets, losses in the current period as also brought forward from previous years.

Tier II Capital
Tier II capital is the capital fund which can absorb losses in the event of a winding up. It includes (a) undisclosed reserves and fully paid up cumulative perpetual preference shares, (b) revaluation reserves arising out of revaluation of assets (for example, bank premises, marketable securities etc.), (c) general provisions and loss reserves not attributable to the actual diminution in value or identifiable potential loss in any specific asset available to meet unexpected losses, (d) hybrid debt capital instruments, and (e) subordinated debt that is fully paid up, unsecured, subordinated to the claim of other creditors, free of restrictive clauses.

Minimum 50% of a bank’s capital base would consist of core elements. The supplementary capital would be allowed but not more than 100% of the core capital.

On the principles of capital adequacy, the Basel Accord mainly suggested that (1) a risk weighted assets ratio should be adopted by banks in which capital would be related to different categories of assets or off-balance sheet exposure, weighted according to broad categories of related riskiness; and (2) a bank should hold equity capital at least 8% of its assets when multiplied by the appropriate risk weight.

In fact the Basel I introduced discipline among banks by way of risk weighted capital adequacy norms. However, these norms were not sufficient due to the Basel Accord appears to be both the opportunity as well as the challenge for the banks operating in India as it provides a solid base for financially sound banking. It provides a justifiable time schedule for implementation which is acceptable in the Indian context as the banks operating in India are quite well positioned for smooth and proper implementation of new and better standards set by Basel Accord.

Here the author gives an overview of the Basel Capital Accord which poses a major challenge for the regulators, viz. Government of India and RBI as well as the bank management to successfully implement the new and fresh standards set by Basel Accord (Basel III) with timeliness.
fact that the financial markets, intermediaries, banking operations, supervision and risk management practices have undergone sufficient changes. Even the external situations have shown that capital adequacy norms were inadequate to control financial debacles of banks.

**BASEL II**

Having taken into consideration deficiencies mentioned above, the BCBS brought out a consultative paper on new capital adequacy framework in June 1999. The new rules became effective from the year 2005. BCBS also set up an Accord Implementation Group.

The primary objectives of the new Basel Capital Accord are to (1) promote safety, security and soundness of the financial system; (2) enhance competitive equality among banks; and (3) constitute a more comprehensive approach toward addressing risks.

The new Basel Capital Accord stands on three mutually reinforcing pillars such as:

1. Minimum capital requirements or capital adequacy (Pillar I)
2. Supervisory review of capital adequacy and internal assessment process (Pillar II)
3. Market discipline by way of effective disclosures to ensure transparent, safe and sound banking practices (Pillar III)

**Pillar I**

Under Pillar I commercial banks are required to compute individual capital adequacy for three categories of risks, viz. (a) credit risk, (b) market risk, and (c) operational risk.

Basel II recommended two approaches for estimating capital for credit risk such as, (1) the standardised approach; and (2) the advanced internal risk-based approach. The *standardised approach* extends the scale of risk weights and uses external credit ratings to categorise credits. The *advanced internal risk-based approach* allows banks to use its internal estimates of the borrowers’ creditworthiness to estimate credit risk in the portfolio, subject to stringent methodological and disclosure standards.

Basel II has assigned capital charge for operational risk. BCBS has defined operational risk as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. There are three approaches for estimating capital for operational risk, viz. (1) basic indicator approach; (2) standardised approach; and (3) advanced management approach. In the *basic indicator approach*, a risk weight of 15% is applied to a single indicator, especially the average gross income (i.e., the sum of net interest income and net non-interest income) over the previous 3 years. The *standardised approach* is based on annual revenue of each of 8 broad business lines of the bank and includes not only a risk weight of 15%, but also specific risk weights defined for each business line. These business lines or activities of the bank are: (i) corporate finance, (ii) trading and sales, (iii) retail banking, (iv) commercial banking, (v) payment and settlement, (vi) agency services, (vii) asset management, and (viii) retail brokerage. The capital charge for each business line is computed by multiplying gross income by a factor *(beta)* assigned to that business line. The *advanced management approach* is based on the internally developed risk measurement framework of the bank. It includes methods such as, internal measurement approach, loss distribution approach, scenario-based approach and scorecard method.

**Pillar II**

Supervisory review process emphasises the necessity for bank to develop sound internal processes in order to assess the adequacy of capital by way of detailed evaluation of its risks and setting appropriate targets for capital. Hence, the internal processes would be subjected to supervisory review and intervention. The supervisors would be responsible to evaluate the methodology adopted by the banks for measurement of risks and soundness of the systems. Pillar II requires that there should be a comprehensive assessment of risks to be conducted by both the banks internally as also the supervisors externally.

**Pillar III**

Market discipline requires that the framework should set out disclosure requirements in various areas including the banks’ methodology for calculation of their capital adequacy and also the risk assessment methods adopted by the banks. The transparency and disclosure standards should permit market participants to assess key information on risk exposures, risk assessment processes and capital adequacy of banks.

Basel II is more risk sensitive and it seeks to align capital requirements of banks more closely with underlying risks in the balance sheet. It enables the banks to formulate a better risk management strategy and efficiency of capital and its allocation.

**BASEL III**

Basel III is a complete set of development measures adopted by the BCBS in order to toughen the risk
management, supervision and regulation of the banking sector. During the time of global financial crisis in 2008, Basel III was specifically designed to deal with the weaknesses of the financial system. It is the continuous efforts initiated by the BCBS in order to improve the framework of the banking regulations under previous accords i.e. Basel I and Basel II. The latest accord i.e. Basel III now works for improvisation of the capability of handling risk management, building up the transparency of the banks and dealing with the economic and financial stress.

Features of Basel III

The main features of Basel III are as follows:

1. **Better Capital Quality**: It means high capacity of loss absorption by banks to survive in the worst economic environment.

2. **Capital Conservation Buffer**: Basel III has projected that the banks can now hold up to 2.5% of capital conservation buffer in order to ensure that the banks can put a cushion for themselves to absorb the losses in the time of hostile economic environment.

3. **Countercyclical Buffer**: Basel III intends to boost the requirement of the capital in good times and slow down the same in bad times. This buffer ranges from 0% to 2.5% and consists of either loss absorbing capital or common equity.

4. **Tier I Capital Requirement and Minimum Common Equity**: Under Basel III accord, the uppermost type of loss absorbing capital has gone up from around 2% to 4% of total risk-weighted assets (RWA). Therefore, the whole Tier I capital requirement consists of not only the common equity, but also includes many other financial instruments which will also go up from 4% to 6%. Even though the least total capital requirement will remain at 8% only, however, the required total capital will go up to 10.5% when it will be pooled with the conservation buffer.

5. **Leverage Ratio**: Under Basel III, leverage ratio can be computed by dividing the capital of Tier I by the average total consolidated assets of the banks. Leverage ratio in excess of 3% has to be maintained by the banks.

6. **Liquidity Coverage Ratio**: This ratio makes it mandatory for banks to hold enough high quality liquid assets to cover their net cash outflows over the period of 30 days.

7. **Net Stable Funding Ratio**: This ratio can be computed by dividing available amount of stable funding by the required amount of stable funding. It gives confidence and incentive to the banks in order to make use of constant sources for financing their activities.

8. **Systemically Important Financial Institutions**: As a component of the micro-prudential framework, systemically key banks will be projected to have loss-absorbing capacity beyond the requirement of Basel III.

**Basel III – Pillar 3 Disclosures**


The Regulatory Disclosures contains the following items:

- Qualitative and Quantitative Disclosures As On:
  - Scope of Application
  - Capital Adequacy
  - Credit Risk
  - Credit Risk: Portfolios subject to the Standardised Approach
  - Credit Mitigation: Disclosures for Standardised Approach
  - Securitisation Exposures
  - Market Risk in Trading Book
  - Operational Risk
  - Interest Rate Risk in the Banking Book (IRRBB)
  - Liquidity Risk
  - Counterparty Credit Risk
  - Asset Liability Management (ALM) Risk Management
  - Risk Management Framework of Non-banking Group Companies
  - Equities: Disclosure for Banking Book Positions
  - Disclosure Requirements for Remuneration

- Composition of Capital and Reconciliation Requirements
- Main Features and Full Terms and Conditions of Regulatory Capital Instruments
- Leverage Ratio Disclosures
- Liquidity Coverage Ratio Disclosures
BASEL norms implementation in India

The RBI adopted a phased approach for implementation of Basel norms in Indian banks. In April 1992, RBI directed the banks to maintain a minimum capital of 8% on the risk-weighted assets in the following manner:

(a) Banks with branches abroad were required to comply with minimum capital to risk-weighted assets requirement of 8% by end-March, 1994;
(b) Other banks were required to comply with minimum capital to risk-weighted assets requirement of 8% by end-March, 1996.

In 1998 the Committee on Banking Sector Reforms recommended for further tightening of capital adequacy norms. Hence, the Capital to Risk-weighted Asset Ratio (CRAR) norm was revised upward from 8% to 9% to be attained within March 2000. With effect from end-March 2006, the banks were required to maintain capital charge for market risk on their ‘Available for Sale’ (AFS) portfolio and ‘Held for Trading’ (HFT) portfolio.

A steering committee was formed by RBI comprising senior officials of banks, RBI representatives, and representatives from Indian Banks’ Association (IBA) to give recommendations on implementation of Basel norms.

In order to ensure full compliance with Basel II norms, RBI gave more time to banks to implement appropriate systems. With effect from March 2008, foreign banks operating in India and Indian Banks having presence outside India switched over to the standardised approach for credit risk and the basic indicator approach for operational risk under Basel II. All other scheduled commercial banks were advised to switch over to these approaches under Basel II not later than March 2009.

According to the Basel III Capital Regulations issued by the RBI, Capital Conservation Buffer (CCB) is scheduled to be put into practice with effect from 31st March 2015 partly, and will be fully operative by 31st March 2018. It has been decided that the execution of CCB will be commenced on 31st March 2016. Therefore, the Basel III Capital Regulations will be fully operationalised by 31st March 2019.

Concluding Remarks

Basel Accord (Basel III) appears to be both the opportunity as well as the challenge for the banks operating in India as it provides a solid base for financially sound banking. The opportunity comes in the form of (a) redesigning of the risk management framework, (b) choice of technology, and (c) attaining new capital for efficient risk reporting and risk management. However, the major challenge is for the regulators, viz. Government of India and RBI as well as the bank management to successfully implement the new and fresh standards set by Basel III with timeliness. Basel III provides a justifiable time schedule for implementation which is acceptable in the Indian context as the banks operating in India are quite well positioned for smooth and proper implementation of new and better standards set by Basel III.

References

5. Reserve Bank of India, Report on Trend and Progress of Banking in India, various issues.

ATTENTION

Authors and other contributors of the journal are requested to kindly send their original unedited photos/images in JPEG format only having high resolution (200-300 dpi). This is needed to maintain the required quality of the journal.
COSTING OF COCOA:
An almost neglected product with high potential

Issues Involved

Coconut, Coffee, Areca nut and Cocoa are generally mentioned in the same breath in view of their rather similar features regarding both production and processing for use, especially with regard to the type of care that the plants require and the emphasis on the fact that almost all of them are quite thirsty in their core but none of them has the capacity to stand water-logging. Costing Cocoa, and products made out of it, have remained shrouded in mystery, more due to looking the other way than any really good reason. Over the years, more so because hardly any serious attention has been given to production and costing of Cocoa and the number of products that could be made thereof, with high potential of both internal consumption and exports of both Cocoa beans and powder. In short, a huge potential has all this while remained unexplored. This paper seeks to highlight some of the issues involved both directly and indirectly. Over the years, Cocoa has not received the desired attention in this country despite the fact that it has almost unlimited potential in the context of both traditional and non-traditional uses and of its figuring both as a final product with minor processing and as an input for other products. Costing of Cocoa, and of the products made out thereof, thus attaches some stress to itself in a variety of contexts, especially due to its unexplored potential. This paper seeks to highlight the major issues concerning both Cocoa and its variety of uses. Signs of its neglect are apparent from the area under Cocoa production and the production of Cocoa in India, despite the fact that Cocoa has almost unlimited potential from the point of view of both internal consumption and exports. In fact, this part of the story has remained almost untold. This paper seeks to unfold some of the issues involved that came in the way of exploring the huge potential that Cocoa spells both as a major product and as an input, as stated earlier. Management accountants would highlight both while advising management on whether to go for it or to leave it as it is, on the basis of analyses of costs and benefits. The matrix prepared in this respect may in fact show whether to accept the proposition, or to leave it like that. To start with, such a matrix may show only the costs but the benefits may accommodate several alternatives each yielding returns depending on the uses to which Cocoa is put, crushed and uncrushed. In this context, the figures of area and production of Cocoa would be relevant, as much as the significance attached to it, which in our view should call for a paradigm shift on the basis of finding areas...
where Cocoa trees may be grown on a larger scale. The available figures of the area under Cocoa and production during the years 2012-13 and 2013-14 respectively in thousand hectares and thousand tonnes are 66 - 13 and 71 – 15 respectively. That these facts show some indifference can hardly be denied. These details show the state of some indifference towards the possible economies derivable therefrom, despite the fact that Cocoa has remained rather sidelined along with the issues concerned with it and possible, derivable benefits have remained rather unexamined and unexploited. The recognition of this rather unwanted state, and finding the antidote therefor, require rethinking for exploiting the unexplored potential from the points of view of both higher internal consumption and exports. (Grateful acknowledgement is due to Dr Sujit K. Roy of Goenka College, Kolkata, for downloading from the Internet, The Pocket Book of Agricultural Statistics, 2014, Government of India, New Delhi, Department of Agriculture and Cooperation. Horticulture Division, p. 47).

The Cocoa World

During the year 2015-16, the total world production of Cocoa beans was 49, 65, 000 tonnes of which Ivory Coast accounted for 15,81, 000 tonnes, Camaroon for 2,11,000 tonnes, Ecuador for 2,32,000 tonnes, Indonesia for 3,20,000 tonnes and Ghana for 7,78,000 tonnes. India accounted for only 17,200 tonnes, of which production from Andhra Pradesh was 7,000 tonnes, Kerala produced 6,500 tonnes, Andhra Pradesh 7,000 tonnes, Karnataka 2,200 tonnes and Tamil Nadu 1500 tonnes. (Cf. G. Seetharaman, “Bittersweet Chocolate”, The Economic Times, May 21-27, 2017, pp. 22-23.) Grown primarily as an intercrop in India due to the fact that multi-cropping helps sustainable agriculture through enhancing water percolation into the soil and minimizing evaporation, as also soil erosion, Cocoa has several uses other than only manufacturing chocolates though in most part Cocoa goes into making chocolates, especially in the western world. During the Second World War, the Allied Forces used to be given tins of Cocoa power for consuming as a hot drink, a stimulant, especially in areas of combat like the South East Asia Command. There is, however, little doubt that the major use of Cocoa is as an input for manufacturing chocolate. But the emphasis given to Cocoa cultivation in this country, in the four southern states named earlier, has been in the main, cohabiting with coconut groves, from the chocolate manufacturers like Cadbury, prodding the growers to try with Cocoa cultivation for the various benefits to ensue from such a change in outlook and practice. In fact, Cocoa cultivation in this country caught up since only the 1960s in only a few states in the South, as named earlier. Even now, Cocoa has not caught up with the farmers’ imagination despite all the lures, so that the Indian farmers as yet have hardly shown any enthusiasm to adopt cultivation of Cocoa beans on a larger scale in the face of high profitability even as the farmers hesitate to produce Cocoa beans on a larger scale, expanding the acreage and the production of Cocoa. As indicated earlier, expansion of the acreage under Cocoa has been but at a slow pace, even as an intercrop, because of several factors which are stated later. Even at this stage, it may not be entirely out of place to mention that the fascination for chocolates, shall we say, the number of real connoisseurs thereof in the undeveloped countries like India, where the incidence of diabetes is high, is only growing at a snail’s pace. On the other hand, traditional cropping pattern and excessive emphasis on the crops with which farmers are familiar stand in the way of any major shift to a domain largely unknown to them. The cold shoulder shown to Cocoa is mainly due to a lack of interest, despite all the attractions largely untried.

Hesitancy of Cultivators

As stated earlier, even the shifts to Cocoa cultivation, albeit on a rather small scale, was on the basis of a campaign initiated by chocolate manufacturers, notably Cadbury. The named Indian states where Cocoa is grown, have the geographical advantage, being rather in, or around, the equatorial region. On the other hand, most of the countries of the south treat sweets of any
description with a negative attitude and chocolates are treated with a wink in the eye, due to various sweetening agents, apart from the high price which the ordinary people cannot afford. Thus, it was mainly at the pursuance of the Chocolate manufacturers and their different brands of exponents that Cocoa growing in the four states in the South and Central Indian states that growing Cocoa was initiated. Even in the face of all this, India has to import Cocoa beans for use as the main input for chocolate manufacturing, as stated earlier. This calls for reconsideration of the entire phenomenon in view of the crying need for import substitution, though the story does end here with examining only the prevailing circumstances. The future may indeed be looking more hopeful considering the bitterness part of Cocoa, which may be of immense medicinal value. Utter lack of necessary official enthusiasm and interest towards the expansion of area under Cocoa cultivation, despite its being an intercrop, is a surprise, to say the least. It is earnestly hoped that this indifference would before long give way to enthusiasm, in view of the high possibilities arising from intercropping, a unique feature of Cocoa cultivation which is mainly in the coconut groves, arecanuts, oil palms and the rubber plantations. This hesitation despite the possibilities is utterly incomprehensible insofar as Cocoa cultivation does not disturb the main crop as it is cultivated only as an inter-crop. The share of each state in the south of this country in terms of Cocoa beans production is shown below which underlines that there is quite large scope for expansion of Cocoa plant cultivation both in the south and in other areas. For the purpose of propagation of Cocoa cultivation, Governments of the States and the Centre must play a more active role not only for better returns to the cultivators but also for the purpose of augmenting exports, in contradistinction with the prevailing conditions of about 57% imports of Cocoa beans at a high cost in foreign exchange.

Cocoa is not chocolate-centric

Though Cocoa beans hang around chocolate manufacturing, its main connoisseurs are still in the countries of the North, the western world and the American continent. As the saying goes, major consumers of chocolate products are in these countries with Belgium leading in the manufacture of this confectionary. In fact, Belgium is famous for high quality chocolate manufacturing, playing a major role in production and marketing, both inside and outside the country. Our contention is that this is only one facet
in an essentially multi-faceted role player, that Cocoa is. According to the prevailing dispensation, Cocoa and chocolate are breathed together, though it is not necessarily connected that way. Cocoa has several other utilities which are yet not fully examined and exploited. Mention has been made of the large scale use of Cocoa powder by the army personnel during the last World War as an invigorating drink, particularly by the British. Even during the peace time, such outside uses have increased rather than the contrary. The point sought to be underlined is that Cocoa has several other significant uses of which some have already been found acceptable and some others are still waiting on the borderline for experimentation. There are quite a few other products and uses of Cocoa which have not been earnestly examined in this country, mainly due to indifference towards varieties of Cocoa confectionary products, other than chocolate. Experimentation with different Cocoa products that can be made out of Cocoa powder, both jointly with other products and severally, so that the Cocoa growers know for certain the full commercial possibilities. As an intercrop, Cocoa cultivation hardly comes in the way of cultivation of the main crop; it acts only as an addendum to the usual scheme of cropping. On the contrary, even as a subsidiary crop, Cocoa adds to the farmers’ economics of cultivation, considering that the Cocoa plants bear beans for a considerable period of time, on the expiry of the initial four-five years of gestation. This typicality has remained unnoticed and Cocoa production in this country in not in keeping with even its growing chocolate consumption, requiring the country to import annually more than half of its Cocoa bean requirements, which in figures come to 57 per cent in 2015-16 (ibid, p23). It is a pity that such an opportunity has gone unnoticed and unutilized, to say the least. Albeit rather late, opportunities in this regard should not be considered as lost altogether. Only, the horticultural division of Government of India, and those of the states, should give the potentials a relook covering the whole issue, so that a more sensitive policy in this regard ensues, for exploring the full potential of Cocoa in its different avatars.
Organized Propagation for Cocoa, a Must

Growth of production of Cocoa beans has been constrained by the accompaniment of either coconut or arecanut, both of which have had an age-long tradition in the south, though only in some of the states. On the contrary, Cocoa production has flourished as an intercrop. In the aforesaid circumstances, farmers’ segueing from tradition to modernity, reverting to the production of auxiliary crops which would help increase production of the main crop and infuse courage to go for a new crop, which is but an auxiliary one, would call for breaking away from the ongoing practices, with infusion of Cocoa plants as auxiliary ones that would be protected by the main crops from excessive exposure to Sunrays and rains and other cognate advantages, especially the binding qualities of soil showing up sooner than later. The problems that remain mostly unattended relate to a lackadaisical attitude of the research institutes, lack of right responses from the farmers and excessive dependence on externalities related to climate, indifference of the agro-economic researchers and snail-pace extension of areas of Cocoa production, while the growers remain largely unaware of the benefits that would accrue from intercropping.

To demonstrate the effectiveness of Cocoa cultivation, it would be essential to assess the effectiveness of Cocoa plantation that has a gestation period of three to five years or so, but a fruit bearing period of more than twenty years, extension of areas for plantation of Cocoa trees appears appropriate, subject of course to consideration of suitability of the intercropping with the other mother plants having the capacity of casting shadows over the Cocoa plants, the pattern of rainfall and production of Cocoa beans without disturbing the production of the usual crops like coconuts or other complements that can go with Cocoa.

To demonstrate the effectiveness of Cocoa cultivation, it would be essential to assess the effectiveness of Cocoa plantation that has a gestation period of three to five years or so, but a fruit bearing period of more than twenty years, extension of areas for plantation of Cocoa trees appears appropriate, subject of course to consideration of suitability of the intercropping with the other mother plants having the capacity of casting shadows over the Cocoa plants, the pattern of rainfall and production of Cocoa beans without disturbing the production of the usual crops like coconuts or other complements that can go with Cocoa. These are referred to in view of their due mutuality of the features, mainly in terms of casting shadows over the Cocoa plants. However, the nature of response so far is anything but enthusiastic, though this lukewarm response is much to the disadvantage of the growers themselves, without their knowing it. Continued demonstration effect can convince the involved parties regarding the merits of the proposition. In India, this is possible by way of exchange of views with the successful growers of Cocoa and other ways of exchange of views among the present growers and those who have not yet felt enthusiastic about Cocoa despite some sporadic attempts regarding demonstrating the benefits from Cocoa growing without disturbing the existing arrangements, more so where the climatic conditions do not come in the way of underlining the mutuality. At present, even for the much propagated chocolate confectionary, India has to import more than 57% of the total requirements for chocolate manufacturing alone, leave aside the other side of the coin. Meeting the present deficit apart, both the existing and several areas of the other states have the potential for augmenting Cocoa beans output. It deserves particular notice that Cocoa cultivation as...
Expansion of Acreage, a Crying need

The expansion of acreage under Cocoa cultivation, being in the tropical conditions, is not a binding condition because similar conditions can be created in other regions as well with reference to soil, rainfall, conditions that favour growth of shade providing plantations like coconut groves, rubber plantations, etc., along with the connected economics of plantations should be considered in detail so the type and extent of fertility remain friendly to the cultivation of Cocoa, once the cultivators, nay planters, are fully convinced regarding the feasibility of deriving necessary benefits from the ventures. This fact further underlines that the other states in the south of the country may also try planting Cocoa trees under the shadow of other crops, since Cocoa is cultivated as an intercrop, about four-five years of gestation and plus-minus twenty years of continued production of the beans. In the absence of research data about the suitability of cultivation of Cocoa as an intercrop, past performance and experiences of other countries might act as a good guide, more so, because of the uniqueness of the economics of Cocoa cultivation having the latent capacity of not only import substitution but also export while augmenting the internal supplies towards manufacturing the confectionary items like chocolates, with possibilities of the expansion of the range to several other items, for example the use of chocolates in several products marketed by Amul. The aforesaid details suggest that the utilization of Cocoa is not entirely chocolate-bound; it could as well be used as a worthwhile complement to numerous sweetmeats made for consumption on a large scale in different parts of the landmass that is India, including the North, South, East and West. What is needed is the regular and systematic ‘demonstration effect’ on a large, countrywide scale. That this is absent and that the prevailing attitude is much less than warm, are proved by the figures of production of the Cocoa beans in different countries of the world, on one hand, and the state-wise production in this country, on the other. The figures presented hereunder relate to Cocoa beans production in 2015-16 and the worldwide production is in terms of tonnes, as presented in the Economic Times, referred to earlier. These figures are tell-tale. It is a pity that the high potential of Cocoa remains unrealized in this country practically without any acceptable reason, as the worldwide production figures unmistakably tell. This gross neglect calls for immediate reversal.

Production of Cocoa Beans 2015-16

The total production of Cocoa beans during the aforesaid year was 49,65,000 tonnes of which the Ivory Coast produced 15,81,000 tonnes(31.84%), Camaroon 2,11,000(4.25%), Equador 2,32,000 (4.67%), Indonesia 3,20,000 (6.45%), and Ghana 7,78,000(15.67%) and Rest of the world 18,43,000 (37.12%). India’s production figures came to 17,200 only, of which Andhra accounted for 7,000 tonnes(40.70%), Kerala 6,500(37.79%), Karnataka 2,200 (12.79%) and Tamil Nadu 1,500 (8.72%) tonnes. India’s poor performance appears primarily due to a lackadaisical attitude insofar as the concerned officialdom turned itself the other way all this while, the prevailing unconcern leading to importing 57% of her requirements where the country’s potential could easily turn itself into an exporting country, earning valuable foreign exchange. India figures as a mere Lilliput among the world leaders in Cocoa beans production and which is a reason for the halting traits in various Cocoa products as also experimentation for various new uses. It is worth repeating that as an intercrop Cocoa production does not disturb or otherwise affect the production of other main crops, under whose shadows Cocoa grows as a pampered child. In fact, it just uses the shadows of the mother crops under which Cocoa plants flourish. And they have high longevity. Since the gestation period of a Cocoa plant is about three-four years, and their yields of beans continue for around twenty-twenty five years, it is quite convenient to allow these plants to grow unhindered in any way. Hesitation against its larger scale cultivation comes because it is new and its marketing processes are untried, as also its prospects are not known for certain. In the circumstances, the hesitancy is not quite beyond apprehension. It is
for the state government and the agro-horticultural Research Bodies to initiate measures in this behalf in collaboration with the chocolate manufacturers and several other users of to-day and to-morrow, many of whom have shown interest in augmenting Cocoa production, though all this remains a lip service yet. We fervently plead for requisite official intervention without delay.

**Some final comments**

Cocoa cultivation has a bright future in this country as several states in this country have already demonstrated. As yet, it has grown some interest only on a very limited scale. Cocoa has a tradition in this country only spanning thirty or forty years. Time, its future prospects were examined in detail and at depth with particular reference to assessing the possibilities of the rewriting the chart of its uses so that a new impetus can be created. The possible planters may be brought together at regular intervals for the demonstration of typicality with particular reference to the undisputed fact that as a complementary plant, Cocoa plantation does not in any way create disturbance to the economics of the mother plant except that Cocoa plants may be blessed by the main plants with around 40-50 per cent shades required by them. Experts in the line and those experienced in Cocoa plantation and conversant with Cocoa products may advise these Cocoa planters of the huge potential of this product, yet untried in this country. Plantation of Cocoa can turn itself into an economically profitable proposition because of the typical features of intercropping, like coconut, oil-palm, rubber plantations, etc. Since the Cocoa plants have a rather long life, inter-cropping does not disturb the growth or yield of the main crops; the shadows cast by the main plants are of immense benefit to Cocoa plants’ growth. Cocoa has many uses not all of which are yet in vogue. One major benefit arising from Cocoa plantation is import substitution and export boosting. The latter question should be examined closely so that the country as a whole benefits. Cocoa has many uses not all of which have been tried in this country. As has been argued above, Cocoa is not chocolate-centric. Even as a beverage, its utility may be wider than dreamt of at present. There are many other significant uses yet untried in this country, some of which have already been referred to. As a long-lasting secondary crop, the economics of cultivation of Cocoa suggests itself. Organized research for examining suitability of Cocoa plantation in the hitherto untried areas may find new avenues for growers for augmenting their total production and income, without disturbing or dislocating their present production practices. With reference to income of the Cocoa growers, it may be asserted that Cocoa has the capacity of deriving immense returns, even higher than the casters of shadows on these plants, like coconut, rubber plantation, oil palms, etc. Cocoa, like its mother plants such as coconuts, and the other plants, has the potential of yielding returns not only equal to those derived from the mother plants, but also higher. Intercropping being the ruling feature, extension of areas under Cocoa plantation calls for a serious trial in different states in India, including those states where Cocoa beans are already being produced, albeit on a rather small scale.

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Section 139 of the Companies Act, 2013 deals with the appointment of auditors. Its sub-section (1) provides that every company shall, at the first annual general meeting, appoint an individual or a firm as an auditor who shall hold office from the conclusion of that meeting till the conclusion of its sixth annual general meeting and thereafter till the conclusion of every sixth meeting and the manner and procedure of selection of auditors by the members of the company at such meeting shall be such as may be prescribed.

The first proviso to this section provides that the company shall place the matter relating to such appointment for ratification by members at every annual general meeting.

1.1. Meaning of the word ‘Ratification’: According to Black’s Law Dictionary, the definition of Ratification means, ‘the formation of a previous act then either by the party himself or another, confirmation of voidable Act’.

1.2. While section 139 provides for the appointment of auditors, section 140 deals with the removal of the auditors. Sub-section (1) of Section 140 provides that the auditor appointed under section 139 may be removed from his office before the expiry of his term only by a special resolution of the company, after obtaining the previous approval of the Central Government in
that behalf in the prescribed manner:

Provided that before taking any action under this sub-section, the auditor concerned shall be given a reasonable opportunity of being heard.

1.3. Thus, for removal of the Statutory Auditor before the expiry of its term, the conditions stipulated in section 140(1) i.e. passing of special resolution and permission of Central Govt. be complied with. Apart from it, the outgoing Statutory Auditor be also given a reasonable opportunity of being heard.

1.4. Recently, a case titled as SPC & Associates, Chartered Accountants v. DVAK & Co.1 CP No. 21/140/ Hdb/2016, came up before the National Company Law Tribunal, Hyderabad Bench (NCLT) in which the NCLT observed that where a Chartered Accountant (CA) firm has been appointed as statutory auditor by the company for period of five years but did not ratify their appointment in its subsequent Annual General Meeting (AGM) and appointed another CA firm as its statutory auditor, opined vide order dated 17th March, 2017, that since the company did not obtained prior approval of central Government, the removal of petitioner CA firm was to be held illegal. The facts of the case are as under:

**Facts of the case**

- The Respondent No.2 Company originally appointed the Petitioner firm as an auditor of Respondent No.2 Company at the Extra-ordinary General Meeting held on 07.11.2014 for the financial year 2014-15 and filed notice of such appointment Form ADT-1 SRN S342441471 on 02.12.2014 with the RoC, Hyderabad.

- Further, the R2 Company appointed the Petitioner firm as an auditor of R2 Company for a period of 5 years starting from conclusion of 17th Annual General Meeting held on 28.08.2015 till the conclusion of Annual General Meeting to be held on 2020 of R2 Company and filed notice of such appointment form ADT-1 vide SRN S43477884 on 26.11.2015 with the RoC, Hyderabad.

- It is submitted that CA Dilli Kumar N and CA Vamsi Krishna Borra are partners of R1 firm, have worked with the Petitioner firm in the capacity of partners for a period of 3 years and quit the Petitioner firm on 31.01.2016. After departing from the Petitioner firm, CA Dilli Kumar N and CA Vamsi Krishna Borra established R1 firm and immediately started soliciting and poaching the clients of Petitioner firm with the acquaintance and relationship developed while working for Petitioner firm.

- Ms. Anu Kashyap Durr, one of the Directors of Respondent No.2 Company, in a reply email dated 27.05.2016, to an email forwarded by one of the partners of Petitioner firm dated 27.05.2016, stated that “your proposal to increase the audit fees comes to a complete surprise to us because at the time when we appointed SPCA as our auditors in August, 2014, we had a detailed discussion with Mr.Sesha Prasad and Mr.Vamshi that the audit fee will remain unchanged for a period of 5 years.”

In response to the above email, the Petitioner forwarded a reply substantiating the reasons and responsibilities associated with their professional services that warrant to enhance the audit fees.
Subsequently, on 21.09.2016, Ms Anu Kashyap Durr, sent an email dated 21.09.2016 stating that they have not been satisfied working with the Petitioner firm since 01.01.2016 and therefore, finalized on another auditor for all of their companies and requested for resignation letter from the Petitioner firm for all their companies at the earliest.

In reply, the Petitioner firm stated that “Petitioner firm intimated about the implications and repercussions in the light of appointment of RI firm being in violation of the provisions of the Companies Act, 2013; the institute of Chartered Accountants of India Act, 1948 and the contractual obligations” and hence not resigned from R2 Company.

It is further submitted that on 01.10.2016 received a letter dated 27.09.2016 from the RI firm stating that they have been appointed as statutory auditor of R2 Company and sought ‘no objection’ from the Petitioner firm to enable them to accept the said appointment.

It is submitted that RI firm committed breach of trust, unethical professional practices by misusing the confidential information and taking undue advantage of relationships gained and developed with the clients of Petitioner firm while working for the Petitioner firm, clinching proves the mala fide intention and wilful default of violating the Section 140 of the Companies Act, 2013 and in collusion and connivance with R2 company, for illegal removal of Petitioner firm as auditor of R2 Company and appointment of RI firm as auditor of R2 Company, even though seeking NOC from the existing auditors of R2 company.

Some of the material submissions of the Petitioner firm are as follows:

- There is no special resolution passed by the R2 Company at the 18th Annual General Meeting of the Company held on 26.09.2016 for the removal of Petitioner firm.
- R2 Company has not obtained previous approval of the Central Government (Regional Director) for removal of Petitioner firm’s existing auditor of R2 company.
- The R2 company approved at the Board Meeting held on 22.08.2016 which categorically contains ordinary business for ratification of appointment of Petitioner firm as auditor for the financial year 2016-17.
- Therefore, the present petition is filed seeking the above reliefs before this Tribunal.

**Issue involved in the case:**

- Whether the removal of petitioner firm as the auditor of R2 Company and the appointment of RI Company as Auditor of R2 Company is improper?
- Whether R2 Company to continue the Petitioner firm as the Auditor of R2 Company till the next AGM?

**Observations made by NCLT:**

- The NCLT observed that the R2 Company (NISC Export Services Pvt Ltd) appointed the Petitioner for a block of 5 years as Statutory Auditor in the 17th Annual General Meeting (AGM) held on 28.08.2015 till the conclusion of AGM in the year 2020. However, Respondent No.2 has in the meanwhile, appointed RI Company for a period of five years from the 18th AGM till the conclusion of AGM in the year 2021.
- Both the counsels confirmed that though the Auditor is appointed for a block of five years under section 139(1) of the Companies Act, 2013, however, their appointment is to be ratified by Members at every AGM. The petitioner has also referred to black law dictionary for the definition of Ratification “the formation of a previous act then either by the party himself or another, confirmation of voidable Act” The Respondent also submitted that the petitioner was not ratified for the apparent reason for increase in audit fee.
- The Petitioner contended that in the AGM held on 26th September, 2016 R1 was illegally appointed as Statutory Auditor by Respondent No.2 with the consent of R1 dated 30.08.2016. Further, the petitioner submitted that consent is generally issued only upon its Boards recommendation. The Petitioner also referred to Hon’ble Delhi High Court Order in M.S. Kabli v. Union of India and he has referred to Companies (Amendment) Bill, 2016 introduced in the Lok Sabha on 15.03.2016 which seeks “to amend Section 139 of the Act to do away with the requirements of the annual ratification by members with respect to appointment of Auditors” The Hon’ble High Court has observed that the provisions of the Companies Act, 1956 underscore that statutory auditor cannot lightly be removed and the statutory procedure has to be followed to the provisions recognized that Auditors are expected to function as independent professionals and not simply toe the line of the management of a company. The Central government will have to be satisfied that the reasons are genuine keeping in view the best interest of the company and consistent with the need to ensure professional autonomy to its auditors. The 3 tier statutory protection is given to Auditors.
- When analysed the facts of R1 Company, it is observed that R1 Company is a new firm with just six
months of experience. The partners namely Sri Vamshi Krishna Borra and Sri N. Dilli Kumar were earlier working with Petitioners’ firm and started a new firm in the name and style of DVAK & Co. whereas the petitioners’ firm had an experience of 27 years in the field with impeccable track record and no disciplinary action was taken against the petitioner by ICAI as per the information submitted in the Petition. From the records the reason for non-ratification/removal of the petitioners’ firm is apparently due to the fact that the petitioners sought for an increase of 10% of Audit fee.

For removal of the petitioner U/s 140(5)(1) a special resolution has to be passed and previous approval of Central Government is required to be obtained. However, as contended by the petitioner in the present case central Government’s approval is not obtained. Respondent No.2 also in its communication has stated that as per their understanding audit fee is fixed for a tenure of five years and therefore seeking the increase of 10% is not accepted by R2. Even though the Respondent No.2 submitted that the petitioner was not removed but his appointment was not ratified as per provision under section 139(1), no justifiable grounds is provided for non-ratification of the petitioner.

The R2 Company contended that the audit fee is fixed for a period of 5 years. Therefore, seeking increment of 10% is not agreeable for the Respondent No.2 Company and this was the main reason for the change of auditor. However, R2 Company did not submit any documentary evidence to prove the contentions that audit fee is fixed for a period of 5 years. Moreover, the Bench is of the view that 10% increase in fee sought by the Auditor is reasonable.

If the contentions of R2 Company is accepted, there is no guarantee that even Rl Company will be the statutory auditor of the company for a block of 5 years. Further, frequent change of auditor is also not advisable for the effective auditing, preparation of financial statement, transparency in audit policies/procedures, etc. In addition, no plausible reason is apparently made out for non-ratification/removal of Petitioner firm, which would cause grave injury to a established firm with 27 years of experience.

Though the Petitioner was not ratified in AGM held on 26.09.2016, Principles of Natural Justice demands that he should have been provided with sufficient opportunity before his non-ratification. Auditor acts as a bridge between management and shareholders of the Company and is an important professional in the whole eco system of the corporate world. Therefore, removal/non-ratification of the Auditor without prior notice/seeking his comments would not be proper.

Before getting into the merits/ rival contention of removal/non-ratification of the Petitioner firm, NCLT opined prima facilely that the Respondent No. 1 Company is not eligible to be appointed as Auditor of R2 Company as per Explanation 11(b) to Rule 6 to the Companies (Audit and Auditors) Rules, 2014.

Decision

NCLT admitted the present CP No. 21/140/HDB/2016 with following declarations/directions:

- The removal of petitioner firm as the auditor of R2 Company and the appointment of Rl Company as Auditor of R2 Company is improper.
- R2 Company to continue the Petitioner firm as the Auditor of R2 Company till the next AGM and subsequently necessary course of action can be taken by R2 Company regarding the continuation of Petitioner firm, in accordance with law.
- R2 Company to take necessary steps to appoint the petitioners’ firm as Auditor of R2 Company.
- Rl to submit all the records available in their possession, if any, and to cooperate with the Petitioner firm to conduct the audit of books of account of R2 Company.

Summing up

The Board of Directors of a company have no powers to remove an auditor appointed by the company in General Meeting. The auditor can be removed only by the company in General Meeting, after receiving the previous approval of the Central Govt. Rule 7 of the Companies (Audit and Auditors) Rules, 2014 (read with section 140 of the Companies Act, 2013), deals with the removal of the Auditor before expiry of his term. It provides that the application to the Central Government for removal of auditor shall be made in Form ADT-2 and shall be accompanied with fees as provided for this purpose under the Companies (Registration Offices and Fees) Rules, 2014. The application shall be made to the Central Government within thirty days of the resolution passed by the Board. The company shall hold the general meeting within sixty days of receipt of approval of the Central Government for passing the special resolution.
The Institute of Cost Accountants of India - Lucknow Chapter

On July 1, 2017 the Chapter celebrated GST Day and on this occasion, chairman of the Chapter, CMA Pawan Kumar Tiwary appealed to all CMA professionals to play an important role with personification in the smooth operation of the defining words of Prime Minister the “Goods & Simple Tax”. The Chapter organized Flag Hosting Ceremony, Blood Donation Camp & Movie Program on the occasion of 15th August, 2017 at CMA Bhawan, Lucknow. The Flag Hosting was followed by the National Anthem and chairman of the chapter, CMA Pawan Kumar Tiwary, vice chairman of the chapter, CMA Dharmendra Singh Saluja, secretary, CMA Amit Yadav, treasurer, CMA Neha Sharma, CMA members and students participated in large number. On 22nd July, 2017 the chapter inaugurated its New Study Center and organised GST Samavesh at University of Lucknow in the presence of Chief Guest Shri. Rajesh Agarwal Finance Minister of Uttar Pradesh along with Vice Chancellor, University of Lucknow. Shri. S.P. Singh. Finance Minister Shri Rajesh Agarwal said that it is the necessity today’s youth should support and participate in the new tax system of GST and help the business world with the use of Information Technology. During the opening ceremony he appreciated the efforts of the Institute and Lucknow University for organising such types of programme. Shri S.P. Singh stressed on the transformation of

Eastern India Regional Council

EIRC organized a programme on GST on July 1, 2017 at its seminar hall to mark the GST day as announced by the Institute. CMA TB Chatterjee, CMA Mrityunjay Acharjee & Shri Abhishek Tibrewal were the resource persons. CMA Bibekananda Mukhopadhyay, Chairman, EIRC, CMA Pranab Kr. Chakraborty, Vice Chairman, EIRC, CMA Kaushik Banerjee Secretary of the Institute, & CMA Balwinder Singh, Council Member were also present the programme.

The Institute of Cost Accountants of India - Durgapur Chapter

On August 15, 2017 the Chapter celebrated the Independence Day at its premise and CMA S.K. Chakrabarti, Secretary of the Chapter unfurled the national flag.
The management accountant

education system as it reflects ultimately on the social and national front. He focused on the inclusion of GST at all levels of education so that India develops with the dream of One Nation One Tax. Shri Somesh Shukla, Dean, Commerce Department Lucknow University addressed the gathering on the importance of GST that he has already included this new tax regime in the syllabus of University and also said about the New 6 month Certification course on GST to be started by Lucknow University which will open new employment opportunities for youth at large. The Chapter organized a Press Conference on record breaking results of students of the chapter at CMA Bhawan.

The Chapter conducted a half day PD programme on July 27, 2017 on CGST and the sessions were handled by Shri Suresh, Superintendent of Central Tax, Central GST & Central Excise Commissionerate,
Professional Development Meets were held on various themes organized by the chapter on different dates of June and July 2017. On June 13 and 14, 2017, a Workshop on GST was held at its premises and Sri Subraya M Hegde, Consultant, Fiscal Policy, Institute & Joint Commissioner (Retired) CMA H R Sreepada, Cost Accountant CMA Girish K, Cost Accountant CMA Vishwanath Bhat, Cost Accountant CMA N R Kaushik, Cost Accountant Sri Basavaraju, Joint Commissioner, E-Audit were the speakers of the workshop. On June 21, 2017, International Yoga Day was celebrated at its premises and CMA PranabandhuBedy was the speaker of the programme. On June 24, 2017 a workshop on GST was held at its premises and Sri Subraya M Hegde, Consultant, Fiscal Policy, Institute & Joint Commissioner (Retired), GOK was the speaker of the workshop. On July 21, 2017, a PF discussion on Impact of Ind AS and GST Cost Audit 2016-17 / Cost Accountant was organized at its premises and CMA Ramaskanda N. & CMA Jagannathan T.K. were the speakers of the Meet. On August 4, 2017, a PF meet was held on ‘Preparation of Annexure to Cost Audit..."
The Management Accountant

Report’ at its premises, Basavanagudi and CMA B R Prabhakar, Past Chairman SIRC was the member of the Meet. Professional Development meets were held at different dates of August 2017 at its premises and an oral coaching batch was inaugurated on August 12, 2017. From 21st August 2017 to 23rd August 2017 a joint programme on ‘Corporate Governance for Financial & Non-Financial Officers of State PSEs’ was organized. On August 15, 2017, Independence Day was celebrated by the chapter hoisted by CMA G N Venkataraman Past President of the Institute.
The Institute of Cost Accountants of India - Cochin Chapter

The Chapter celebrated 71st Independence day on 15th August 2017 at CMA Bhawan, ‘Center for Excellence’. CMA Pushpy B. Muricken, Chairperson, of the chapter along with CMA Sankar P. Panicker, Treasurer, SIRC hoisted the National flag. CMA Rakhesh R. Warrier, Secretary, CMA Anil Xavier, Treasurer of the chapter, staff members and students attended the function.

The Federation of Telangana and Andhra Pradesh Chambers of Commerce and Industry organised a seminar on “GST Transition and Sector Specific Issues” on 19th August 2017 in co-ordination with the chapter.

The Institute of Cost Accountants of India-Visakhapatnam Chapter

Western India Regional Council

The Institute of Cost Accountants of India-Pune Chapter

The Institute observed 1st July 2017 as GST Day and as part of that, the Chapter organised a CEP on GST Typical Issues and answers to queries at its premises. CMA Amit Shahane introduced & felicitated the experts CMA Dr Sanjay Bhargave and CMA N K Nimkar. On July 5, 2017 as part of GST fortnight, a
The Institute of Cost Accountants of India-Navi Mumbai Chapter

The Chapter conducted a CEP programme on the theme ‘GST Implementation - Practical Aspects’ on July 16, 2017 at K.B. Patil College, Vashi.

The speaker for this event was CMA L Prakash, Head Hydrocarbons SCM Platforms, Reliance Industries Ltd. The speaker emphasised on the One Nation One Tax regime effective from 1st July 2017, wherein GST is defined as a Value added tax to be levied on both goods and services (except exempted goods and services). A large number of professionals and students participated in the programme. The Chapter organized a CEP programme on the theme ‘Efficient and Effective Use of MS-Excel’ on 27th August, 2017 at Karamveer Bhaurao Patil College Vashi. The speakers for this event were CMA Vivek Bhalerao, FCMA, Project Manager (SAP), Tata Consultancy Services Ltd and Chairman Professional Development Committee. The Speakers explained the use of MS-Excel in the day to day professional life. The Chapter conducted an oral coaching inauguration for July 2017 batch.

CEP was arranged on the Topic “HSN Classification in GST” and speaker for the program was CMA Dr Sanjay Bhargave. As part of GST fortnight, the Chapter conducted a CEP on the subject “GST through Tally” on 8th July 2017. CMA Rahul Pore, Practicing Cost Accountant & Mr Vikas Walwelakar, Tally Expert were the speakers for the program.
The Institute of Cost Accountants of India-Pimpri Chinchwad Akurdi Chapter

The Chapter conducted oral coaching inauguration on July 15, 2017 and CMA Ashish Deshmukh, chairman of the chapter welcomed the Chief Guest CMA Mayuresh Ganu, Senior Manager of MNGL (Maharashtra Natural Gas Limited) and faculties of the chapter. CMA Mayuresh Ganu in his address explained that there are good opportunities for CMAs in the public and private sectors. The Chapter conducted a Career Counseling Program on 16th July 2017 at Aishwaryam Society for the students of 10th and 12th standard who have successfully passed in the month of March 2017.

The Institute of Cost Accountants of India-Kolhapur Sangli Chapter

The Chapter organised a two days Workshop on GST on 29th and 30th July 2017. The faculties for the workshop were CMA (Dr) A. G. Anikhindi and CMA M.I. Lakadawala. On 29th July, 2017, four technical sessions were conducted by both the faculties. CMA (Dr.) A.G. Anikhindi explained various provisions of GST law comprising of implementation, registration and returns. CMA M.I. Lakadawala explained the provisions of "supply" and "export transactions" under GST. CMA (Dr.) A.G. Anikhindi explained about Input Tax Credit and refund provisions of GST. CMA M.I. Lakadawala conducted a session on ‘Audit under GST’. Both the faculties replied to various queries of the participants and appealed CMA professional members to register as GST practitioners, in large number to add value to the
CMA profession. Shri Landge, retired superintendent of Central Excise was present as special invitee who also talked on ‘GST concepts and expectations of the Department under GST regime’. The Chapter organized three Career Counseling programs from June 2017 to Aug 2017.

On July 28, 2017 a full day seminar on ‘GST- Post Implementation & Compliances’ was organised by the chapter and CMA R.K. Deodhar, vice chairman of the chapter conducted the first Technical Session on the concept 'Supply' and second technical session was conducted by Advocate Sujata Rangnekar -Mumbai. Third Technical session was conducted by CMA Deepak Joshi on GST Valuation Rules and CMA Dr. Shilpa Parkhi expressed her views on Reverse Charge Mechanism. CMA Pradnya Yogesh Chandorkar, chairperson of the chapter conducted Technical session on GST Returns & Records by discussing offline GSTR-1 & 3 B format and Advocate Dinesh Tambade -Mumbai has deliberated on Transitional Provisions in GST Law. Deputy Commissioner, GST Shri. M.L. Patil chaired the panel discussion in which all the queries of participants were replied by the panelist.
Role of CMA in Integrated Reporting: Going beyond the Financial Results

**Corporate Governance:**
Integrated Reporting (IR) is the reporting of both financial and non-financial information, including sustainability information, in an integrated way, as contrasted with the current prevailing practice of issuing separate financial and sustainability reports. Integrated reporting is actively helping us to develop into a better and more accountable organization. These make sense of disclosed information towards their stakeholders and integrated reporting system makes board of the company more transparent and trustworthy to its investors. Hence, CMAs can adopt IR for improvising corporate governance. This tool will facilitate the boards of the company in terms of stakeholder engagements, risk management, legitimate responsibilities for transparency, and demonstration of sustainability with linking their activities’ and targeted objectives, and present sustainable business model.

**Value Added Analysis:**
‘Value Added’ analysis is very important measure to judge the performance of any organization; it indicates the wealth created by the organization during a particular period. It had assumed a great importance as a tool to measure performance of any entity which is the result of collective efforts of employees, management and shareholders. Hence, CMAs can prepare integrated report, an analytical thinking tool that aims to create added value for the company. An integrated report is a concise communication about how an organization’s strategy, governance, performance and prospects, in the context of its external environment that leads to towards the creation of value in the short, medium and long term. It also creates a shift in focus from meeting short-term financial goals, to developing a long-term business strategy, which not only makes a commitment to social and environmental issues, but also helps to sustain businesses and society.

**Assist in Decision–making:**
Integrated Reporting enhances societal understanding of corporate behavior and integrated thinking, which will offer the long-term opportunity for better decision making; this is in the interest of both investors and management. Together with best practice protocols and integrated thinking, the CMAs can help in framing effective report and promote better quality, decision-relevant management information necessary for effective decision making. CMAs can further assist in thorough understanding of the business model for better integrated thinking and decision making—leading to better governance, better performance management and better reporting resulting to improved business operations.

**Relevance of IR in Small & Medium scale Enterprises (SME):**
Integrated reporting will allow SMEs to release more inclusive and useful reports on all aspects of performance, including environmental, social, and governance, as well as economic aspects, in a concise and user-friendly format. The CMAs with their professional expertise can prepare integrated report for SMEs to disclose significant information not only from the point of view of the enterprise owners, but from that of all stakeholders. One of the tools used by the organization may be called priority orientation. Here, CMAs can assist Managers to choose one or more top-priority subjects of high interest to stakeholders and follow them throughout the whole report.

**Performance Benchmarking:**
Integrated report (IR) is considered to be similar to a sustainability report in terms of its subject matter; it is essentially different from a sustainability report. An annual report and a sustainability report focus on the past and report the performance in the relevant reporting period while an integrated report also includes building an association between organizational performance and the future strategy and goals of the company. The professionals like CMAs can carry out Integrated Reporting for assisting the management in analyzing performance benchmark. An integrated report contains qualitative and quantitative reporting about how an organization’s performance leads to value creation. The quantitative part mainly consists of performance indicators and the qualitative part should contain an explanation about the performance indicators, the measurement methods and their relevancy for the organization. Performance indicators have to be presented for multiple consecutive years against peer groups, and it should be linked to previously reported targets and future targets. This enables benchmarking, comparability and showing trends.
THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)

MANAGEMENT ACCOUNTANCY

EXAMINATION TIME TABLE & PROGRAMME – DECEMBER 2017

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- Management Accountancy
- Advanced Management Techniques
- Industrial Relations & Personnel Management
- Marketing Organisation & Methods
- Economic Planning & Development

EXAMINATION FEES

| Per Group | Rs 2500/- |

1. (a) Application Form for Management Accountancy Examination is available from Directorate of Advanced Studies, The Institute of Cost Accountants of India, Hyderabad Centre of Excellence, Plot No. 35, Financial District, Nanakramguda Village, Serilingampally Mandal, Gachibowli, Ranga Reddy District, Hyderabad on payment of Rs 50/- per form.

(b) Students can also download the Examination Form from ICAI Website at www.icmai.in.

2. Last date for receipt of Examination Application Form without late fees is 30th September, 2017 and with late fees of Rs 300/- is 10th October, 2017.

3. Examination fees to be paid through Demand Draft of requisite amount drawn in favour of “The Institute of Cost Accountants of India” and payable at Kolkata.

4. Students may submit their Examination Application Form along with the requisite amount at the Directorate of Advanced Studies, The Institute of Cost Accountants of India, Hyderabad Centre of Excellence, Plot No. 35, Financial District, Nanakramguda Village, Serilingampally Mandal, Gachibowli, Ranga Reddy District, Hyderabad. Any query in this regard may be addressed to Directorate of Advanced Studies, Plot No. 35, Financial District, Nanakramguda Village, Serilingampally Mandal, Gachibowli, Ranga Reddy District, Hyderabad.

5. Examination Centres: Adipur-Kachchh(Gujarat), Agartala, Ahmedabad, Akurdi, Allahabad, Asansol, Aurangabad, Bangalore, Baroda, Berhampur(Ganjam), Bhilai, Bhilwara, Bhopal, Bewar City(Rajasthan), Bhubaneswar, Bilaspur, Bokaro, Calicut, Chandigarh, Chennai, Coimbatore, Cuttack, Dehradun, Delhi, Dhanbad, Durgapur, Emakulam, Erode, Faridabad, Ghaziabad, Guwahati, Hardwar, Hazaribagh, Howrah, Hyderabad, Indore, Jaipur, Jabalpur, Jalandhar, Jamshedpur, Jodhpur, Kalyan, Kanpur, Kolhapur, Kolkata, Kota, Kottayam, Lucknow, Ludhiana, Madurai, Mangalore, Mumbai, Mysore, Nagpur, Naihati, Nasik, Nellore, Neyveli, Noida, Panaji(Goa), Patiala, Patna, Pondicherry, Port Blair, Pune, Rajahmundry, Ranchi, Rourkela, Salem, Sambalpur, Shillong, Solapur, Srinagar, Surat, Thirssur, Tiruchirapalli, Tirunelveli, Trivandrum, Udaipur, Vapi, Vashi, Vellore, Vijayawada, Vindhyanagar, Waltair and Overseas Centres at Bahrain, Dubai and Muscat.

6. A candidate who is fulfilling all the conditions only will be allowed to appear for the examination.
After coming into force of the Companies Act 2013 and the new section 135 thereof for the first time as a legal mandate, plethora of literatures/articles/write-ups by eminent authors appeared on the subject, Corporate Social Responsibility (CSR) , and have drawn the attention of the professionals who are involved in the management of corporate affairs and the readers from various walks of life as well who practice or teach corporate laws.

In this context, the present book by Ms De on the subject, Corporate Social Responsibility (CSR) is an impressive addition as to its contents, depth and exposition in a manner which is extremely analytical, focused and original.

Chapter 1 - of the book narrates the historical perspective of CSR in India from the Vedic Age and its gradual evolution over time. It is an excellent narrative taking the readers to a holy journey into the world of social responsibilities expected of citizens in a civilised society.

Chapter 2 - narrates the global perspective of CSR and the author deserves appreciation for articulating various elements of CSR as practised in some of the advanced countries in the world.

Chapter 3 - points out lucidly that CSR practices existed in various forms in India much before its legal mandate as section 135 under the new Companies Act 2013, which an Indian reader may take note of and feel proud of.

Chapter 4 - is one of the principal edifices of the book on the subject of CSR in India. Here the author has very dedicatedly exhibited the entire frame work of the provisions of law as mandated under the Companies Act 2013, the various Rules framed there under and the related Schedule VII in respect of CSR. The Chapter also contains practical examples of determining CSR applicability and CSR investment/spending obligations in various situations. Further, the Chapter also contains detailed explanation of net worth, turnover, net profit, applicability to foreign companies, etc. in the context of CSR obligation. Also covered with detailed exposition are such related topics as: duties, responsibilities & functions of CSR Committees, Board responsibilities in relation to CSR, CSR Policy contents and detailed note on Schedule VII. However, in this Chapter, the readers’ delight is the detailed Compliance Chart prepared by the author with painstaking efforts and extreme precision.

Chapter 5 - contains other relevant legal provisions which are applicable to CSR and is very exhaustive. It covers accounting aspects vide the Guidance Note on
Accounting for Expenditures on CSR activities as issued by the ICAI (The Institute of Chartered Accountants of India) on 15th May 2015 and the Author’s comments on various paragraphs thereof. The discussion also extends to calculation / computation of net profits in the context of CSR contribution / determination of CSR obligation. The discussion on Taxation aspects in this Chapter also deserves appreciation in as much as each activity under schedule VII is linked with the provisions of Income Tax Act to enable a reader to appreciate the taxation aspect of expenses incurred / to be incurred in respect of each such specified activity. The Chapter also includes detailed guidelines on Corporate Social Responsibility and Sustainability for Central Public Sector Enterprises with comments by the Author at appropriate places.

Chapter 6 - has also been lucidly written highlighting a detailed exhibit by way of a Format for Business Responsibility Report along with an Annexure on principles to assess compliance with environmental, social and governance norms. This Chapter is highly informative for any reader who is involved with the CSR activities and is responsible for its proper administration.

Chapter 7 - on CSR during Project Phase has been narrated with great dexterity and in this Chapter the need for CSR obligation and compliance under the provisions of Environment Protection Laws have been highlighted with extreme care and lucidity.

Chapter 8 - contains a detailed table showing the CSR spent by major Companies in India during the FY : 2014-15 & FY : 2015-16. Many other related statistics, namely, state wise CSR spending, sector wise CSR spending, etc. have also found place in this Chapter. A reader with an academic bent of mind will find these data / information immensely useful.

Chapter 9 - The Way forward – is like looking beyond the boundary of the present legal framework related to CSR. Here the author has taken the liberty which is quite rightful and appropriate, to highlight the scope for further improvement in the practices of CSR both from regulatory and administrative standpoint, in the context of on-going economic development of India where corporate(s) are playing a considerably increasing role.

Chapter 10 - on Frequently Asked Questions (FAQs) deserves much appreciation to the Author. Almost every pertinent questions on CSR covering its legal, accounting, taxation, administration and procedural aspects have been beautifully organized under separate paragraphs / sub-headings as : concept & applicability, expenditures qualifying as CSR investment, Board & CSR Committee, CSR Policy content, reasons for not spending / partial spending, implementation mechanism, various types of CSR activities, case of new companies, Taxation aspects, Accounting aspects, monitoring of CSR activities, profit from CSR activities, meaning of local area, employee benefit activities, case of holding & subsidiary companies, case of foreign companies, case of unlisted & private companies, CSR Report, non-compliance cases, etc so as to summarise the entire CSR concept in a wholesome way and indeed serves as a ready - reference of the whole subject.

The Book ends with Appendix I and Appendix II. Appendix I narrates sample CSR policies for listed or unlisted private sector and public sector companies and for private sector companies without profit whilst Appendix II intelligently and date wise exhibits almost all notifications, circulars, rules, annexure(s), etc. issued by MCA from time to time till recently to help the reader to refer to any MCA communication on the subject at ease. Thus, the author has taken adequate care to keep her book up to date for the readers.

Essentially, this book by Ms De is an excellent addition on the subject Corporate Social Responsibility and will be useful for both professional students for gaining insights into the law and practise of CSR and for the entire fraternity of corporate managers as well who would wish to seek complete guidance in their day to day responsibilities to rightfully comply and administer their Company’s CSR activities.

Finally, in the next edition of the book the author may add one more Chapter with regard to possible applicability of a separate Secretarial Standard on CSR and may insert a draft a suitable Secretarial Standard for compliance ( especially, by listed companies ) covering various elements of CSR.

Reviewed by:

CMA P.K. Chakravarty, ACMA, ACS, AIIMS, Practicing Company Secretary and Management Consultant
1. The Foundation Examination will be conducted in Offline, descriptive (Pen & Paper) mode only. Each paper will be of 100 marks and for 3 hours duration.

2. Application Forms for Foundation Examination has to be filled up through online only and fees will be accepted through online mode only (including Payfee Module of IDBI Bank). No Offline form and DD payment will be accepted for domestic candidate.

3. STUDENTS OPTING FOR OVERSEAS CENTRES HAVE TO APPLY OFFLINE AND SEND DD ALONG WITH THE FORM.

4. (a) Students can login to the website www.icmai.in and apply online through payment gateway by using Credit/Debit card or Net banking

(b) Students can also pay their requisite fee through pay-fee module of IDBI Bank

5. Last date for receipt of Examination Application Forms is 10th October, 2017.

6. Examination Centres: Adipur-Kachchh(Gujarat), Agartala, Agra, Ahmedabad, Akurdi, Allahabad, Asansol, Aurangabad, Bangalore, Baroda, Berhampur(Gajam), Bhilai, Bhilwara, Bhopal, Bewar City(Rajasthan), Bhubaneswar, Bilaspur, Bokaro, Calicut, Chandigarh, Chennai, Coimbatore, Cuttack, Dehradun, Delhi, Dhanbad, Durgapur, Ernakulam, Erode, Faridabad, Ghaziabad, Guntur, Guwahati, Haridwar, Hazaribagh, Howrah, Hyderabad, Indore, Jaipur, Jabalpur, Jalandhar, Jammu, Jamshedpur, Jodhpur, Kalayan, Kannur, Kanpur, Kolhapur, Kolkata, Kota, Kottayam, Lucknow, Ludhiana, Madurai, Mangalore, Mumbai, Mysore, Nagpur, Naihati, Nasik, Nellore, Neyveli, Noida, Palakkad, Panaji (Goa), Patiala, Patna, Pondicherry, Port Blair, Pune, Raipur, Rajahmundry, Ranchi, Rourkela, Salem, Sambalpur, Shillong, Siliguri, Solapur, Srinagar, Surat, Thrissur, Tiruchirapalli, Trivandrum, Udaipur, Vapi, Vashi, Vellore, Vijayawada, Vindhyanagar, Waltair and Overseas Centres at Bahrain, Dubai and Muscat.

7. A candidate who is completing all conditions for appearing the examination as per Regulation will only be allowed to appear for examination.


* For any examination related query, please contact exam.helpdesk@icmai.in

Kaushik Banerjee
(Secretary)
## Exam Time Table

### Intermediate & Final Examination Time Table & Programme – December 2017

<table>
<thead>
<tr>
<th>Day &amp; Date</th>
<th>Intermediate</th>
<th>Final</th>
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<tbody>
<tr>
<td>10th December, 2017</td>
<td>Financial Accounting</td>
<td>Corporate Law &amp; Compliance</td>
</tr>
<tr>
<td>11th December, 2017</td>
<td>Advanced Financial Management</td>
<td>Direct Taxation</td>
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<tr>
<td>12th December, 2017</td>
<td>Direct Taxation</td>
<td>Cost Accounting &amp; Management Information Systems</td>
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<tr>
<td>13th December, 2017</td>
<td>Company Accounts &amp; Audit</td>
<td>Cost &amp; Management Audit</td>
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<td>14th December, 2017</td>
<td>Financial Analysis &amp; Business Valuation</td>
<td>Cost Management &amp; Audit</td>
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<td>15th December, 2017</td>
<td>Operations Management</td>
<td>Strategic Performance Management</td>
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<td>16th December, 2017</td>
<td>Tax Management &amp; Practice</td>
<td>Business Valuation</td>
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<tr>
<td>17th December, 2017</td>
<td>Operations Management &amp; Strategic Information Systems</td>
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<td>19th December, 2017</td>
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<td>20th December, 2017</td>
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<td>Company Accounts &amp; Audit</td>
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### Examination Fees

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<th>Overseas Centre (Overseas Centre)</th>
<th>Inland Centre (Overseas Centre)</th>
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<tr>
<td>One Group</td>
<td>1200/-</td>
<td>100/-</td>
<td>90/-</td>
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<tr>
<td>Two Groups</td>
<td>1400/-</td>
<td>100/-</td>
<td>90/-</td>
</tr>
</tbody>
</table>

**Application Forms**

1. Application Forms for Intermediate and Final Examination have to be filled up through online only and fees will be accepted through online mode only (including Pay-fee Module of IDBI Bank). No Offline form and DD will be accepted for online candidates.
2. Application Forms can be accessed and filled up through online mode only (including Pay-fee Module of IDBI Bank).
3. Last date for receipt of Examination Application Forms is 10th October, 2017.
4. The provisions of the Companies Act 2013 are applicable for Paper 6 - Law, Ethics and Governance (Intermediate) and Paper 13 - Corporate Laws and Compliance (Final) under syllabus 2012 to the extent notified by the Government up to 31st May 2017 for December 2017 term of examination.
6. Pension Fund Regulatory and Development Authority Act, 2013 is being included in Paper 6 - Law, Ethics and Governance (Intermediate) and Insolvency and Bankruptcy Code 2016 is being included in Paper 13 - Corporate Laws and Compliance (Final) under Syllabus 2016 for December 2017 term of examination.
7. The provisions of the Companies Act 2013 are applicable for Paper 6 - Law, Ethics and Governance (Intermediate) and Paper 13 - Corporate Laws and Compliance (Final) under Syllabus 2016 to the extent notified by the Government up to 31st May 2017 for December 2017 term of examination.
8. For details, see link: [http://icmai.in/Students/Centers/Clarification-Dec2017.pdf](http://icmai.in/Students/Centers/Clarification-Dec2017.pdf)

**Probable Date of Publication of Result**

- Inter & Final – 21st February, 2018

**For any examination related query, please contact exam.helpdesk@icmai.in**

### Contact Information

- Kaushik Banerjee (Secretary)
Behind Every Successful Business Decision, there is always a CMA

Toll Free: 1800 345 0092/1800 110 910